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***GEOGRAPHY OF ARCHITECTURE AND “THE WAY TO MODERNITY”
JURAJ NEIDHARDT’S REGIONALISM
IN EARLY SOCIALIST YUGOSLAVIA***

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ABSTRACT

Regions and territories describe the same spaces in very different ways. This dissertation examines architecture's regionalist conceptual and design ventures that questioned, underpinned and naturalised the post-Second World War modern state territorial development. It does so by telling the history of the book *Architecture of Bosnia and the Way to Modernity*, written and designed by modernist architects Dušan Grabrijan (1899-1952) and Juraj Neidhardt (1901-1979) and published in the Socialist Yugoslavia in 1957.

Architecture of Bosnia has been widely appreciated as the strongest Yugoslav statement on the importance the local cultural specificities hold for modern architecture. Yet, beyond its advocacy for a creative unison between "the old and the new" and Le Corbusier's preface to the book, little has been known about its conception, production and reception. By delving deep into the book's form, its authors' exchange and their inter-war formative experiences (in Ljubljana, Sarajevo, Vienna, Berlin and Paris), their propensity for ethnographic research and correlation of the book with Juraj Neidhardt's abundant design and planning practice, this dissertation reveals a struggle to establish and maintain the regionalist conceptual set-up, in order to justify the modern architecture's agency in the world.

The central definition that determined the prospects of the *Architecture of Bosnia* project was the one of the region. Not only was the "Bosnian region" the model for the design of the book's form, but it was also entrusted to the book's mediality to unify two distinct conceptions: the geographic-historical region that emerged through a range of long, slow, historical reciprocities between the human and their environment; and the territory, defined through developmental strategies of the Yugoslav "experiment." While the first relied on the vernacular principles of building, called "unwritten laws," the second relied on the integrative power of infrastructure. The well-known, enlightened, emancipatory project of the Socialist Yugoslavia was at the particularly difficult test in its hinterland, where

Neidhardt mostly operated. While the book accomplished the task of regional unification by means of its complex and insightful editorial strategies, Neidhardt's meticulous regionalist design and planning endeavours remained torn between their will to reach the regional integration and their functional role in the hasty and uncompromising state-controlled industrialisation.

This problematic dualism has been an integral part of *Architecture of Bosnia's* essential premise: that architecture is indissolubly bound to its environment. The book inherited this problem by relying on the human geographic conception of the "milieu", which designated the conflation between the human and the environmental. Just like human geographers strictly distinguished between their regional and territorial work (or, in other words, their ethnographic research and its instrumentalisation in the political-economic interests of national states), so *Architecture of Bosnia* distinguished between the regional integration of Neidhardt's designs and economic function of his plans.

While the separation of design and planning, complete in Yugoslavia with the institutionalisation of regional planning in 1957, crucially influenced the poor reception of the book, Juraj Neidhardt's work remains a testimony to a feeble, but inspiring attempt to bring together geography and economy, through moderate rationalisation, ethnographic attention to detail and tackling the distinction between architecture and infrastructure.

ZUSAMMENFASSUNG

Regionen und Territorien beschreiben die gleichen Räume auf sehr unterschiedliche Weise. In dieser Dissertation werden die regionalistischen Konzept- und Designvorhaben der Architektur untersucht, die die modernistische staatliche Territorientwicklung nach dem Zweiten Weltkrieg in Frage stellten, untermauerten und naturalisierten. Dazu erzählt sie die Geschichte des Buches *Architecture of Bosnia and the Way to Modernity*, das von den modernistischen Architekten Dušan Grabrijan (1899-1952) und Juraj Neidhardt (1901-1979) geschrieben und 1957 im sozialistischen Jugoslawien veröffentlicht wurde.

Architecture of Bosnia wurde weithin als die stärkste jugoslawische Aussage über die Bedeutung der lokalen kulturellen Besonderheiten für die modernistische Architektur gewürdigt. Doch über ihr Eintreten für einen kreativen Einklang zwischen "dem Alten und dem Neuen" und Le Corbusiers Vorwort zu diesem Buch hinaus ist über ihre Konzeption, Produktion und Rezeption wenig bekannt. Indem sie tief in die Form des Buches, den Austausch der Autoren und ihre prägenden Erfahrungen in der Zwischenkriegszeit (in Ljubljana, Sarajevo, Wien, Berlin und Paris), ihre Neigung zur ethnographischen Forschung und die Korrelation des Buches mit Juraj Neidhardts extensiver Entwurfs- und Planungspraxis eindringt, offenbart diese Dissertation ein Ringen um die Etablierung und Aufrechterhaltung des regionalistischen konzeptionellen Rahmens, um die Handlungsfähigkeit der modernistischen Architektur in der Welt zu rechtfertigen.

Die zentrale Definition, die die Aussichten des Projekts *Architecture of Bosnia* bestimmte, war die der Region. Die "bosnische Region" war nicht nur das Modell für die Gestaltung der Form des Buches, sondern es wurde auch der Medialität des Buches anvertraut, um zwei unterschiedliche Konzeptionen zu vereinen: die geographisch-historische Region, die durch eine Reihe von langen, langsamen, historischen Wechselwirkungen zwischen dem Menschen und seiner Umwelt entstand, und das Territorium, das durch Entwicklungsstrategien des jugoslawischen "Experiments" definiert wurde. Während sich

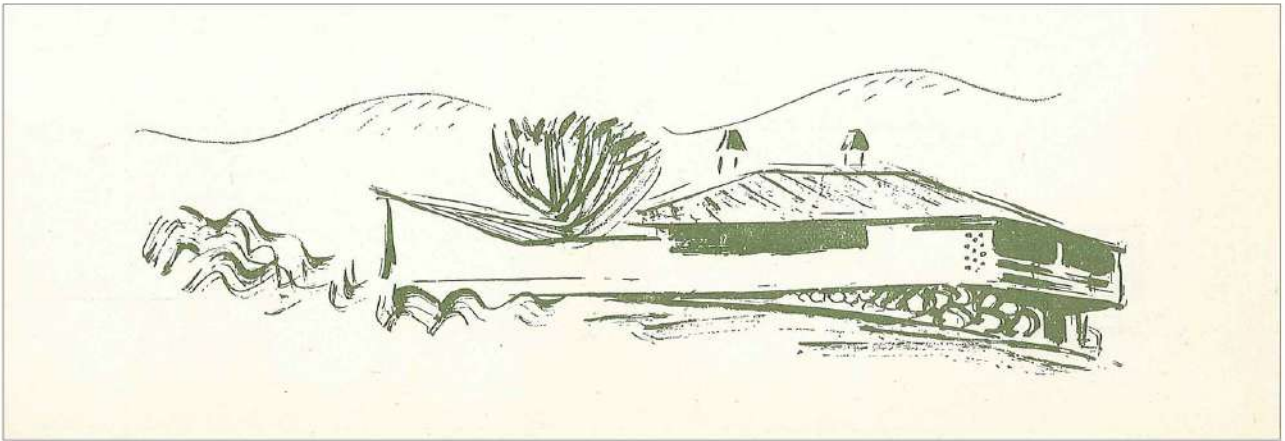
die erste auf die im Volksmund als "ungeschriebene Gesetze" bezeichneten Bauprinzipien stützte, stützte sich die zweite auf die integrative Kraft der Infrastruktur. Das bekannte, aufklärende, emanzipatorische Projekt des sozialistischen Jugoslawiens befand sich in seinem Hinterland, wo Neidhardt zumeist operierte, auf einer besonders schwierigen Bewährungsprobe. Während das Buch mit seinen komplexen und aufschlussreichen redaktionellen Strategien die Aufgabe der regionalen Vereinigung erfüllte, blieben Neidhardts akribische regionalistische Gestaltungs- und Planungsbemühungen zwischen ihrem Willen zur regionalen Integration und ihrer funktionalen Rolle in der überstürzten und kompromisslos staatlich gelenkten Industrialisierung hin- und hergerissen.

Dieser problematische Dualismus war integraler Bestandteil der wesentlichen Prämisse von *Architecture of Bosnia*: dass die Architektur untrennbar mit ihrer Umgebung verbunden ist. Das Buch hat dieses Problem geerbt, indem es sich auf die menschlich-geographische Konzeption des "Milieus" stützte, die die Verschmelzung von Mensch und Umwelt bezeichnete. So wie die Humangeographen streng zwischen ihrer regionalen und territorialen Arbeit unterschieden (oder mit anderen Worten, zwischen ihrer ethnographischen Forschung und ihrer Instrumentalisierung für die politisch-wirtschaftlichen Interessen der Nationalstaaten), so unterschied die *Architecture of Bosnia* zwischen der regionalen Integration von Neidhardts Entwürfen und der wirtschaftlichen Funktion seiner Pläne.

Während die Trennung von Entwurf und Planung, die in Jugoslawien mit der Institutionalisierung der Regionalplanung 1957 vollzogen wurde, die geringe Aufnahme des Buches entscheidend beeinflusste, zeugt Juraj Neidhardts Werk nach wie vor von einem dürftigen, aber inspirierenden Versuch, Geographie und Wirtschaft zusammenzubringen, durch massvolle Rationalisierung, ethnographische Detailgenauigkeit und die Auseinandersetzung mit der Unterscheidung zwischen Architektur und Infrastruktur.



Worker's house with six apartments in Podbrežje, Zenica, author: Juraj Neidhardt, 1939 (source: photo by Mejrema Zatrić, November 2019)



Individual house designed according to the principle of the tripartite Bosnian house (house - courtyard - economy), author: Juraj Neidhardt, 1950 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno (Architecture of Bosnia and the Way to Modernity)* (Ljubljana: Državna Založba Slovenije, 1957): 237)

INTRODUCTION - ARCHITECTURE AND THE MILIEU

A thick, white, translucent mist is spreading homogeneously in all directions. Seen immersed in it, a low-lying, two-storey house is reduced to its most essential formal features – a low-slope pitched roof, cantilevered upper floor and single-flight stairs flanking the facade. The mist, although seemingly completely still, is not that much enwrapping but rather permeating the architecture - its motionless flow afflicting all of the buildings' openings: the modest upper-floor porch, open segments of the ribbon-window and even tiny round perforations, punched systematically in the portions of the facade-walls.

This is the Middle-Bosnian Basin, a natural and industrial region. The house is a modern Bosnian house, both by its geographical location and historical denomination. The mist, almost as a rule, is actually the smog. Produced by the coal-burning and iron-smelting operations and reinforced by the topography and the climate (the elongated valley surrounded by high hills and with very little wind) the smog as well, is fully local - both geographically and historically.

Smog or mist, these states of air are not a common stuff of representation in architectural drawings. Therefore, it might seem unsurprising that the sketch of this same modern Bosnian house, designed by the architect Juraj Neidhardt, appears reproduced on a blank, homogenous background, seemingly conveying abstract space of an unlimited architectural imagination. Situated, however, as it is, within a particularised space of the book titled *Architecture of Bosnia and the Way to Modernity*, the house without air is not only a conceptual oxymoron, but an act of treachery, which takes a measure of distance between the modern architecture's resolutions and the tolls taken by their partial accomplishments. Indeed, the air, in which the Bosnian house lies immersed, regained through the book, the "misty" cultural meaning of climate, long since compromised by the rationalising and objectifying advance of modernity. At the same time, and with the same force, the book promoted the kind of developmentalism, which not only produced the smog, but accepted

it as a factor of the architecture's environment.¹ An opportunity to study an embedment of a house in the actual environment, in comparison with its embedment in an architect-designed book, reveals architectural assumptions and projections of this environment, the audacity of their hopes and the extent of their compromises.

Topic and method, research questions and hypothesis

Architecture of Bosnia and the Way to Modernity is one such book - a meticulously designed, massive and expensive volume that appeared on the bookshop shelves of the Socialist Yugoslavia in December of 1957. Conceived and produced during nine years, its making roughly coincided with the inaugural decade of what both immediate and a posteriori foreign commentary dubbed "the Yugoslav experiment"² - a pursuit for ethnically diverse, geopolitically non-aligned, economically self-managed and egalitarian modern society.³ Indeed, in the course of forty-five years of its existence, the state of Yugoslavia accomplished significant infrastructural undertakings, modernised its cities (often through masterful architectural forms)⁴ and immensely improved lives of millions. Less famously, however, its hasty industrialisation produced collateral damage throughout its territory, systematically distressing Yugoslavian peasant farmers, yielding worrisome levels of environmental pollution and causing chronic housing deficiency in rapidly growing cities.

Taking stock of the economic-spatial policy in this cumbersome decade, the British geographer A. A. L. Caeser observed, in 1962, that Yugoslavian developmental problems stemmed from the insufficient appraisal of the state's geography, both human and physical.⁵ In other words, Caeser, an academic pioneer of British regional planning⁶, judged the socialist administration's efforts to develop their territory as being ignorant of its geographic constraints and cues. Fifty years earlier, the French human geographer Jean Brunhes spoke about the central portion of the same territory - Bosnia and Herzegovina - as a paradigmatic case of mutual interdependence between history and geography. Brunhes concluded his inaugural address at the *Collège de France*,⁷ by drawing a

geographical moral for both the history of art and political history of Bosnia and its Yugoslav surroundings: the architectural form of the mosque minaret, art historians should note, depended on the available construction material (wood or stone), which was dominantly a geographical fact. Likewise, political historians could not fully apprehend the current geopolitical upheaval in the Balkans⁸ without understanding the economic significance of geographical routes in the Bosnian territory.⁹ In other words, the argument went, both architecture and infrastructure, and by extension territorial politics, relied on geography.

These two foreign insights into the importance of geographic dispositions of the Yugoslav territory are relevant, not only because they roughly coincide with the temporal frame of this thesis, but also because they indicate two international discourses, which served as references for the attempts to scientifically articulate architecture's relation to the environment - the one of human geography and the other of regional planning. As such, they demarcate the outermost thematic frame of this dissertation. Finally, they also betray the continuous interest of international experts and scientists into the Yugoslav territory - one that underlines its paradigmatic character. Indeed, the multifarious "in-betweenness"¹⁰ of Yugoslavia makes it a very rewarding historical-geographical case for studying the relationship between architecture and geography.

The book *Architecture of Bosnia and the Way to Modernity*, written and designed between 1949 and 1957 by architects Dušan Grabrijan and Juraj Neidhardt, was arguably the most explicit, definitely most exuberant and, without any doubt, most design-oriented take on this question proposed in the early Socialist Yugoslavia. This dissertation narrates the history of this book - its conception, production and reception - to answer a twofold question: How and why was geographic knowledge introduced into the book? What were the possibilities and limitations of contributing this knowledge towards the success of the Yugoslav "social experiment"?

The subject matter of *Architecture of Bosnia and the Way to Modernity* is the vernacular architecture and urbanism of the historic core of Sarajevo, built during the several centuries-long Ottoman rule over most of the Balkan Peninsula. Its authors claimed that, on the basis of in-depth ethnographic research, architectural and urban analysis, they defined the principles according to which the “Old City” was built. These “unwritten laws,” they further claimed, could be applied to modern architectural and urban design. The book consists of a documentary part, intermediary chapter on the “unwritten laws” and portfolio of architectural projects and urban plans that it presented as a combination of both these “laws” and functionalist tenets. The endorsements from the leading Bosnian historian of the Ottoman era Hamdija Kreševljaković and Le Corbusier were meant to legitimise this union between the historical and the modern. However, it was the portfolio, consisting entirely of Juraj Neidhardt’s works, that was envisaged as a proof of the book’s thesis and “direction” for contemporary practice in Bosnia. The book closed with an announcement of “an architectural movement” in the making, based on its design method.

Modernist architects’ interest in the vernacular has long been subject to a careful analysis by architectural historians. Geographic aspects of these vernacular references have enabled the historical accounts to scrutinise them on the basis of their political meaning: as practices of Orientalist “othering,”¹¹ as contributions to polarity between the centre and the periphery¹² or, as participations in a “nation-building” project.¹³ *Architecture of Bosnia’s* thesis too was characterised by these complex politics: it distinguished between the “rational West” and “emotional East,” it foregrounded urban vernacular, rather than the peasant native house and it anticipated the “renaissance of Bosnian and Herzegovinian architecture.” Its originality, however, consisted of its recognition of these controversies and its strategy to overcome them, by introducing geography into its conceptual set-up. Beyond recognising the specificities of topography, climate, watercourses and vegetation as merely factual circumstances of the native house, the book sought to provide the

“scientific” rationalisation of architecture’s relation with the local, by relying on ethnographic, historiographic and, above all, human geographic research.

Most of *Architecture of Bosnia*’s scarce references included books and papers produced by the affiliates of the Provincial Museum (*Landesmuseum, Zemaljski muzej*), a mighty and revered research institution founded by the Habsburg administration, during their colonial “civilising mission” in Bosnia and Herzegovina at the turn of the 19th century. Yet, the foremost reference that consolidated the book’s conceptual framework was the magnum opus of the Serbian geographer Jovan Cvijić, *Balkan Peninsula and the South Slavic Countries: Basis of Human Geography*. Written in Paris under the influence of the scholarly circle gathered around French geographer Paul Vidal de la Blache and originally published as *La Péninsule Balkanique - Géographie humaine*¹⁴ in 1918, this work introduced into *Architecture of Bosnia* the basic human geographic logic of indissoluble bondedness between the human and the environmental. Human geographers described this link by means of concepts, such as *genres de vie, régions naturelles* and *milieu géographique*.

Based on these theoretical investigations, *Architecture of Bosnia* established the notion of the region as a geographic-historical whole into which architecture could integrate by adhering to the “unwritten laws.” The book identified its region as the Middle Bosnian Basin, a mountainous area encompassing the valley of the river Bosna, from the city of Sarajevo to the city of Zenica. Yet, along with this reference, the book also inherited the problem of situating the modern state intervention inside this conceptual set-up. Both human geographers and *Landesmuseum* experts’ research unfolded in parallel with its political-economic instrumentalisations throughout the first half of 20th century. Similarly, Grabrijan and Neidhardt’s field research and practice uncovered the extra-urban expanse, not only as a natural region, but also as territory, subject to state-led development.

This double discovery was based on an abundance of formative professional experience and research of the authors, which traversed European geographies south to north. Dušan

Grabrijan (1899-1952) was born in the Slovenian town of Lož and studied architecture in Ljubljana with the renowned modernist-classicist Jože Plečnik. Plečnik influenced his students' focus on historic architectural remnants and creative relationship between people and their artifacts,¹⁵ however, Grabrijan also maintained a vigorous interest in the Modern Movement. After his brief stay in Paris between 1925 and 1926 at *Ecole de Beaux Arts*, he moved to Sarajevo in 1929, where he worked as a technical school teacher and initiated, with his students, ethnographic research of what he called "The Oriental house in Sarajevo." From then on, until his premature tragic death in 1952, Grabrijan extended his field work to other Yugoslav federal states and their typical vernacular houses, including Macedonian, Istrian and Alpine.

Juraj Neidhardt's (1901-1979) professional itinerary, in turn, started in Zagreb, where he was born, to include Vienna 1920-24 (where he studied with Peter Behrens), Berlin 1930-32 (where he worked with Peter Behrens) and Paris 1933-35 (where he worked with Le Corbusier), before settling in Bosnia in 1938. The inter-war period and the course of the Second World War began to bring the territorial scale into the purview of the architectural discipline in Europe. Particularly in France and Germany, the city-architects, municipal planning offices and general social reformers grappled with the emergent themes of infrastructural, formal and social unification of cities with their growing urban extensions. Neidhardt's European experience was defined by these issues: in Behrens' master class in Vienna, he designed an airport and a bridge; in Berlin he assimilated the conception elements of the "planned metropolis," in which infrastructures, networks, circuits and operational systems became major tools of this enterprise;¹⁶ in Paris he contributed to Le Corbusier's model of *Ville Radieuse* and its application to Antwerp, Algiers, Stockholm and Nemours. While these "urbanisations" included the analysis of cities' traffic connections with their wide surroundings and acknowledged their relations to geography, it were the studies *Ferme Radieuse* and *Village Radieuse* that introduced the problematics of the territory as a state project, unrelated to referents of a particular city.¹⁷ Inspired by the

French regional syndicalist movement, Le Corbusier's farm and village were infrastructural models, meant to integrate into particularities of geographic-economic regions.

Syndicalism, however, was not the only political-economic movement with territorial implications. The democratic capitalist order, prevalent in the inter-war Europe, started including the planist state intervention geared towards the efficient exploitation of natural resources and mitigation of national security risks.¹⁸ The Kingdom of Yugoslavia initiated one of the few (albeit elementary) attempts of regional economic planning in Central Eastern Europe of the 1930s, seeking to develop an industrial heartland in Central Bosnia.¹⁹ Based on significant brown coal and iron ore reserves and the strategic economic collaboration with Nazi Germany, the government of the Prime Minister Milan Stojadinović founded a predominantly state-owned enterprise Jugočelik, of which Neidhardt became a leading designer upon his return to Yugoslavia, in 1938.

In the following three years, Neidhardt designed a range of settlement regulations and housing types for the miners and workers of the Middle Bosnian Mining Basin. In 1942, he produced, together with Grabrijan, a concept for a geographic-economic region: a territorial system of settlements of the Basin, thoroughly based on ore mining, processing and transportation, determined by natural riches and connected by infrastructure. Within this system, Neidhardt's regionalist buildings functioned both as infrastructural extensions (meant to turn the peasants into workers) and as means of integration of the system into the geographic particularities of the region. By means of the "unwritten laws," moderate rationalisations, use of local materials and ethnographic attention to detail, Neidhardt's architecture sought to mediate between the economy and geography. His most emblematic projects, represented in the portfolio of *Architecture of Bosnia*, were designed as a part of this projected economic-geographic whole.

Nevertheless, this economic regional system was unable to respond to demands of the rapid post-war development. As the Middle Bosnian Mining Basin became one of the main

pillars of the Yugoslav first Five Year Plan of 1947, the construction of Neidhardt's regionalist housing types was gradually discontinued. Between 1949 and 1954, Neidhardt worked on a regulation plan of the city of Zenica, the largest coal-mining and iron-producing settlement of the Basin, where architectural integration into the region by means of unwritten laws, was rendered paradoxical due to the grave environmental pollution. Zenica's importance for the Yugoslav economy made its planning a matter of cooperation with varied federal institutions, which compelled Neidhardt to observe it as a part of the national territory.

The production of the book *Architecture of Bosnia* unfolded in parallel with Neidhardt's planning of Zenica and registered these shifts between the regional and the territorial. Grabrijan's and Neidhardt's response to these problematic developments was to reinforce their regionalist statement, most of all, by means of the book's form. Through careful and inventive editorial strategies, which controlled the "ambience" and structure of the book, *Architecture of Bosnia* was turned into an analogue of the geographic-historical region of the Middle Bosnian Basin. The book's content, however, acknowledged that the same extra-urban expanse was a state territory and assigned its economic problematics to regional planning. The distinction between the domain of the unwritten law and that of infrastructure, the domain of design and that of planning that was thereby achieved, was crucial for the integrity of *Architecture of Bosnia's* message, because it concealed the mediation of state intervention between architecture and its environment.

This state mediation in Yugoslavia was similar to the widespread model of the post-Second World War state-led development that sought to apply benefits of technical and scientific progress to every field of human activity.²⁰ The geographic-economic unity that the book expected regional and urban planning to achieve was no more the domain of architectural design. State-determined standardization, security calculations and mapping replaced

idiosyncratic rationalizations that Neidhardt employed in his interwar conception of geographic-economic region.

This tension between the geography and economy, between the particular and the systemic (concealed, yet firmly established in the book) was a reflection of the larger architectural disciplinary developments in the 1950s Yugoslavia. It marked the early phase of architectural reckoning with the Yugoslav “experiment,” particularly its focus on the parity between the center and the periphery. The possibilities that the centralized planning seemed to open around 1950 motivated disciplinary focus on the extra-urban expanse, both as landscape and as territory. Yet, in spite of their general interest in the Yugoslav geographic particularities, Yugoslav architects did not manage to make them relevant to the state’s social-economic development. In mid-1950s the notion of the region emerged as potential solution to this incapacity. Established in 1957, the same year of *Architecture of Bosnia’s* publication, regional planning became the sub-disciplinary field that, through mappings, plans and regulations, supposed to mediate between architecture, economy and geography. The boundedness of the problematic of the region to planning and its separation from design instituted in this way made it difficult for the Yugoslav architects to understand the importance of wider disciplinary implications of *Architecture of Bosnia’s* thesis and contributed to its poor reception.

In response to these historical developments, this dissertation posits the following hypothesis: The book *Architecture of Bosnia and the Way to Modernity* was an expression of architecture’s twofold relation to its environment, the historically constructed one (as part of the geographic-historical region) and the functional one (as part of the territory).

In order to define, distinguish and meaningfully relate the hypothesis’ key concepts of “environment,” “region” and “territory” in a historically consistent manner, this thesis follows *Architecture of Bosnia’s* form and references to base its methodological framework on the human geographic conception of the *milieu*. The book’s layout design was one of its

authors' most important tools in achieving unity and integrity of their argument through the book's form. Juraj Neidhardt, who designed the layout, referred to a highly original category of the book's "ambience," which he wanted to attune to the perceived "ambience" of the Bosnian region.

In 1942, the same year in which Grabrijan and Neidhardt first jointly articulated this specific quality of the Bosnian environment,²¹ the Austrian literary critic Leo Spitzer noted the moment of reversal of the ubiquitous French expression *milieu ambiant* into *l'ambiance des milieux*. Performed in 1891 by a pioneer impressionist Edmond de Goncourt, it was the moment of coinage of the term "ambience," after which it was established in other languages on the basis of the French term. It was maintained, de Goncourt reported, that "the man of the West" was more in possession of his own free will than the "Oriental man," as he was "less eaten up" by "the ambience of the milieu."²² In consistency with his rigorous dissection of the linguistic form, Spitzer suspiciously analysed Goncourt's "stylistic manoeuvre" used to assert, all too confidently, the Western man's dominance. Much more so than the triumph, he claimed that, what de Goncourt's "liberation" of the essence of the milieu demonstrated, was a search for a "relief" from the oppression of an unhappy situation.²³ What Spitzer referred to, was the force of environmental determinism, most famously explored in the work of the French literary critic Hyppolite Taine, who claimed humanity to be an unconditional function of geography.

On the backdrop of Spitzer's shrewd analysis, it is possible to see through the stylistic facade of *Architecture of Bosnia's* "ambience" and understand its essential relatedness to the notion of milieu. To appreciate the "ambience" of the Bosnian region meant, at the same time, to recognise the grip of its milieu on its people. To venture to recreate it in a book, revealed a subliminal recognition of architects' involvement in this business of determinations and anticipated dependencies of human existence on its environment. What *Architecture of Bosnia's* human geographic reference did was give a scientific backing

to an intuition. What a closer look at this reference reveals, in turn, is that both the conceptualizations of the historically constructed and the functional unity of architecture and its environment were two strands of one and the same scientific notion of the milieu.

In his original ethnographic genealogy of the modern welfare society, the anthropologist Paul Rabinow described how, in the late 19th century,²⁴ the static and stable vision of Earth's surface developed by classical German geography got animated and complicated by intertwinements of life sciences and geography in France. These developments built on the vitalist conception of an organism, resulting from the linked intellectual legacies of the French naturalists Buffon and Lamarck. The central notion through which this translation of worldviews from biology into geography occurred, was the one of milieu.²⁵ Much more complex than the notion of the environment itself and charged with an evolving set of meanings relative to the living, the milieu in the French geography, allowed for an appreciation of human agency as generative of geographic forms and processes.²⁶ It eliminated the naturalised suspicion of inalterability of the physical milieu and race and deeply transformed German determinism based on the dominant influence of naturally occurring circumstances.²⁷ Particularly the French school of human geography, spearheaded by Paul Vidal de la Blache, emphasised the mediating role of social factors. The most influential of Vidal's concepts, such as *genres de vie*, focused on rudimentary "social organisms" of rural French regions, but his emphasis on the importance of industrial revolutions, trade and, above all, circulation, for the formation of more advanced and complex "social organisms", implied the possibility of using the human geographic interpretative framework on modern societies.²⁸

It also implied the possible application of its logic in a concrete social reform and transformation, of which transportation and communication were considered to be key drivers.²⁹ Indeed, Rabinow has shown how the naturalists' and geographers' notion of the milieu operated in the material field of French colonies, serving as an explicit conceptual

platform for the militarized reformist logic of pacification and selective modernisation.³⁰ Field research, including resource mapping and ethnography³¹, provided strategic information on the specificity of the colonized locale, on which the intervention, via the milieu, was based. The combination of infrastructure, commerce and nationalism as intervention tools, underlined both the turn of the century “liberal geography” (more directly involved in colonial enterprise)³² and the applied version of Vidalian geography (with its own vindication of colonialism).³³

Rabinow described, with great insight and wit, the implications of this order for architecture and urbanism in France: the crisis of representation,³⁴ tensions between rationalism and historicism,³⁵ emergence of modern French urbanism through architects’ “operationalisation of society,”³⁶ definition of “specific intellectuals” (the forerunners of the post-Second World War technocrats)³⁷ and abandonment of city planning for the management of *la matière sociale* in the 1920s and 1930s.³⁸ Crucially, these developments marked out a shift between two different urbanistic conceptions of the milieu: from the turn-of-the-century understanding of the planned city, as a synthesis of the historical and natural elements (and regulator of modern society) to the inter-war understanding of the city as itself a privileged element of the much wider socio-technical environment.³⁹ Rabinow articulated this shift more succinctly, by saying that the “historic-natural milieu” was substituted by the “socio-technical milieu” - a self-referential form, unmoored from the old referents such as history and local specificity. He, however, did not care to illuminate the ways in and extent to which the modern architecture conceptually registered and technically “equipped” this change. Taking cues from Rabinow’s “fieldwork in philosophy”⁴⁰ of the milieu, this thesis sets out to contribute to this question by examining architectural modernism’s mediations between the geographic knowledge and the socio-technical milieu.

The book *Architecture of Bosnia and the Way to Modernity* could be perceived as a tool devised by modernist architects to deal with this change, both conceptually and technically. Its dual reference to the region and the territory was geared towards permitting the modern architecture to be part of the organic whole, legitimised by the spontaneity of both nature and history, on the one hand, and part of functionally determined, modern state development, on the other.

Historians have observed the importance that the notion of territory held for development of modern architecture. Antoine Picon proposed that the 19th century conception of the territory as an extra-urban expanse, comprised of resources to be surveyed, mapped and exploited, has been facilitated by the distance maintained between this expanse and the administrator in charge.⁴¹ A gradual systematic involvement of architects in the state-led development, through their participation in state-sponsored projects and institutionalisation of territorial-regional planning in the mid-20th century, made this expanse available to “scientific” examination. Destabilization of the distance thereby ensued and resulted in a variety of spatial conceptualisations, such as the planned region. However, these conceptualisations did not exclude the territorial. The geographer Stuart Elden has argued that the territory should not be understood “as a static backdrop or a container”⁴² but as a “political technology”⁴³ comprised of techniques for land measuring and terrain control, employed in both urban and regional planning .

Architecture of Bosnia superimposed the human geographic concept of the regional social organism on the territory perceived as a set of techniques. As the geographer Kevin Archer has shown, regions, to Vidalian geographers, were much more than metaphorical organisms. Contingent on the precise processes of organismal emergence, such as self-organisation, circulation and evolution,⁴⁴ regions established relations with their environment in ways that exuded the nature’s authority. To define the ambience of the Bosnian region and to attach to it a human geographic reference, therefore, also meant to

imagine a “seamless robe”⁴⁵ between the humans and their natural environment. *Architecture of Bosnia*’s project postulated that modern architecture (and the territorial calculations attached to it), could achieve the organic integration by becoming a part of this “robe”.

To describe and analyse this superimposition between the regional organism and territorial technology, this dissertation departed from an in-depth, formal analysis of the book *Architecture of Bosnia*. Its meticulously designed layout, composition and structuring strategies have presented both a challenge and a resource for the analysis and interpretation, as they implied clues for further investigation. The unusually detailed testimony on the book’s production has immensely enriched this dissertation: more than five hundred letters were exchanged between the authors and their spouses (in Sarajevo and Ljubljana) to define the book’s method, message and design, coordinate its production and speculate on its possible reception.

In order to reconstruct the background of the book’s message (in the sense of both its content and form), this dissertation relied on two broad groups of primary documents - those represented or referred to by the book *Architecture of Bosnia*’s documentary part and those related to the projects in its second part. The first group, mainly found in the authors’ private archives and the National Museum (formerly *Landesmuseum*) in Sarajevo, were ethnographic sketches and photographs, social and political history papers, ethnographic and human geographic studies. These were used by the authors to examine and represent the geographic-historical region. The second group was defined on the basis of the book’s portfolio: the projects and plans, their architectural and urban planning references and the administrative papers documenting their connections to the territory. Particularly the projects presented in the final chapter required an expanded archival research and collection of primary sources, which have significantly relied on the immense archive of the Technical Department of the Zenica Ironworks, fully destroyed in 2018. The reconstruction

of the Yugoslav architectural and planning perspective on the region relied on a combination of institutional documents and minutes of the meetings of the Federal Planning Commission, Urbanistic Office of the City of Sarajevo, official reports on the meetings of federal associations of architects and urbanists and a selection of texts published by architects and planners in both books and architectural journals.

Literature Review

Architectural histories that have thus far referred to the book *Architecture of Bosnia and the Way to Modernity* or Juraj Neidhardt's architectural design, have mainly addressed their representational qualities, as well as their political meaning in relation to socialist ideological tenets and local identities. Although *Architecture of Bosnia* is widely considered one of the most important architectural books of the Socialist Yugoslavia,⁴⁶ there have not, so far, been any attempts at reconstructing its production process. In spite of its abundant graphic content, its form, layout design and image discourse have not yet been properly analysed. Juraj Neidhardt's contribution to the field of urban planning has received minimal attention, while some of his architectural and urban design works (such as his winning competition entry for the new socialist center of Sarajevo and the Parliament building of Bosnia-Herzegovina), have been abundantly analysed, mainly as symbolical contributions to the socialist nation building project.

In distinction to this representational focus, recent scholarship on Yugoslav architecture as a whole, has attempted to situate the analysis of architectural forms inside the history of the wider processes of Yugoslav modernization. This group of works has, however, largely conflated the history of modernization with the history of urbanization, in the conventional sense of the term, mostly failing to register the bearings of the territorial and environmental dynamics on these processes, and consequently, on the architectural production, as well. This thesis attempts to start filling this gap, by narrating the history of

both the book and of Neidhardt's architecture, as they related to their environment (both as a concept and material process).

The initial attempt to outline the history of *Architecture of Bosnia and the Way to Modernity* was accomplished by Jelica Karlić-Kapetanović in her intellectual biography of Juraj Neidhardt, which has been generally accepted as a text-book account on his life and work.⁴⁷ Published in 1989 based on her doctoral dissertation (defended in 1988), Kapetanović's history both benefited and suffered from the uncommon proximity of the author to her protagonist.⁴⁸ The core of her impressive corpus was the complete Juraj Neidhardt's private archive (mostly lost during the Siege of Sarajevo in the 1990s) on the basis of which she constructed an overview of his projects and other professional achievements, including the book *Architecture of Bosnia*.⁴⁹ These privileges have enriched her history, but also influenced her overwhelming reliance on Neidhardt's own late career discourse, which established his architecture as the "humanised modernism" and harmony of "old and new." This dissertation has relied on Kapetanović's account as a sound chronology and catalogue of (otherwise inaccessible) primary sources. Yet its goal was to expand the corpus to the documents that testify about the intertwinement of Neidhardt's projects and plans with bureaucracies and non-urban territories to offer a complementary insight into his mid-career work as a contribution to the project of state development.

More recent studies of Grabrijan's and Neidhardt's joint research and the works that came out of it (the books and the buildings) explore them primarily as elements of identity-defining and nation-building projects. Dijana Alić went as far as positing that the conception of the book *Architecture of Bosnia and the Way to Modernity* was a direct response to the complex Yugoslav identity politics, particularly the undefined status of the Bosnian Muslims.⁵⁰ In her doctoral dissertation, defended in 2010, Alić argued for a recognition of "ideological connotations" embedded in Grabrijan's and Neidhardt's work and posited the "strategic alignment between their views of culture and architecture and

the political themes dominating the Bosnian scene in the 1950s".⁵¹ These "themes" had a complex historical background which Alić analysed and presented skillfully and clearly. Indeed, as elsewhere in the world, the rich "hybridity" of the Bosnian ethnic composition - relatively even portions of Muslim, Orthodox and Catholic population - has tragically proven to be a curse, rather than an advantage.⁵² The Serbian and, to a certain degree, also Croatian nationalism, substantially relied on the historical trauma caused by the Ottoman conquest, which has, therefore, never been fully dissociated from the Muslim population. Indeed, Grabrijan and Neidhardt must have been aware of these complexities and their historical politics, but they never inspired the architectural-political activism assigned to these two architects-researchers by Alić. In the book *Architecture of Bosnia*, the theme of the origins of Bosnian Muslims was tackled, but only as part of a larger, complex historical-geographic evolution of the region, along with the Dinaric house and other ethnographic manifestations of life typical for the regional environment.⁵³

The Bosnian particularity was given a more positive reading within the first contemporary attempt to produce a synoptic presentation of Yugoslav architecture as a historical whole. Vladimir Kulić and Maroje Mrduljaš consider Grabrijan's and Neidhardt's work within their interpretation of this whole to be a paradigm of political, geographic and cultural "in-betweenness." In their 2012 book *Modernism in Between: The Mediatory Architectures of Socialist Yugoslavia*, the book *Architecture of Bosnia* and Neidhardt's designs are both manifestations of a larger modernist affinity to regionalism⁵⁴ and one of the Yugoslav "strategies of mediation between the global 'civilisation' and local 'cultures'."⁵⁵ They point to resonances between Grabrijan's and Neidhardt's ideas and the "anthropological approach" of the Team 10, understanding Neidhardt's work to be an "implicit critique of modernist rationality and cultural exclusivism."⁵⁶

This kind of assessment implies the role of both the book and Neidhardt's *oeuvre* as harbingers of the practice of critical regionalism. While Neidhardt decisively influenced the

renown Yugoslav critical regionalist Zlatko Ugljen, the differences between his own work and this model of practice are the actual focus of this dissertation. As Ricardo Aragez has argued, the categories of criticality, associated with Lefaivre's, Tzonis' and Frampton's⁵⁷ theses on critical regionalism (as the practice reacting to the "placeless homogeneity" of the mainstream modernism and "superficial historicism" of the most post-modern works), have been yielded by the state of architectural culture of their particular historical moment. To apply them in retrospect presupposes taking the risk of "leaving out the subtleties and particularities" of the mid-century works.⁵⁸ That architectural regionalism could be much more than "critical regionalism" has been implied by Imre Szeman, who has argued that "the way in which 'critical regionalism' foregrounded geography provided a little more than shading to a style" and raised a question of other and different "critical practices of regions" establishing more substantial and complex relations with geography.⁵⁹ Attending to multiple ecologies of regions, he further argued, was a precondition for challenging the infrastructural logic of the territory. Establishing a research methodology that could intersect the question of complex architectural conceptualisations of the local, characteristic of critical regionalism, along with the question of "infrastructural violence" over regions (evoked by Szeman through his reference to the well-known controversy of the Keystone XL pipeline in the United States), remains an open issue for architectural history.

Vladimir Kulić's recent observation of the dialectical tension "between the various particularisms and federalist mechanisms of unity"⁶⁰ of the Socialist Yugoslavia implies that Yugoslav architecture and urbanism may serve as a case particularly pertinent to such research methodology. Used to explain the complexities behind the party-promoted ideology of "brotherhood and unity" amongst the Yugoslav peoples, Kulić's dialectics suggested that identity-making and architectural representations worked inside the federally established, shifting constellations of policies and more stable constellations of

infrastructures that needed to be accounted for to be able to fully appreciate the unique richness the Yugoslav experience brought to the history of global civilisation.

The present dissertation takes up the challenge posed by this dialectics, by describing the projected regional relations of Neidhardt's designs and the actual territorial relations imposed on them by his plans. Grabrijan's and Neidhardt's conceptual work designating two different definitions of the milieu, complicates much of the recent abundant architectural historiography, which focuses on the "environment" as the "central concern (...), as the subject matter, methodological framework, or perspective from which to rethink architectural historiography."⁶¹ Daniel Barber has, for example, outlined a set of broad research questions for an "environmentalised architectural history," thoroughly determined by Michel Foucault's theory of governmentality and its corollary, environmentality.⁶² This methodology has relied on Foucault's late career discourse on the milieu to cast architecture as an apparatus within larger mechanisms of governance. This kind of "mechanical" understanding of architecture in its environment resulted from the basic observation that "all architecture is environmental."⁶³ Yet, the case of *Architecture of Bosnia* shows that some architectures are more environmental than others (or, rather, environmentalist), in the sense that they seek to rely on a conceptual framework dependent on architects' understanding of the fundamental, historically constructed relation of man with his environment.

To keep both architecture's environmentalism (conceptualisation of environment) and its actual environmentality (or exposure to environment) within the same research purview, has been imperative for some of the scholars who explored architecture's exchange with geography. David Gissen has, perhaps most convincingly, discussed the territory as an architecture-centred realisation and proposed the work of geographers (such as Erik Swyngedouw and Matthew Gandy) as methodological reference for architectural criticism and history. These works, he argued, observed "authored things" as a part of "natural and

urban webworks” of both “aesthetic concepts” and “cash and matter.”⁶⁴ However, architectural history has, so far, studied the relation of architecture and geography as either a conceptual-aesthetic *or* state and market question. Hashim Sarkis has, for example, specifically traced the history of architectural involvements with geography, which resulted in an “aesthetic dimension.” This exchange, he argued, offered “much needed grounding” to the “performative and systemic approaches” guiding the architecture’s role at the urban scale today.⁶⁵ On the other end of the scale, Kenny Cupers described the French case of post-war state institution for territorial planning (*DATAR*) and proposed that it instilled territory as “a logic” in both geography and architecture. This logic was most closely described as understanding of physical changes as functions of both state intervention and the dynamics of market economy: indeed, as Cupers wrote, “The encounter between architecture and geography at this time was neither direct nor frontal, but mediated by the state project of managing the postwar economic development.”⁶⁶

Yet, beyond these broadly conceived relations, few works have looked at reciprocities between architectural concepts and both actual processes of metabolic exchange and policies of development, conditioned by geography. Eve Blau was influenced by the work of the geographer Timothy Mitchell in her investigation of relations between urbanism (including conceptions of urban planning and design) and processes of oil production in Baku.⁶⁷ In particular, her analysis of the ways in which intersections between socialist development policies and materialities of oil production changed the established urban planning models, anchored the abstract notion of the territory into geography. If every architecture is environmental, then this kind of study seems to offer a solid base for investigating the territorial aspects of that environmentality.

The socio-economic specificity of the Socialist Yugoslavia has not yet been subject to such a study. Histories of Yugoslav urban planning have focused overwhelmingly on the conceptions of new towns⁶⁸ and their relations to socialist ideology, almost entirely

neglecting their territorial implications. Amongst these works, Nikola Bojić's contribution stands out as an attempt to explain the relationship between Yugoslav audacious social ideas and urbanistic pursuit for techniques of their spatial realisation. His historical analysis of the first Yugoslav methodology of territorial planning proposed in 1957 implied that "the regional scale" was the most relevant site for architects' contribution to the realisation of the lofty Yugoslav socio-economic ambitions⁶⁹ (particularly referring to the uncompromising struggle for social equality⁷⁰). Bojić observed a relative failure of the early Yugoslav regional planning as the "spatial representation of abstract and contradictory ideological and political systems, with a limited capability to respond to issues of uneven territorial development and ever-growing challenges of post-war urbanisation."⁷¹

While it does not pretend to offer a full explanation of these limits and challenges, this dissertation does illuminate some of the most critical vulnerabilities of the Yugoslav "social experiment" by describing the ways in which they intersected with the architectural discourses and their projections about the environment.

Chapter Structure

This dissertation consists of four chapters. The first three chapters narrate the history of the book *Architecture of Bosnia and the Way to Modernity*: its conception, production and reception. The fourth chapter consists of three essays which discuss three of Juraj Neidhardt's projects and their politics in the milieu.

The first chapter describes Grabrijan's and Neidhardt's conception of the geographic-historical region. It combines the detailed analysis of the book (its general editorial strategies, layout design, structure and content), its authors' written correspondence and their references to describe how they managed to present the "region of Bosnia" in the book. Departing from the idea of the historically constructed relation between the house and its environment, they used idiosyncratic concepts such as trees, ambience and

unwritten laws to naturalise the installation of new architecture into the book-region and represent it as an integral whole.

The second chapter explains Grabrijan's and Neidhardt's motivations for such an elaborate book-making strategy. It describes how, in their research of human geography, ethnography and history, the abstract notion of "Bosnian region" was identified as a concrete geographic space of the Middle Bosnian Basin. Neidhardt's abundant architectural and urban planning practice related to the coal and iron producing industries in the Basin, however, cast the same space as the Middle Bosnian Mining Basin: first as a geographic-economic region (between the wars) and then as part of the rationalised and calculated state territory (after the war).

This chapter describes the conceptualisations and design strategies Neidhardt developed to integrate his architecture into these larger wholes: the "unwritten laws" (that the book described as principles of building, characteristic of the vernacular architecture and urbanism), moderate rationalizations he conceived in the inter-war period and integrative power of infrastructure he inherited during his inter-war professional experiences in Vienna, Berlin and Paris (including stints in the offices of Peter Behrens and Le Corbusier). However, their use as tools of regional integration, increasingly lost meaning in the context of Neidhardt's own urban plans, which introduced vast industrial infrastructural schemes and territorial logic into the urban space. The chapter proposes that, in order to conceal this dualism of architecture's projected immanence to both the region and the territory, *Architecture of Bosnia* presented the design and planning as two separate endeavours and evoked regional planning as the solution to the territorial problem.

The third chapter describes Socialist Yugoslav architects' conceptualizations of geography, their relation with planning and the ways they affected the reception of the book and Neidhardt's designs. Influenced by the Soviet-style social-economic planning, inter-war conception of the city region and emancipatory ideas of the Yugoslav

“experiment” (particularly tackling the disparity between the center and periphery), the discussions and projections about the territorial scale culminated in the 1957 symposium on regional planning that was expected to unify geographic and economic concerns. The chapter proposes that the definition of the region and geography as a part of the specific disciplinary purview of regional planning obscured the wider geographic implications of the book *Architecture of Bosnia*. Its model of disciplinary organisation was not understood by the Yugoslav architectural public, and was reduced to the problematics of style. However, neither Neidhardt’s nor planist regionalism were able to influence the production of the General Urban Plan of Sarajevo in 1962. The discussions regarding the endorsement of the plan’s programme are presented as emblematic of not only the closure of Neidhardt’s regionalist project, but also the incapacity of regional planning to underpin the early phase of the Yugoslav “social experiment.” The chapter also observes that some of the crucial aspects of the book’s material production were, in fact, determined by the centre-periphery politics and limited possibilities of planning to contain them.

Finally, the fourth chapter consists of three essays describing Neidhardt’s strategies of integration and their politics in the context of the Yugoslav “experiment.” It focuses on three projects that illustrate Neidhardt’s efforts to maintain the conceptual consistency of his work, either by strictly distinguishing between design and planning (as in the case of his Ski House project in Sarajevo), or by seeking to blur the distinction between architecture and infrastructure (as in the case of his Industry Boulevard in Zenica and Tourist Highway across the Middle Bosnian Basin). If in the first project, Neidhardt sought to integrate architecture into the ideal of the geographic-historical region, in the following two projects he attempted to attach his principles of regional integration to infrastructural elements and make them territorially significant. The chapter describes the national territorial calculations that precluded the execution of these projects. Their potentials in the context of Yugoslav centre-periphery politics testify to the capacity of architecture to meaningfully respond to the polyvalent and intricate conception of the milieu.

¹ For interpretation of the development of modernity through the transformations of the epistemology of air see Eva Horn, "Air as Medium," *Grey Room*, no.73, (Fall 2018): 6–25; for specific analysis of architectural repercussions of these transformations see Laurent Stalder, "Air, Light, Air Conditioning," *Grey Room*, no.40, (Summer 2010): 84–99.

² See Dennison I. Rusinow, *Yugoslav Experiment 1948-1974* (University of California Press, 1978) and CIA - Central Intelligence Agency, *The Yugoslav Experiment - National Intelligence Estimate Number 15-67*, 13 April 1967, Accessed July 7, 2018. <https://www.cia.gov/library/readingroom/document/0000272967>

³ Between 1948 and 1958, Yugoslavian leadership famously broke its political alliance with the Eastern Block, abandoned centralized economic planning for workers-managed economy, institutionalized its exuberant foreign policy in the form of the Non-Aligned Movement and unified, both politically and economically, a dozen different ethnic and national identities into one.

⁴ For the most representative survey of Socialist Yugoslav architecture see Martino Stierli and Vladimir Kulić, eds, *Toward a Concrete Utopia: Architecture in Yugoslavia 1948-1980* (New York: MoMA, 2018).

⁵ Alfred A. L. Caesar, "Yugoslavia: Geography and Post-War Planning," *Institute of British Geographers - Transactions and Papers*, no. 30 (1962): 33-43.

⁶ Although not a prolific author himself, Caesar was, indirectly, an essential figure to British regional planning, not least because of his inspired tutorship, at the University of Cambridge, of some of the key academic figures and authors in the field, including Peter Haggett, Gerald Manners and Sir Peter Hall.

⁷ The transcript of the lecture was published as a paper in 1913, in both French: Jean Brunhes, "Du caractère propre et du caractère complexe des faits de géographie humaine," *Annales de Géographie* 22, no. 121 (1913): 1-40; and English: Jean Brunhes & E.S. Bates "The specific characteristics and complex character of the subject-matter of human geography," *Scottish Geographical Magazine*, 29, no.6, (1913): 304-322.

⁸ At the time of Brunhes' lecture (December of 1912) Balkans was one of the focal points of the European geopolitical crisis. This situation culminated in June of 1914 with the assassination of Archduke Franz Ferdinand in Sarajevo, Bosnia-Herzegovina, which ultimately triggered the First World War.

⁹ Brunhes & Bates, "The specific characteristics," 321.

¹⁰ Vladimir Kulić and Maroje Mrduljaš have narrated the history of Yugoslav architecture as a "mediator" - a role dictated by the state of Yugoslavia's geopolitical and cultural "in-between condition." Vladimir Kulić and Maroje Mrduljaš, *Modernism in-between - Mediatory Architectures of Socialist Yugoslavia* (Berlin: Jovis, 2012), 16.

¹¹ Zeynep Çelik, "The Ordinary and the Third World at CIAM IX," in *Team 10 1953-81 in Search of Utopia of the Present*, eds Dirk van den Heuvel and Max Risselada (Rotterdam: NAI Publishers, 2006) 276-279; and Zeynep Çelik, "Le Corbusier, Orientalism, Colonialism," *Assemblage*, no. 17 (1992): 59-77.

¹² Ricardo Aragez, *Algarve Building - Modernism, Regionalism and Architecture in the South of Portugal 1925-1965* (Oxon and New York: Routledge, 2016).

¹³ Sibel Bozdoğan, *Modernism and Nation Building - Turkish Architectural Culture in the Early Republic* (Washington: The University of Washington Press, 2001).

¹⁴ Jovan Cvijić, *La Péninsule Balkanique - Géographie humaine* (Paris: Librairie Armand Colin, 1918).

¹⁵ Dijana Alić, "Transformations of the Oriental in the Architectural Work of Juraj Neidhard and Dušan Grabrijan" (PhD diss., University of New South Wales, 2010), 46-48.

¹⁶ Eve Blau, "Supranational Principle as Urban Model: Otto Wagner's Grosstadt and City Making in Central Europe," in *Histoire de l'art du XIXe siècle (1848-1914), bilans et perspectives*, eds Claire Barbillion, Catherine Chevillot and François-René Martin (Paris: Musée d'Orsay, Ecole du Louvre, 2012), 501-514.

¹⁷ Mary C. McLeod, "Urbanism and Utopia - Le Corbusier from Regional Syndicalism to Vichy," (PhD diss., Princeton University, 1985), 285-300.

¹⁸ For a canonical account on and distinction between "national regional planning" and "city regional planning" see Peter Hall, *Urban and Regional Planning* (London and New York: Routledge, 2002), 55; for an account on the transnational country planning dialogue in interwar Europe see Michel Geertse, "Cross-Border Country Planning Dialogue in Interwar Europe," in *SAGE Open* (July-September 2015): 1-12.

¹⁹ David Turnock, *The Economy of East Central Europe 1815-1989 - Stages of Transformation in a Peripheral Region* (London and New York: Routledge, 2006), 215.

²⁰ James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition have Failed* (New Haven: Yale University Press, 1998), 90.

²¹ Dušan Grabrijan and Juraj Neidhardt initiated their collaboration marked by interest in the "Bosnian oriental architecture" in 1938. The first publication that resulted from their joint research was a study titled "Sarajevo and its Satelllites," published in 1942.

²² De Goncourt, quoted in Leo Spitzer, "Milieu and Ambiance - An Essay in Historical Semantics (Part II)," in *Philosophy and Phenomenological Research* 3, No.2 (Dec. 1942):186.

²³ Spitzer, "Milieu and Ambiance," 186-187.

²⁴ Paul Rabinow, *French Modern - Norms and Forms of the Social Environment* (Chicago: University of Chicago Press, 1989). Rabinow relied on George Canguilhem's condensed genealogy of the notion of "milieu" as well as Michel Foucault's basic observations on relatedness between urban planning and milieu. Canguilhem recorded the migration of the notion of milieu from mechanics, to biology, and from biology to geography and sociology. First presented in mid-1940s and published in 1952, his well-known piece titled "The Living and its Milieu" described the inherent duality of the concept that suggested two hardly commensurable epistemologies: one centered (in the lived experience) and the other endlessly linear (in scientific observation). Writing at the time when the prospects of unprecedented destruction disclosed the problematic instrumentalisation of science, Canguilhem relied on the milieu to question the primacy of "objective" scientific insight in the shared knowledge of the world. See: Georges Canguilhem and John Savage, "The Living and Its Milieu," *Grey Room*, no. 3 (Spring, 2001): 6-31. Canguilhem framed the question teased out by the milieu - namely that from the 19th century onward man acted as both the subject and the object of his own knowledge - as the principle problem of modernity. Foucault, in turn, made this problem central to his life's work, describing the development of power systems through their long, progressive, historical alignment with the "pragmatic structure" of the milieu. In spite of its evident importance, Foucault addressed the concept explicitly only once (in one of his lectures in the late 1970s), suggesting that this "pragmatic structure" was consummated through "circulation" and referring it directly to "architects and town planners" as connoisseurs of its "technical schema." Michel Foucault, *Security, Territory, Population - Lectures at the College de France, 1977-78* (New York, NY: Palgrave Macmillan), 34.

²⁵ Introduced to biology from physics, the milieu retained its mechanical aspect (medium of mechanical action at a distance), to which French naturalist Buffon added the human geographic component - the importance of place and climate for organismal development. Buffon's student Lamarck reduced the primacy of this component by introducing a vitalist conception of the organism, which underlined the active organismal persevering attachment to the milieu, navigated by its own needs and values. See Paul Rabinow, *French Modern - Norms and Forms of the Social Environment* (Chicago: University of Chicago Press, 1989), 134.

- ²⁶ For detailed analysis of the influence of Buffon's and Lamarck's ideas on Paul Vidal de la Blache and his school of human geography see Kevin Archer, "Regions as Social Organisms: The Lamarckian Characteristics of Vidal de la Blache's Regional Geography," *Annals of the Association of American Geographers* 83, no. 3 (Sep., 1993): 498-514.
- ²⁷ Paul Rabinow, *French Modern - Norms and Forms of the Social Environment* (Chicago: University of Chicago Press, 1989), 195.
- ²⁸ Archer, "Regions as Social Organisms," 508-510.
- ²⁹ Archer, "Regions as Social Organisms," 503., Jean-Baptiste Arrault, "Une géographie inattendue: Le système mondial vu par Paul Vidal de la Blache," *L'Espace géographique* 37, no.1 (2008): 75-88.
- ³⁰ Rabinow, *French Modern*, 146-151.
- ³¹ Rabinow, *French Modern*, 147 and 155.
- ³² Rabinow, *French Modern*, 139-142.
- ³³ See Guilherme Ribeiro, "La géographie vidalienne et la géopolitique," *Géographie et cultures*, 75 (2010): 247-262; Sanguin André-Louis, "Vidal de la Blache et la géographie politique," *Bulletin de l'Association de géographes français* 65, no.4 (Septembre 1988): 321-331; Jean-Baptiste Arrault, "Une Géographie inattendue: le système mondial vu par Paul Vidal de la Blache," *L'Espace géographique*, 37, no.1 (2008): 75-88.
- ³⁴ Rabinow, *French Modern*, 47-57.
- ³⁵ Rabinow, *French Modern*, 58-81.
- ³⁶ Rabinow, *French Modern*, 212-250.
- ³⁷ Rabinow, *French Modern*, 251-276.
- ³⁸ Rabinow, *French Modern*, 342-358.
- ³⁹ Rabinow, *French Modern*, 36.
- ⁴⁰ Rabinow attributes the conception "fieldwork in philosophy" to Pierre Buordieu, in Rabinow, *French Modern*, 16.
- ⁴¹ Antoine Picon, "What Has Happened to Territory?," *Architectural Design Special Issue Territory: Architecture Beyond Environment ed David Gissen* 80, no. 3 (May/June 2010): 97.
- ⁴² Stuart Elden, "How Should We Do the History of the Territory?," *Territory, Politics, Governance* 1 (2012): 17.
- ⁴³ Elden, "How Should We Do the History of the Territory?," 14.
- ⁴⁴ Archer, "Regions as Social Organisms," 504-505.
- ⁴⁵ Archer, "Regions as Social Organisms," 500.
- ⁴⁶ *Architecture of Bosnia and the Way to Modernity* was the only architectural book of Socialist Yugoslavia in the exhibition *Toward a Concrete Utopia: Architecture in Yugoslavia 1948-1980* of the Museum of Modern Art in New York.
- ⁴⁷ Jelica Karlić Kapetanović, *Juraj Neidhardt: život i djelo* (Sarajevo: Veselin Masleša, 1990).

⁴⁸ Kapetanović served as Juraj Neidhardt's teaching assistant at the Faculty of Architecture in Sarajevo which provided her with an access to an enviable contingent of primary sources from Neidhardt's professorship's archive, access to his personal contacts and to the memory of the man himself (Neidhardt passed in 1979).

⁴⁹ Kapetanović, *Juraj Neidhardt*, 213-220.

⁵⁰ Alić, "Transformations of the Oriental," ii.

⁵¹ Alić, "Transformations of the Oriental," 137.

⁵² As Serbia and Croatia (the neighbouring Yugoslav Republics historically pretending to national statehood) tied Orthodox and Catholic native inhabitants of Bosnia to Serbian and Croatian nationalities respectively, Muslim population remained pressured to choose one of the two, remain undeclared or declare simply Yugoslav, embracing the umbrella identity of the federation without underlying ethnic substance. A selection of these alternative and unequal options for Muslim identification shifted in Yugoslav population censuses, until in 1968 a category of "Bosnian Muslim" was introduced.

⁵³ The second chapter of this dissertation will discuss how it was the politics of Grabrijan's perceived "idealism" (which would nowadays be recognised as "orientalism" by the post-colonial theory), rather than the politics of the Muslim national identity, that prompted some "strategic alignments" between the conception of the book (determined by the environmental reading of architecture) and "objective" processes of history, the importance of which was foregrounded by the Socialist regime.

⁵⁴ Kulić and Mrduljaš, *Modernism in-between*, 88.

⁵⁵ Kulić and Mrduljaš, *Modernism in-between*, 78.

⁵⁶ *Ibid.*

⁵⁷ See Alexandar Tzonis and Liane Lefaivre, *Critical Regionalism - Architecture and Identity in a Globalised World* (Prestel, 2003). and Kenneth Frampton, "Prospects for a Critical Regionalism," *Perspecta* 20 (1983): 147-162.

⁵⁸ Araguez, *Algarve Building*, 4

⁵⁹ Imre Szeman, "On the Politics of Region," e-flux architecture, May 19, 2018, accessed May 19, 2018, <https://www.e-flux.com/architecture/dimensions-of-citizenship/178284/on-the-politics-of-region/>.

⁶⁰ 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.

⁶¹ Sophie Hochhäusl, Torsten Lange et al., "Architecture and the Environment," *Architectural Histories*, 6, no.1, 20 (2018):1-13, doi: <https://doi.org/10.5334/ah.259>.

⁶² Daniel Barber has proposed a methodological framework in the form of the new set of questions directed at architecture's relations "within a broad conception of the milieu as: a) resource, infrastructure, and material conditions of the 'environment' as they are conflated with social processes; b) the bureaucratic forms of management and scientific forms of knowledge that inform these material conditions and also inform concepts of innovation in architectural practices (...); and c) the extent to which cultural or formal developments in architecture reflect and inform – both cause and effect – these tactics of population management and the broader strategies of campaigns, codes, guidelines and other tactics that produce the disposition of both local and global governance." Daniel Barber, "Environmentalisation and Environmentality: Re-Conceiving the History of 20th Century Architecture," *Design Philosophy Papers - Crows Nest*, 7, no. 3, (2009): 149.

⁶³ See, for example Daniel A. Barber, Lee Stickells et al., "Architecture, Environment, History: Questions and Consequences," *Architectural Theory Review*, 22, no.2 (2018): 250.

⁶⁴ David Gissen, "Territory: Architecture beyond Environment," in *Architectural Design Special Issue Territory: Architecture Beyond Environment*, 80, no.3 (May/June 2010): 11.

⁶⁵ Hashim Sarkis, "Le Corbusier's 'Geo-Architecture' and the Emergence of Territorial Aesthetic," in *Re-scaling the Environment - New Landscapes of Design (East West Central: Re-building Europe, 1950-1990)*, eds Akos Moravanszky and Karl R. Kegler (Birkhauser Architecture, 2016), 115.

⁶⁶ Kenny Cupers, "Géographie Volontaire and the Territorial Logic of Architecture," *Architectural Histories* 4, no.1, 3 (2016): 11, doi: <http://dx.doi.org/10.5334/ah.209>.

⁶⁷ Eve Blau, *Baku: Oil and Urbanism*, (Zürich: Park Books, 2019).

⁶⁸ See, for example, Bridgite Le Normand, *Designing Tito's Capital: Urban Planning, Modernism, and Socialism in Belgrade* (University of Pittsburgh Press, 2014) and Ljiljana Blagojević, *Novi Beograd - osporeni modernizam* (Belgrade: Zavod za udžbenike, 2007).

⁶⁹ Bojić describes the development of regional planning discourse in Yugoslavia as related to the introduction of the administrative and political territorial system of communes (self-managed territorial units) in 1955. This system, however, had hardly any substantial impact on the spatial planning system. Nikola Bojić, "Social and Physical Planning: Two Approaches to Territorial Production in Socialist Yugoslavia between 1955 and 1963," *Architectural Histories*, 6, no.1, 25 (2018), 1–14, doi: <https://doi.org/10.5334/ah.309>

⁷⁰ Bojić, "Social and Physical Planning," 6.

⁷¹ Bojić, "Social and Physical Planning," 11.

Chapter 1 - The Book as the Region

The project of the book *Architecture of Bosnia and the Way to Modernity* was undoubtedly a part of a larger social impulse to a comprehensive reorganization in tune with the technically fuzzy conception of the revolutionary socialist society. Its commonly cited *raison d'être* - discovering principles of Oriental architecture and urbanism to serve as bases for socialist architecture and urbanism in Bosnia - evokes a textbook, or even a manual geared towards remediating the gaps in technical socialist knowledge.

This kind of preconception, however, greatly underestimates the complexity of the task entrusted to the book: quite beyond the text-bookish dogmatism, *Architecture of Bosnia* not only reports on its discoveries, but also uses its mediality¹ to enact its principle thesis.

This act relies on a very diverse range of techniques of representation, in dozens of different combinations - a typical double spread features three or more different representational media, contributing to a rich and, quite often, overwhelming visual experience (Figure I-01). However, there are other subtler elements that, along with the information transmitted by text and image, contribute to the appearance of *Architecture of Bosnia* and, therefore, the impression it leaves on its spectator. The color, size and composition of blanks, typeface and typography, page format and paper quality, are just a few of the elements that add up to the medium as the message.

The forceful capacity of the book to transform a set of ideas into an imposing totality relies, not in the least, on its perceivable unity as an object. This objective unity of the book is in turn based not only on the fact that its substance holds together, but also the fact that its perceivable qualities are persistent: the consistency of paper quality and the style of the layout design contribute to this unity just as much as the continuity of the text and image discourse.

The consistency of the book as a medium performs towards its message. The hypothesis of this chapter is that the form of *Architecture of Bosnia* was informed by the discovery of the

region, as a relevant reference for architectural work. The performative continuities of the book were, therefore, geared towards documenting, but also recreating the region within its covers. This chapter superposes the formal analysis of the book with the testimony to the production of the book, offered by the written (and drawn) correspondence between two authors,² architects Dušan Grabrijan and Juraj Neidhardt.

The trigger to this production process was a comparatively humble manuscript by Grabrijan, titled “Oriental House in Sarajevo - with a Particular Reference to the Contemporary” (*Orientalaska hiša v Sarajevu - s posebnim ozirom na sodobno*). In April 1949, Grabrijan, who at that time was already settled in Ljubljana, sent this manuscript to Neidhardt in Sarajevo, asking him to pass his own judgement, but also to give the manuscript to Hamdija Kreševljaković, an esteemed historian of the Ottoman Sarajevo, whom he hoped would be a reviewer of his upcoming book. Soon Neidhardt agreed to illustrate the publication with sketches.

In the course of the next two and a half years, however, gradual increase of Neidhardt’s participation in the project earned him the title of the co-author. This title was certainly well-deserved due to his great efforts to steer the conception of the book in the direction he felt was both truthful and necessary; truthful in the sense of being adjusted to the regional reality of Bosnia, and necessary as a direction to what he felt were creative wanderings of socialist Bosnian architects.

When Grabrijan abruptly died in November of 1952, his initial statement on the “Oriental House in Sarajevo” was entangled in a conceptual web that the two authors knitted around it under Neidhardt’s heavy influence. While Grabrijan’s embryonic study documented and, in terms of modernist architectural principles, analyzed the typical residential unit of the Ottoman historic core of Sarajevo, Neidhardt scaled up the field of inquiry to the residential neighborhood (*Mahala*), the center (*Čaršija*), the city (Sarajevo) and the country (Bosnia). The focus of Grabrijan’s articles written in the 1930s were the innate principles of building

characteristic of the Oriental city that the two authors called “unwritten laws.” Neidhardt, who based his practice in Bosnia on these principles, prompted Grabrijan to cast them as a distillate of the local architectural knowledge by placing them inside the central chapter of the book. In order to “show the way” for the contemporary architecture, he further claimed that the chapter on the “laws” needed to be followed by examples of their successful employment in practice. This illustration was to be a selection from his own portfolio.

The book’s conceptual set up, the size of this portfolio and the quality of the layout design were Neidhardt’s main preoccupations in regard to the project. His ambition to get the publisher’s consent for a larger volume and the print in color was one of the main factors that prolonged the publication of the book. Dušan Grabrijan reached the initial publishing agreement with the Slovenian firm Državna Založba Slovenije³ already in the first half of 1949, and yet the book came out only in late 1957.

The layout design was important because it controlled the unity of the book. The strategies of achieving unity were amongst the most recurring themes in the authors’ exchange. The duality of the content based on the documentary part and the portfolio was the main issue that this unification wanted to address. While the textual discourse of the book proposed that “the unwritten laws” were able to mediate between the vernacular and the modern, the authors sought additional reassurance (and persuasion) through the form of the book. The unification efforts grew as the regionalist conceptual setup was becoming clearer. If the federal state of Bosnia and Herzegovina was occasionally referenced as a larger spatial framework of their research at the onset of their work, by 1951 this reference changed. Its scale was now situated somewhere between the state and the “city and its surroundings.” Ultimately, for the authors, the relevance of their thesis on modern Bosnian architecture critically depended on their possibility to represent the region and integrate the new architecture into the region within the book.

The most original aspects of *Architecture of Bosnia* were a direct consequence of this effort at unification and integration: the layout with “ambience,” the seemingly casual (yet carefully studied) sketches, the short pointed messages (referred to as “slogans”) and the comparison of the book to a tree. The goal of this chapter is to describe employment of these strategies through the layout, the content and the structure of the book in order to reveal the relationships between architecture and the region that the book postulated, as well as those that it concealed.

The definition of the region as the new referent for architectural practice influenced the book’s design, just as the modern metropolis influenced the inter-war modernist book design. The conceptual means on which these artists and architects relied were film and photography.⁴ Neidhardt’s layout design strategy, however, relied on the ambience of the region, which he perceived as irregular, scattered, cheerful, juicy, lively and fecund. The ordered structure of the content was submerged in the apparent disorder created by means of layout design, which was quite deliberate. In tune with his belief that here “everything is scattered in movement,” Neidhardt described the intensity of *Architecture of Bosnia* as he imagined it: “Entire book should be full of formulas, schemes, titles, subtitles, slogans.”⁵

Some of these characterizations pertained to the common orientalist preconceptions about Eastern cultures and societies. In the authors’ view, rooting of the Oriental into geography was a way to overcome the partiality that these preconceptions entailed. While in terms of content this problem was resolved through additional research (described in the following chapter), the way in which the form of the book addressed it was through a metaphorical and organizational potency of the tree figure. By likening both the book and the region to a tree, the authors unified the two, established the statement on the locality of the Oriental, emphasized the organism-like spontaneity of both the region and the vernacular, and underlined the importance that the “unwritten laws” held as mediators.

But mediators of what? While the “laws” were an entry point to the region for the design agency, Neidhardt’s and Grabrijan’s tree diagram excluded both “economy” and “planning” from its scheme. Absent in this conception of regional architectural practice, the urban and regional plans of Neidhardt’s portfolio remained an accessory to the book, their feeble attachment concealed by its imposing and unifying form.

1.1 Ambience - Layout Design

The pastel hues of yellow, brown and blue break up the uniformity of black and white graphic content, while the tender textures of branches and leaves drawn in great detail sprawl around the liberally arranged blocks of text, its tiny letters adding up to the overall impression of abundance and crispness. Even before contemplating the metaphorical and discursive dimensions of its architectural subject matter, one feels drawn into the ambience of *Architecture of Bosnia*.

This impression is even stronger when one compares its layout design to the academic austerity of similar studies published in Yugoslavia at the time. For example, *Urbanism through the Centuries I - Yugoslavia*,⁶ a comprehensive review of the ethnological urbanistic mosaic of the Yugoslavian cities by one of the most important proponents of Serbian modernism, Nikola Dobrović, is loaded with a comparably rich mix of different representational media. Dobrović, who had occupied important institutional positions in the new socialist regime, used a variety of resources at his disposal, the most exclusive of which was the collection of stunning aerial photography. In the epilogue to the book, Dobrović compared the book-making concerned with “this kind of content” to art and emphasized the complexity of his production process: “first, a rough sketch was produced, then, after several stages, the composition itself was created.”⁷ The quoted artistic quality, however, seems to have been referred to a precise representation of the artistic aspects of the Yugoslav historic cities, rather than to the art of layout design. Dobrović lamented over the “mistakes,” such as the incongruence between the “richness” he observed in the field

and richness of materials available to represent it (including archival sources, precise drawings of urbanistic schemes and quality photographs). In contrast, Neidhardt's layout design strategies disregarded the issue of precision and instead focused on simulating the abundance of the immediate experience. While *Architecture of Bosnia* sought to control the overall visual character of the book, *Urbanism through the Centuries* strove for the exactitude of information-transmission by means of the individual techniques of representation that Dobrović used. As a result, it remains a rather forgettable book. Its portrait format, its tiresome long lines of text running across the entire page, its redundant picture book-style sequences, its impersonal technical drawings and minutely drawn maps make it difficult to imagine that the architect gave more than necessary attention to the "arrangement" and the concomitant design decisions (Figure I-02).

The ethnographic study *Old Town and Village Architecture in Serbia*⁸ by the architect and university professor Branislav Kojić leaves an impression of even greater conventionality. Here text and image are rarely found on the same page. The text is arranged in two uniform geometrical columns and groups of graphic material surrender to the imagined axis of symmetry running through the middle of every page (Figure I-03). The inert way in which the subject matter is presented - as a rule, the houses are photographed and drawn without people - surely contributed to the impression that inspired Juraj Neidhardt to characterize Kojić's work as "senile" in one of his letters⁹.

Although they shared the willingness to bring the wisdom of an "unknown builder" to the architectural audiences, Neidhardt clearly distinguished between the "museological-historical" approach of Kojić's type and the "creative-contemporary" approach that he aspired to.¹⁰ This observation referred to both the content and the layout. At that post-war moment, the standard for the "creative and contemporary" approach to architectural books was still overwhelmingly determined by the graphic design work of the avantgarde designers, particularly the "typo-photo" technique defined by the Hungarian artist László Moholy-Nagy. Some of the inter-war layout design innovations were related to the artists'

efforts to represent the experience of the modern metropolis by means of printed media. The emblematic work of this new synthesis of the city and the book was László Moholy-Nagy's layout design representation of the film "Dynamik der Großstadt" (Figure I-04). The Euclidean grid, the precise angular alignments of the text and graphic material and the iconic images became the basic elements of modernist book design. A combination of photographs and typography which was to push boundaries of expression and communication pertained to the new ideas about printed media that often had political and reformist background, such as constructivist aim of integrating art and society. Yet, most of that new practical knowledge on layout design had been used by architects to work with books as they do with buildings, by creating paths through a set of controlled visual experiences.¹¹

In contrast, the visual sequences were not a primary consideration for Neidhardt. What he pursued was a synthesis of experience defined by the unity of the book, and not a particular order of pages. What this synthesis wanted to communicate was the "ambience" of the "Bosnian region." This concern was articulated in Neidhardt's letters in various ways. On one occasion he drew Grabrijan's attention to some imperfections in the design of the book by describing a concert of a foreign singer who tried to interpret traditional Bosnian music: "It was desperate (although the singer was very good). Bosnians laughed. Rather nothing if not in the spirit. This is how I think about the book. There are some rigid parts. Here everything appears to be in disorder. Nothing is regulated. Everything is scattered in movement. Why are German things sterile? What bounds us to Bosnia is exactly this freedom so different to Pannonia and Slovenia."¹²

While this reference to rigidity that needs to be softened to be brought in tune with the true character of the Bosnian region may seem vague, it actually describes Neidhardt's strategies of ambience-control in the book with sufficient precision. Although regional character of Bosnia was straightforwardly described in the manuscript both analytically and poetically, Neidhardt sought ways to recreate it in *Architecture of Bosnia* and for this he used all those

means that the mediality of the book made available. Softening where rigid, adding juice where dry, infusing soul where there was none - these were pursued by a visual sequence, color, font style, ratio of void and full, combinations of dark and light.

Furthermore, Grabrijan and Neidhardt never stopped short of discussing actual techniques of book production that they expected would achieve the desired result. Both authors were experienced in working with printing clichés. As the cliché manufacturer that the publisher contracted was situated in Ljubljana,¹³ Neidhardt could only contribute to the authors' control of the process of the cliché-production by instructing Grabrijan what to request from the manufacturer and how to request it. Numerous pages of letters are filled with technical sketches that illustrate the characteristics and application of clichés that he expected would yield the imagined effect.

The design of the book layout, also referred to as "arrangement," was determined by a set of techniques defined through the discussions about the control of the ambience of the book. In distinction to a more traditional conception of the book layout in which a range of images supports the discourse that unfolds through words and links to it by means of strict numerical annotation, the text-image linkages in *Architecture of Bosnia* are much more loose and therefore complex. The text does not refer to the images through precise numerical marks. Their meaning is instead presented through colorful descriptions to which, during the production of the book, Neidhardt referred as "slogans." Relatively independent from the order of the text, images are arranged in ways geared towards orchestrating reader's experience as much as towards giving information.

An explicit testimony to this principle is found in one of Neidhardt's letters sent to Grabrijan a little more than a year into the book production. After proposing to arrange his drawing of the Ottoman fortification Bijela Tabija on top of the photograph that showed the landscape surrounding Sarajevo (and illustrating this with a sketch, see Figure I-05), Neidhardt explained: "With this we would, already from the beginning, show the ambience, the mountainous Bosnia. It is important that we deliberately psychologically provoke in the

observer those impressions that match the truth. For example, wavy shapes - hills, white and brown, wood and mortar, patterns - carpet, city, settlement etc.”¹⁴ This particular sketch was recreated in the book exactly as imagined by Neidhardt (Figure I-06).

A combination of the full, dense ethnographic photos and line drawings, was the most prominent feature of the visual material in the book (Figure I-07). While photographs and delicate small sketches were used to transmit information, a third group, with a seemingly decorative purpose, were drawings by children, particularly drawings of trees (Figure I-08). The metaphoric and metonymic capacities of tree-figures were key to the book's performance (and will be discussed below). Yet, they were also crucial as a contribution to the ambience of abundance and liveliness that the array of full, transparent, technical, freehand, pretentious, naive, wavy and leafy shifting imagery created.

Another important tool in Neidhardt's layout design strategy was color. Pastel hues of yellow, blue, green and brown were used, mostly to reproduce the small informal sketches and technical drawings or, less often, as plates of color under the imprints of photographs. Although the colors available to them were subtle and few, the authors agreed that they were crucial to the overall experience of the book. In late 1949, Neidhardt argued that “the black and brown clichés would support each other very well. (...) Brown colour is better than blue. It characterizes Bosnia more, this earthy color.”¹⁵ One month later he repeated this opinion on the characteristic regional color: “The cover could be done in various colors with the dominant brown and white. Because these are the basic Bosnian colors - mortar and wood.”¹⁶ In the beginning of 1950, he expanded this Bosnian color scheme: “In terms of colors, I am very friendly to the idea. Regarding this, the local nature should be taken into consideration. Here, the colors are white, brown, silver, dark red etc., quite different to the Pannonian light ones.”¹⁷ Neidhardt proceeded to enlist a range of proposals on the use of color, many of which would be realized in the book seven years later: “ 1.(...) on top of normal cliché that could be printed in dark green color, arrange earthy red - ochre roofs. (...) 3. Carpets in two or three colors. (...) 5. Book cover in brown, dark green and red. 6. In

dark green and possibly light green everything about new architecture. Like leaves that grew anew. 7. Natural elements: water - blue, (...) green (...) ¹⁸ The color usage was, therefore, at times directed towards enhancing the clarity of the information, while at other times it was allegorical. However, the concern about the “truthfulness of color” related to the Bosnian region was continuous, and all other concerns were resolved within this primal range. “The most rewarding,” wrote Neidhardt “would be to include some juicy ornament in color on every tenth page throughout the book. Some pattern, whether through utensils or through little plans or children’s drawings. (...) It’s just that these Bosnian elementary colors should be chosen well because they will repeat throughout the book.” ¹⁹

The authors’ determination to negotiate printing in color with the publishing house Državna Založba Slovenije testifies to its importance. The early 1950s were an economically precarious time in Yugoslavia and print in color significantly increased the production expenses. Both Grabrijan’s and Neidhardt’s continuous efforts resulted in the publisher’s final approval of the four-color-scheme only in 1956, one year before the publication. Yet combining different colors in a single image, which would entail pressing of one cliché over the imprint of another, was denied by the publisher, and the only multicolored image was the one used in the dust-jacket design. Just as Neidhardt had proposed years before, this opening composition included brown, dark green, blue and ochre-red (Figure I-09). While the colors were used to give substance to the environment, architecture (the representation of Neidhardt’s Ski House project) was reproduced in black and white, as were most of his designs throughout the book.

Reliance on black and white photography underlined the importance of another layout design concern: that of the ration between dark and light. While colors were seen as means to achieving “juiciness” and “liveliness,” another important and consistent goal of layout design for Neidhardt’s was “lightness.” The density of the visual content was balanced with the reduced intensity of the imprint. Some of the photographs would be re-photographed through the layer of tracing paper, in order to be paled out (Figure I-10). Others were

retouched, partially erased or cut. If none of these were to work, then Neidhardt hoped that the publisher would grant the possibility of printing “in gray tone,”²⁰ or that quality of production would permit leaving an even white margin along the photographs’ edges.²¹ The goal was to “illuminate,” “soften,” achieve “warmness,” “remove brutalities.”²²

A lot of the same aesthetic criteria were applied to the typography as well. Grabrijan’s text on the “Oriental house” published in the journal *Arhitektura* drew the authors’ attention to the typeface used in that print (Figure I-11). Neidhardt particularly liked the font style of the subtitles (“UVOD” in Figure I-11), which he described as “fleshy, small, block letters” that appeared “very juicy.”²³ The title (“ORIENTALSKA HIŠA V SARAJEVU” in Figure I-11),²⁴ that he disliked, he described as “too watery, somewhat anemic.”²⁵ On another occasion he pleaded to Grabrijan for “modern block letters, fleshy.”²⁶ In Neidhardt’s view, this kind of letters generated blocks of text that appeared as “stains” and connected the images.²⁷ On another occasion, he described the desired effect of typography as “plates that appear water-colored in grey tone.”²⁸ In a sketch, he represented grey columns of text, embracing and connecting the solid black masses of images (Figure I-12).

Neidhardt thought that this kind of typography was “in proportion with the book”²⁹ and that the effect should by no means be “conventional” or “schematic.” He wrote that “It would be in the spirit of the book, to thoroughly freely visually vary, in the spirit of Turkish letters.”³⁰ (Figure I-13)³¹ “By all means,” he continued, “it shouldn’t be Roman or Renaissance, but intimate oriental character.”³² While the designation “oriental” was polemical and became subject to the authors’ revisionary research in 1951 and 1952 (discussed in the second chapter of the present dissertation), the ambition to achieve intimacy was in line with the overall effort to control the ambience of the book. To be sure, the final effect was anything but conventional. Arranged inside the module of four slender columns, the text of *Architecture of Bosnia* appears as compact cubic shapes that play into the overall composition of the layout (Figure I-14). When compared, again, to Kojić’s bland, conventional approach (Figure I-15), the effect can indeed be judged as lively and intimate.

These layout design strategies show that Neidhardt had a defined referent for his work on the “ambience of the book.” While its orientalist undertones are quite conspicuous, this representation of Bosnia as lively, warm, scattered and intimate was still partially argued by the very images that the authors worked with, showing dynamic topography, clusters of native houses, wriggly and narrow alleys of the historic core and enclosed courtyards. Yet, in seeking ways to transfuse the book with these qualities, Neidhardt reached for other, more conventional references.

The color regime that *Architecture of Bosnia* relied on was most probably inspired by the French architecture journal *Architecture d'Aujourd'hui*, that Neidhardt referenced in 1950 as “cheerful” and “lively”³³ (Figure I-16), while the taste for “free arrangement” and choreographed irregularity was associated with Le Corbusier’s style of book-making. “I am looking at Le Corbusier’s publications,” Neidhardt wrote in 1949, “which are thoroughly free, following the principle of a mosaic. All possible formats, one next to the other.”³⁴ On another occasion, he quoted a concrete publication - *L'Unité D'Habitation A Marseille* - as a “masterpiece of arrangement.” Here, he claimed, was an example of an “individual treatment” of photographs, according to their particular requirements. To illustrate this, he drew schemes of those layout arrangements which he found particularly interesting in *L'Unité D'Habitation* (Figure I-17). Under the final one he wrote - “and this is the highlight.”³⁵ Neidhardt’s indifference towards the inter-war avant-garde graphic design experiments was reinforced by his affinity to the classical character of French typographical tradition, which “remained loyal to the conventions that the people elsewhere in Europe were attempting to shatter.”³⁶

Neidhardt’s tenure at Le Corbusier’s office between January 1933 and August 1935 coincided with the editorial production of the book *Le Ville Radieuse*, which in many respects resembled the production of *Architecture of Bosnia*. Both books were massive, ambitious editorial undertakings, visually dense, technically difficult to realize and therefore required time, managerial effort and financial sacrifice on the part of the authors

(Figure I-18). Both were a combination of the theoretical labor and architectural-urbanistic portfolio, directed at wide audiences, and sought to inspire both popular and professional following. As such, *Le Ville Radieuse* stood at the apex of Le Corbusier's editorial efforts which combined the contemporary advertising strategies and editorial tradition of the 19th century "picturesque magazines."³⁷ The periodicals such as the "British Penny Magazine" and French "Le Magasin Pittoresque" "juxtaposed heterogeneous images and favored the jumble",³⁸ creating a recognizable visual style. The base for this inheritance, however, was more than merely formal. The congenital torrential visual expressiveness in *Le Ville Radieuse* and *Architecture of Bosnia*, was originally a tool of the 19th century social reformatory agendas geared towards the intellectual emancipation of the working class. *Architecture of Bosnia* harnessed this same didactical and persuasive power of a heterogeneous imagery, conflating it with an effort to represent a uniquely Bosnian milieu. This dual reference that underpinned the layout design of the book unified in strategy that which in content remained its pressing dichotomy.

1.2 Unwritten Laws - Content

When it comes to the content of *Architecture of Bosnia*, it is possible to discern between two different parts that evoke two distinct genres of publications. The first part (Chapters 1 to 6) is akin to a regional monograph, focused on the relations of architecture to the local landscape, customs and mentality. Filled with ethnographic photographs and drawings, its format approaches human geographic studies dedicated to the regional "ways of life." The second part (Chapter 7) is an architectural manifesto, presented as a portfolio of Juraj Neidhardt and the proportionally small number of projects by his students and colleagues. What mediates between the two parts is the sixth chapter, titled as "Unwritten laws." Bounded to a specific place and a specific culture, these principles were defined on the basis of the architectural-ethnographic research presented in the "regional architectural monograph" of the first part. Yet, the "regional architectural manifesto" of the second part

promoted them into the principles of contemporary design. The unwritten laws, thus, served as a link between the old and the new, between modern technology and local conditions - they were means of a full historical-geographic integration of architecture.

Modern architects' interest in popular architecture as a repository of information relevant to the contemporary architectural practice was most often premised on the idea that it embodied timeless values and that diligent researchers were able to endow contemporary buildings with those values, by applying some of the aspects of that embodiment in their work. Surveying and cataloguing of popular architecture was pervasive in Europe in both the inter-war and the post-war period. In spite of the subject matter that they shared, however, the motivations, methods and uses prescribed by these research endeavors ranged from conservative-nationalist approaches of the *Heimatschutz* movement, to the quasi-scientific exhaustive surveys, sponsored by the modern state. In this panorama of the modernist vernacularisms, Grabrijan's and Neidhardt's approach of the late 1940s (at the onset of their book project) occupied a median position.

Both the thesis of the book and its cause had nationalist undertones. Neidhardt recognized that the promotion of the local vernacular values as basis for a "way to modernity" was an instance of "national self-love."³⁹ The book explicitly quoted "movements in Paris, Brasilia and Sweden, based on their architectural heritage," as models for a similar promotion of "Bosnian, Macedonian, Balkan architectures."⁴⁰ Yet, its authors' conception of the "Balkan pole" of the architectural modernism was cosmopolitan, and depended on a larger vision of the unified architectural cultural field of the world. They accordingly focused on the urban vernacular of Sarajevo, as the base of the modern metropolitan architecture of Bosnia, and disregarded the ideal of the simple and moral small town, ubiquitous amongst promoters of national architectural styles in the inter-war period.

The proposal of *Architecture of Bosnia* to modernize the oriental urban residential culture, characterized by a single-family house with a garden, was most proximate to then

contemporary work of the Turkish modernist Sedad Eldem. Like Grabrijan and Neidhardt, Eldem promoted the inherent modernity of this heritage and upheld national value of its translation into modern architecture. Yet, important nuances differentiate between his “program for national architecture based on a traditional Turkish house”⁴¹ and *Architecture of Bosnia*. Eldem’s approach relied on a typological matrix of house plans and a replication of traditional formal characteristics, with a goal to define a national house type as an essence of Turkishness.⁴² As opposed to his extreme rationalism, Grabrijan and Neidhardt established theoretical bases for practice that combined rationally determined elements with the “unwritten laws” that permitted variation in response to different local situations.

This rationalist-empiricist hybrid of a design methodology became increasingly responsive to the character of the specific local environments, as the authors inherited the scientific research framework of human geography (discussed in the second chapter of the present dissertation). The focus on the real, situated conditions of life that this framework demanded was not compatible with the generalizations that the definition of a national style entailed. Both Grabrijan and Neidhardt anticipated similar foundational investigations of vernacular architectures in other Yugoslav republics.⁴³ In this sense, their ethnographic-architectural research in Bosnia could be understood as an initiation of a research campaign, similar to the one undertaken by the National Syndicate of Architects in Portugal between 1955 and 1960, with an explicit aim to produce a comprehensive survey of regional architectures of that country.⁴⁴ But while this meticulous work did not move past a record of the regional architectural forms, structural systems and applied materials, *Architecture of Bosnia* intended to both describe and extrapolate principles that could be used as bases of “good” and localized design in Central Bosnia.

The “unwritten laws”, thus, determined and facilitated the “moderate” approach of *Architecture of Bosnia* in two important ways: as a category of research, they captured the flexible, relational aspects of architectural knowledge which were less typological than

structural. As a category of design, they established a regional regime, while at the same time permitting freedom to the individual creator's expression.

The conception of the "unwritten law" was discovered by Grabrijan in the writings of the Czech architect Josip Pospišil (1867-1918), an employee in the construction department of the Habsburg administration of Bosnia between 1908 and 1918. In a career that could be considered emblematic for the turn of the century Central Europe, Pospišil moved between schools, architectural offices and commissions in Brno, Vienna, Prague, Budapest, Zagreb and Bosnian cities and towns, eventually settling in Sarajevo. His interest in the vernacular architecture was influenced both by the specificity of Czech secession (which was partially inspired by the Czech vernacular baroque art)⁴⁵ and Wagner school appreciation for a cosmopolitan urban vernacular.⁴⁶ During his stay in Bosnia, he published a range of journal articles on Bosnian Ottoman architectural heritage, lamenting its degradation in the process of rapid development that ensued with the arrival of the new administration. One of the most quoted ones was his 1916 text titled "Das recht auf Aussicht," published in the German urban planning journal *Der Stadtebau*.⁴⁷ Here Pospišil postulated that "a right to view" was an important determinant of historic cities everywhere in Europe ("Austria-Hungary, Italy, Germany") and proposed that Sarajevo was a good example in this respect, because its citizens "were not familiar with legal coercion" till only recently. He described it as a tendency to always build in a way that assured one's own (and preserved one's neighbor's) view towards important points in the city. He claimed that, particularly in the mountainous landscapes, this principle affected the image of the city. Pospišil argued that a specific, close relationship of Bosnian cities with their surroundings, and parts of cities with one another, would not be possible without the "silent adherence" to the right to view.⁴⁸ Another emphasized aspect of this right was its public interest. Pospišil underlined that in a dominantly Muslim society, such as Bosnian, the right to view was even more important because it provided the woman, closed inside the house, with leisure and delight. A set of relations between the urban and architectural form, customs and the

landscape that the “right to view” described, inspired Grabrijan to define other, similar, “unwritten laws” on the basis of his ethnographic investigations.

This inspiration was partially predetermined by Grabrijan’s studies with Jože Plečnik, who drew his students’ attention to the vernacular architecture and art. In the Ljubljana Architecture School portfolio from the time of Grabrijan’s studies there, the plans and sections of Plečnik’s and his students’ projects were interspersed with photographs of vernacular countryside cottages and utility structures (Figure I-19), but also other historical remnants of historic architectures in Ljubljana. This reference, however, was not a call for imitation but a close empirical investigation through drawing and analysis, inspired by Gotfried Semper’s quasi-scientific approach to architecture. Semperian theory influenced Plečnik during his studies with Otto Wagner and guided his work all his life.⁴⁹ Semper’s reliance on French Naturalist Georges Cuvier’s comparative anatomy resulted in the identification of theory of building with the law-like organization of nature.⁵⁰ Accordingly, Plečnik emphasized both the form and the principles as a relevant aspect of every historical reference introduced into the new architecture.

While the notion of the “law” implied a systematic constellation of regulations, Grabrijan’s “unwritten laws” were actually a very heterogeneous and exuberant mix of observations on scale, materials, spatial compositions and spatial determination of the culturally specific practices. A great part of Grabrijan’s text for the chapter on “unwritten laws” had been already published in the inter-war period, in the form of articles in local journals. The most important such article was “Architecture within the reach of human hand,”⁵¹ published in 1940. Here Grabrijan contrasted chaos, fragmentation and the lack of order of the “western part” of Sarajevo, built under the Habsburg administration, and “beauty, homogeneity and calm culture” of the Ottoman historic core.⁵² He emphasized the “exact, human scale,” orchestrated spatial experiences, windows placed strategically in the courtyard walls to catch specific views, intermediary spaces between the public and private domain that permitted “transition between experiences,” gradual agglomerations of the rooms through

which Bosnian coffee-shops grew over time, but also compared clusters of houses with generous gardens to the “modern ideal of the garden city”⁵³ and the built-in furniture of the Bosnian house to modern apartments.

This emphasis on congruence between the historical and the modern was an important difference between Grabrijan’s and Plečnik’s approach to the local architecture. While Plečnik implied its relevance for the past, Grabrijan underlined its relevance for the future.⁵⁴ A constant motif in Grabrijan’s writings and teaching on the importance of the oriental vernacular was his thesis that it prefigured Le Corbusier’s principles of the modern architecture. Grabrijan argued, both in his inter-war and post-war articles and lectures,⁵⁵ that a strong “analogy” existed between materials, construction, urbanism, form and general “plasticity” of the Bosnian oriental and the modern architecture. Yet, the “unwritten laws” were very different to Le Corbusier’s “five points.” As Grabrijan was an architectural scholar and an ethnographer, his formulations of the “laws” were loaded with structural and cultural descriptions, and were only occasionally explicit in terms of their technical aspects. In contrast, Neidhardt argued that applicability of the “laws” to design was what mattered most in the book.

Perhaps because of the liberal vein in which they were discussed, it seems that in Grabrijan’s first draft of the manuscript for *Architecture of Bosnia*, the “unwritten laws” did not figure that prominently. In his letter from November 1949, Neidhardt advised Grabrijan to expand the discussion by drawing content from his previously published articles and explaining “the position of the house in the city, the organism of the house, its views, the connection of the house with Čaršija, (...) the human scale.”⁵⁶ Few months later, he complained of the expression “ideological part” that Grabrijan had apparently used to title the theoretical encapsulation of his study and then proposed to replace it with a more popular one, such as “the unwritten laws.”⁵⁷

The last part of the book, that was supposed to illustrate the application of the unwritten laws in the new architectural and urbanistic projects, caused most controversy between the two authors. In late 1949, Neidhardt confidently warned Grabrijan that, when defining all the chapters in the book, he should take care of the fact that “the contemporary house is the goal. This is why some 1/3 of the book should be dedicated to modern designs.”⁵⁸ Since the problem of the limited number of pages probably arose already at that time, Neidhardt started campaigning to decrease the amount of the documentary material and liberate more space for his projects. As Grabrijan was in charge of what was still occasionally referred to as his book, Neidhardt strove to persuade him of the importance of the final chapter: “The problem of the Bosnian house is wonderful, however, it’s empty if we do not show the way.”⁵⁹

Neidhardt’s idea of 20 to 30 pages long chapter on modern architecture seems to have been directly rejected by Grabrijan in the beginning of 1950. As a consolation, he proposed the insertion of modern examples within the documentary chapters, to which previously disappointed Neidhardt enthusiastically agreed. Thus designated structure of the book had probably changed only in late 1956, one year before the publication. Through intense fund-raising and personal connections, Neidhardt managed to achieve an increase of the number of pages dedicated to what he colloquially called “the influence” to 180. This is how it was possible for him to illustrate “the influence” of the vernacular on the modern architecture by showing almost all of his projects designed for Bosnia since 1938.

This final, seventh chapter was titled “Revival of Architecture in Bosnia and Herzegovina”. It was the only one that did not open with a standard chapter cover. Instead, its first pages opened with the socialist propaganda material hailing Bosnian people’s efforts put in the rebuilding of the country ravished by the war. After a general introduction by Neidhardt, the projects were presented one after the other, following a subtle and somewhat opaque logic: the first cluster of projects were those dedicated to leisure in the urban periphery;⁶⁰ the second were housing projects and the concomitant welfare buildings - most probably

the contemporary answer to the problematic of the *mahala*, the residential neighborhood of the Oriental historic core;⁶¹ the third cluster opened with the study titled “Formation of squares in Sarajevo”, and it contained the representative projects of the urban core - reinterpreting the *Čaršija*, the commercial center of the historic core.⁶² Finally, the fourth and final cluster represented Neidhardt’s urban plans and his conception of a “Tourist Axis” on a regional scale (described in the final chapter of the present dissertation).⁶³ The chapter closed with the presentation of “the Sarajevo school” - around 25 pages in which projects by Neidhardt’s students at the Faculty of Architecture in Sarajevo were shown, along with a couple of projects of architects from Bosnia and Herzegovina “who joined our architectural movement.”⁶⁴

If Neidhardt was presented as a professor only in the last segment of the book, the entire presentation of his portfolio had an implicit pedagogical tone. He finalized his introduction to the “Revival of Architecture in Bosnia and Herzegovina” with an intriguing mathematical interlude. “For the sake of orientation,” he explained, “and in order to observe that which is most important in every project, we will use a methodology of sorts, with which we desire to explain, in a shortened way, the main terms of the singular architectural and urbanistic achievements.” This methodology consisted of introducing every project with a mathematical formula, in which the summary was the “conceptual basis” (“*idejna postavka*,” abbreviated “IP”) (Figure I-20).

The notion of “conceptual basis” was defined by Grabrijan, when in 1937 he was invited to write a long editorial for the issue of Zagreb-based architectural and civil engineering journal *Gradjevinski vijesnik*, about the touring exhibition of Neidhardt’s projects. Grabrijan opened his text with a proposition that in the architectural work, a “building idea” (*gradjevna ideja*, abbreviated “GI”) was that “general conception (plastic, constructive, functional, compositional, or - complex) that is well-adjusted to all of the building’s needs.”⁶⁵ He quoted Adolf Loos’, Jože Plečnik’s and Le Corbusier’s projects as “great in terms of their ‘GI’” and suggested that Neidhardt’s work should be considered as such, by

describing the imagined process of trial and error that his design underwent. “This is how I imagine architect Neidhardt:”, he wrote, “it is not working, but he is not giving up, because passion and instinct are his drivers. He makes one more attempt and, really, the site gives in.”⁶⁶ Grabrijan’s descriptions of the “GI” seemed to entail a synthesis of all design concerns, frozen in an optimal constellation. Neidhardt continued to use the concept (now termed “conceptual basis”) as a teaching tool, in his studio at the Faculty of Architecture. Its appearance in the book in a quasi-scientific guise of a mathematical formula revealed its didactic agenda.

For every project, the “conceptual basis” was broken down into a list of elements that designated “certain term, certain position, certain law (principle, characteristic, composition, unwritten law etc.)” In this way, the projects were backed with a strong argumentation. The mathematical formulas seemed to suggest that, for the given program, for the given time and for the given place, the given “conceptual basis” was the only correct possible solution. While some of these matched the “unwritten laws” defined by Grabrijan’s text, others extrapolated new “laws,” by turning Grabrijan’s general observations into techniques. The “right to view” (“pravo na vidik,” abbreviated “PNV”) was, for example, diligently pursued in Neidhardt’s projects, while he defined the “dome-nook” (“kuba-ćoš,” abbreviated “KĆ”) himself, based on Grabrijan’s observation that, in the Oriental city, public spaces of gathering were always roofed with domes and vaults, while private family gatherings happened in “cubes” (alluding to the “cubist” character of residential architecture).

Yet, except for the “laws,” the variables also contained “the elements of Bosnian architecture,” defined in a well-known collage which Neidhardt inserted into his portfolio (Figure I-21). The cantilevered cubic corpus of the upper floor of the house (“doksat”), the dome, the porch, the masonry wall, the atrium - these were the Bosnian counterparts of the “five points” of modern architecture defined by Le Corbusier. Although they were never explicitly formulated as such, the way in which Neidhardt applied them diligently makes it

possible to understand them as an enlarged, regional repertoire of the modern architecture.

Finally, in yet another theoretical register, Neidhardt defined the “alphabet of a kilim-city,”⁶⁷ as a set of simplified schemes of building plans that could be interpreted as basis for a personal design typology (Figure I-22). “Kilim city” was one of the (rather formalistic) allusions to oriental culture, used to describe a perceived analogy between the oriental way of building and contemporary principles of urbanism, where buildings appeared as “plastic patterns” in greenery. Both reminded Neidhardt of patterns of the Bosnian oriental *kilim*. The “letters” of the regional “alphabet” were arranged seemingly systematically, in a table, but they were at the same time free-hand sketches and defied any perceivable order.

The principles, the elements and the alphabet were all systems that signaled a will to achieve a certain level of codification of architectural practice. Yet, the idiosyncrasy and the heterogeneity of the variables, presented in a long list of no less than one hundred and one items, revealed them to be a formalist strategy of persuasion that sought to harness scientific authority to turn personal design method into a paradigm of good practice. This kind of prescriptive presentation of Neidhardt’s portfolio must have been defined in the late phase of the book production, and had been influenced by the scientific turn in the authors’ approach to the subject matter of the book in mid-1950 (discussed in the second chapter of the present dissertation). The explicit didacticism of Neidhardt’s disciplinary act achieved some limited success, mainly amongst his students at the Faculty of Architecture who took his method seriously. Yet, it was another aspect of his reformist challenge to the commonalities of the architectural practice of the 1950s that left a more significant mark. Much more so than the formulas, Neidhardt’s colorful, attractive sketches that permeated the entire book communicated an innovative method of design, deeply immersed in the contingencies of the local.

Inspired by Grabrijan's ethnographic observations, Neidhardt's sketches were a staple of the multilayered editorial strategy. They were both emblems of a locally-minded architects' work, and media of pointed communication. Neidhardt expected them to unify the exuberant visual material in the book, to set the tone through the chapters for the upcoming content, to transmit information and, most importantly, to complement it by the implicit message of the sheer technique.

These sketches were most often reproduced in color and appeared as annotations on the margins. Although they seem carelessly scribbled, a more attentive look reveals a mastery of achieving great suggestiveness with a reduced number of lines. Neidhardt's and Grabrijan's archival collections of sketches show that this suggestiveness was not a result of a casual, quick gesture, but rather of careful studies and repeated attempts, and was, in most cases, based on developed storyboards. Their task was to communicate the most important points made by the authors in an efficient and memorable manner.

In the documentary sense, the sketch was of the utmost importance for Neidhardt. As he was the research tandem's agent in the field, he had to rely on quick sketching as means of the recording of interesting content. However, beyond this instrumental value, it seems that Neidhardt believed that sketching brought in the kind of quality that technical drawings could not bring. Only a couple of months into his involvement in the project, Neidhardt sent Branislav Kojić's book *Old Town and Village Architecture in Serbia* to Grabrijan for reference and gave an interesting review of the work: "Drawing is weak, but there are loads of technical plans. One has to admit that it's not empty. When arranging, it never hurts to insert a couple of drawings along the text. For example, *Morića Han*, its insides are as rich as the insides of the zeppelin. This does not come across in the conventional drawings."⁶⁸ Underneath this statement, Neidhardt included a simple sketch of the interior of *Morića Han*, the Ottoman guesthouse in Sarajevo's Old Town. (Figure I-23) "If I had 1-2 months," he continued, "I would stroll around Sarajevo and sketch everything."⁶⁹

This sketch, as simple as it was, served as a base for a more detailed and careful one that was published in the book (Figure I-24). Observing the double spread that represents Morića Han along the double spread that represents a comparable guesthouse in Kojić's book (Figure I-25), one observes that Neidhardt had a point: the atmospheric explanatory effect of the sketch could hardly be achieved by other means.

Another quality of the sketch was that it was quick and easy, compared to other available media. While photography could compete in communication of the atmosphere, the intricacies of an actual production of the image were frustrating for Neidhardt.⁷⁰ To the contrary, the technical simplicity of sketching made him believe that he could capture virtually the entirety of the city. In the early 1950, he wrote: "We should strive to document everything, if only with a couple of words and a sketch,"⁷¹ and then some months later he reconfirmed: "The book has to contain everything, be it through a repeated tiny sketch."⁷²

Neidhardt believed that this kind of a documentary work that employed the mediating power of free hand sketches superseded the power of text in transmitting information. A sketch and a short commentary were more efficient than the long explanatory articles, he claimed,⁷³ and this was particularly manifested in their power to synthesize into a single visual effect what was too vast to be immediately visually graspable in reality. Neidhardt exploited this capacity of sketches quite consciously. In one of his early letters to Grabrijan, he proposed that it could be possible to represent the entirety of "the visual vocabulary of the city" in a single sketch.⁷⁴ As an example, he drew what appeared as superposed tiers of different kinds of roofs, limited with a line of hills on the top and the river at the bottom (Figure I-26). This sketch was refined and "compressed" for the book (Figure I-27), to achieve a striking effect of a non-factual reality: an idealized sample of the slope in the Old Town of Sarajevo, where a full repertoire of building types sequences in the documentary order: from the village houses on the top, over residential houses of the *mahala* in the middle and the public domed buildings of the *Čaršija* beneath them, to the guilds on the riverfront and the river in the bottom.

The creative path between these two versions of the sketch was not straightforward. Neidhardt's personal archive contains numerous attempts at finding the satisfactory result (Figure I-28). The impression is one of the visualized effort in which the technique varies through different combinations of ink and pencil, as well as the manner of stylization. This shows that the production of a seemingly informal spontaneous sketch required "preliminary work,"⁷⁵ as Neidhardt observed in late 1949, which supposed the work of a careful beholder, but also work of trial and error.

One of the most striking examples that discloses the meticulousness of Neidhardt's sketching procedure particularly clearly is a range of studies for the drawing he referred to as "Builders." This was the scene that he put together to contrast "methods of work of two builders in two centuries: the builder artist who works dominantly sensually and the so-called designer-entrepreneur focused only on profit. One designs without a plan and exclusively in nature, the other exclusively with a plan and in the office. Tragi-comical."⁷⁶ While the designer worked grimly, fully overwhelmed by the drafting tools, the builder worked cheerfully, in the union with nature (Figure I-29). This sketch, in the refined form, was indeed included in the book (Figure I-30). The representation of the builder-artist's method was particularly enriched - now included in the scene were three beautifully drawn houses with cantilevered upper floors, the trees, the hills, the sun and the distant civic domes in the valley. In the foreground, there was a builder, now accompanied by a client, in the process of determining the position of the house *in situ*.

To arrive at this particular result, Neidhardt had drawn 11 variants of the scene (Figure I-31). Like in the first example, the differences were subtle, almost indiscernible: the size and the position of the bodies, the density of shrubbery and trees, the size of the minaret, the poplar and the sun in the distance. How was the right variant selected? It is difficult to imagine a rationalization that could serve as basis for such a selection - rather, what must have been its criterion was the correct overall impression, the one that "matched the truth."⁷⁷

Another type of Neidhardt's preparatory studies were the intense investigative sketches akin to the notes of the brainstorming process. Three portrait-oriented ribbons of tracing paper filled with intricate bunch of lines and letters (Figure I-32) hold particular interest as they seem to represent studies for the three long compositions of sketches accompanying Neidhardt's text "Revival of Architecture in Bosnia and Herzegovina" that opens the final chapter of the book (Figure I-33). These compositions were themselves curated in the way that exuded the sense of immediacy and sincerity. Sketches were drawn with an illusory carelessness that bordered on mannerism. The writing was unordered, almost sloppy. Each sketch was carefully enclosed with lines in a swampy unaesthetic manner, thereby becoming an autonomous observation that joins the others in order to create a cluster of knowledge.

One can suppose that Neidhardt had attempted to simulate the process of brainstorming through sketching in the book. The chaotic agglomeration of sketches stood exactly for the kind of work he demanded from the designer-builder - the technique itself carried a message. But in order for it to be successful, the right ratio needed to be found between clarity and, what he often called, "juiciness." What this ratio apparently wanted to convey was the creative moment of an enlightened analytical mind, the moment in which the loop between the rationalizations and the sensual experience becomes established. Like in so many other instances of its mobilization by architects, the sketch was a sign of creativity and a suggestion of a dynamic, fleeting, incommensurable content.⁷⁸ Yet, its foremost function was that of the effective means of persuasion. This use of sketching was a trademark of Le Corbusier's lectures,⁷⁹ and also a characteristic of *The Radiant City* book (Figure I-34). It is probable that Neidhardt had inherited reliance on the sketch as a tool of effective communication during his tenure at Le Corbusier's office, and then devised his style of elaborate, stylized carelessness to combine it with the ethnographic purpose.

Finally, Neidhardt's regime of the sketch contributed to the goal of the book to "speak the peoples' language" and to be understandable to the general public.⁸⁰ As such, it functioned

in coordination with another important medium of the “popular meaning,” what the authors referred to as “slogans”: the short, crisp explanatory statements that accompanied the images, encapsulating the main points of the text. The quality they brought was articulated as “alive”⁸¹ (versus “academic”), “social”⁸² and “popular.”⁸³

In late 1949, Neidhardt sent first concrete examples of what he meant by “slogans”: “In the house, in the *avlija* (courtyard), in the garden one lives,” “The porch + the *divhana* (veranda) + the *basamci* (the stairs) - the elements of the old Bosnian architecture,”⁸⁴ “The *Čaršija* (the urban core) - the assembly line of production,” “12 craftsmen were needed to equip one horse and one horseman.”⁸⁵ In Neidhardt’s letters, the slogans were not written in line with the other text, but rather scattered around the page, most often attached to the sketches (Figure I-35). This was exactly the way in which they will later be used in the book. A couple of months later, Neidhardt sent a list of thirty-six different slogans including: “From the cradle to the grave, in the house, in the *avlija* (courtyard), in the garden one lives,” “Unwritten laws,” “Each one in his house,” “House along house - *mahala*, *mahala* along *Čaršija* - the city,” “Playfulness of the plan,” “Crossroads, roads, dead-ends,” “All the roads flow into *Čaršija*,” “The art of placing,” “Garden city, or the city of gardens or the green city,” “House in *mahala*, house in *Čaršija*.”⁸⁶

Neidhardt claimed that the slogans would increase the value of the book⁸⁷ by increasing clarity.⁸⁸ A part of this concern was the issue of language. Grabrijan’s original manuscript was written in Slovenian, a language which the majority of Yugoslavs could not understand. Serbian, Croatian and Bosnian in turn, were almost identical and the Turkish loanwords blended more or less naturally into any of them. As the contracted publishing house was Slovenian, as well as the first author, publication of the book in this language was expected. However, Neidhardt started contesting this obvious logic already in the beginning of the book production and on various occasions attempted to persuade Grabrijan to print at least the slogans in Bosnian/Croatian⁸⁹.

Neidhardt considered the slogans to be verbal equivalents of the sketches - vignettes that compressed the analytical and the sensual knowledge into one. When arguing for a partial translation of the book, he asked: "Please, could the sketches be in Croatian or do they have to be in Slovenian?"⁹⁰ Grabrijan seems not to have been too sympathetic to the idea of the slogan. The captions that he published along with his pilot-article in the journal *Arhitektura* in 1949 were matter-of-factual descriptions of the image content. In early 1952, two years into the discussion, Neidhardt wrote quite directly: "You should think about subtitles and slogans under images and drawings."⁹¹ Finally, in 1953, slogans were sent to the publisher as an addition to the manuscript.⁹²

In the discussions that unfolded around the production of the book, the prospects of the overall unification between the textual and the image discourse were a recurring topic. Neidhardt commonly advocated the use of both the sketch and the slogan as agents of this unification. In the final version of the book they formed a recognizable thread of information that could be followed continuously, cover to cover; this was Neidhardt's way to establish his narrative throughout the structure he negotiated with Grabrijan.

Finally, just like in the case of the sketches, the message of the mediality of the slogans contributed some meaning to their content. While *The Radiant City* image captions were similarly independent from the text, they were narrational and written in the first person (thereby inevitably communicating authorship and subjectivity). Meanwhile, the "slogans" of *Architecture of Bosnia* seemed to define and even impose objective truths. It is impossible to overlook the coherence between the socio-political moment of the 1950s Socialist Yugoslavia and the authors' use of the term "slogan" ("parole" in original). The first decade of the Yugoslav socialism relied heavily on this kind of the zealously formulated content that filled posters and newspapers, radio and television. Grabrijan and Neidhardt's written correspondence shows that both were very aware of the political reality they lived in. In early 1950, Neidhardt advised Grabrijan to expand the manuscript with "a synthesis

relative to today's period."⁹³ In this same letter, they discussed the need to incorporate the propaganda material into the layout design in order to "get paper for the book."⁹⁴

Two double spreads that mediated between the "Unwritten Laws" chapter and "Renaissance" chapter presented some of Neidhardt's graphic design and public-propaganda artwork that he produced for the manifestations organized by the local and republican authorities (Figure I-36). The preface and the introduction of the book, Grabrijan's conclusion to Chapter 6 and Neidhardt's introduction to Chapter 7, all made an explicit reference to the new socio-economic order. They mostly did so to underline their reservations in regards to the feudal and Islamic systems of social relations of which the Oriental vernacular architecture was a part. By recognizing that "the Oriental" had both bright and dark sides, they sought to prevent potential contestations of the thesis on the contemporary relevance of this heritage. In his text titled "Directions," Grabrijan wrote: "A new era emerged in history - socialism is forming new convictions. Old, or feudalism, or faith, mysticism, idealism, metaphysics, chaotic economy - represented by the aristocrat, the merchant, the craftsman. New, or socialism, or dialectics, science, social science, planned economy, or industrialization and electrification."⁹⁵

Yet, the authors did not rely on generalities and also introduced the explicit judgement of the two most important controversies of the Ottoman era: enslavement of the local population and the enslavement of the Muslim woman. In the same text Grabrijan wrote: "Struggle of the peoples for their survival, as well as closed and enslaved women - gave their character to this art."⁹⁶ Both authors believed and discussed explicitly that the social position of women dictated by the Islamic religious code was one of the main determinants of the Oriental vernacular house. Grabrijan wrote that "as the man enclosed the woman into the house, he had to provide, as a counter-value, the porch (divanhana) and the paradise gardens." Just like Pospišil decades ago, the authors were convinced that the "right to view" was the outcome of compensation that the Islamic woman received for her life imprisonment. Both Grabrijan and Neidhardt underlined that the modern Bosnian

architecture they promoted implied the transformation of the social role and the lifestyle of the woman.

This kind of woman-centered social reform of the Muslim societies was not uncommon amongst the protagonists of the European colonial regimes in the Middle East and beyond. The “liberation of the Islamic woman” was understood as a precondition for a total pacification of the colonized peoples, which led to metaphors that scholars have dubbed “feminization of the Orient.”⁹⁷ While the motivation behind *Architecture of Bosnia* was undoubtedly different to the colonial one, it did openly call for “the removal of the Muslim veil” as a step towards the “birth of the new.” (Figure I-37) Indeed, some of its other preconceptions and generalizations, such as the differentiation between the “rational West” and the “emotional East” pertain to the classic examples of the “orientalist discourse.” However, in respect to the “feminine question”, both Grabrijan and Neidhardt enacted a kind of “reversed” orientalism, by failing to recognize that much of the subordination and limitations that they were seeking to abolish in the Bosnian Oriental social relations were present in their own modern households, in respect to their own wives.

Both Neidhardt’s wife Ljudmila Mili Nanut⁹⁸ and Grabrijan’s wife Nada Šeh dedicated their working lives to supporting their husbands’ careers. Mili’s “unpaid labour” in the house covered not only all of the usual aspects of the housewives’ commitments (cooking, cleaning, childcare), but also included other serious and hard tasks, with which she assisted Neidhardt in his theoretical and design endeavors: Mili transcribed letters, translated Slovenian texts to Bosnian, transferred written messages from Neidhardt to his collaborators and assisted in the production of project documentation (gluing and cutting paper etc.). Neidhardt apparently understood her assistance as belonging to the domain of “secretary-work” (in 1949, he signed one of the letters to Grabrijan which she transcribed and which was key to the production of *Architecture of Bosnia*: “Jurica and secretary”⁹⁹). However, her support was much more profound: Mili was deeply acquainted with and

involved in Neidhardt's career issues, she took on some of the traditionally male household responsibilities and was still preoccupied with her economic reliance on Neidhardt.¹⁰⁰

Both Mili and Nada closely followed and took part in Neidhardt's and Grabrijan's work on the book *Architecture of Bosnia*. Except for Mili's translations, through their mutual friendship and intense communication, they contributed to a range of different aspects of the book-production. They got deeply acquainted with the technical details, including dependencies between layout design and printing, they discussed highly specialized issues on behalf of the authors (in terms of both the content and design) and took part in the manual labor dedicated to layout design and logistics. Finally, and most importantly, they were both extremely passionate about the endeavor. Mili deemed all of the logistical discontents that this work introduced into their lives as less important than the "book moving forward".¹⁰¹ After Grabrijan's premature death in 1952, Nada, as his legal inheritor, continued the discussions concerning the book with the Neidhardts. She was involved in making the most important decisions about the final form of *Architecture of Bosnia*. Nada continued promoting and publishing Grabrijan's work, an enormous effort that amounted to his six post-humos publications, including *Architecture of Bosnia*.

Both women had independent professional lives which were gradually marginalized as they channeled their interests towards their husbands' (Figure I-38). Ljudmila Neidhardt practiced as a secretary before having met Neidhardt, but had refined affinity towards visual arts. After having moved to Sarajevo with him she enrolled in a painting course and finished one year of Secondary Art School. However, after giving birth to their daughter and with Neidhardt's professional life setting off with complications in the new post-war social constellation, Mili was forced to abandon her ambitions in art. In one of her letters to Nada she made an explicit link between this sacrifice and her household responsibilities: "I cannot do it all. At home two kids: Tanja and Jurica."¹⁰² It is possible to imagine that her intense involvement in Neidhardt's research and design activities, including the production

of the book, was a compensation of sorts for everything that she could never achieve in her own career.

Nada Grabrijan was a graduate of the Faculty of Philosophy in Ljubljana, where she obtained a degree in German language and literature. She followed Grabrijan around the country, from Ljubljana to Sarajevo, Skopje and then back to Ljubljana, mostly working as a secondary school teacher. Her aptitude for languages was surely an asset in her decades-long quest in Grabrijan's immense private archive, where she read and re-read, analyzed and marked literally every single sheet which her late husband had filled with sketches, texts and clippings. Grabrijans had no children, and Dušan Grabrijan's work, bounded to the academia, had incomparably lesser effect on family-life than Neidhardt's, whose (often 24-hours-long) work on competitions, commissions and the book introduced paper, cardboard, glue and other drafting and model-making tools into his home, inflicting veritable and continuous chaos on the Neidhardt household. Nada Grabrijan, therefore, knew no comparable pressure to that which her friend Ljudmila quoted as a reason for withdrawal from her potential professional development in administration or even art. Still, it was the promotion and management of Grabrijan's *oeuvre* that became her life's mission, rather than development of her own career.

Neither one of the two women were credited or financially compensated for the work and the time they invested in the book and the rest of their husbands' projects. They were situated at a lower end of the statistical range that measured and monitored the rates of employment of the Yugoslav women, "outside the home."¹⁰³ Indeed, the general "liberation" of the women was one of the policy targets for the socialist regime in Yugoslavia. A variety of measures was introduced to that end through law-enforcement and regulation.¹⁰⁴ The removal of the Muslim veil ultimately pertained to the policy direction that targeted female population as yet untapped reservoir of the cheap work-force.¹⁰⁵ These policies that introduced women into productivity schemes and five-year plans were, however, still moderated by an unchallenged ideal of a nuclear family. Yugoslavian researchers observed

the risk that the employment of women in the economic realm of professions which were considered dominantly male would result in the firing of male workers which would, in turn, result in family conflicts.¹⁰⁶ Despite nominal emancipatory stance, nuclear family remained an important social unit in the Socialist Yugoslavia's governance schemes and the idea of women primarily as care-takers of both the children and the household has never been actually questioned¹⁰⁷.

Like in the rest of the post-war world, this kind of state-rationality that reconfigured particularities into measurable quantities was crucial to the economic development. While *Architecture of Bosnia* never contested nor criticized these means, the ethnographic attention to details that it promoted was a prerequisite for making the lives, such as Mili's and Nada's, a reference (beyond statistics) for its "way to modernity." Indeed, Neidhardt's projects for single-family homes of "peasant-workers" of the Middle Bosnian Mining Basin (discussed in the second chapter of the present dissertation) revolved around the "residential kitchen" and took care of the "housewife's" need to maintain everyday family life within her purview. While subtleties of these projects never became a staple of the Yugoslav development for economic reasons, in that early post-revolutionary moment *Architecture of Bosnia* leaned on the power of the book's mediality to postulate such a possibility.

1.3 Trees - Structure

"...Dušan Grabrijan liked cheerful landscapes, shapes and colors. He hated monuments made of black marble with sad willows. This is why we will build for him a monument made of white stone, with inscribed red letters and plant him a little tree which, through time, will lean over the stone book, as if it wanted to protect his life's oeuvre from the passage of time." With these lyrical words Juraj Neidhardt bid farewell to his long-time collaborator and research partner who died abruptly in Ljubljana in 1952. The article-epitaph, published in the Yugoslavian architecture journal *Arhitektura*, was accompanied by

a simple sketch representing Neidhardt's idea for the tombstone of the deceased (Figure I-39): exactly as described, it showed the figure of the open book bearing Grabrijan's name and a five-pointed star, shadowed by a dense treetop. Five years later, this same sketch was reproduced in *Architecture of Bosnia and the Way to Modernity* on page 3 (Figure I-40), as a part of its complex and strategic prelude.

The evoked and drawn shrub-like tree that protected Grabrijan's grave was just one (and first) of dozens of the graphic representations of trees that adorned the pages of *Architecture of Bosnia*. Some of the trees were photographed alongside buildings or included in meticulous drawings of panoramas and small fragmentary sketches and schemes. Others were simply embellishments of particular pages, floating freely, unbounded by any kind of picture-frames, spreading their stylized branches and leaves around thin columns of text and within it referenced architectural illustrations (Figure I-41). Alongside people, buildings, and other objects of material culture, trees established a presence in the book of such prominence that invites careful scrutiny.

A straightforward interpretation of this presence would be that abundant trees and leaves served as signifiers of sorts pointing at the harmonious relationship of the Oriental Sarajevo to the surrounding landscape that *Architecture of Bosnia* underlined. One of the "unwritten laws" was the "relation to nature." It opened with a metaphoric claim: "the road is the spine, the greenery is the lungs and the water is the soul of the city."¹⁰⁸ The text described the boundedness of the house to the Earth through the local materials and through the "art of situation," the importance of water, the plastic quality of the natural-architectural compositions, the responsiveness of the city to topography, the "naturalism" of the branching road network and blocks of scattered houses "akin to crystals." Neidhardt's sketches emphasized the "amphitheater" and the "city-garden" of Sarajevo (Figure I-42).¹⁰⁹ By interspersing the trees with the other content, a simulation of the green oriental city was partially achieved.

A closer reading, however, reveals a more complex understanding of this latent organicism that the omnipresent figure of the tree established so forcefully. After all, these were not sad willows, apathetic in the chaotic indiscipline of their tangly branches, but firmly structured vital trees in which every branch distinguishably differentiated into ever-smaller and finer units. One such tree-figure was an arborescent diagram that appeared as a part of the complex prelude of the book (Figure I-43). It was inserted in the middle of the attention-grabbing double-spread, displaying the table of contents, but also striking visual material: except for the tree, there was a diagrammatic map representing the areas researched in the book, and a panoramic sketch of Sarajevo and its surroundings. The tree was described by a caption reading: "Graphic presentation of the conceptual set-up of the book". To each of the tree's parts a title was assigned, identifying it as one of the social or natural categories and following a clear, recognizable logic. In the roots, social and natural influences were mixed: topography, climate, material, technics, religion, tradition, temperament, social structure. Out of these influences, the tree suggested, "the people and the country" sprung, as well as the "unwritten laws". These further yielded the city, with its characteristic parts: the commercial center (*Čaršija*) and the residential neighborhood (*Mahala*), represented as two main branches. Finally, the smaller and smallest branches represented the material objects, including the house, furniture, garden, public buildings etc.

This kind of a set-up suggested that the environmental and the human, the influences of the climate and those of the technics, and all the other factors assigned to the roots, came together in the people, the country, the city and architecture. By representing all of this as a tree, an organism, the book suggested its meaningful unity. The issue of "unification" of the book's content was one of the most recurring themes of its production. The authors' exchange referred to the finished work as a whole with a "head and a tail."¹¹⁰ Editorial strategies, ambience control, sketches and slogans were all explicitly articulated as means of achieving wholeness. But this opening double spread assigned this whole to a spatial

expanse. While the tree did so implicitly, by suggesting the rootedness of the city into something larger, the other two depicted an actual urban space and its surroundings by means of a map and a panorama.

Both were kind of diagrams, in the sense that they represented entities highly selectively and placed emphasis on relationships between a limited number of objects. As such, they could be understood as an explanation or a demonstration of an “assertion.”¹¹¹ This explanation becomes clear only when the double spread is considered in its totality. Both the map and the panorama represented the historical core of Sarajevo in its wide surroundings, with the material remnants of the previous eras interspersed between the main geographic entities: the hills, the river and the valley. The furthest away such entity was the fortified medieval city of Vranduk, located at a distance of more than 80 kilometers from Sarajevo. The route to Vranduk that further connected the city with the northern parts of Yugoslavia, as well as three other main routes that connected it to Belgrade, to Dubrovnik and to the Eastern Bosnia were also marked. Hillsides were sprinkled with patterned silhouettes of the Bosnian villages. Each one of these complex representations could be read in its own terms, yet when combined, the tree, the map and the panorama clearly indicated “an assertion” - that both architecture and the city were a part of a geographic-historical organic whole - a region.

This new spatial framework defined by the topography and climate, but also roads and villages, was proposed by the book as a new referential system for architecture and urbanism. Its definition was a result of a long process of negotiations and discussions between the authors. In June of 1949, at the very onset of his involvement in the book production, Neidhardt drew a schematic map of Yugoslavia onto which he arranged simple sketches of its typical town houses according to the region they belonged to: Alpine, Croatian, Dalmatian, Pannonian and Bosnian (Figure I-44). Serbian and Macedonian were not drawn but mapped by title. Across the map there was a shaded stain spreading from the east, into which the three last houses were submerged, itself marked with the title: “The

area influenced by the Orient." Neidhardt commented that, if included in the book, this kind of image would be "particularly instructive."

In September 1949, he returned to the subject, criticizing Grabrijan's approach as abrupt: "One has no overview of how the house lies climatically, geographically, in the city (...) If you speak about that, it would be good to show a map of Bosnia and Herzegovina."¹¹² The information about these relationships, in particular the "organic" position of each building in the constellation of its surroundings, was important to introduce "an order of sorts" into the book. Without this, argued Neidhardt, the unwritten laws were "not more solid than air."¹¹³

In April of that same year, Neidhardt articulated the overall scheme that will become the basis of the book organization: "I think that we should introduce in the beginning the 2-3 cm large scheme of Yugoslavia and how Bosnia and Herzegovina lies in its womb. In this way we would achieve the visual experience, and then ever lower, into detail to the house, that basic residential unit, the unit of the city..."¹¹⁴ Accompanying this statement, there was a triptych of sketches showing the described map, the relief and what most probably was a stylization of the panorama of Sarajevo in the midst of its mountainous surroundings (Figure I-45). This continuous chain of influences - from the environment to the house - was recreated in the final version of the structure of the book. Its first six chapters were defined as a range of receding scales: 1. The people and the country; 2. The City; 3. The Čaršija (the commercial center); 4. The Mahala (the residential neighborhood); 5. The House (Figure I-46).

While this larger whole was initially territorial, identified as the political entity of Bosnia and Herzegovina, in early 1951, Neidhardt included a geographical designation "Central Bosnia," which he distinguished from both Bosnia and Herzegovina and the "periphery of the city or the city and its surroundings."¹¹⁵ (Figure I-47) In this same month, Neidhardt represented this geographic-historical region through the tree, the map and the panorama,

which will become the content of the opening double spread of the book. The explicitly articulated purpose of this triptych of diagrams was to provide clarity. Already in November 1949, Neidhardt wrote to Grabrijan that he had sent the “scheme in the form of branching in order to make the order more tangible (...) If you confirm or modify the scheme sent in the letter we will be able to move one step further.”¹¹⁶ By early 1951, however, the “scheme” had already turned into a tree: “I am now working,” Neidhardt wrote, “on the table of contents, meaning: tree, scope, contents = organization} graphic content. I have a feeling that without that graphic representation the reader would be confused.”¹¹⁷

The tree then was meant to define both the order of the region and the order of the book. Such reliance on the mediating potencies of the tree-figure had a long history. The pre-Darwinian historical uses of the tree-diagram were geared towards finding the ontological “true order” of the world and mapping the world “as it is” according to its true essence.¹¹⁸ In saying that the tree planted next to Grabrijan’s grave will “protect his life’s oeuvre from the passage of time,” Neidhardt mobilized the rich metaphorical potencies of the tree figure that since antiquity held universal mythical resonance across cultures. This resonance could be best summarized as quality of celestial and religious power that, as such, had a capacity of lofty symbolism - mostly associated with “life” and “knowledge” and, ultimately, “knowledge of life”. The metaphorical potency of trees had been already instrumentalized in architectural modernism. Again, although he had never been directly referenced in this sense in the authors’ correspondence, Le Corbusier’s influence on Neidhardt might have been decisive.

Trees were a pervasive motif in *The Radiant City*. A technical drawing of the tree accompanied its table of contents (Figure I-48), while references to trees were scattered throughout.¹¹⁹ In the 1943 book *The Home of Man*, Le Corbusier alternately presented trees as: wise organisms from which men should take lesson, companions of man, friends of man, a party to sign a pact with and kings, under the cover of which the men live (Figure I-49).¹²⁰

Researchers related much of this reliance of Le Corbusier's work on trees to his early education, particularly the influence of John Ruskin.¹²¹ Ruskin likened the acts of good society to tree growth and considered it to be an enactment of wisdom and morality.¹²² This kind of understanding of nature had been at the bottom of the classical organicism in architecture and art since the XV century. The logic of imitation of methods of nature as basis of good design was, however, challenged in the XIX century, as the organic came to be rationalized by the emerging life sciences.¹²³ The pioneering naturalist Ernest Haeckel intersected the biological metaphor with biological science in his tree diagrams representing the *Animalia*, *Plantae*, and *Protista* kingdoms (Figure I-50).

But naturalizing the system of knowledge by means of tree-figure had been an already common practice, employed most emblematically in the 1751 Diderot's and d'Alembert's *Encyclopedia*. Here the tree diagram was a part of its "baroque facade," behind which a modern activity of "discontinuous appropriation" unfolded, disregarding the outmoded constraints of the organic unity¹²⁴ (Figure I-50). Except for establishing the organic wholeness out of any number of disparate elements, the tree-figure is also capable of suggesting causality, influences and growth prospects. In those realms of knowledge applied to concrete material processes, such as architecture and building, this agency of the tree diagram is particularly revealing and relevant. A very well-known example, the "Tree of Architecture" by British historian Banister Fletcher, similarly rooted varied "architectural styles" into a set of categories: geography, geology, climate, but also religion, social and political, history (Figure I-51). By assigning the Western architectures to the tree's vital branches and leaving the Eastern ones beneath, in their shadow, Fletcher vividly illustrated that on which his taxonomy was based: that there were "historical" and "non-historical" styles.¹²⁵

The position of history and geography in the roots of Fletcher's tree is notable. Feeding the trunk which supported an uninterrupted development of the civilization (represented through a sequence of architectural styles, from Greek, over Gothic to Modern), these roots

belonged to a scheme of a teleological, Western-centered understanding of architecture inside of which its historical agency was effectively concealed. Some decades later, and in the political-economic and cultural circumstances that did not permit such liberal view of history and geography, Le Corbusier drew a very different tree for his (and François de Pierrefeu's) book *The Home of Man*. Called the "Tree of the Built Domain" (Figure I-52) it bore fruit of neither architectural styles, nor of architectural and cultural objects, but of abstract notions such as financial techniques, laws, doctrines and techniques of construction. The scheme was a product of Le Corbusier's collaboration with the authoritarian centralized government of Vichy France, which opened unlimited possibilities of top-down social and administrative reform. Le Corbusier seized the opportunity to turn some of his regional syndicalist studies of the mid-1930s into a vision of policy, literally rooted into the "three aspects of the real man."¹²⁶ The notion of *homme reel* was a regional syndicalist ideal established on the precept of the integrity of life, thoroughly different to and unconditioned by the abstractions of reason.¹²⁷ Except for being the "man of the region" (a link to geography represented in the first root) and the "man of the family" (a "natural" link to society), the "real man" was also the "economic man" (represented in the third bifurcated root of agriculture and industry). History, meanwhile, was no more Western but national, and represented by the "vegetable earth and humus" from which the tree sprung.

While the influences of the Vichy state real-politics on the conception of the national in this scheme merit the analysis, it is possible to independently appreciate Le Corbusier's willingness to root state development (and the construction activity that it entailed) into geography and history, but also economics. François de Pierrefeu's text described the scheme as total planning that would provide a perfect reciprocity between the national resources and national needs.¹²⁸

The differences between the "Tree of the Built Domain" and the tree from *Architecture of Bosnia* are striking. Instead of being assigned to the influences (the roots) of construction,

the region *is* the overall organism into which the design activity inserts itself. It does so by taking cues from the perceived existing relationships between the society and its environment. But even more importantly, Grabrijan's and Neidhardt's tree excluded economy as an influence and a process constitutive of a region. In the croquis for the diagram, the title "economy" was assigned to one of the roots (Figure I-53), but was then crossed, and in the final version replaced with "different influences."

In Neidhardt's portfolio, however, economy was recognized as one of the main determinants of urban and regional planning. The portfolio concluded with the presentation of his four urban plans for four cities that he claimed belonged to an "industrial basin rich in resources" and defined "complex problem of economic and cultural importance in which each problem acts independently within the constellation of regional problems as one hoop, in a range of hoops - in a chain."¹²⁹ This bifurcation of the regional problematic into cultural and economic was a result of a twenty years long Neidhardt's design, planning and research activities in the Central Bosnian region called the Middle Bosnian Basin, which is described in the following chapter.

¹ Mediality is used here in the sense of the approach to media that shifts the focus from communication to the ways and means of mediation. See, for example, Christian Kiening and Martina Strecken, *Medialität - Historische Konstellationen* (Zürich: Chronos, 2019).

² This kind of exceptionally detailed conception-history of the book was possible because this process was itself heavily mediated. As the two authors lived in two cities separated by a distance of more than 500 kilometers, between 1949 and 1952 they exchanged more than 500 letters, writing about and sketching their proposals and ideas. After Dušan Grabrijan's premature death in November of 1952, the correspondence and the production of the book continued through the exchange with Grabrijan's wife Nada, who inherited his intellectual legacy. However, only Juraj Neidhardt's half of the correspondence has been preserved. Grabrijan's letters, kept in Neidhardt's private archive, disappeared along with a large part of his other private documents and drawings during the Siege of Sarajevo, between 1992 and 1995. It is therefore legitimate to ask if, and to what extent, can Juraj Neidhardt's vantage point be trusted in deciphering Dušan Grabrijan's contribution to the project. This question is particularly urgent since the heiresses of their intellectual legacies (Grabrijan's wife and Neidhardt's daughter) ended up in a bitter dispute around the book's authorship in the 1980s, eventually ending in court. In order to compensate for this archival disproportionality between the surviving testimonies to the two author's contributions, it was necessary to develop a veritable research strategy around this issue. This strategy consisted in consideration of the following sources: Grabrijan's fascinating research diaries - notebooks filled with sketches, letter transcripts (frustratingly, almost all Juraj Neidhardt's) and newspaper clippings; discussions of or references to Grabrijan's ideas in Juraj Neidhardt's letters; Dijana Alić's excellent description and genealogy of Grabrijan's research and design positions (See Chapter 2 in Dijana Alić, "Transformations of the Oriental in the Architectural Work of Juraj Neidhardt and Dušan Grabrijan" (PhD diss., University of New South Wales, 2010)). What makes this unfavorable situation a little less acute is the very geography of the book's production, which made Neidhardt's contribution to the project particularly relevant, relative to this dissertation's vantage point - as Grabrijan moved back to Ljubljana already in 1946, Juraj Neidhardt was the only team member in direct contact with the research field - residing in Sarajevo and frequently visiting Zenica (and for a while also Vareš and Ljubija). As the book's regionalist epistemology consolidated only around 1950, Neidhardt alone was in a position to provide primary sources to underpin this important new aspect of their joint project. His discussions of and reporting on this process were amongst key testimonies for the present work. Also, as the first chapter largely focuses on the ways in which this new epistemology reflected in the book's form, Neidhardt's discussions of his layout design ideas were another key point.

³ Translates as "State Publishing House of Slovenia", abbreviated in later text as DZS.

⁴ Martino Stierli, *Las Vegas in the Rearview Mirror - The City in Theory, Photography and Film* (Los Angeles: The Getty Research Institute, 2013), 55.

⁵ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, 1950/4-3 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

⁶ Nikola Dobrović, *Urbanizam kroz vekove I - Jugoslavija* (Beograd: Naučna knjiga, 1950).

⁷ Dobrović, *Urbanizam kroz vekove*, unmarked.

⁸ Branislav Kojić, *Stara gradska i seoska arhitektura u Srbiji* (Beograd, Prosveta, 1949).

⁹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, May 1950, Box 7, 1950/7-24 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

¹⁰ Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 3.

¹¹ André Tavares, *The Anatomy of the Architectural Book* (Montreal/Zürich: Canadian Centre for Architecture / Lars Müller Publishers, 2016), 9.

¹² Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

- ¹³ The book was to be printed by the Ljudska Pravica Print Works, while printing clichés were to be produced by the cliché manufacturers of Ljudska Pravica and Slovenski Poročevalec (translate as “Human Rights” and “Slovenian Rapporteur”) Both firms started their activity between the wars as undercover publishers of the newsletters of the Communist Party of Slovenia. The newsletters, published under these same names, were made illegal, their publication obstructed, so that they were issued only sporadically till the end of the war. In 1945 they were established as weekly and daily newspaper, respectively, with own major print works and adjacent cliché manufactures.
- ¹⁴ Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1950, Box 7, 1950/7-16 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁵ Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1949, Box 5-1, 1949/38 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁶ Correspondence from Juraj Neidhardt to Dušan Grabrijan, November 1949, Box 5-1, 1949/55 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁷ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁸ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ²⁰ Correspondence from Juraj Neidhardt to Dušan Grabrijan, March 1950, Box 7, 1950/7-10 10a 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ²¹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1949, Box 5-1, 1949/40 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ²² Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1949, Box 5-1, 1949/39 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.; and Correspondence from Juraj Neidhardt to Dušan Grabrijan, March 1950, Box 7, 1950/7-10 10a 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ²³ Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1952, Box 7, 1952/7-12 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ²⁴ Ibid.
- ²⁵ Ibid.
- ²⁶ Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1952, Box 7, 1952/7-13 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ²⁷ Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1952, Box 7, 1952/7-12 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ²⁸ Correspondence from Juraj Neidhardt to Dušan Grabrijan, May 1950, Box 7, 1950/25 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ²⁹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, May 1950, Box 7, 1950/7-25 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³⁰ Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1952, Box 7, 1952/7-12 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³¹ Here he probably meant to refer to Arabic script, because that is what he drew - see Figure I-13.

- ³² Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1952, Box 7, 1952/7-12 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³³ Correspondence from Juraj Neidhardt to Dušan Grabrijan, April 1950, Box 7, 1950/7-21 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³⁴ Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1949, Box 5-1, 1949/36 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³⁵ Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1949, Box 5-1, 1949/43 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³⁶ Catherine De Smet, *Vers une architecture du Livre. Le Corbusier: édition et mise en pages 1912– 1965* (Zürich: Lars Müller Publishers), 35.
- ³⁷ De Smet, *Vers une architecture du Livre*, 31.
- ³⁸ Ibid.
- ³⁹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1950, Box 7, 1950/7-15 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁴⁰ Grabrijan and Neidhardt, *Arhitektura Bosne*, 317.
- ⁴¹ Sibel Bozdoğan, *Modernism and Nation Building - Turkish Architectural Culture in the Early Republic* (Washington: The University of Washington Press, 2001), 263.
- ⁴² Ibid.
- ⁴³ See, for example Dušan Grabrijan, "Dediščina narodov Federativne Ljudske Republike Jugoslavije u arhitekturi," in *Likovni svet* (Ljubljana: Državna založba Slovenije, 1951), 60-86.
- ⁴⁴ Sindicato nacional dos Arquitectos, *Arquitectura popular em Portugal* (Lisbon : Ordem dos Arquitectos, 2004).
- ⁴⁵ Mehmed Hrasnica, *Arhitekt Josip Pospišil - Život i djelo* (Sarajevo: Acta architectonica et urbanistica, 2003), 23.
- ⁴⁶ Eve Blau, *The Architecture of Red Vienna 1919-1934* (Cambridge Massachusetts-London England: The MIT Press, 1999), 353-357.
- ⁴⁷ Pospišil Josef, "Das recht auf Aussicht", *Der Städtebau* (1916) in Hrasnica, *Arhitekt Josip Pospišil*, 234-238.
- ⁴⁸ Hrasnica, *Arhitekt Josip Pospišil*, 236.
- ⁴⁹ Damjan Prelovšek, *Jože Plečnik 1872-1957: Architectura Perennis* (New Haven and London: Yale University Press, 1997).
- ⁵⁰ Caroline van Eck, *Organicism in Nineteenth-Century Architecture - An Inquiry into Its Theoretical and Philosophical Background* (Amsterdam: Architectura & Natura Press, 1994), 231.
- ⁵¹ Dušan Grabrijan, "Arhitektura nadohvat čovječije ruke," *Grabrijan i Sarajevo*, ed. Džemal Čelić (Sarajevo: Muzej grada Sarajeva, 1950): 51-70., originally published in *Novi Behar* 13, no.2-3 (1940).
- ⁵² Grabrijan, "Arhitektura nadohvat čovječije ruke," 51.
- ⁵³ Grabrijan, "Arhitektura nadohvat čovječije ruke," 65.

- ⁵⁴ Dijana Alić, "Transformations of the Oriental in the Architectural Work of Juraj Neidhardt and Dušan Grabrijan" (PhD diss., University of New South Wales, 2010), 85.
- ⁵⁵ Dušan Grabrijan, "Le Corbusier i Sarajevo," in *Grabrijan i Sarajevo*, ed. Džemal Čelić (Sarajevo: Muzej grada Sarajeva, 1950): 29-36., originally published in *Jugoslovenski list* (October 31, 1936).
- ⁵⁶ Correspondence from Juraj Neidhardt to Dušan Grabrijan, November 1949, Box 5-1, 1949/46 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁵⁷ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁵⁸ Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1949, Box 5-1, 1949/28 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁵⁹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, December 1949, Box 5-1, 1949/61 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁶⁰ These are the Picnic Kiosk in Ilidža near Sarajevo, the Ski House near Sarajevo, and the touristic settlement on Boračko lake.
- ⁶¹ Some of these are: the Worker's House with six apartments in Vareš, the residential block in Zenica, the residential buildings in Djure Djakovića street in Sarajevo etc., but also Industrial school in Zenica, Community centre in Sarajevo, Mining boarding school in Kreka etc.
- ⁶² For example: Marijin Dvor - the new socialist center of Sarajevo and the project of the National Parliament of Bosnia-Herzegovina, Faculty of Philosophy and the Train Station building situated in Marijin Dvor, as well as socialist monuments in Sarajevo.
- ⁶³ The study of touristic axis Mostar-Dubrovnik and the urban plans and projects for Brod, Zenica, Mostar and Trebinje.
- ⁶⁴ Grabrijan and Neidhardt, *Arhitektura Bosne*, 476.
- ⁶⁵ Dušan Grabrijan, "Osvrt na arhitektonsku izložbu arh. J. Neidhardta," *Gradjevinski vijesnik* 6, No.1 (Zagreb, January 1937): 1-3.
- ⁶⁶ Ibid.
- ⁶⁷ Grabrijan and Neidhardt, *Arhitektura Bosne*, 325.
- ⁶⁸ Correspondence from Juraj Neidhardt to Dušan Grabrijan, July 1949, Box 5-1, 1949/18 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁶⁹ Ibid.
- ⁷⁰ He confided to Grabrijan: "You have no idea how much I suffer with the photographers." in Ibid.
- ⁷¹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, 1950/7-4 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁷² Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1950, Box 7, 1950/7-16 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁷³ Correspondence from Juraj Neidhardt to Dušan Grabrijan, March 1950, Box 7, 1950/7-9 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁷⁴ Correspondence from Juraj Neidhardt to Dušan Grabrijan, June 1949, Box 5-1, 1949/21 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

- ⁷⁵ Correspondence from Juraj Neidhardt to Dušan Grabrijan, December 1949, Box 5-1, 1949/61 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁷⁶ Correspondence from Juraj Neidhardt to Dušan Grabrijan, April 1950, Box 7, 1950/7-18 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁷⁷ Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1950, Box 7, 1950/7-16 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁷⁸ Robin Evans, "Architectural Projection," in *Architecture and Its Image - Four Centuries of Architectural Representation - Works from the Collection of the Canadian Centre for Architecture*, eds. Eve Blau and Edward Kaufman (Montreal: CCA, 1989), 34.
- ⁷⁹ Tim Benton, *The Rhetoric of Modernism: Le Corbusier as a Lecturer* (Berlin: Birkhäuser Architecture, 2009).
- ⁸⁰ Grabrijan and Neidhardt, *Arhitektura Bosne*, 3.
- ⁸¹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1949, Box 5-1, 1949/43 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁸² Correspondence from Juraj Neidhardt to Dušan Grabrijan, December 1949, Box 5-1, 1949/61 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁸³ Correspondence from Juraj Neidhardt to Dušan Grabrijan, December 1950, Box 7, 1950/7-45 4E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁸⁴ The bracketed terms are this dissertation's author's translations of the original Turkish idioms appropriated by the Bosnian language and used here by Neidhardt.
- ⁸⁵ Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1949, Box 5-1, 1949/43 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁸⁶ Correspondence from Juraj Neidhardt to Dušan Grabrijan, December 1949, Box 5-1, 1949/62 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁸⁷ Correspondence from Juraj Neidhardt to Dušan Grabrijan, November 1949, Box 5-1, 1949/46 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁸⁸ Correspondence from Juraj Neidhardt to Dušan Grabrijan, December 1950, Box 7, 1950/7-45 4E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁸⁹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, November 1949, Box 5-1, 1949/52 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.; and Correspondence from Juraj Neidhardt to Dušan Grabrijan, December 1949, Box 5-1, 1949/61 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁹⁰ Correspondence from Juraj Neidhardt to Dušan Grabrijan, December 1949, Box 5-1, 1949/61 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁹¹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, February 1952, Box 7, 1952/7-6 3E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁹² Correspondence from Juraj Neidhardt to Dušan Grabrijan, March 1953, Box 2, 1953/2-9 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁹³ Correspondence from Juraj Neidhardt to Dušan Grabrijan, February 1950, Box 7, 1950/7-5 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁹⁴ Ibid.

- ⁹⁵ Grabrijan and Neidhardt, *Arhitektura Bosne*, 316.
- ⁹⁶ Ibid.
- ⁹⁷ Zeynep Çelik, "Le Corbusier, Orientalism, Colonialism," *Assemblage*, no. 17 (1992): 72.
- ⁹⁸ Neidhardt met his second wife Ljudmila - Mili Nanut, in 1944, during his professional engagement in the mining town of Vareš, where she worked as a secretary. She was Grabrijan's compatriot, born in a small town on the border between Slovenia and Italy and raised in various locations in inter-war Yugoslavia, as her father's career in the military required a lot of moving around the Kingdom. Although she had already earned secondary education in Croatia before she met Neidhardt, after moving to Sarajevo with him she briefly pursued her passion - painting.
- ⁹⁹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, May 1949, Box 5, 1949/5 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁰⁰ Mili was acquainted with the projects Neidhardt was working on, and the ones he aspired to work on. She was informed about and intensely lived through his lost work opportunities and the obstructions that social networks imposed on his disciplinary ambitions. Mili even took on some of the traditionally male household responsibilities, such as dealing with bureaucracy (appealing to the authorities to resolve their family's housing question, researching and lobbying to free Neidhardt from prison) and dealing with logistics related to research and holiday travel. In spite of her intense and hard unpaid work she worried about "being on Jurek's back" financially, so she started growing hens in her garden in order to contribute to household economy by selling eggs.
- ¹⁰¹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, April 1950, Box 5-1, 1950/7-12 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁰² Correspondence from Juraj Neidhardt to Dušan Grabrijan, March 1949, Box 5-1, unmarked, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁰³ Joy B. Reeves, "Social Change in Yugoslavia and its Impact on Women," *International Journal of Sociology of the Family* 20, No. 2 (Autumn 1990): 129.
- ¹⁰⁴ These measures ranged from law about parity in marriage (issued in 1946) to the law about prohibition of the Muslim traditional veil (issued in 1950).
- ¹⁰⁵ Ivana Dobrivojević, "Od ruralnog ka urbanom. Modernizacija Republike Bosne i Hercegovine u FNRJ 1945-1955," *Identitet BiH kroz historiju - Zbornik radova 2*, (Sarajevo: Institut za istoriju u Sarajevu, 2011), 16-17.
- ¹⁰⁶ Sabrina P. Ramet, "In Tito's Time," in *Gender Politics in the Western Balkans*, ed. Sabrina P. Ramet, (Pennsylvania: The Pennsylvania State University Press, 1999), 97.
- ¹⁰⁷ Marijana Stojčić, "Proleter i svih zemalja – Ko vam pere čarape? Feministički pokret u Jugoslaviji 1978–1989," in *Društvo u pokretu - Novi društveni pokreti u Jugoslaviji od 1968. do danas*, eds Đorđe Tomić and Petar Atanacković (Novi Sad: Cenzura, 2009), 113.
- ¹⁰⁸ Grabrijan and Neidhardt, *Arhitektura Bosne*, 3.
- ¹⁰⁹ Ibid.
- ¹¹⁰ Correspondence from Juraj Neidhardt to Dušan Grabrijan, July 1950, Box 7, 1950/7-37 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹¹¹ John Bender and Michael Marrinan, *The Culture of the Diagram* (Stanford: Stanford University Press, 2010), 7.
- ¹¹² Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1949, Box 5-1, 1949/41 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

- ¹¹³ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, 1950/7-5 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹¹⁴ Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1950, Box 7, 1950/7-16 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹¹⁵ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1951, Box 4-1, 1951/11 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹¹⁶ Correspondence from Juraj Neidhardt to Dušan Grabrijan, November 1949, Box 5-1, 1949/47 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹¹⁷ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1951, Box 4-1, 1951/11 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹¹⁸ Nathalie Gontier, "Depicting the Tree of Life: the Philosophical and Historical Roots of Evolutionary Tree Diagrams," *Evolution, Education and Outreach* 4, 3 (2011): 515-538.
- ¹¹⁹ Mary Patricia May Sekler, "Le Corbusier, Ruskin, the Tree and the Open Hand," in *The Open Hand - Essays on Le Corbusier*, ed. Russel Walden (Cambridge Mass. and London: The MIT Press, 1977), 62.
- ¹²⁰ François de Pierrefeu and Le Corbusier, *The Home of Man* (London: The Architectural Press, 1948).
- ¹²¹ Sekler, *Le Corbusier, Ruskin the Tree and the Open Hand*.
- ¹²² Sekler, *Le Corbusier, Ruskin the Tree and the Open Hand*, 56-57.
- ¹²³ Van Eck, *Organicism in Nineteenth-Century Architecture*, 259.
- ¹²⁴ Bender and Marrinan, *The Culture of the Diagram*, 8.
- ¹²⁵ John Mckean, "Sir Banister Fletcher: pillar to post-colonial readings," *The Journal of Architecture* 11, no.2 (2006): 196.
- ¹²⁶ De Pierrefeu and Le Corbusier, *The Home of Man*, 44.
- ¹²⁷ McLeod, "Urbanism and Utopia," 127.
- ¹²⁸ De Pierrefeu and Le Corbusier, *The Home of Man*, 46.
- ¹²⁹ Grabrijan and Neidhardt, *Arhitektura Bosne*, 452.

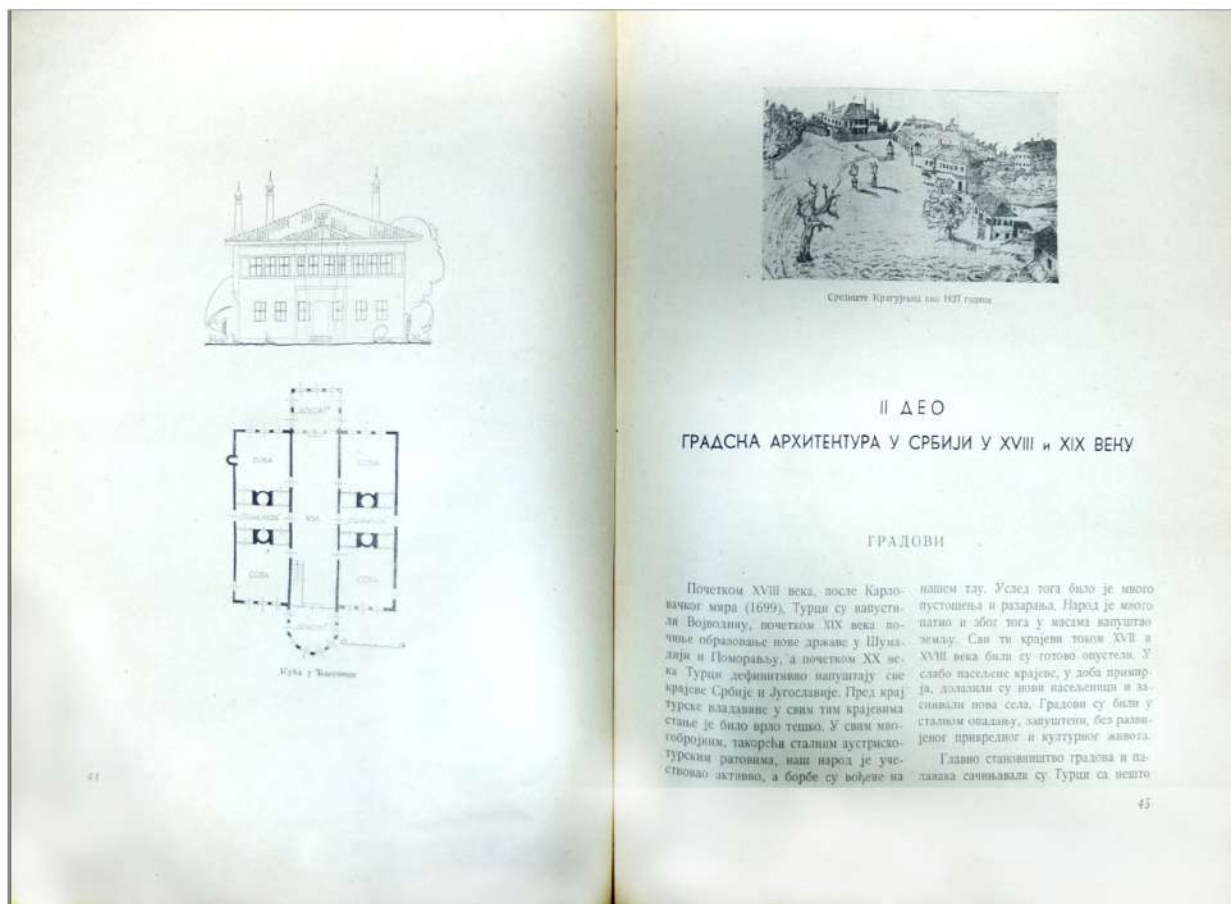


Figure I-03 - A typical double spread from *Old Town and Village Architecture in Serbia* by Branislav Kojić (source: Branislav Kojić, *Stara gradska i seoska arhitektura u Srbiji* (Beograd, Prosveta, 1949), 44-55).

**L. MOHOLY-NAGY:
DYNAMIK DER GROSS-STADT**

**SKIZZE ZU EINEM
FILMMANUSKRIPT**



Das Entstehen einer Eisenkonstruktion.



Kran bei Hausbau in Bewegung. Aufnahmen: von unten von oben

116

Alle Rechte, insbesondere das Recht der Verfilmung und Übersetzung, behalten Autor und Verlag sich vor.

Großaufnahme:
Die Bewegung setzt sich in einem Auto fort, das nach links saust. Man sieht ein und dasselbe Haus dem Auto gegenüber in der Bildmitte (das Haus wird immer von rechts in die Mitte zurückgezogen; dies ergibt eine starre, ruckartige Bewegung). Ein anderes Auto erscheint. Dieses fährt gleichzeitig entgegengesetzt, nach rechts.



Ein Tiger kreist wütend in seinem Käfig.

TEMPO TEMPO TEMPO

Ganz klar — oben hoch — Bahnzeichen:



(Großaufnahme.)

Alle automatisch, au-to-matisch in Bewegung

↑ auf	↑ auf	↓ ab	↑ auf	↓ ab
↑ auf	↑ auf	↓ ab	↓ ab	↓ ab
AUF	Auf	AB	Ab	ab

Diese Stelle als brutale Einführung in das atemlose Rennen, das Tobenwahn der Stadt.

Der hier starre Rhythmus lockert sich langsam im Laufe des Spiels.

Häuserreihe auf der einen Seite der Straße, durchscheinend, rast rechts durch das erste Haus. Häuserreihe läuft rechts weg und kommt von rechts nach links wieder. Einander gegenüber liegende Häuserreihen, durchscheinend, in entgegengesetzter Richtung rasend, und die Autos immer rascher, so daß bald ein FLIMMERN entsteht.



Der Tiger: Kontrast des offenen, unbehinderten Rennens zur Bedrängung, Beengtheit. Um das Publikum schon Anfang an die Überraschungen und Alogik zu gewöhnen.

1	2	3	4	5
↑	↓	↓	↑	↓
↑	↓	↓	↑	↓
↑	↓	↓	↑	↓

Rangierbahnhof. Ausweichstellen.

Figure I-04 - A conceptual storyboard sketch for a film *Dynamik der Großstadt* by László Moholy-Nagy (source: https://monoskop.org/László_Moholy-Nagy, accessed: 20.12.2017.).

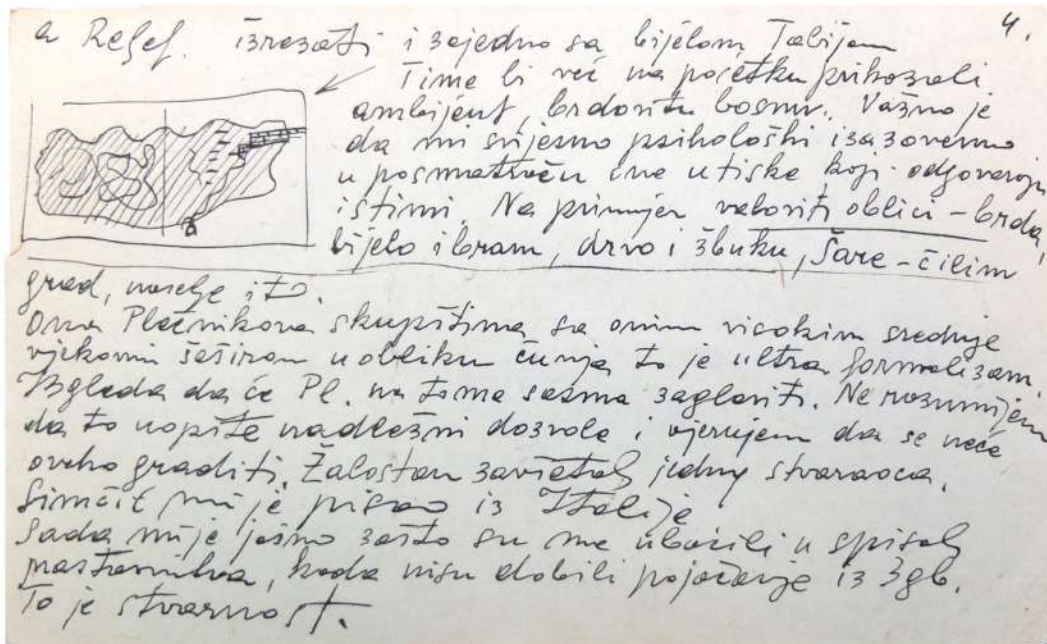


Figure I-05 - A sketch for a layout design sent by Juraj Neidhardt in April 1950 (Correspondence from Juraj Neidhardt to Dušan Grabrijan, April 1950, Box 7, 1950/7-16, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).



Figure I-06 - Actual layout from the book *Architecture of Bosnia* (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 46).

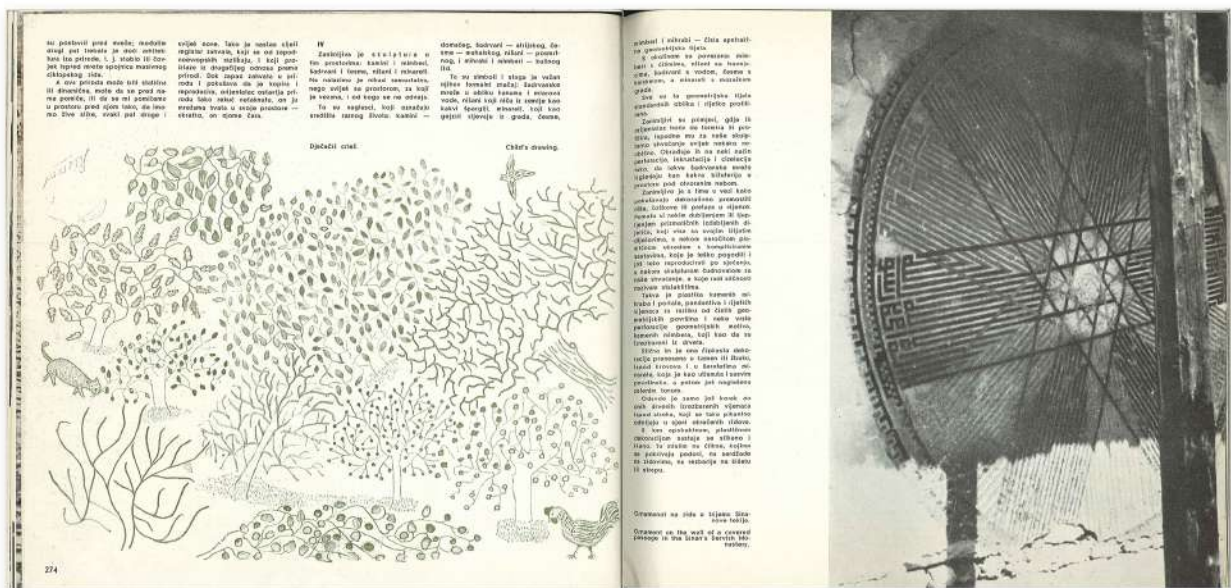


Figure I-08 - Children's drawings of trees decorate the pages of the book *Architecture of Bosnia* (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 274-275).



Figure I-09 - Dust jacket cover of *Architecture of Bosnia* and the original child's drawing used in it (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957) and Juraj Neidhardt's private archive).

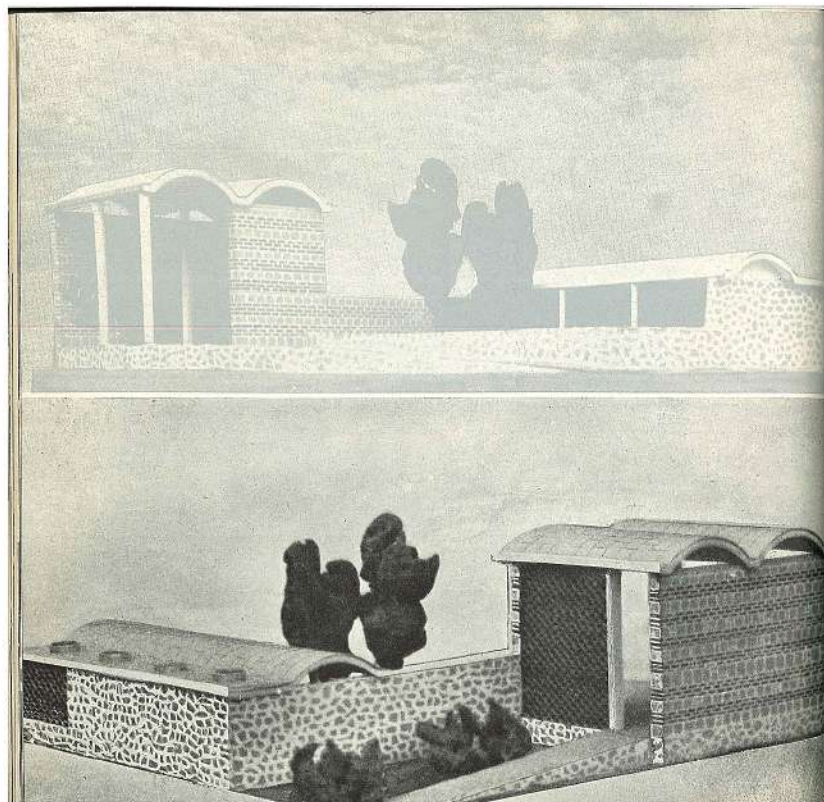


Figure I-10 - Technique of paling out of photographs and drawings in order to maintain the overall lightness of the book (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 130,139).

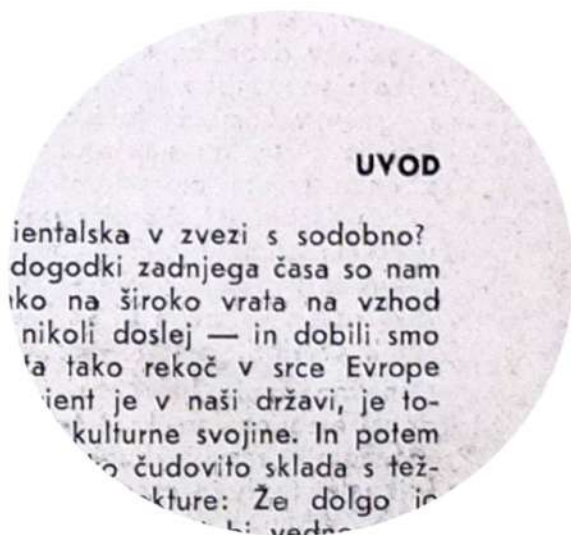
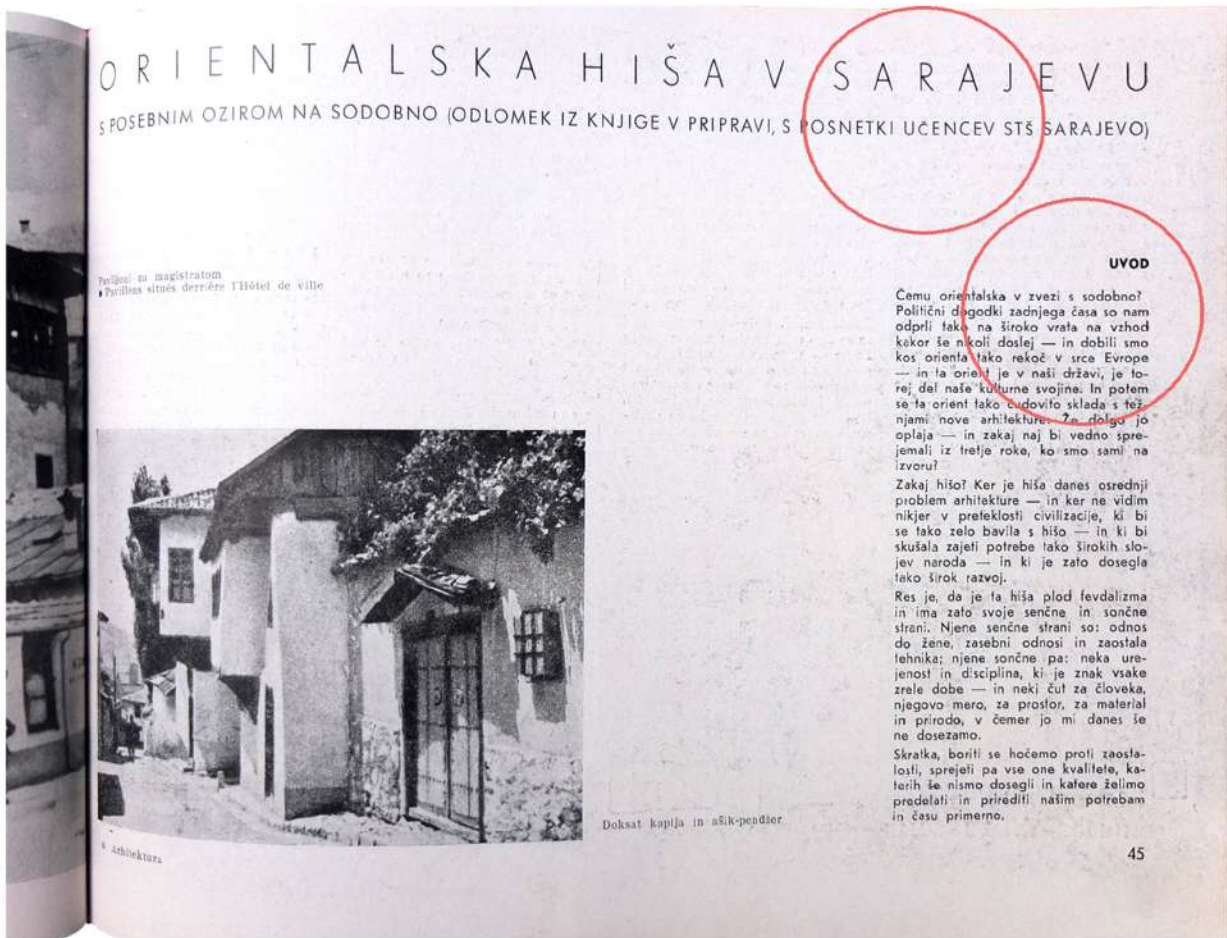


Figure I-11 - The opening page of Dušan Grabrijan's article "Orientalska hiša v Sarajevu" published in Yugoslavian architecture journal *Arhitektura* in 1949 - its font style was the model for the one used in the book (source: Dušan Grabrijan, "Orientalska hiša v Sarajevu s posebnim ozirom na sodobno," in *Arhitektura*, no.23-24 (Zagreb, 1949)).



Pošto me te fotograf. manjnj imate
 neka melanc. povodne slike koje olakšati estetici
 pričenju 2 fotografije drveća u svijetlu taje se mogu
 najviše to uz slikovnu knjiž.

U pogledu omjera št. sam pitao
 portret - proporcija ~~proporcija~~
 i preporoč. čaršije. (kao kulturni seritthar Sarjera)
 To li u glavnim lica jedna od ~~to~~ najvažnijih točaka
 pokraj onj. knjiž.

Transformacija Čaršije. - Preobrazba
 U pogledu boja stranica. Ja sam vam molbao
 približna boja stranica. Pošto bih ja volio (uholoko
 je to moguće da štampamo barbu u 2 boje omela
 li došla siva boja u obzir. Na primjer tri slabija
 slike koja kao na primjer Norefe u Ljublj. bi postojali
 kao posredima. a preko njih recimo situacije
 uređaja. Na taj način dobili bi jednu igru polusjena
 koje bi djelovale živo.

To je sve stvar kompozicije
 Jerite mi hvalis pisane stranica
 bilo bi ukupno ~~to~~ sa motivom pisanim.
 Meni se čini da su u veštoj P. Z. publikaciji

slova previelika pa me izgleda razrodijeno.
 Zato sam vam poslao uzorak sa nešto manjim
 slovima (karakter se može promijeniti) da li dobili u
 knjizi plohe kao da su akvarelirane sivim tonom.
 Vite bi u proporciji sa knjigom.

Prva novina ima u 1 stupcu
 oko 300-350 slova
 To li pristajete uređivan.
 To tehničko uređivanje
 moramo učeti pismo
 samo što nam je najviše
 brzo.

Počinje foto Vat ~~Mirna~~ J.V. 1950
 dosada poslao O, P onda program C₈ = R, Š i radna S. - postavlja Fe

Figure I-12 - Sketch representing composition of photographs and text in the book's layout, by Juraj Neidhardt in a letter sent to Grabrijan in May 1950 (Correspondence from Juraj Neidhardt to Dušan Grabrijan, May 1950, Box 7, 1950/7-25 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).



Molim Te presporoj i jani mi
 što misliš, a što je najvažnije da
 miš. Zatošta odnočno ona stampanja koja
 pravi vranku neli zepočela piše nego
 se slošimo. Zato Te molim
 da odeš hitno knjizma sa Tim
 vzorcima i izvediš mustie i počeše
 meni što piše.

Izloženje prdu Nacii
 Tim Jurca
 Ljubljana 10. IX. 1952.
 Prilog 4 vzorak slova

Na ovom priloženom vzorku se
 vidi veliki izbor. - kultura a ja
 vjerujem da su to samo vsi slovenski
 štampani u štampi napraviti. Samo
 oni boluju od šemati zma koji treba
 ljudsko izljeći. U duhu knjige
 bi bilo sasme slobodno likovno
 variants u duhu turških slova

ili barem da te
 forme približno
 a to su misla
 istina slova ("eskaltna")
 U svakom slučaju neli
 knjelo bi to misla, ili renesansni
 nego intimirni onjeut. karakter
 → mustie

Figure I-13 - Neidhardt's reference to Arabic script to convey the appearance of freedom that he looked for in the font style and typographic design (Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1952, Box 7, 1952/7-12 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

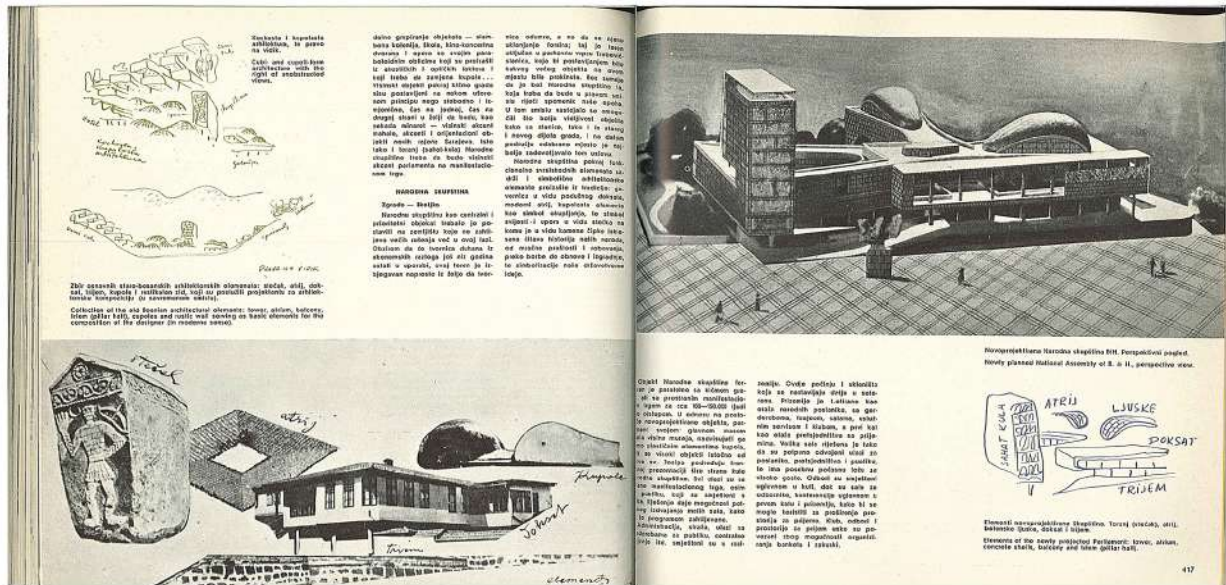
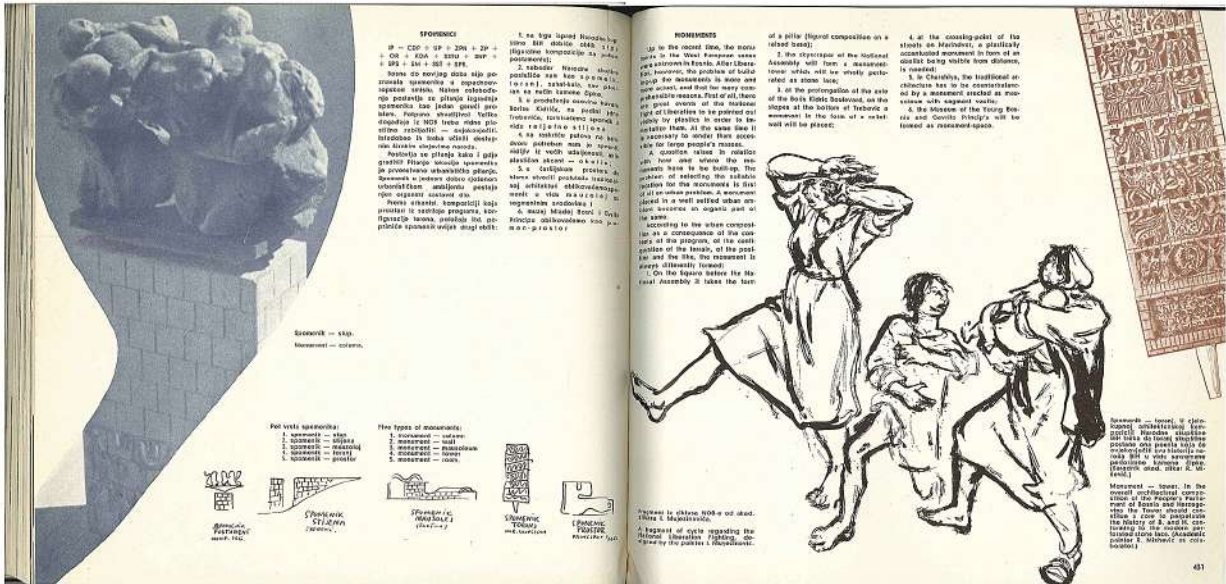


Figure I-14 - "Blocks" of text as elements of layout arrangement (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 430-431, 416-417).

вели, i naka nekoliko zgrada, koje su tipične za ondašnju arhitekturu i koje su sređom dobro osuđane. Među njima su se svojim arhitektonskim značajem isticali naročito: zgrada u Ulici 7 Jula, br. 8, Konaž kmetice Ljubice u Bogojaševskoj ulici i zgrada u Jevremovoj ulici, br. 19.

Ove su zgrade osobito interesantne, jer jasno pokazuju prelaz iz stare balkanske arhitekture u nekad savremenu zapadnoču ekлектично-ренесанску arhitekturu. Kako su ove zgrade izgrađene u periodu afirmiranja nove srpske države, to promene u građevinskim sklatama koje se na njima mogu da prate pokazuju kako se u to doba htelo sa približavanjem zapadnoj kulturi.

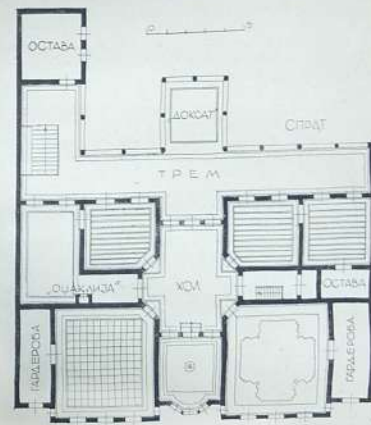
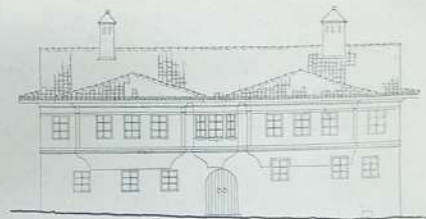
Iz istog doba je, samo nešto starija, i zgrada u kojoj je bio nekad smješten Dostojevski muzej. Ona je, u pogledu istorijskim i prostorno-kulturnim izuzetno značajna za srpsku državu, jer je bila živa kulturnog života našeg naroda kao prva velika škola u obilježenoj Srbiji. Čisto arhitektonski posmatrana, ova zgrada, zbog svoje dispoziције u osnovi sprata, ulazi u red pretstavničkih tipa balkanske profane arhitekture namenjene stanovanju turske porodice.

Načelniji pretstavnik stare gradske arhitekture u Beogradu bila je zgrada koja se nazivala u Ulici 7 Jula, između puta južnog portala Sabornice crkve i u neposrednoj blizini Novog konaka kmetice Ljubice. Prema podacima kojima se raspolaže, ova je kuća bila podignuta oko 1826 godine, a gradano ju je poznati beogradska trgovac Njivo. I-

me neimara koji ju je podigao nije nam poznato, no svakako je to morao biti jedan od onog malog broja majstora koji su u to doba radili na boljim kućama u Srbiji. Njegovo poreklo mora biti u Makedoniji. Verovatno da je bio jedan od onih po starom načinu nazivanih „dvižera“, koji su u Srbiji tada bili glavni neimari varoških zgrada. To se može zaključiti po čistoti tipa i po velikoj sličnosti sa zgradama odgovarajuće vrste u Makedoniji.

Zgradu su smenjivali prizemlje i sprat. U prizemlju su bile smestene sporredne domaće prostorije i podrum. Sprat se sastojao iz glavnih odsejaka za život porodice i gostinskih prostorija. Oko jednog centralnog hoda nalazile su se pravilno raspoređene četiri sobe i to dve prema ulici i dve prema dvorištu. Između ulaznih soba, a kao produžetak hoda, izgrađena je bila jedna dvorana sa uzdignutim podom. Sa dvorane je bio otvoren i prijedatan pogled na ulicu i na prijevo. S druge strane, prema dvorištu, duž cele zgrade pružao se jedan pokrivena trém, kako na spratu tako i u prizemlju. Od ovoga tréma, a u osnovni zgrade, izdvajala se pravougaona „došnja“, svi otkoljena zasklapanim i čvrstim, tako da je izgledala kao paviljon u bašti. Na glavne prostorije na spratu nalazila su se četiri mala odsejaka, od kojih su dva služila uglavnom olovne čemu služe savremene garderobe, a druga dva imala su ulogu malih kuhinja za spremanje kafe i za dojenja peći glavnih soba.

Od svih prostorija u kući dve glavne ulazne sobe bile su najveće. U jed-



NIJIVOVA ULICA U BEOGRADU

Figure I-15 - Conventuality of typographic design in Branislav Kojić's *Old Town and Village Architecture in Serbia* (source: Branislav Kojić, *Stara gradska i seoska arhitektura u Srbiji* (Beograd, Prosveta, 1949), 68-69).

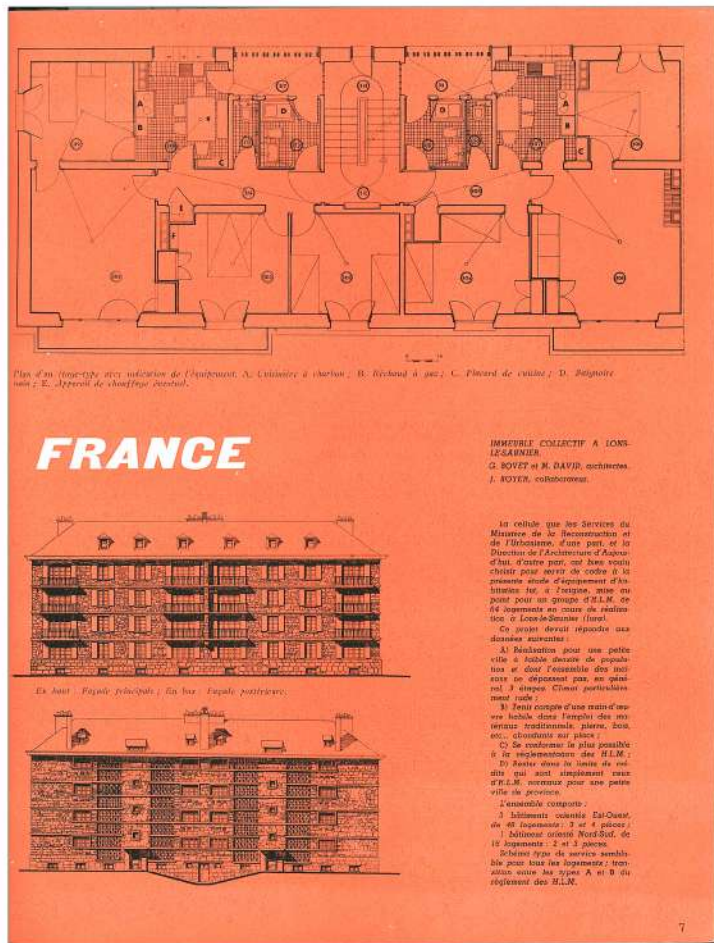


Figure I-16 - Examples of layout design from the French architecture journal *Architecture d'Aujourd'hui*, designated by Neidhardt as possible reference for *Architecture of Bosnia's* layout design (source: *Architecture d'Aujourd'hui*, no.33 (1950): 4, 7, 31).

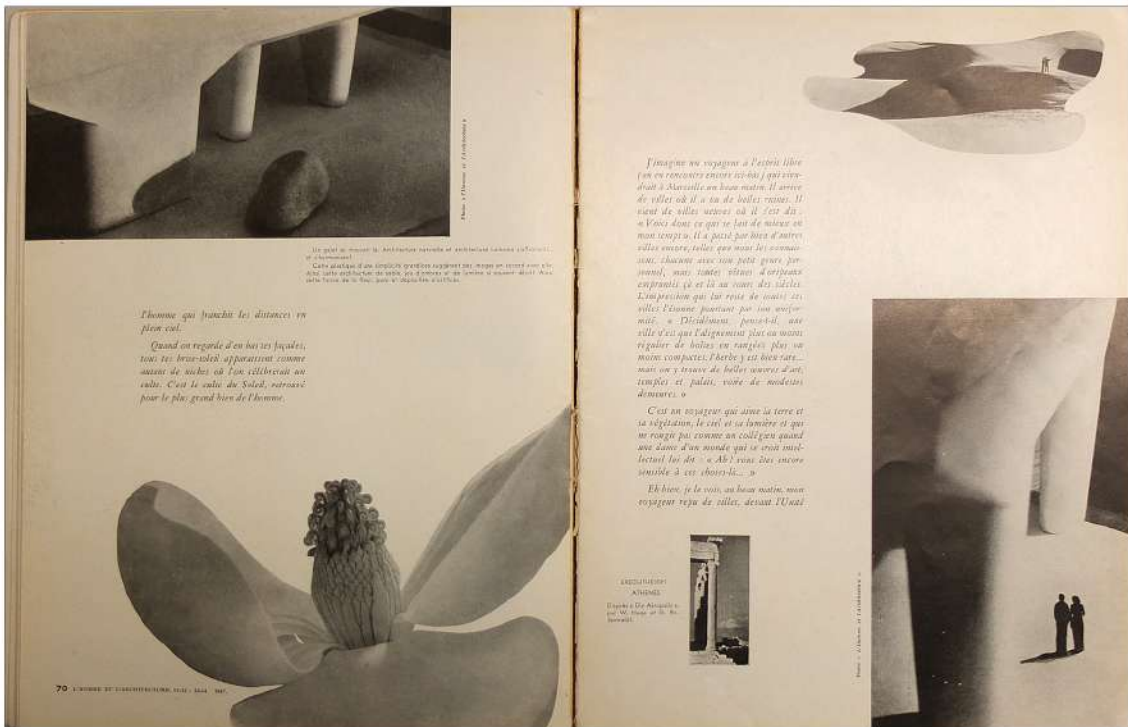
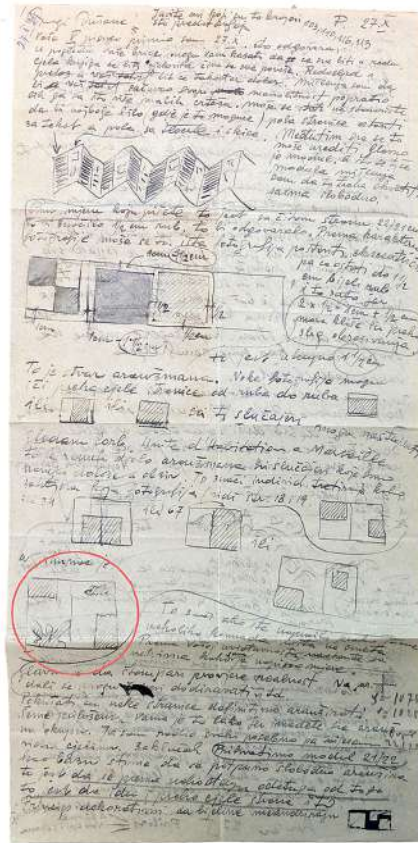


Figure I-17 - Schemes of those layout arrangements that Neidhardt particularly liked in the publication *L'unité d'habitation* by Le Corbusier, sent to Grabrijan in October 1949 and the same layout in the actual publication (source: Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1949, Box 5-1, 1949/43, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia and Le Corbusier, *L'unité d'habitation a Marseille - Le homme et le architecture*, 12-13-14 (1947):70-71).

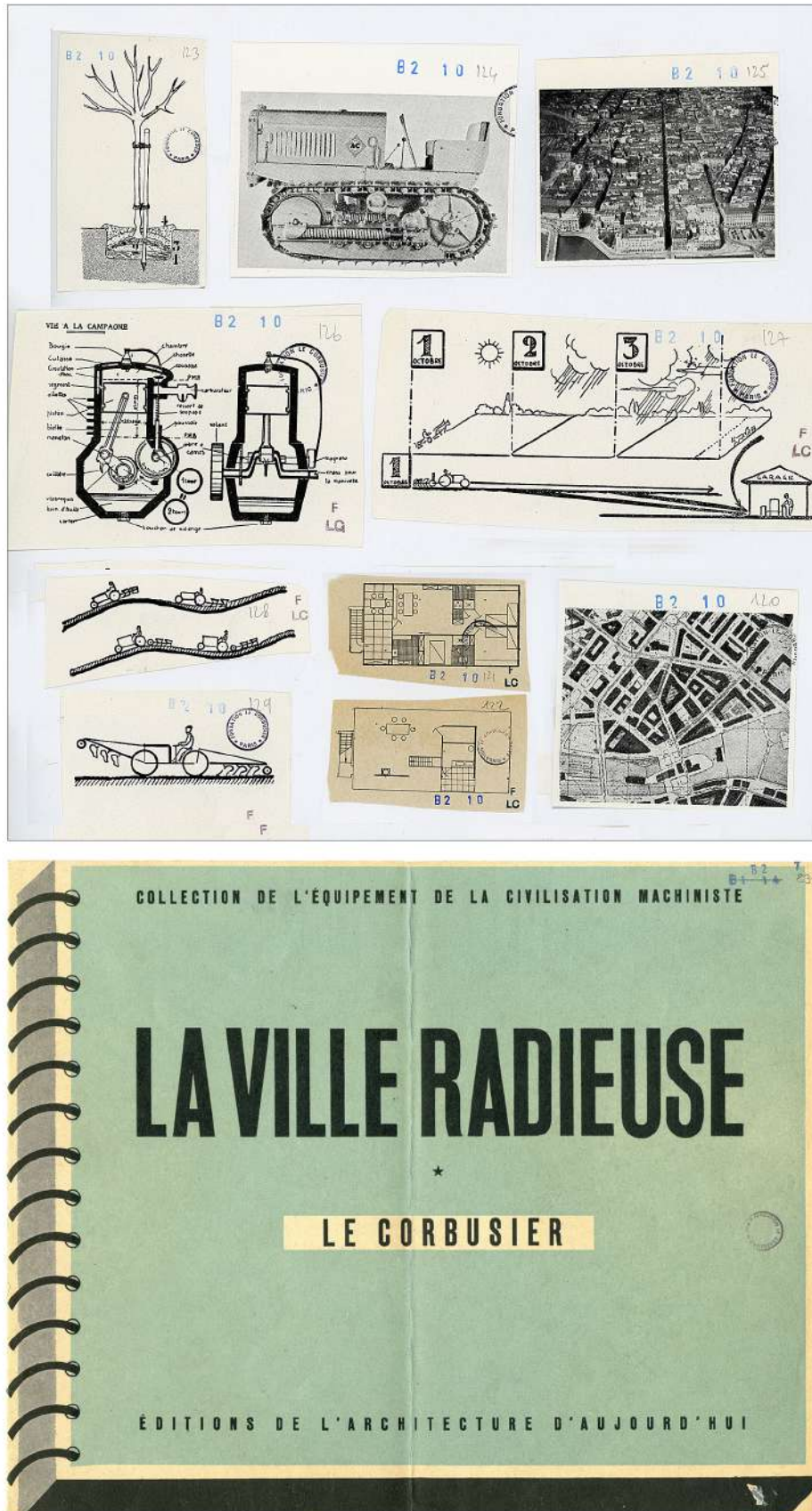


Figure I-18 - Individual cliché imprints used for arranging layout compositions and the book- dummy cover for *Le Ville Radieuse* by Le Corbusier (this page) and cliché imprints for *Architecture of Bosnia* (next page) (source: B2(7)231 and B2(10)120, Le Corbusier Archive, Fondation Le Corbusier, Paris, France and Box 26, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

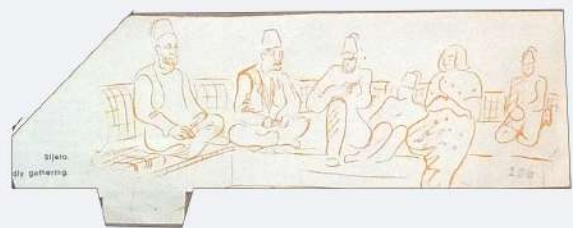
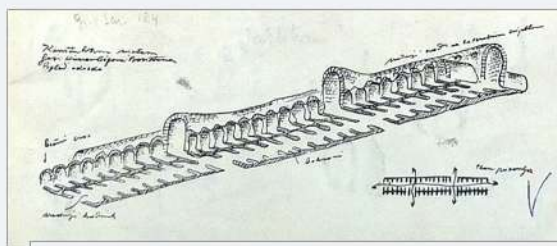
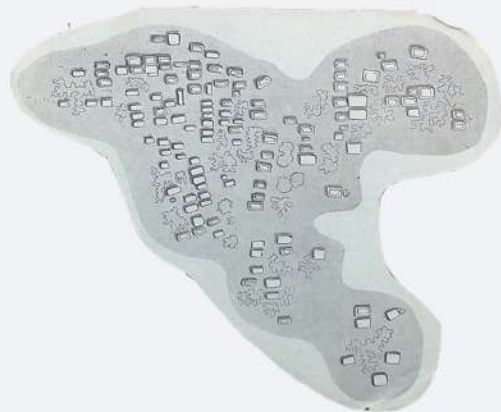
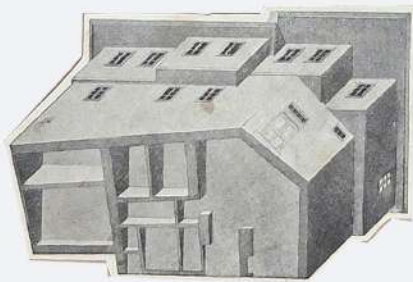
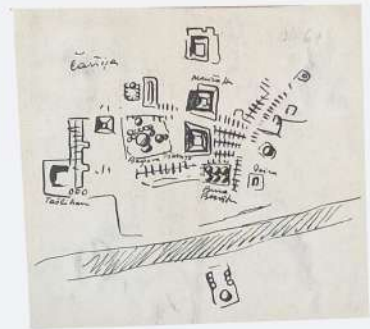




Figure I-19 - A double spread representing a “peasant’s house” and a “signpost near Kamnik” from a brochure of the Ljubljana School of Architecture, 1923 (source: *Iz Ljubljanske šole za arhitekturo* (Ljubljana: J.Blasnik, 1923)).

In the following examples we shall try to show how the positive values of our formulae — divisions (various), detail (point), essential etc. — pass theoretically into modern architecture. We shall try to show how the best of the knowledge, the achievement of a modern creation have been adapted to the traditions, the reality, the climate and landscape conditions, and besides, as to one of the strongest factors, to the spirit of people who live in this part of the world, who, in contrast to western people being usually connected and individual, still carry in themselves strong essential tendencies together with close and intimate relations to nature which the landscape in the West has already lost. It is for just this reason that this book has been put on the analogy of one and new, essential and different, creative and stable...

If a historical accident that modern architecture contains many of the tendencies of modern western architecture, to that the main reason is building material, then the similarity to the research creates people first and built according to the same principles and only now we are again creating new materials for a new creation to come. Among the first attempts in this book and the following examples which have origin in the main from the above-mentioned hypothesis.

Since Borča is a mountainous country, where the valleys are narrow, the construction is based on the construction of the terrain and the buildings are built in the valleys following the slope and higher, both are conditioned by the same spirit of life, the will of the modern man in Borča. It is our task to find out, or at least to try to find out, what exactly it is.

In order to get a better orientation of a single project and to take into account only what is really essential, we shall have recourse to a kind of methodology, with the final purpose to explain briefly, by way of means of abbreviations, the functional relations and ideas of single architectural and urban realizations (from 1922 till 1950). Each of those abbreviations indicates an idea, a point of view, a law (principles, characteristics, composition, something like etc.) having accordingly to the kind of subject. If a better explanation of a single project has to be found, it is not sufficient to give the same symbolically as, for example — capital, house — ship etc. yet it is necessary to explain it by means of analogy (to, for, like, new, composition — application etc.) or on the basis of a context in a certain way. We have to deal with new and such particular circumstances, the abbreviations are essential and necessary in a mathematical formula. A collection of these abbreviations given as a result of the intensive work of the project, these formulas are inserted at the beginning of each text (Abbreviations, Table 1).

RE — object purpose,
 KAO — functional tripartite of the object,
 ODP + PNV + UP + RE + KAO + SP — IP (Informative or Ideal basis).
 ODP — design system,
 PNV — use of space,
 UP — urban planning,
 RE — object purpose,
 KAO — functional tripartite of the object,
 SP — space structure,
 IP — Informative or Ideal basis.

Abbreviations given as appendices to the text.

A copy of the preceding text has to be found out, or at least to try to find out, what exactly it is.

UREĐENJE BORAČKOG JEZERA
 Kuća — sojenica
 IP = ODP + ANDR + VDN + KUCC + RE + KS + KOA + KNS + MC.
 Nedaleko Konjica, na odvojkju od riječke osi Vranduk—Sarajevo—Počitelj—Trebilje—Dubrovnik se Boračko jezero, jedno od najizletičkijih i najljepših jezera u Bosni, nalazi. Otoki su mu razloženi u niz malih otoka. Na sjeverozapadnoj strani jezera, na otoku Borča, nalazi se gradnja koja se zove Borča. Ona je jedna od najizletičkijih i najljepših jezera u Bosni. Otoki su mu razloženi u niz malih otoka. Na sjeverozapadnoj strani jezera, na otoku Borča, nalazi se gradnja koja se zove Borča.

Boračke gondole — splavovi sa tendama.
 Gondolas of the Lake of Borashiza — floats with tents.

UREĐENJE BORAČKOG JEZERA
 Kuća — sojenica
 IP = ODP + ANDR + VDN + KUCC + RE + KS + KOA + KNS + MC.
 Nedaleko Konjica, na odvojkju od riječke osi Vranduk—Sarajevo—Počitelj—Trebilje—Dubrovnik se Boračko jezero, jedno od najizletičkijih i najljepših jezera u Bosni, nalazi. Otoki su mu razloženi u niz malih otoka. Na sjeverozapadnoj strani jezera, na otoku Borča, nalazi se gradnja koja se zove Borča.

Boračke gondole — splavovi sa tendama.
 Gondolas of the Lake of Borashiza — floats with tents.

UREĐENJE BORAČKOG JEZERA
 Kuća — sojenica
 IP = ODP + ANDR + VDN + KUCC + RE + KS + KOA + KNS + MC.
 Nedaleko Konjica, na odvojkju od riječke osi Vranduk—Sarajevo—Počitelj—Trebilje—Dubrovnik se Boračko jezero, jedno od najizletičkijih i najljepših jezera u Bosni, nalazi. Otoki su mu razloženi u niz malih otoka. Na sjeverozapadnoj strani jezera, na otoku Borča, nalazi se gradnja koja se zove Borča.

Boračke gondole — splavovi sa tendama.
 Gondolas of the Lake of Borashiza — floats with tents.

...s are enumer...
 ...s in a mathematical form...
 ...collection of these abbreviat...
 ...gives us as result the informativ...
 ...basis of the project. These formul...
 ...are inserted at the beginning of...
 ...each text. The ski lodge on Trebe...
 ...vic can be stated as example:
 ODP + PNV + UP + RE + KAO +
 + LK + DT + JS + KKO + SP — IP
 (Informative or Ideal basis). In this
 frame the above stated formula has
 the following meaning:

1. ODP, PNV and UP — written laws according to which the object is composed in nature,
2. RE — object purpose,
3. KAO — functional tripartite of the object, symbolic charact...

Boračke gondole — splavovi sa tendama.
 Gondolas of the Lake of Borashiza — floats with tents.

UREĐENJE BORAČKOG JEZERA
 Kuća — sojenica
 IP = ODP + ANDR + VDN + KUCC + RE + KS + KOA + KNS + MC.
 Nedaleko Konjica, na odvojkju od riječke osi Vranduk—Sarajevo—Počitelj—Trebilje—Dubrovnik se Boračko jezero, jedno od najizletičkijih i najljepših jezera u Bosni, nalazi. Otoki su mu razloženi u niz malih otoka. Na sjeverozapadnoj strani jezera, na otoku Borča, nalazi se gradnja koja se zove Borča.

Boračke gondole — splavovi sa tendama.
 Gondolas of the Lake of Borashiza — floats with tents.

UREĐENJE BORAČKOG JEZERA
 Kuća — sojenica
 IP = ODP + ANDR + VDN + KUCC + RE + KS + KOA + KNS + MC.
 Nedaleko Konjica, na odvojkju od riječke osi Vranduk—Sarajevo—Počitelj—Trebilje—Dubrovnik se Boračko jezero, jedno od najizletičkijih i najljepših jezera u Bosni, nalazi. Otoki su mu razloženi u niz malih otoka. Na sjeverozapadnoj strani jezera, na otoku Borča, nalazi se gradnja koja se zove Borča.

Boračke gondole — splavovi sa tendama.
 Gondolas of the Lake of Borashiza — floats with tents.

Figure I-20 - A mathematical interlude to Juraj Neidhardt's portfolio (left) and an example of a project presentation, headlined by a mathematical formula (right), both in *Architecture of Bosnia* (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 334,330).

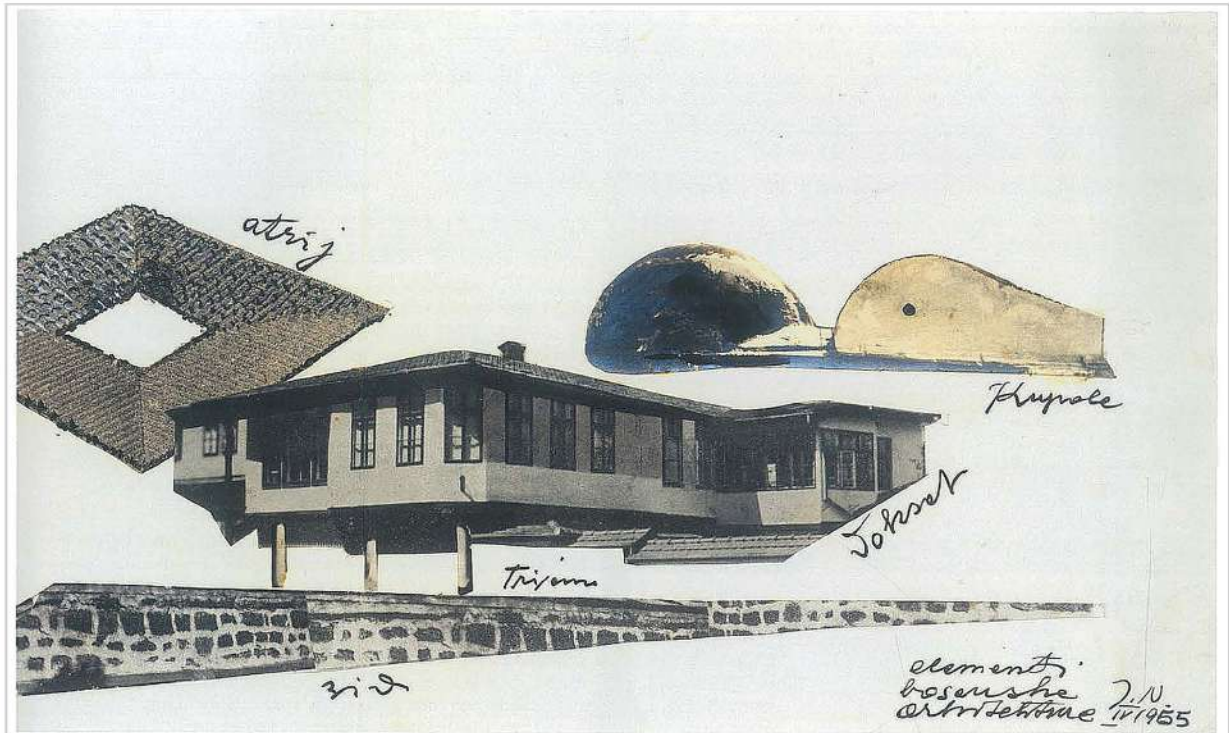


Figure I-21 - "Elements of Bosnian architecture" drawing and collage by Juraj Neidhardt (source: Juraj Neidhardt's private archive).

grupacije sa boljom i jeftinijom mogućnošću unutarnje organizacije. Oluđa težnja savremenog arhitekta za nizanjem bilo u horizontalnom, bilo u vertikalnom smjeru. U savremenom urbanizmu niže male jedinice — čestice jednu do druge u obliku meandra ili u obliku štapića. Time nastaju izdužena arhitektonska tijela, koja su naročito karakteristična za ravne nizinske terene.

Ako smjestimo doksat do doksata dobili smo duguljasto prizmatično tijelo, a ako koristimo natkrivne prostore u prizemlju, nastale izbacivanjem doksata, za ulaze u kuću, dobili smo kuću na stupovima, jedan važan oblikovni faktor u savremenoj arhitekturi, koji je proizašao iz konstruktivne analognosti orijentalne drvene konzolne konstrukcije sa savremenom armirano-betonskom konzolnom konstrukcijom, jer konzolna arhitektura ima u slatiji svoje ekonomsko opravdanje.

Iz želje za stvaranjem što većih prostora nizalo se kube do kubeta.

Danas smo u mogućnosti, da preko većih prostora prevučemo jednu jedinu armirano-betonsku ljsku paraboloidnog ili segmentnog oblika, koju možemo oblikovati kako hoćemo, prema savremenim akustičkim i optičkim principima. Nizanjem manjih ljsaka do većih, što proizlazi iz same funkcije savremenih potreba, dobićemo iste prostorne odnose kao i u orijentalnoj arhitekturi prema analogiji: kupolica-kupola, kapidžik-kaplja, ašikpendžer-pendžer itd.

Betonske ljske segmentnog oblika pokraj strogih prizmatičnih tijela koja su čas u horizontalnom, čas u vertikalnom položaju, dopunjene gradskim zelenilom, ukazuju nam na jednu mogućnost rješavanja oblikovne problematike savremene arhitekture u Bosni, naročito čaršije, u duhu naslijeđenih, autohtonih osobina.

Arhitektura koja je nikla iz stoljetnih iskustava jednog naroda,

koja ima i svoj kontinuitet sa prošlošću, oplodenu sa savremenim tehničkim stremljenjima, možemo nazvati organskom arhitekturom.

U nizu primjera koji slijede, pokušaćemo prikazati kako pozitivne vrijednosti naslijeđa — divanhana, doksat, meander itd. — neprimjerno ulaze u savremenu arhitekturu. Kako su se kiosk, kuća-kiosk, kuća-atrij itd., kao savremene tvorevine približile tradiciji, mentalitetu, klimatskim i pejsažnim uslovima, a uz to, kao jednom od najsnažnijih faktora, psihi čovjeka koji živi na tom dijelu zemaljske kugle, koji, za razliku od čovjeka zapada — pretežno konstruktora — racionaliste, nosi u sebi snažne emotivne porive sa izvanrednom povezanošću s prirodom, a što je dobrim dijelom velegradski čovjek zapada već izgubio. Upravo zato je smisao knjige postavljen na analogijama staro — novo, emotivno — racionalno, kreativno — sterilno...

Historijske je slučajnost da orijentalna arhitektura nosi u sebi mnoga nastojanja moderne arhitekture zapada, pa je uglavnom u pitanju samo materijal. Od petnaestog do devednaestog stoljeća živjelo se i gradilo po istom životnom načelu, i tek sada ponovo stvaramo načela za daljnjih nekoliko stoljeća. Među prvim od pokušaja na tom polju, koje treba dalje razradivati, jesu pokušaji obrađeni u ovoj knjizi po primjerima koji slijede.

Pošto je Bosna vrlo brdovita i rijetke su doline s ravnim terenima, nastala je očiglednija arhitektonska diferencijacija. Zgrade na brdu moraju se prilagoditi konfiguraciji terena i zato su sitnije i niže, dok su zgrade na ravnim terenima duže i više. Za jedne i druge vrijedi jedan te isti životni modul, modul savremenog čovjeka u Bosni. Na nama je da ga pronademo ili bar pokušamo pronaći.

Savremeni arhitektonski riječnik — abeceda čilim grada.
Up-to-date architectonic dictionary — Alphabet of the carpet-town.

Tabelarni prikaz projekata ovog poglavlja. Svako vrijeme ima svoj riječnik. Ovaj zbir nastao je u težnji pronaći novi riječnik koji se temelji na saznanjima naslijeđa.
Tabular representation of projects contained in this chapter. Each epoch has its own vocabulary. This glossary has been compiled in an attempt to find a new vocabulary based on the experiences of the past.



Figure I-22 - "Alphabet of the Kilim City" drawing by Juraj Neidhardt (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 325).

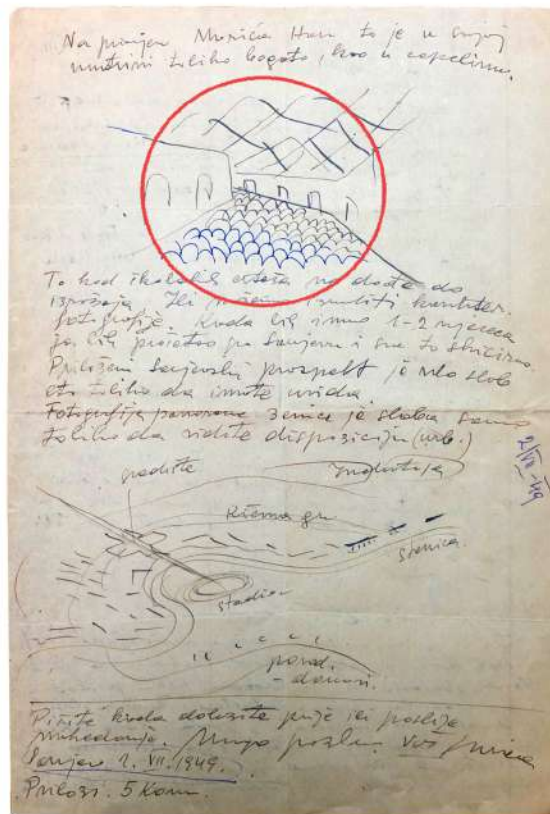


Figure I-23 - Neidhardt's sketch of the Ottoman era guest house Morića Han in Sarajevo, sent in a letter to Grabrijan (source: Correspondence from Juraj Neidhardt to Dušan Grabrijan, July 1949, Box 5-1, 1949/18, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).



Moricha han. Pogled s minareta.

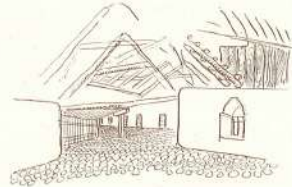
The Moricha Inn. View from a minaret.

Meriža han

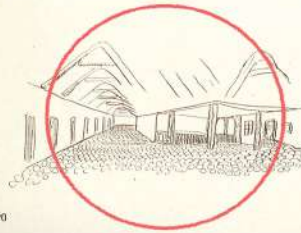
Iz Zariže uđeš u "šuma" stupova: kuća na pilonima ili čuršijama! Na sve strane izmiče prostor; između stupova su jednadruvo smješteno magare i staje. Dvoje ravnih jednokrakih stepenica sa određenim mjestima vodi na sprat. To srednji sprat je širok pokakodržan hodnik — unutarja ulica, s obje njegove strane nižu se sobice, a iznad glava vide se rogovi, pjavanti, bestije, ukralo krovna konstrukcija iz oblika, gopave kao kakva aluminijasta konstrukcija žepalina. Hodnik se s jednom od unutarnjih čokkova proširuje, prozorčić otvara vidik u div-

hanu, koja završava cijelu unutrašnjost zgrade. Kroz prozorčić viditi kavamu hana; tu sjedi čorčet na sediji, minderlaku (klupa prekrivena šiljetima i jastucima, pričvršćena doš zida). Pod, koji je sav prikriven čilimima, i strop, koji je nešto iznad čovječijeg horizonta, sastavljeni su od uskih dasaka. Namještaja nema nigdje, ako ti usmemo jedino ono malo ogrještje u katu, za pačenje kafe. Između stepena i poda je čist prostor, njegova mala visina daje utisak prostornosti.

Drveni, sklim dasakama prikriveni strop, po podu kareni čilimi, zid između prostorova, koji bita od bijeline — sve je to na dohvati ruke.



Pogled u unutrašnjost hodnika u I spratu.
View of a corridor on the second floor.



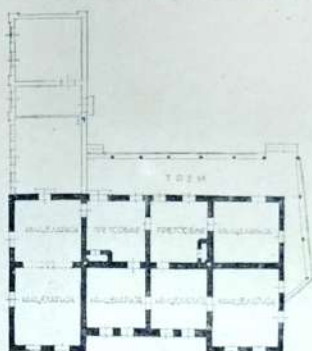
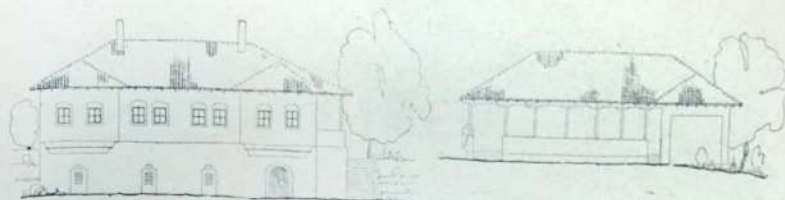
Meriža Han

Entering the han from the Charšija, we find that the structure is built on piles; the first floor consists of nothing but pillars between which some storerooms and stables are placed. Two stairs lead to the second floor across the middle of which runs a corridor lighted through the roof. On either side of the corridor are small cell-like rooms. In one corner the corridor

widens and a window opens into a divhana. Along the wall of the divhana runs a bench, the floor is covered with Oriental rugs, the low ceiling is a wooden filled surface. There is no other furniture in the room save a little hearth on which coffee is roasted. Between the ceiling and the floor is nothing but free space. Because of its low height the room seems spacious. The wooden ceiling, the glaring white walls between the windows, the rugs on the floor, all are within reach of the occupants.



Figure I-24 - The sketch in its final form, as published in the book *Architecture of Bosnia* (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 90).



АМИЦИНИН КОНАК У КРАГУЈЕВЦУ

Крагујевац је био прва престолнина кнеза Милоша. У његовом центру подигнуто је било у првој четвртини XIX века, неколико конака од којих данас постоји само још један. Амичини конак. Војводи (Паштрма знали су Амича и он је управљао кнежевном канцеларијом. Зграда је служила за канцеларије и за отседање дневних кнежева кад су долазили у Крагујевац на договор са кнезом Милошем.



Детаљ већних подрумских врата

Figure I-25 - The representation of an Ottoman era guest house in Branislav Kojić's *Old Town and Village Architecture in Serbia* (source: Branislav Kojić, *Stara gradska i seoska arhitektura u Srbiji* (Beograd, Prosveta, 1949), 61).

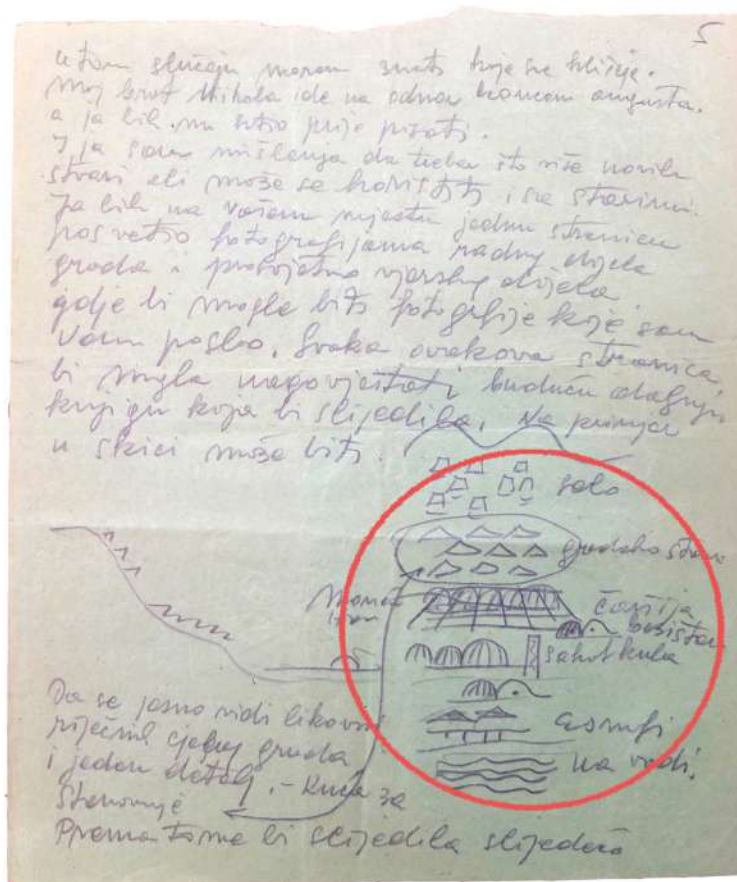


Figure I-26 - Neidhardt's effort to represent the "vocabulary of the entire city" in a single sketch, sent to Grabrijan in a letter in July 1949 (source: Correspondence from Juraj Neidhardt to Dušan Grabrijan, July 1949, Box 5-1, 1949/21, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).



Figure I-27 - The final version of the sketch, as it was published in the book (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 56).



Figure I-28 - Some of the many attempts at the right version of the sketch (source: unmarked, Juraj Neidhardt's private archive).

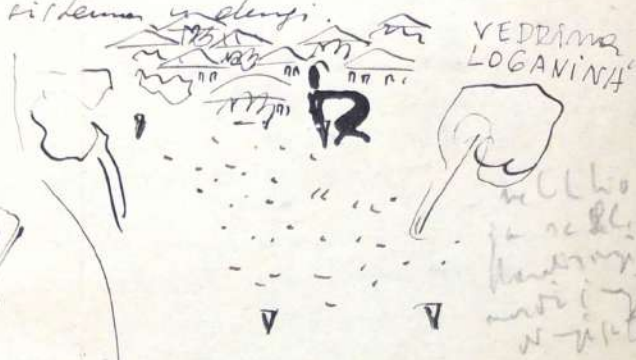
Trujikomčino. V toga šteta zaključ
 o od jedny bno venčli kulo se gubli u prinoči o d
 drugog kulo se vrti u kancelarij, sa rojtinom.
 Novo doba nemise bez rojtinve ali nemise nito bez
 prinoče. - Crni Vrh je prirodan produkt kroso
 jer se prešlo iz jedny sistemu u drugi.

MRAK
 CRNI VRH



Crni Vrh

VEDRINA
 LOGAVINA



Quintar gubli bez
 plana, izravno zakada
 kočice igrački,
 pjerogica graditi,
 + sato odvoz
 vedrine

Takozvani projekt - produkt
 zgradio se, sario se u zvoju
 snopa lica ertogun i kalkulacijski
 knući koji gubli, da imie sta nosi
 profit.
~~zato je to uklopio, bez sara.~~
 Rojtinve pa savladala mjesto
 on mji.
 Otvore ~~so~~ mrežicu izvoz

Priznava tehniku + angažnost
 je program rukov. činjenica
 mozaik + sree.

~~Radnik~~ O načinu rada, oiti i rezultat.

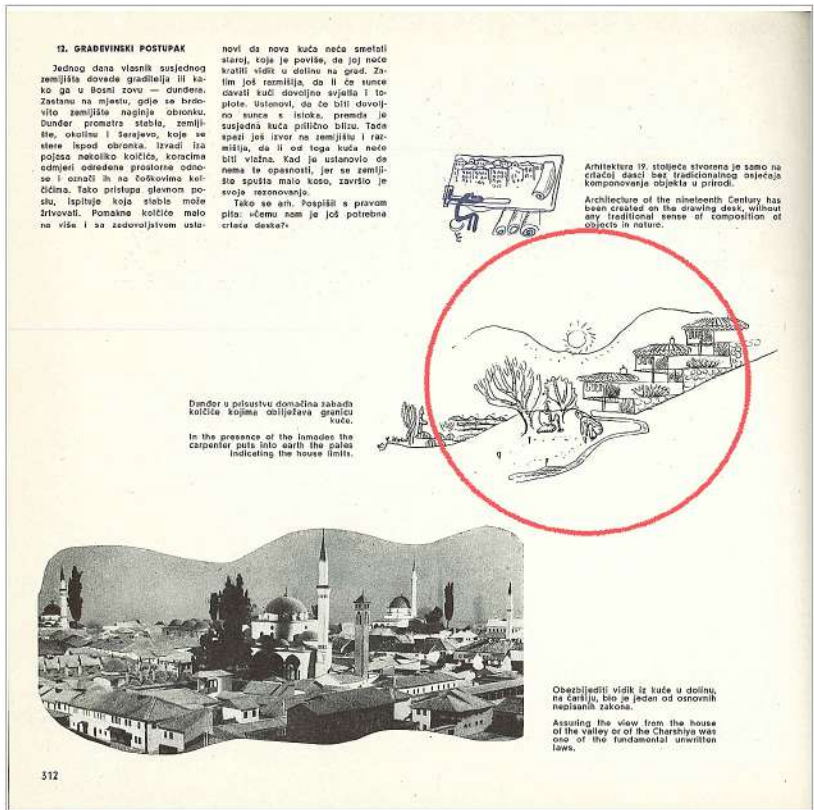
Odvos tabl. moćny skeptičny profitersky = CRNI VRH
 " VEDRINE - optan = LOGAVINA

DVA mjesto jedny rohin drugog. Austrija u ime
 nove cimbi. zvoje u ruzvica je St. Sary.

Vedrine = rozgibavet - meandrovije = zivot zefra
 Tupa = uklopio = reprezentacije - missonofrust

zivot zefra

Figure I-29 - Neidhardt's sketch contrasting methods of work of two builders in two centuries, sent to Grabrijan in a letter in April 1950 (source: Correspondence from Juraj Neidhardt to Dušan Grabrijan, April 1950, Box 7, 1950/7-18 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).



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Figure I-30 - The final version of the sketch, included in the book (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 312).

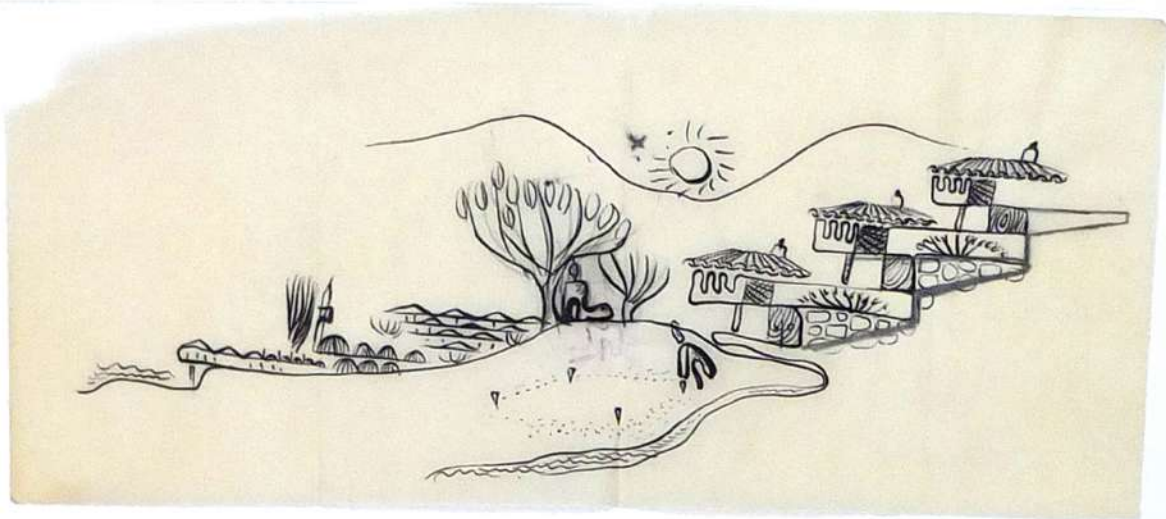
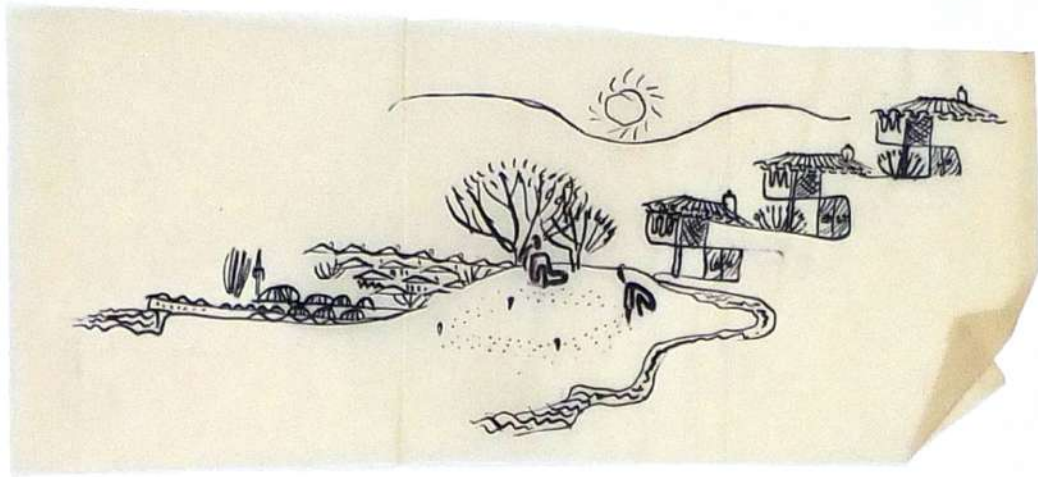
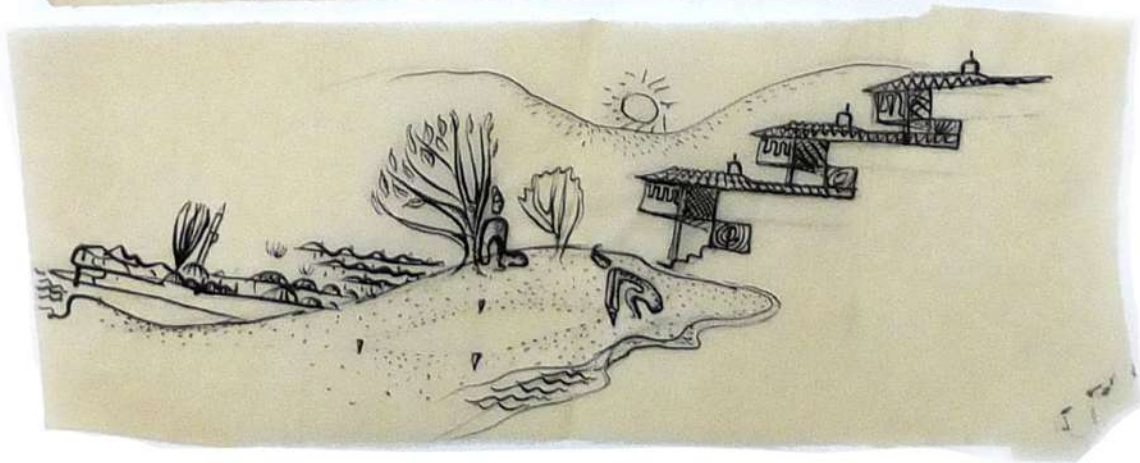
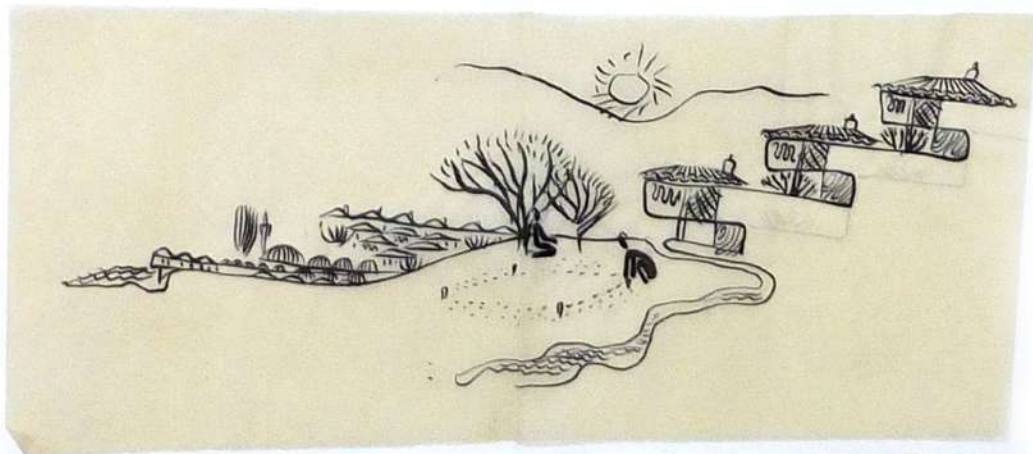
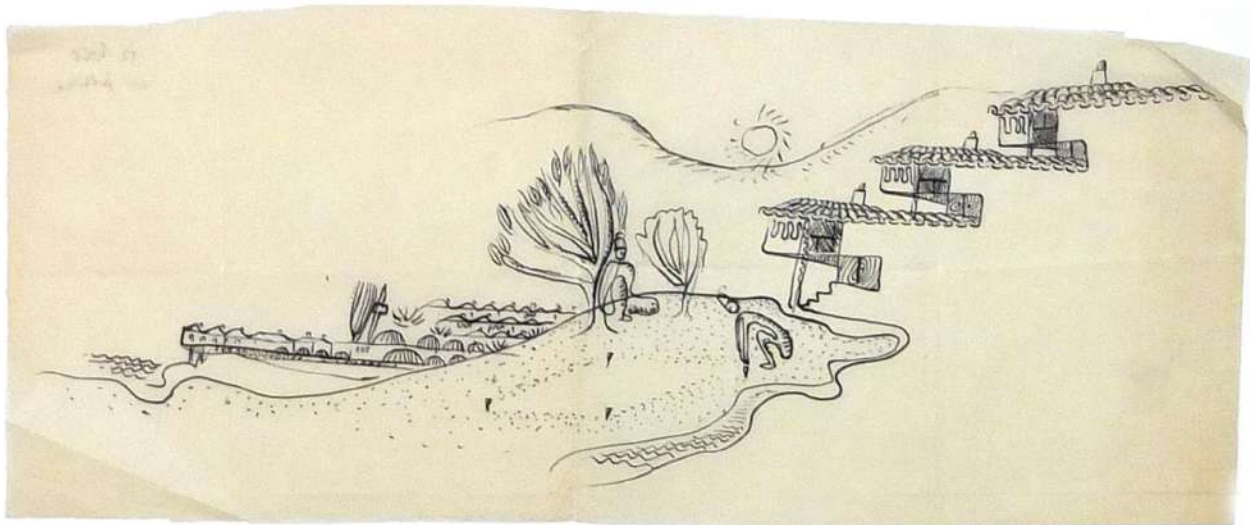


Figure I-31 - Six of eleven original studies for the sketch about the builder-artist, ink on tracing paper (this and next page) (source: Box 26, 5, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).



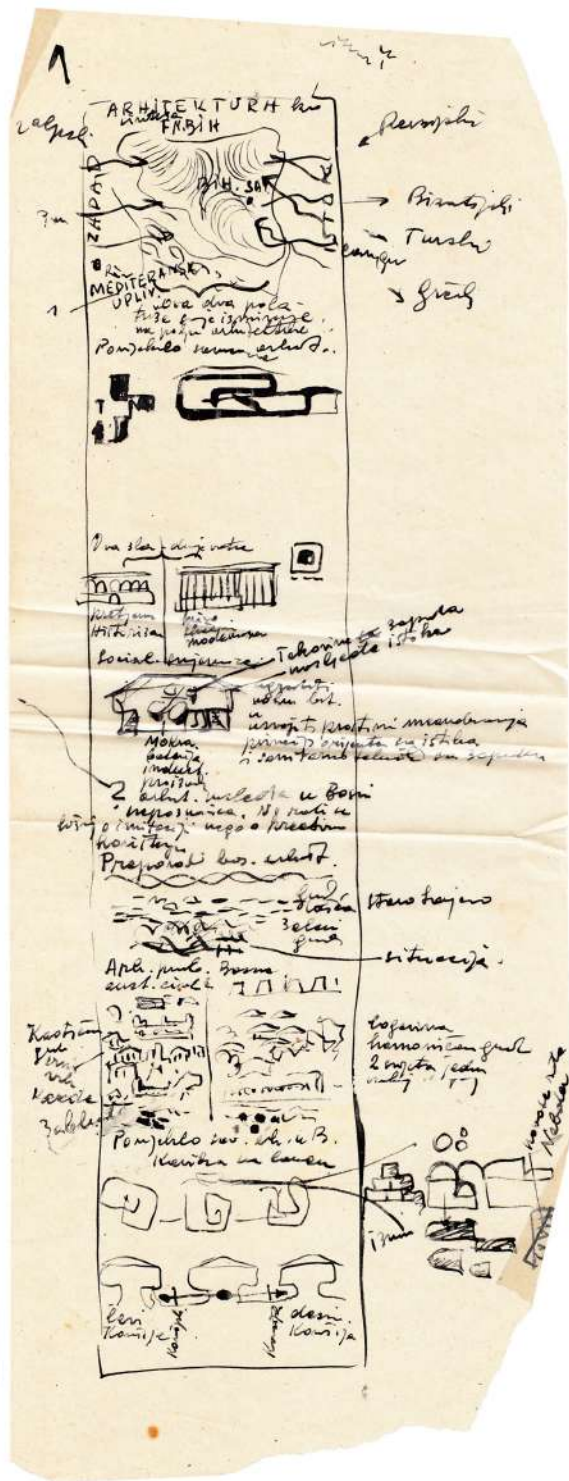
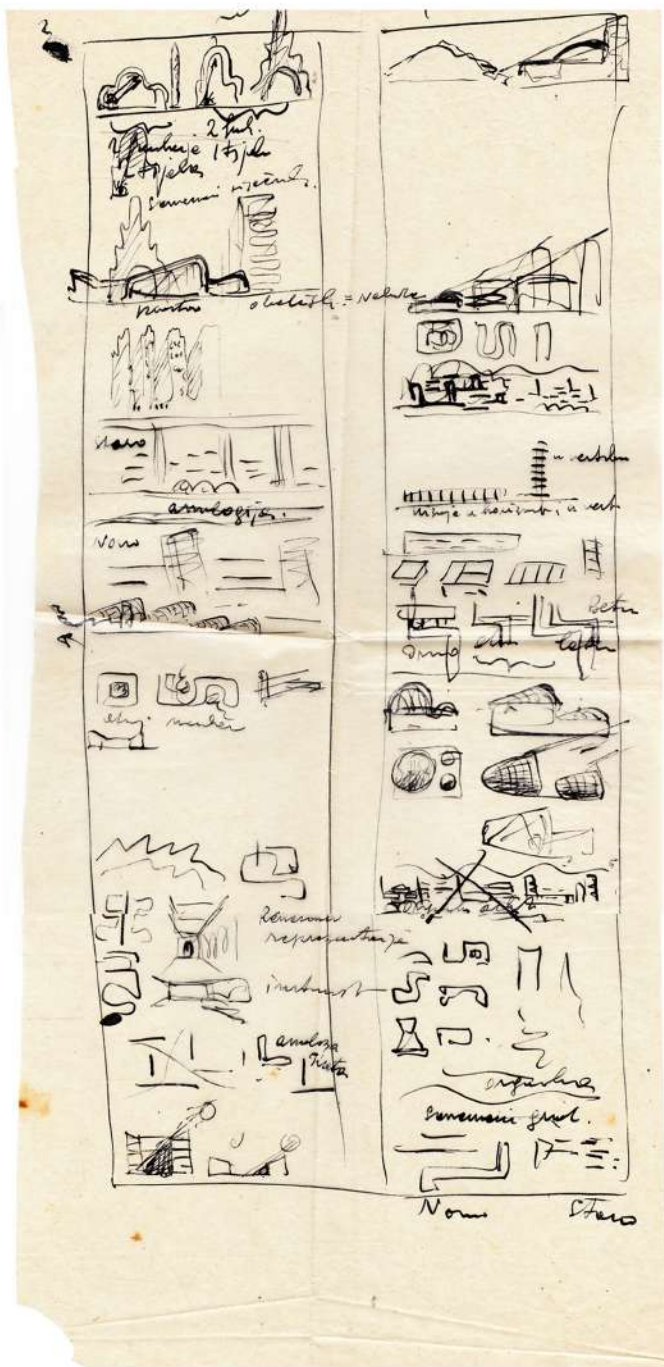
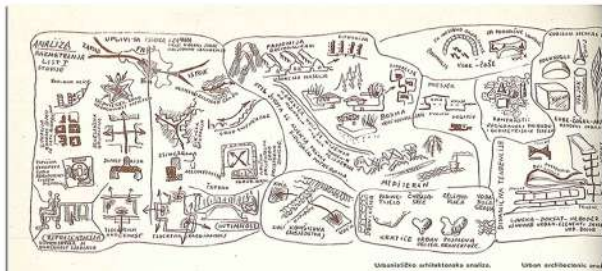


Figure I-32 - Studies for sketches accompanying Neidhardt's text "Renewal of Architecture in Bosnia and Herzegovina" (source: unmarked, Juraj Neidhardt's private archive).



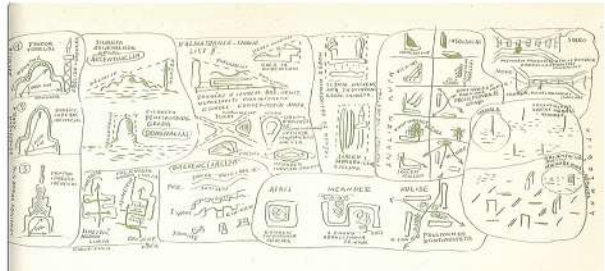
REKONSTRUKCIJE U ZNAKU I REKONSTRUKCIJE

Opšti i široki i zapadni krugovi u bosanskoj sredini svoje temeljne temeljne ideje tretiraju prilikom izvođenja razvoja i projekata, pa tako na određenoj osnovi nastaju u skladu s idejnim, organizacijskim i prostornim prijedlozima.

Prvenstvo je potpuno do potpunosti potpuno savremeno arhitekturno i prostorno, pa tako na određenoj osnovi nastaju u skladu s idejnim, organizacijskim i prostornim prijedlozima.

Na prvu arhitekturnu osnovu i na osnovu arhitekturne organizacije, potpuno savremeno, pa tako na određenoj osnovi nastaju u skladu s idejnim, organizacijskim i prostornim prijedlozima.

U skladu s idejnim, organizacijskim i prostornim prijedlozima, pa tako na određenoj osnovi nastaju u skladu s idejnim, organizacijskim i prostornim prijedlozima.



Arhitektura je uvijek najopćenitiji odraz života. Ona je uvijek najopćenitiji odraz života. Ona je uvijek najopćenitiji odraz života. Ona je uvijek najopćenitiji odraz života.

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Arhitektura je uvijek najopćenitiji odraz života. Ona je uvijek najopćenitiji odraz života. Ona je uvijek najopćenitiji odraz života. Ona je uvijek najopćenitiji odraz života.

Arhitektura je uvijek najopćenitiji odraz života. Ona je uvijek najopćenitiji odraz života. Ona je uvijek najopćenitiji odraz života. Ona je uvijek najopćenitiji odraz života.

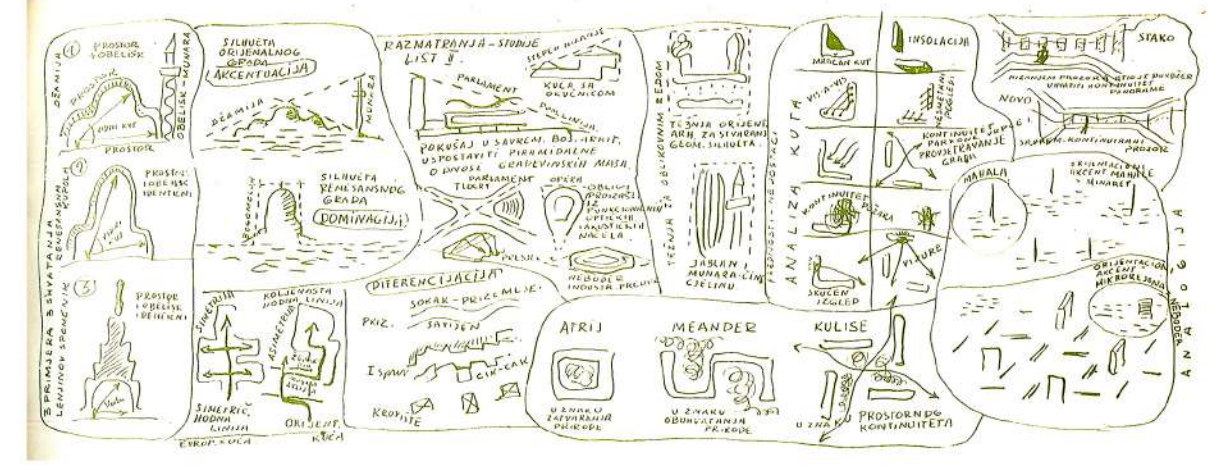
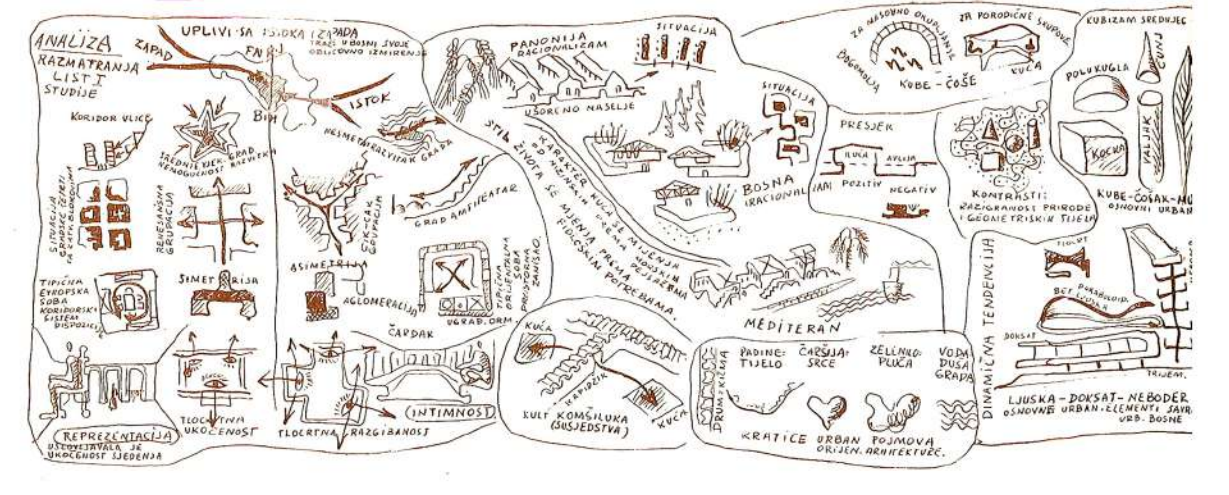


Figure I-33 - The sketches for the "Renewal of Architecture in Bosnia and Herzegovina" as published in the book (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 322-323).

2

Tu namo našemu mnogim stvari unajenjed
 kuhno li se grešice greške. Tudi ce ovako
 biti. Vi mošete pojedine stvari njezavati, kooe
 stignete. Nemate je pravice nmarati, tvojte
 Zdravje to e osorno. To namo ide samo u
 prilog da kilitarna ne porira.

Koordinacija izmedu tekstov i slike ce mo
 usprotiviti. A slika poplavlja moze biti profinjeno
 jednim velikom fotografijom i rednim
 stranom intencijom preko cele strane.

Slike imamo konture i so iz velikog se pada ide
 u situacije. To se mita. Ne bojim samo se bojim
 da fotograf ne spina. One poslednje fotografije koje
 su divne (kucin us grlo) sasma je isia kazio.
 Seta molim vas nemate dati ne porocionati
 nego samo ex. Ja in se ravnam, jerama forme.
 Nalazim da, kada je bas dobar. To je najkrajnje
 pitanje. Kao firma koje proizvodi kuzelagere
 i neke druge stvari. Kuzelagere metne na
 svoj firmu kao svoje samel dijelo.

Dakle redovno.

Panorama + gradnja + kucin + opis te kucin sa
 100 primjeraka + P.N.U. (T) + uplivo on) u modernu

To se me dobro drži samo treba us slike
 ukaiti. Sve ne akademiske parole ne prave
 noseni nego stvarne. Na jui: **Nepoznata Bosna**

u kucin
 u grlo
 u kucin
 se žiri:

Kucin a
 potok - žirina

bet. kucin, trijem +
 Prolana +
 sed, basma,
 etc. kucin, kucin, kucin

12 obitavna
 je bilo potielno da se
 opremi 1 kom i komand

Bascarića buduće kult. ind. granta

kucin
 + kucin
 + kucin

Te parole su vam u restanti a Vi is proizvodite
 i pravete.
 Crise Guel + Nuz + sve moguliti kucin

U slovenacem ??

Zanimam emvate Zdravje i vortite da emirano
 i optim. gledate na stvari. Gledno je da bude
 stvar jedan usklik, žiro i inite esentno. (film)
 a so aranzman mozaita.

ne to lejadi bit ce u duhu porocionaj lehsta
 i. Gledno je neka ohocnica (loza) = papir -
 kucin, etc. onda mošete neholito chena se odnati

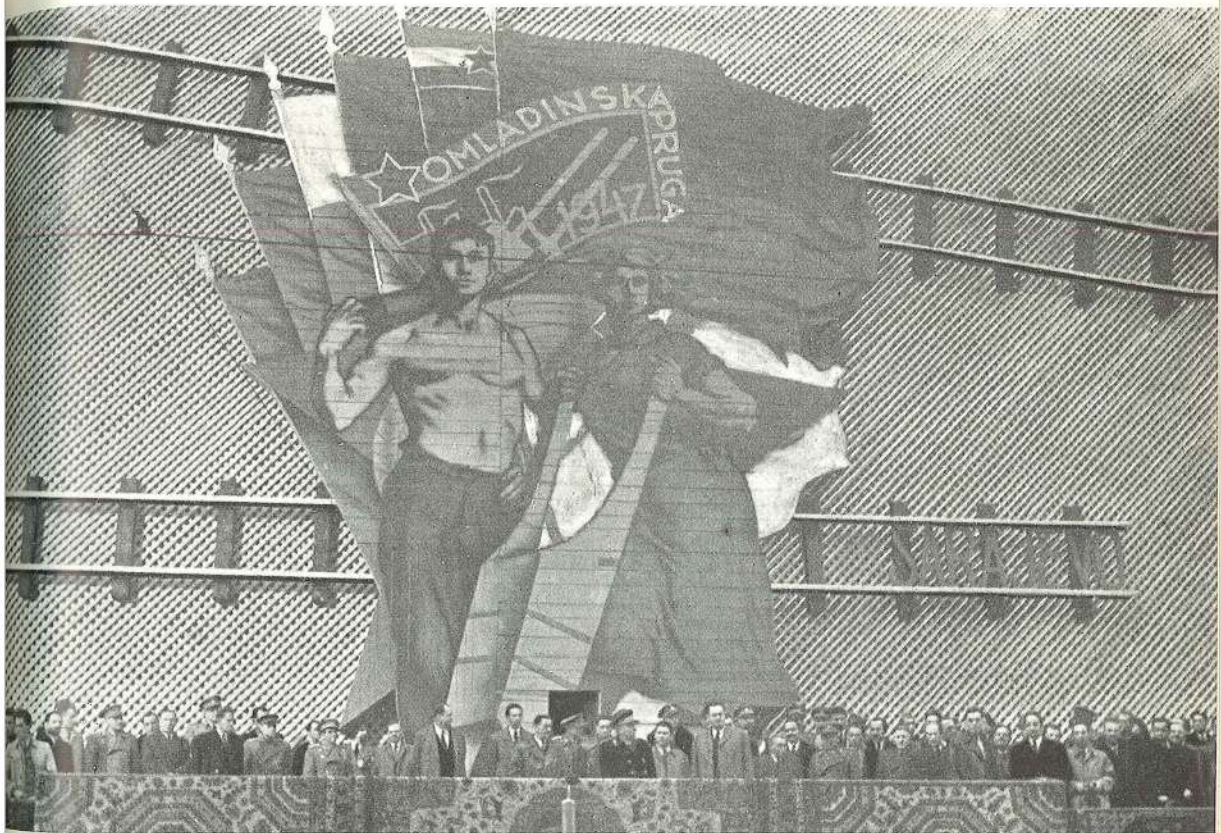
Vas
 Prilozi = mali wood aranz.
 3 seme
 Neslov. strane

Surjev 27 I.

Figure I-35 - Neidhardt's sketches and writings that introduce the idea of the "slogan" into the book, sent in a letter to Grabrijan, October 1949 (source: Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1949, Box 5-1, 1949/43, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

Omladinska pruga na kojoj su radile i omladinske ekipe iz drugih zemalja izgrađena je pod perolom: "Mi smo izgradili prugu, pruge je izgradila nas."
The young people railway, constructed amid a concourse of young staffs from abroad under the slogan: "We have constructed the railway, the railway has constructed ourselves."

Tribina izgrađena prilikom otvorenja Omladinske pruge 1947 god. u Sarajevu (J. N. i I. M.)
Platform built up in 1947 in Sarajevo on the occasion of the inauguration of the railway of youth.



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Figure I-36 - Neidhardt's and painter Ismet Mujezinović's design of a scenography for a socialist political gathering, organised to celebrate the opening of the Youth Railway, (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 321).



Stari način života se napušta, zar i val je odbačen, novo se rađa.

Old living manners are abandoned, veil with upper part of dress is rejected, the new is born.

12. BUILDING METHODS

One day the owner of the neighbouring garden brought a carpenter to the site and told him to build-up a house. They stopped on a spot where the ground sloped gently downwards. The carpenter had a look at the trees, the ground, the environments, and the town in the valley. Then he proceeded to extract from his cumberbund some pegs, paced off the distances, and marked them with the pegs. Thus he came to his main task. He asked the owner which trees might be sacrificed, moved the pegs for a few feet, nodded and seemed satisfied. He found that the new house

would not obstruct the view from the neighboring structures. Then the carpenter reflected whether the new house would have enough light and sun. When he found that the east wall of the house would be far enough from the neighbouring structure, he proceeded to examine the site for water. There was a spring near by but the ground was inclined and he said that water would do no harm to the house. Having satisfied himself on all these points, he concluded his reasoning by saying that he was willing to erect the house.

In view of the above we must ask: what is the use of a drawing board?

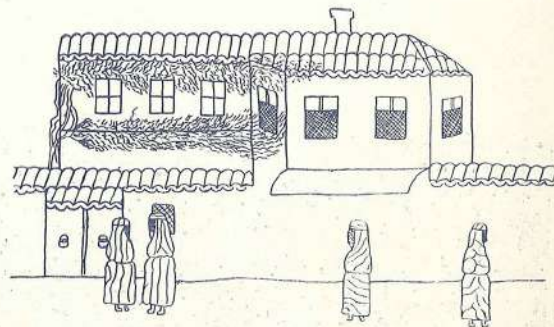


Figure I-37 - A page from *Architecture of Bosnia and the Way to Modernity*, announcing the removal of the Muslim veil (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 313).



Figure I-38 - Photographs of Ljudmila Mili Nanut Neidhardt (top, middle and bottom left) and Nada Šeh Grabrijan (bottom right), uncredited contributors to the *Architecture of Bosnia* project (source: Box 4 and 56, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia and Tatjana Neidhardt's family album).

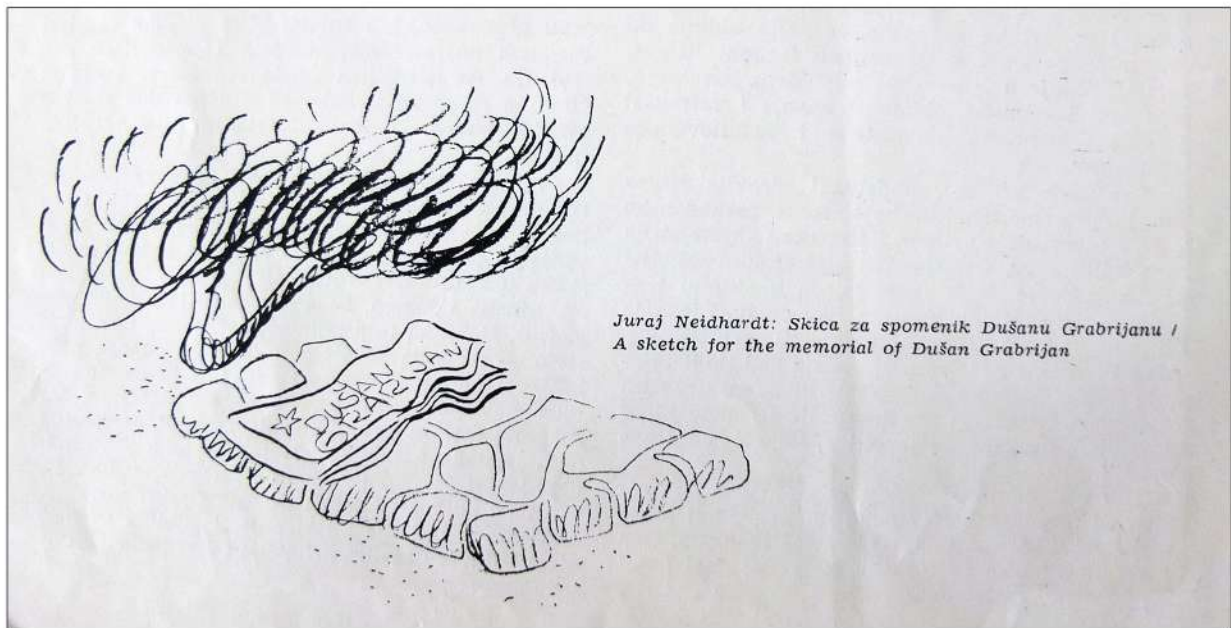


Figure I-39 - Neidhardt's sketch representing his design for Grabrijan's grave (source: Juraj Neidhardt, "Lik Dušana Grabrijana," in *Arhitekt* (Nov.-Dec., 1952): 8).



DUŠAN GRABRIJAN
(1899—1952)

I N M E M O R I A M

**UMRO JE ARHITEKT
DUŠAN GRABRIJAN**

Iznenada i zato mnogo teže, je 23. oktobra 1952 sve slovenske arhitekta pogodila vijest, da je umro Dušan Grabrijan, vanredni profesor Fakulteta za arhitekturu IVŠ u Ljubljani.

Profesor Dušan Grabrijan je kao čovjek bio otvoren i iskren prema svakome, tko mu je iskrenost vraćao; samokritičan i strog prema samome sebi; kritičan, ali tolerantan i širokogrudan prema drugima; dobrog srca i blag, svjestan patriot i komunist.

Kao pedagog bio je širokih pogleda i odličan stručnjak; nesebično je davao drugima svoje znanje i semoga sebo; znao je načiniti predmet izvanredno zanim-

ljivim i predavao ga s temperamentom; shvaćao je mlade duše i znao ih je osvojiti; duboko je vjerovao u progres i tu vjeru prenosio i na studente;

učenjaka i publicista koji je gledao na rezultate društvene djelatnosti sa gledišta svih njihovih komponentata; otkrivao je vrijednosti i ljepote u arhitekturi tako kako su one bile uslovljene mjestom, vremenom i prilikama u kojima su nastale; to je radio s dubokim ličnim doživljavanjem, mladenačkim žarom i strasću; nastojao je, da svoje pronalaskeske preda svim ljudima i zato se trudio da mu riječ bude jasna i svima pristupačna.

(Iz nadgrobnog govora arh. Milana Severa)

Prije nego što je ovo naše zajedničko djelo izašlo iz štampe, u oktobru 1952 godine, iznuren dugotrajnom i teškom bolešću, umro je u Ljubljani moj prisni prijatelj i saradnik prof. Dušan Grabrijan.

Bez njegovog upornog i požrtvovnog pionirskog rada, obimnog znanja i osjećaja, kao i vatrenog poborništa napretka jugoslavenske arhitekture, ne može se zamisliti rad na problematici i studiju našeg arhitektonskog nasljedja. Skroman po prirodi, nemiran po svom temperamentu, fanatičan u struci, gonjen neodoljivom strasću za prikupljanjem pozitivnih vrijednosti našeg nasljedja, on dugi niz godina proučava sa djacima Srednje tehničke škole u Sarajevu, gdje je bio nastavnik, problematiku stare bosanske stambene arhitekture, a posljednjih godina sa studentima tehničkog fakulteta u Ljubljani, intenzivno radi na ispitivanju makedonske i istarske kuće.

Dušanu treba da zahvalim što mi je prije više od 15 godina otkrio ogromno blago arhitektonskog nasljedja Bosne, a što je bilo za moj daljnji rad, nakon Corbusiera, od velikog značaja. U ono vrijeme on je bio prvi i jedini, koji mi je pružio ruku, koji me u mojoj osamljenosti hrabrio i uzeo za svog saradnika.

Dobro uočivši da je bosanska kuća samo jedan detalj u cjelokupnoj arhitektonsko-urbanističkoj problematici nasljedja Bosne, on prihvaćajući moje idejne postavke da svojoj studiji o bosanskoj kući doda još daljnja poglavlja: narod i zemlju, grad, čaršiju, mahalalu, nepisane

zakone, kao i analogiju sa savremenom arhitekturom. Ovo posljednje naročito zato, jer nismo htjeli zahvatiti konkretnu problematiku muzejsko-historijsku, nego kreativno-savremeno. Osnovna naša misao vodilja bila je, počti od starog prema novom, od feudalizma do socijalizma, otkriti zakonitosti, po kojima je staro građeno i progovoriti narodnim jezikom tako, da budu naše studije pristupačne i shvatljive i širokoj javnosti, kojoj su uglavnom namijenjene.

Prvo je štampano »Sarajevo i njegovi trabanti«, drugo konkretno ova knjiga, a treće bi trebala biti »Savremena arhitektura i urbanizam u Bosni«.

I tako je nastala ova naša druga studija, na kojoj smo radili gotovo 15 godina, a Dušan joj je inicijator. Njeno ostvarenje, nažalost, nije doživio. On je u zadnje doba grozničavo radio, da što prije dovrši tekst, kao da je predosjećao svoj brzi kraj.

Mi smo u Dušanu izgubili izvanrednog pedagoga, naučnog radnika, arhitekta-ideologa i narodnog čovjeka, koji je u sebi sjedinio sve vrline karaktera pobornika socijalističkog društva.

Na osnovu njegovih djela moći će daljnje generacije uspješno da nastave rad, jer je on obavio ono, što je bilo najteže i najnezahvalnije, t. j. položio je čvrste temelje, na kojima se može dalje obraditi to narodno blago, koje mi izgleda beskrajno.

Sarajevo, 12. maja 1953.

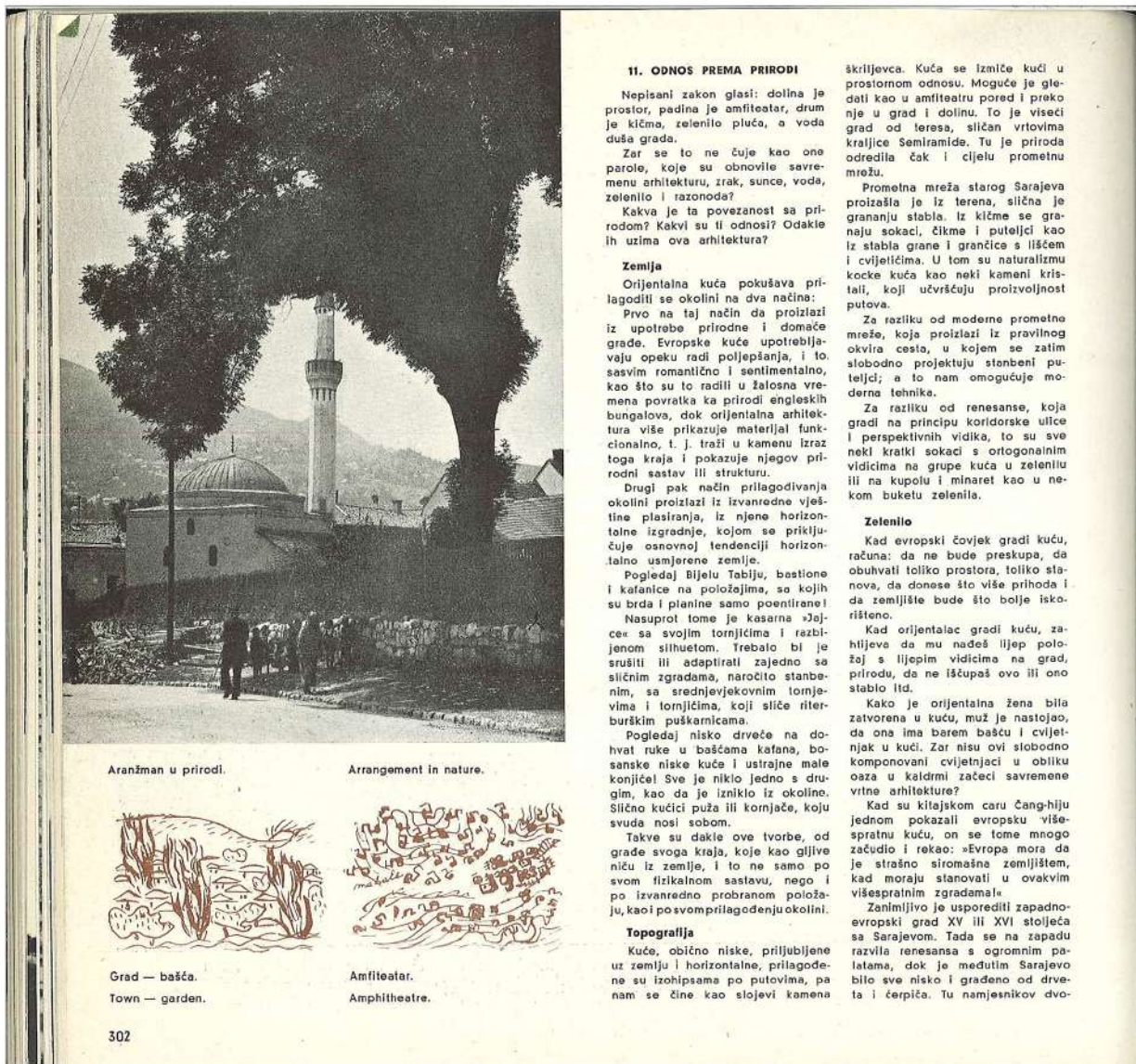
Juraj Neidhardt



Idejna skica nadgrobnog spomenika Dušanu Grabrijanu.

A drawing of D. Grabrijan's gravestone.

Figure I-40 - A page from the opening double spread of the book *Architecture of Bosnia*, crediting Dušan Grabrijan's founding contribution to the project (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 3).



11. ODNOS PREMA PRIRODI

Nepisani zakon glasi: dolina je prostor, padina je amfiteatar, drum je kičma, zelenilo pluća, a voda duša grada.

Zar se to ne čuje kao one parole, koje su obnovile savremenu arhitekturu, Irak, sunce, voda, zelenilo i rasonoda?

Kakva je ta povezanost sa prirodom? Kakvi su ti odnosi? Odakle ih uzima ova arhitektura?

Zemlja

Orijentalna kuća pokušava prilagoditi se okolini na dva načina:

Prvo na taj način da proizlazi iz upotrebe prirodne i domaće građe. Evropske kuće upotrebljavaju opeku radi poljepšanja, i to sasvim romantično i sentimentalno, kao što su to radili u žalosna vremena povratka ka prirodi engleskih bungalova, dok orijentalna arhitektura više prikazuje materijal funkcionalno, t. j. traži u kamenu izraz toga kraja i pokazuje njegov prirodni sastav ili strukturu.

Drugi pak način prilagodivanja okolini proizlazi iz izvanredne vještine plasiranja, iz njene horizontalne izgradnje, kojom se priključuje osnovnoj tendenciji horizontalno usmjerene zemlje.

Pogledaj Bijelu Tabiju, bastione i kafanice na položajima, sa kojih su brda i planine samo poentirane!

Nasuprot tome je kaserna »Jajce« sa svojim tornjicama i razbijenom siluetom. Trebalo bi je srušiti ili adaptirati zajedno sa sličnim zgradama, naročito stambenim, sa srednjovjekovnim tornjevima i tornjicama, koji sliče niterburškim puškarnicama.

Pogledaj nisko drveće na dohvata ruke u baščama kafana, bosanske niske kuće i ustrajne male konjice! Sve je niklo jedno s drugim, kao da je izniklo iz okoline. Slično kućici puža ili kornjače, koju svuda nosi sobom.

Takve su dakle ove tvorbe, od građe svoga ktaja, koje kao gljive niču iz zemlje, i to ne samo po svom fizikalnom sastavu, nego i po izvanredno probranom položaju, kao i po svom prilagođenju okolini.

Topografija

Kuća, obično niske, priljubljene uz zemlju i horizontalne, prilagodene su izohipsama po putovima, pa nam se čine kao slojevi kamena

škrljjevca. Kuća se izmiče kući u prostornom odnosu. Moguće je gledati kao u amfiteatru pored i preko nje u grad i dolinu. To je viseći grad od teresa, sličan vrtovima kraljice Semiramide. Tu je priroda odredila čak i cijeļu prometnu mrežu.

Prometna mreža starog Sarajeva proizašla je iz terena, slična je grananju stabla. Iz kičme se granaju sokaci, čikme i puteljci kao iz stabla grane i grančice s lišćem i cvijetlicama. U tom su naturalizmu kocke kuća kao neki kameni kristali, koji utvrđuju proizvoljnost putova.

Za razliku od moderne prometne mreže, koja proizlazi iz pravilnog okvira cesta, u kojem se zatim slobodno projektuju stambeni puteljci; a to nam omogućuje moderna tehnika.

Za razliku od renesanse, koja gradi na principu koridorske ulice i perspektivnih vidika, to su sve neki kratki sokaci s ortogonalnim vidicima na grupe kuća u zelenilu ili na kupolu i minaret kao u nekome buketu zelenila.

Zelenilo

Kad evropski čovjek gradi kuću, računa: da ne bude preskupa, da obuhvati toliko prostora, toliko slavnova, da donese što više prihoda i da zemljište bude što bolje iskorišteno.

Kad orijentalac gradi kuću, zahlijeva da mu nađeš lijep položaj s lijepim vidicima na grad, prirodu, da ne išćupaš ovo ili ono stablo itd.

Kako je orijentalna žena bila zatvorena u kuću, muž je nastojao, da ona ima barem bašču i cvijetnjak u kući. Zar nisu ovi slobodno komponovani cvijetnjaci u obliku oaza u kaldrmi začeci savremene vrtne arhitekture?

Kad su kitajskom caru Čang-hiju jednom pokazali evropsku višespratnu kuću, on se tome mnogo začudio i rekao: »Evropa mora da je strašno siromašna zemljištem, kad moraju stanovati u ovakvim višespratnim zgradama!«

Zanimljivo je usporediti zapadno-evropski grad XV ili XVI stoljeća sa Sarajevom. Tada se na zapadu razvila renesansa s ogromnim palatama, dok je međutim Sarajevo bilo sve nisko i građeno od drveta i čerpiča. Tu namjesnikov dvo-

Aranžman u prirodi.

Arrangement in nature.



Grad — bašča.
Town — garden.



Amfiteatar.
Amphitheatre.

Figure I-42 - Illustrations of the "unwritten law" referring to the Oriental city's relationship to nature, sketches by Juraj Neidhardt (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 302).

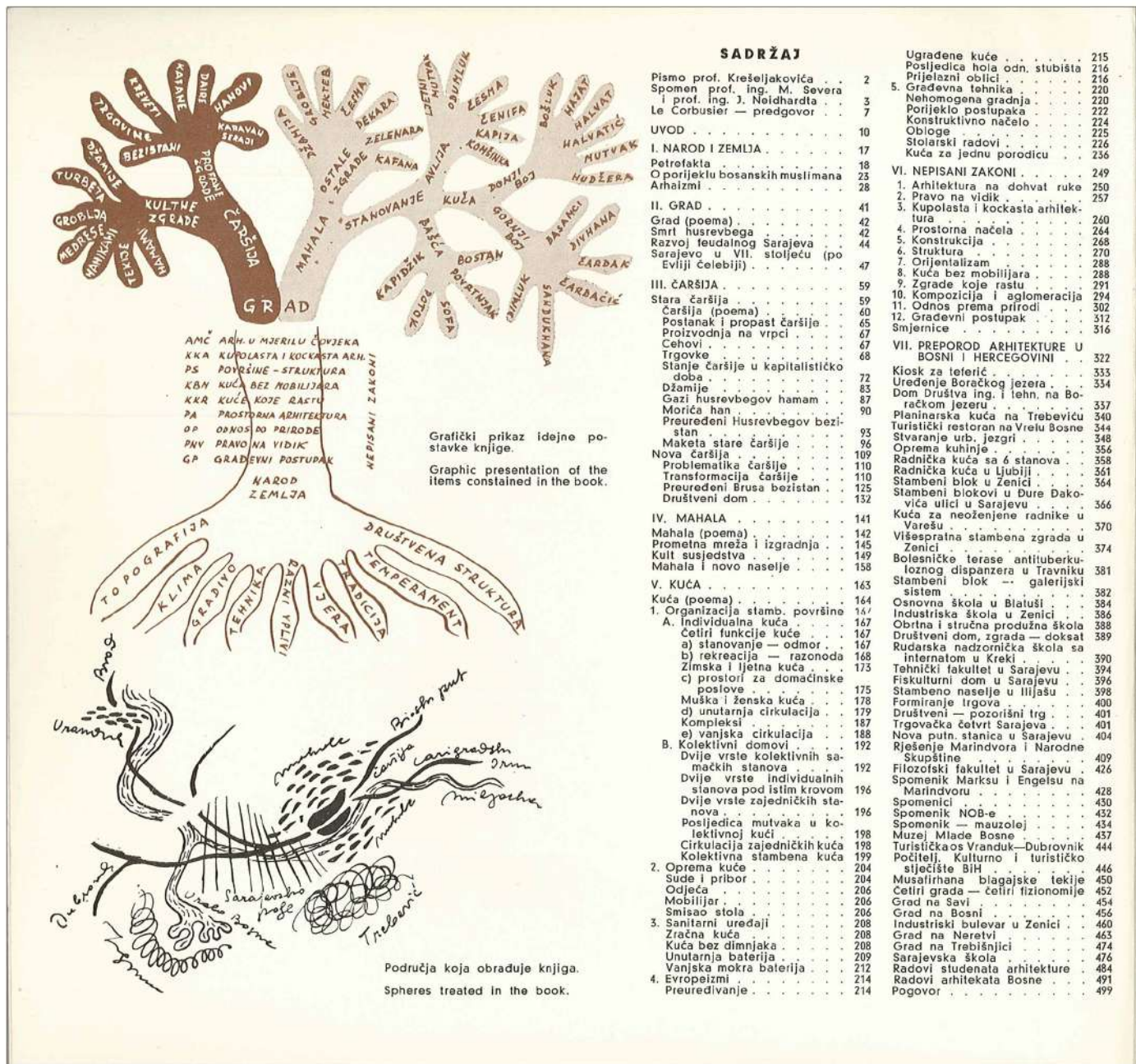


Figure I-43 - Introductory double-spread featuring three explanatory drawings about the book's subject matter (this and next page)(source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 4-5).

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SKICA ZA ORIENTACIJU

- Put za Banja Luku
- Put za Dubrovnik
- Vrelo Bosna
- Vranduk
- Ishodne kuće
- Hrasnica sa vrelom
- Ilidža
- Put u Slav. Brod
- Butmir
- Mlinovi
- Sarajevsko polje
- Bogumiski stecci
- Miljacka
- Put u Beograd
- Hum
- Rimski put
- Alipašina džamija
- Put u Vogosću
- Kasarna
- Trg Atmejdan
- G. H. hamam
- Taslihan
- Sehat kula
- Đerzelez Alije kuća
- Careva džamija
- Konak
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- Kuršumlija medresa
- Sinanova tekija
- Svrzina kuća
- Polygon
- Brusa bezistan
- Trebević
- Šabanova kafana na Bendbaši
- Grobje na Alijefokvu
- Bioski put
- Carigradski drum
- Kozja čuprija
- Glasinač (Stočanski kraj)



Panorama (Vranduk—Ilidža—Sarajevo—Trebević).
 Panorama (Vranduk—Ilidža—Sarajevo—Trebević).

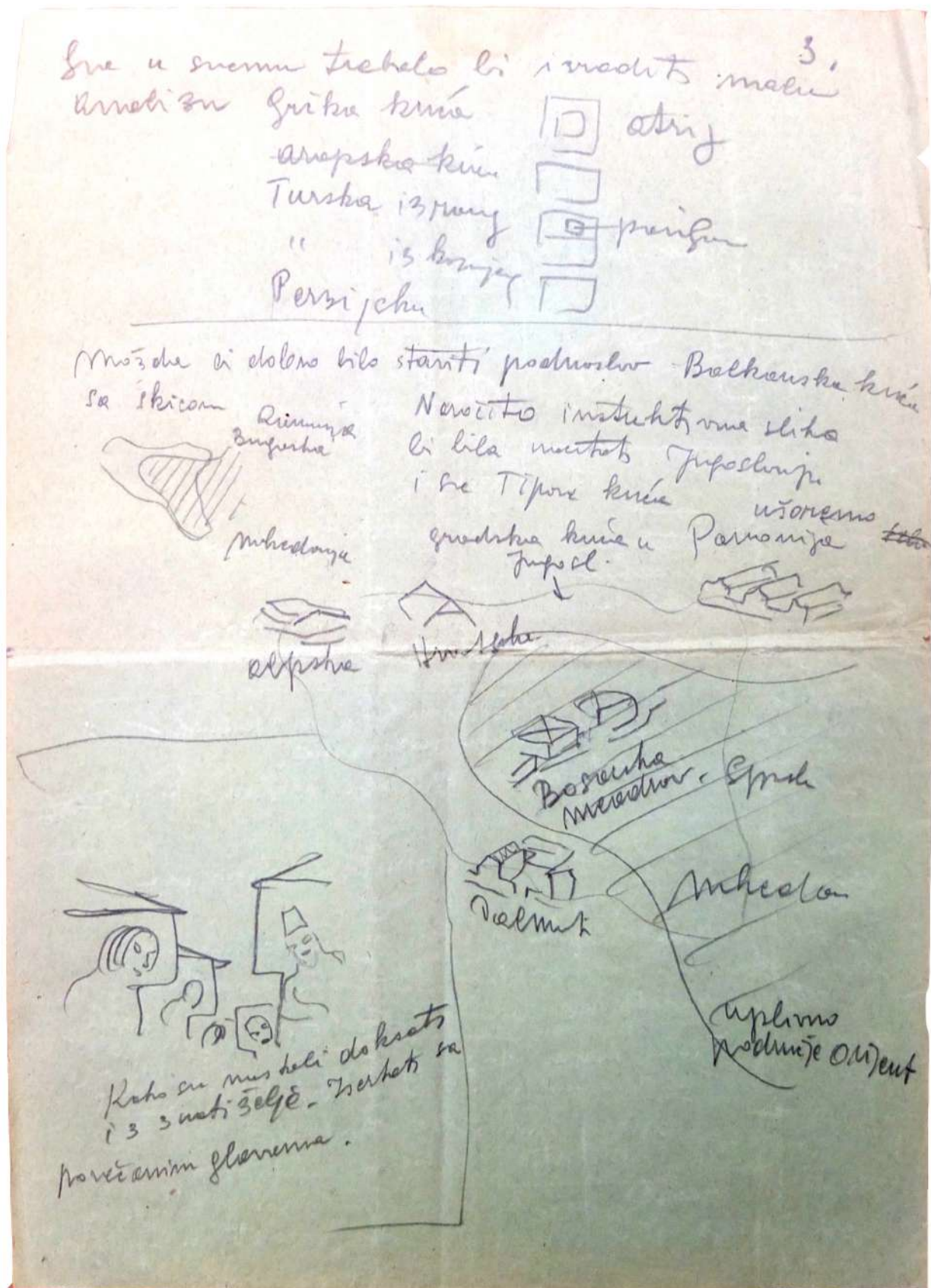


Figure I-44 - Neidhardt's sketch of Yugoslav territory with typical houses representing its regions, positioned according to the position of the region in a map of Yugoslavia, in a letter sent to Grabrijan in June 1949 (source: Correspondence from Juraj Neidhardt to Dušan Grabrijan, June 1949, Box 5-1, 1949/21, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

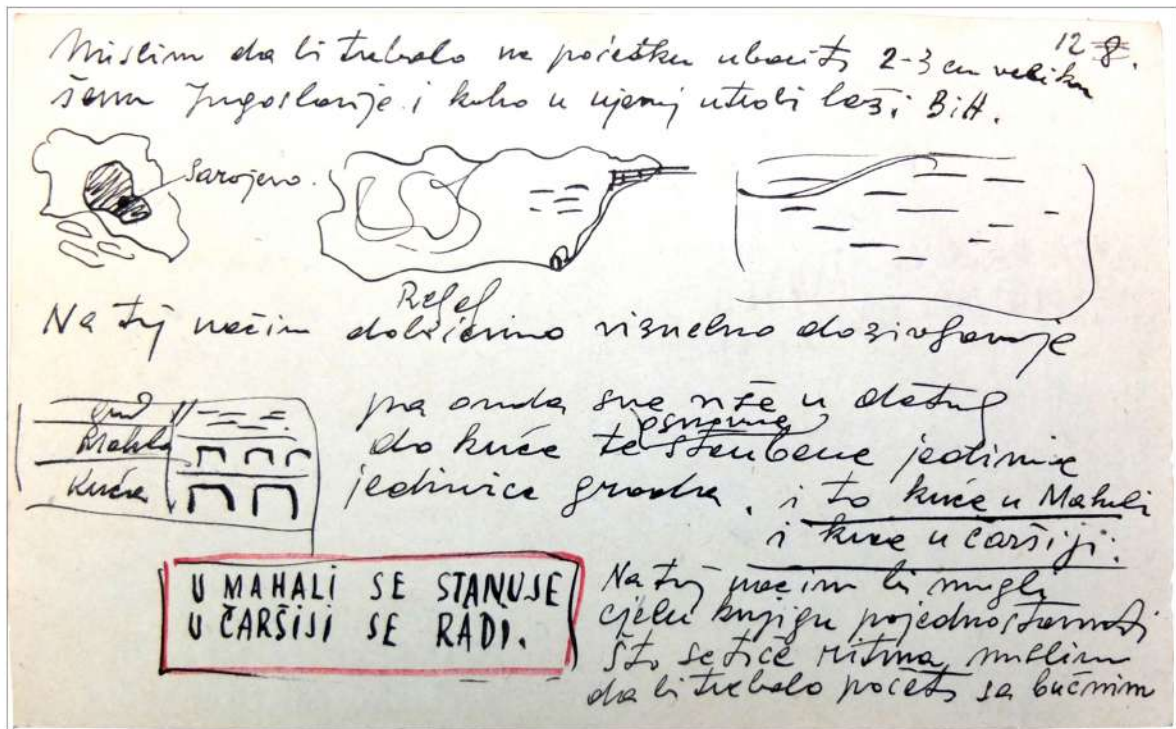


Figure I-45 - The map of the Central Bosnian region, the relief and the panorama of Sarajevo, sketched by Neidhardt and sent in a letter to Grabrijan in April 1950 (source: Correspondence from Juraj Neidhardt to Dušan Grabrijan, April 1950, Box 7, 1950/7-16 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).



Figure I-46 - Covers of the book's introduction and chapters 1-5: Introduction, 1. The People and the Country, 2. The City, 3. The Čaršija, 4. The Mahala, 5. The House (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957)).

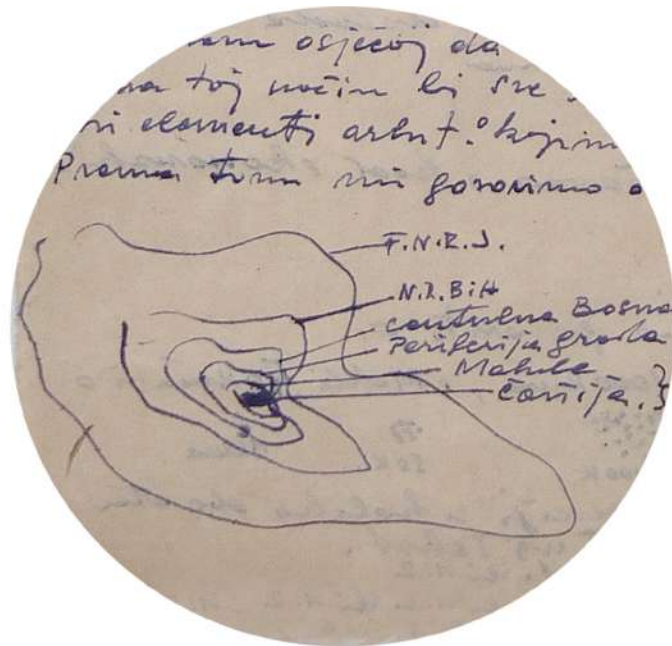
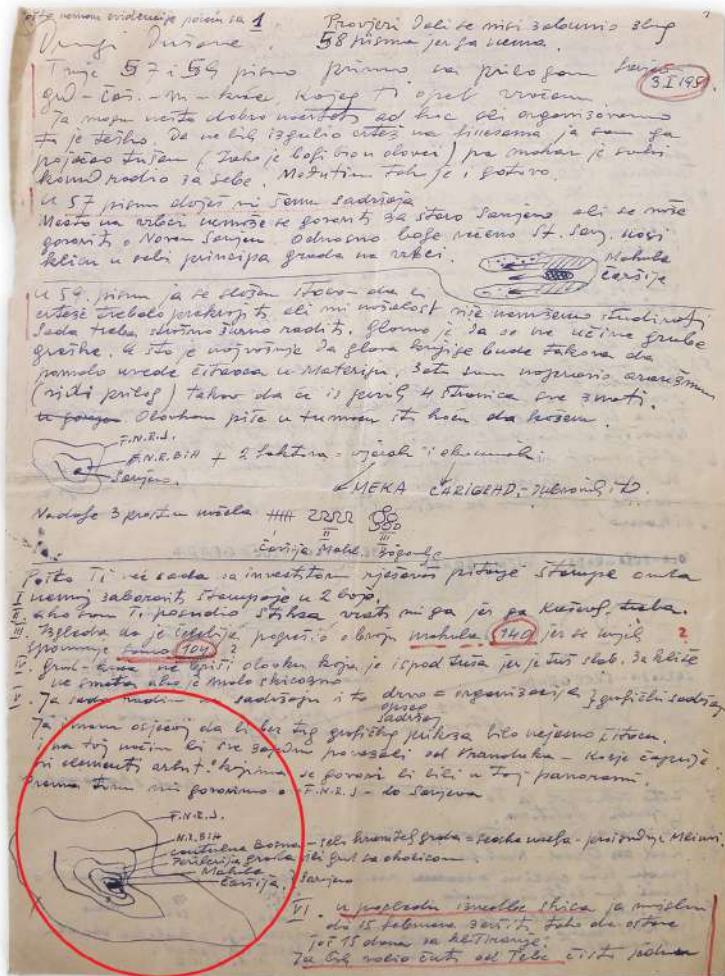
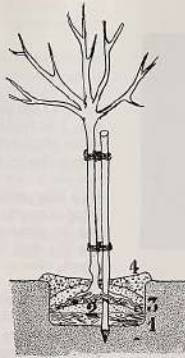


Figure I-47 - The maps of Yugoslavia, Bosnia, Central Bosnia, Sarajevo city region and the city with its center and residential neighbourhoods, sketched by Neidhardt and sent in a letter to Grabrijan in January 1951 (source: Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1951, Box 7, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).



To plant a tree well: 1. good earth and basic manure
 2. a covering of fine soil
 3. very fine vegetable earth
 4. subsoil and fertilizer

5 th PART: PRELUDE	6 th PART: PLANS	7 th PART: RURAL REORGANIZATION	8 th PART: CONCLUSION
1. THE SPECTACLE OF MODERN LIFE	1. DECISIVE DEMONSTRATION	1. MY VILLAGE	1. TOTAL PLANNING
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2. PROFESSORS OF PREDICTION	2. PARIS	2. THE "RADIANT FARM"	2. CONSTRUCTION THE BETTER CHOICE
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Figure I-48 - The tree drawing accompanying the table of contents in *Le Ville Radieuse* book, by Le Corbusier, 1933 (source: Le Corbusier, *The Radiant City* (New York: The Orion Press, 1964), 87).

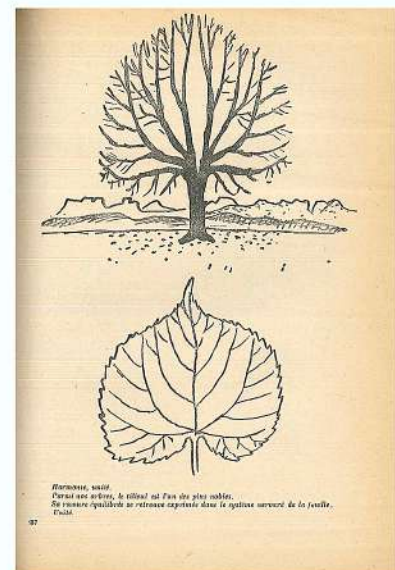
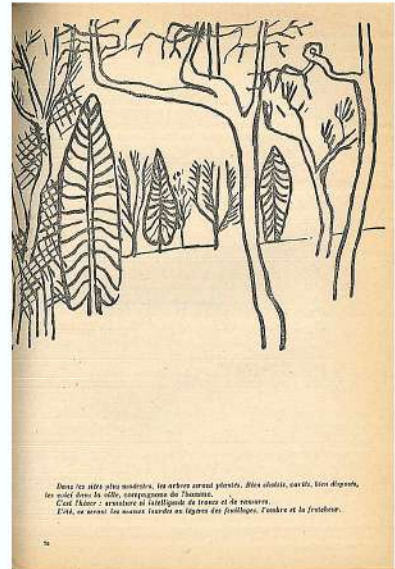
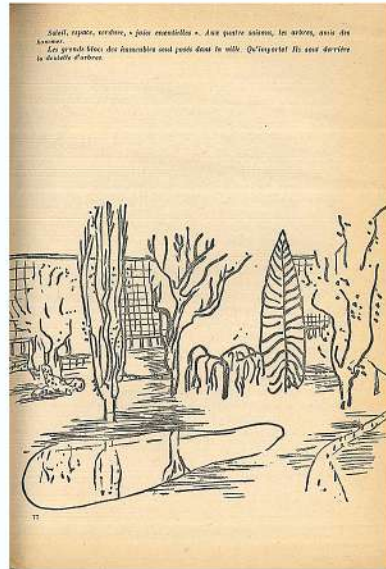
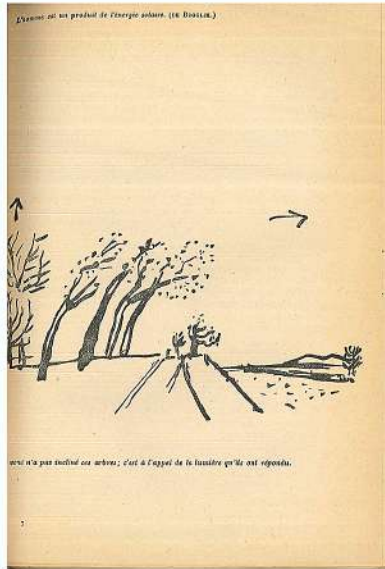


Figure I-49 - Representations of trees in the book *Le Maison des Hommes* by Francois De Pierrefeu and Le Corbusier, 1941 (source: Francois De Pierrefeu and Le Corbusier, *The Home of Man* (London: The Architectural Press, 1948), 7, 77, 75, 87, 93, 137).

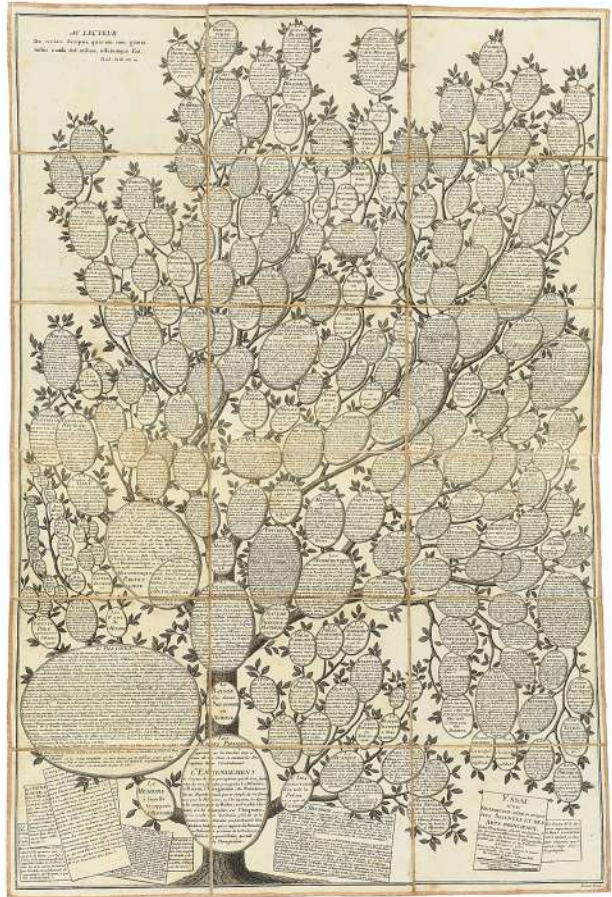
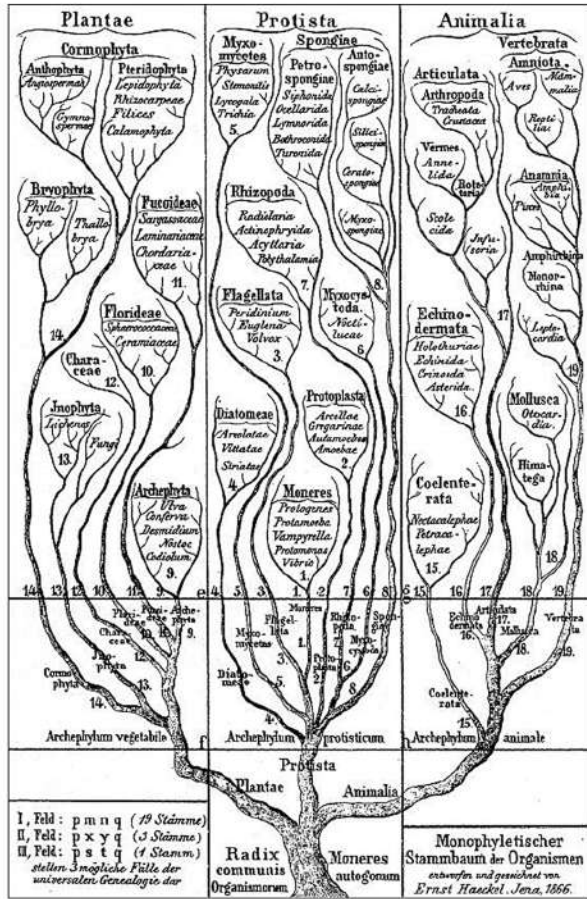


Figure I-50 - Ernst Haeckel's genealogical oak tree depicting the Kingdoms Plantae, Protista and Animalia, 1866 (left) and the frontispiece of the index of the *Encyclopédie* edited by Denis Diderot and Jean le Rond d'Alembert, 1780 (right) (source: Uwe Hossfeld, Lennart Olsson and Gregory S. Levit, "The 150th anniversary of Ernst Haeckel's 'Biogenetic Law,'" in Proceedings of the Russian State Hydrometeorological University (2017) and Matthew Lord, "The Tree of Knowledge," Accessed July 7, 2018. <https://www.mattlord.net/the-tree-of-knowledge/>).

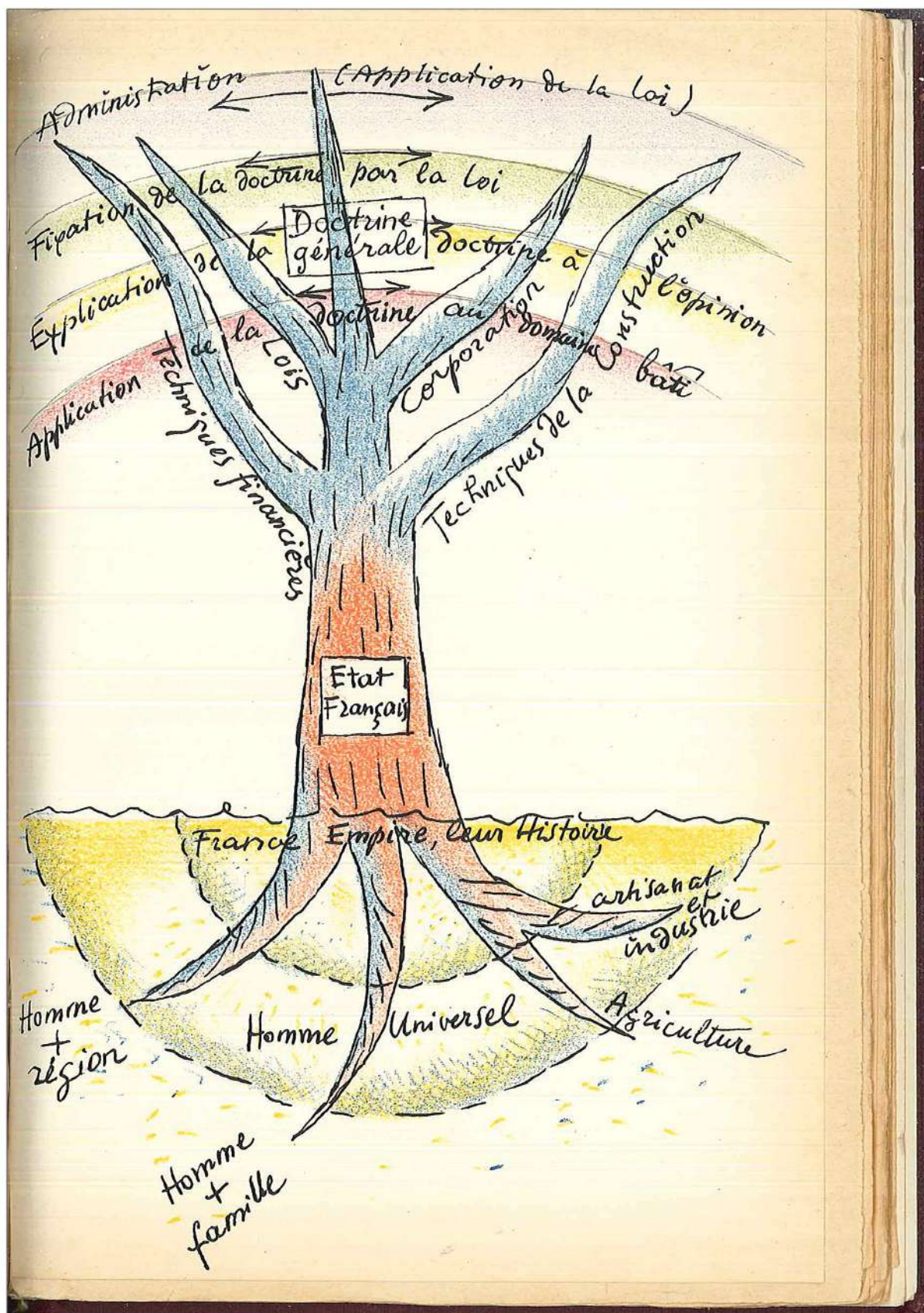


Figure I-52 - "The Tree of the Built Domain" by Le Corbusier and Francois de Pierrefeu (source: Francois de Pierrefeu and Le Corbusier, *La Maison des hommes* (Paris: Librairie Plon, 1941), 175).

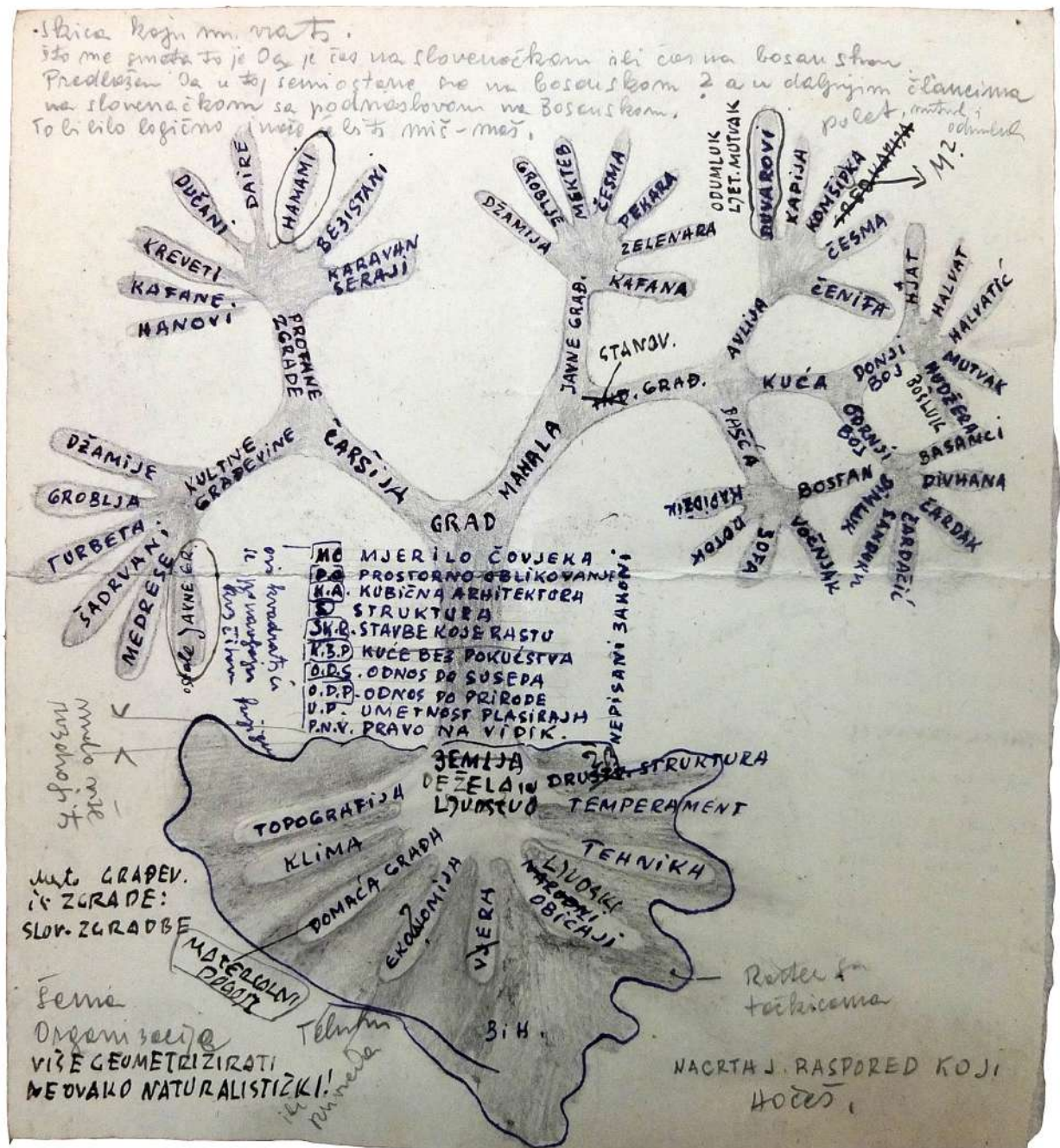


Figure I-53 - The croquis for the arborescent diagram of *Architecture of Bosnia*, by Juraj Neidhardt and Dušan Grabrijan (source: Box 26, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

Chapter 2 - Two Regions and the Territory of the Middle Bosnian (Mining) Basin

The Middle-Bosnian Basin is a large asymmetrical depression surrounded by a series of steep hills pertaining to the Dinaric Alps. The longitudinal course of the Basin, relative to the surrounding relief, assigns it to the group of topographical manifestations that the human geographer Jovan Cvijić called "the characteristics of synthesis and permeation."¹ This was one of the three groups he used to classify the main geographical features of the Balkan Peninsula, the other two being: the "Eurasian characteristics" and "characteristics of isolation and separation."² Cvijić used these relational categories to rationalise the complex processes of interaction between the man and the environment.

The geographical characteristics of synthesis and permeation, he wrote, "facilitated all the manifestations of movement, atmospherical, biological and a great variety of others, which originate in human work, civilisation and agitation."³ Writing in 1918, he observed the recent historical evidence of his thesis: it was precisely through large longitudinal depressions that both the medieval Ottoman conquests⁴ and more recent Central European influences spread, turning the Balkan Peninsula into a complex constellation of ethnic cultures and civilisations, arranged and ordered through their interactions with geography.

Similarly to other human geographers of his time, Cvijić traced and described myriad reciprocal influences that emerged between these cultures and geographic dispositions (as humans recognised and modified them according to their needs). On the other hand, (and, again, as many others amongst his colleagues) he combined this knowledge with politically charged inquiry into geographic dependencies of territories, infrastructures, economies and geopolitics. When in the early 1950s the book *Architecture of Bosnia and the Way to Modernity* referred to Cvijić's work on the Balkans, it was to rationalise the relationship between architecture and its geographic-historical milieu. Yet, along with this reference, it inherited the problem of incorporating the growing interventionist agency of the modern state into the conceptual framework of immediate unison between the man and his milieu.

This chapter argues that the region, recreated through the book *Architecture of Bosnia and the Way to Modernity*, relied on a twofold conception. One was the geographic-historical region, defined through a long, slow and mutual accommodation between ways of life and their milieus. The other was a geographic-economic region, defined by the planned arrangement of infrastructures, resources and population. Both were distinct to the metropolitan, functional city region - a prevalent concept that articulated the territorial imagination in Yugoslav (and general modernist) architectural culture of that time.

This original, dual outlook was defined through Neidhardt's and Grabrijan's joint research and Neidhardt's practice in Bosnia, between 1938 and 1954. Grabrijan's text on the "Oriental house in Sarajevo" was based on a decade of ethnographic research he conducted in the historic core of Sarajevo and foregrounded Oriental civilisational traits of its houses. Prompted by the political complexities of this conceptual framework (mainly its association with the Ottoman conquest and feudal social relations), Neidhardt initiated a thorough literature review and some additional field research to scientifically articulate the local groundedness of the "Oriental house." Relying on the influence of these new sources from the realms of human geography, ethnography and history, Grabrijan and Neidhardt developed a conception of a geographic-historical regional whole, into which the local vernacular architecture was seamlessly integrated. *Architecture of Bosnia's* principle message was that, by adhering to the "unwritten laws" and "elements of Bosnian architecture" that it defined, new architecture could integrate into this larger naturalised geographic-historical totality. Unconcerned with borders and exact territorial definitions, they focused their human-geographic research on the Middle Bosnian Basin, already familiar to Neidhardt through a very different kind of research he conducted there in the late 1930s.

Inter-war architects' attempts to rely on human geography had resulted in both "racialist abuses"⁵ and creative "uses" of the perceived bonds between men and their environment.⁶ What makes *Architecture of Bosnia* a particularly illuminating case, however, is its dealing

with a complicated relationship between Juraj Neidhardt's regionalist designs and his parallel involvement in the processes of territorial control and regulation. Neidhardt's arrival to Bosnia in 1938 coincided with the shift in the Kingdom of Yugoslavia's economic policy, from mild to strong state intervention. As a part of its efforts to strategically respond to the increasingly complex political and economic foreign relations with pre-Second World War Europe, the Yugoslav government founded a state-owned concern Jugočelik, meant to transform Central Bosnia into the "Yugoslav Ruhr." This strategy relied on significant brown coal and iron ore reserves of the Middle Bosnian Basin and mining, industrial and traffic infrastructures that the Habsburg regime installed in Bosnia at the turn of the century. As one of the leading designers of the Jugočelik's technical department, Neidhardt produced five settlement regulation plans and a dozen housing projects for the concern workers, but also schemes for efficient exploitation, processing and transportation of the ore, which integrated these settlements on the territorial scale. The projects and plans drew both on the "unwritten laws" of Bosnian architecture and urbanism and the integrative role of infrastructure, defined by Neidhardt's inter-war professional experiences from Vienna, Berlin and Paris.

Neidhardt's studies with Peter Behrens, marked by an effort to define a cultural expression for the industrial society, relativised the boundaries between infrastructure and architecture, while in Berlin he inherited the idea of green wedges and traffic arteries as means of territorial integration of the metropolitan city region. Finally, Neidhardt's collaboration on Le Corbusier's urbanisations and his syndicalist-regionalist projects of *Ferme* and *Village Radieux* in particular, revealed the integrative role of rails, roads, silos and highways on a much larger, economic-regional scale. These experiences cast infrastructure as not only the principle tool of planning, but as a general principle of the geographic-economic region. Accordingly, Neidhardt geared his planning and design strategies towards the overall efficiency and rationalisation of the Middle Bosnian Mining Basin, from ore transportation, to workers' everyday practices.

This chapter describes how these research and design experiences defined two different regions: the Middle Bosnian Basin and the Middle Bosnian Mining Basin, as well as how Neidhardt devised the methods to integrate his architecture into these different regional wholes. Before the early 1950s, these strategies of integration into the geographic-economic region consisted of modest, idiosyncratic rationalisation methods, like the use of local materials and industrial side-products, partial prefabrication and ethnographic field-work. However, after the Second World War they were perceived as inadequate, as the Basin development was subject to increasingly dehumanised rationalisations of the modern state. Far from a harmonised geographic-economic region, the Middle Bosnian Mining Basin of the early socialist Yugoslavia was a hastily developed, polluted territorial production system in which the local workers' community was considered an element in the environment imbued with security and efficiency calculations.

The distance between the two regions and the territory was particularly evident in Neidhardt's regulation of Zenica, where his regionalist inter-war housing got replaced by standardized housing and his geographic-historical design principles remained thoroughly disconnected from his overall planning scheme, defined by norms and standards that sought balance between workers' health and their productivity. Deeply affected by this experience, Neidhardt cast *Architecture of Bosnia's* model of practice also as twofold. Unlike his inter-war proposals, the book assigned design and planning, architecture and infrastructure to two different conceptions: a region and a territory.

2.1 Ways of Life - The Modern Bosnian House and Influence of Human Geography

In the paper "Le Bassin de Sarajevo" published in 1928, the French human geographer Yves Chataigneau reported that, standing on the top of the Bjelašnica, "the highest mountain in the 70 km radius" one could observe the "special physiognomy of the basin, particularly striking because of the contact with two important zones of the mutually opposing relief."⁷ The inhospitable mountainous south-east that connected the Peninsula to Asia, almost

completely cut off by the wall of mountains, and the gentler north-west marked by the Pannonian Plain that connected the Balkans to Europe. It was from this side that Chataigneau moved, from across the river Sava and through the Bosna river valley, opposite the direction of its stream, observing what he designated a material testimony of the "Bosnian domain": a range of minaret types varying in style and material.⁸

Chataigneau's statistics confirm that Muslims were indeed the most numerous, making up 41 per cent of the total population of the Basin (while they made up "only 31 per cent of the total population of Bosnia.")⁹ Population of other confessions shrunk during the four long centuries of the Ottoman rule, and migrations ensued with each significant invasion and retreat.¹⁰ The resulting situation in the early 1920s was the Muslim majority concentrated in the cities, along with the Catholics who made up 27 per cent of the Basin population and the Orthodox, who made up the remaining 30 per cent, living mainly in the countryside.

This short excerpt from Chataigneau's research in the Basin is not only a representative sample of the subject matter of human geography, but also a hint at the strategy that the book *Architecture of Bosnia* relied on to overcome one of its principle political problems. Bosnia's ethnic diversity, particularly the identity of Bosnian Muslims, was a sensitive question for the Yugoslav Socialist government. The Yugoslav national identity was constructed on the bases of a "shared social vision,"¹¹ as an additional layer to the mosaic of ethnic identities of its peoples. Yet, the recognition of the ethnic integrity of Muslims was still largely unresolved in the 1950s.¹² The principle reason of controversy was the association of Muslim population with the Ottoman conquest of the Balkans in the XV century. The "Ottoman menace" was a powerful metaphor for "contemporary grievances" of any kind, in much of the South and Central Europe until the inter-war period.¹³ However, the trauma of the centuries-long Ottoman rule, which introduced alien religious and cultural practices into the inherently exploitative character of feudal social relations, is what made Yugoslav peoples' (particularly the Serbian) nationalism depended on the Turkish "other." The Bosnian Oriental culture, that *Architecture of Bosnia* propagated as the

basis of the socialist architectural renaissance, was tied to the problematic history of both the Ottoman hegemony and feudal social inequalities.

To overcome these problems, the book relied on human geography, ethnography and history. By 1945, Dušan Grabrijan had accumulated a significant amount of ethnographic material about the Oriental historic core of Sarajevo. As a teacher at the Technical Highschool in Sarajevo, Grabrijan incorporated visits to the Oriental residential quarters into his teaching sessions. These visits resembled true ethnographic field-work, as Grabrijan and his assistants would measure, sketch, photograph and interview the inhabitants about objects of everyday residential culture.¹⁴ In this way, he managed to produce a wealth of drawings of traditional Bosnian house plans, perspectival sketches of houses and street assembles, furniture, dishes and other utensils (Figure II-01). His drawings were perhaps not as artistically appealing as Juraj Neidhardt's sketches, yet they pretended to provide a precise topographic representation of key details of the Oriental city. These materials were complemented by a collection of photographs representing everyday street scenes from commercial and residential quarters (Figure II-02).

Grabrijan's motivation for this research stemmed both from his studies with Jože Plečnik and his unhindered fascination with the cultural specificity of the Oriental city. Plečnik motivated his students to look for connections between architecture and the people who created it.¹⁵ He claimed that the architect's role was to define a "style" that expressed a people's inner self and reflected the nation's "set of beliefs, mentality and climate."¹⁶ This conviction was influenced by Gottfried Semper's theory on style. Yet, Grabrijan also associated Plečnik's teachings with the Austrian art historian Alois Riegel's conception of *Kunstwollen*, which diminished the technological and materialistic determinism of art and architecture characteristic of Semper's ideas, and granted agency to artistic consciousness of one people in a specific historical moment.¹⁷ This assemblage of theoretical affinities of Grabrijan's, which granted agency to both the man and the environment in the creation of material culture, inadvertently outlined the human-geographic theoretical framework.

However, instead of pursuing this line of inquiry, Grabrijan focused on what was defined, in Cvijić's terms, as "civilisational influences."¹⁸ In his 1949 article "Oriental House in Sarajevo," which served as an initial impetus for the production of the book, Grabrijan presented the house as a "piece of the Orient in the heart of Europe."¹⁹ Although he briefly referred in the text, to the influence of a different, local climate on the typical arrangement of rooms,²⁰ Grabrijan also tied the most prominent architectural elements of the house, such as the two-storey porch (divanhana) to the specific "spatial" needs of the "Oriental man."²¹ Finally, perhaps the most succinct conceptual expression of the civilisational primacy in Grabrijan's outlook, was his insistence on attaching the characterisation of "Oriental" to the Bosnian local vernacular architecture.

This determination can be largely explained by Grabrijan's deep affection for the Oriental culture, which is best illustrated in a spontaneous note he scribbled in his sketchbook: "Sarajevo, the place of my juicy living."²² This passionate phrase evoked decades of similar appreciation of Sarajevo's historic core by the newcomers from the north. The Habsburg and also later, the inter-war Yugoslav regime were characterised by the influx of experts and administrators into Bosnia and Herzegovina. The Central European, Croatian, Serbian and Slovenian visitors to Sarajevo admired the spontaneity, authenticity and romanticism of the Oriental city.²³ Both regimes saw a great potential in this perception, on which development of tourism could be based.²⁴ Grabrijan's texts in *Architecture of Bosnia* included close, well-disposed descriptions of not only architecture and material culture, but also ways of life of the "Oriental man."²⁵ While these were exceptionally insightful and rather accurate, they also entailed Orientalist preconceptions about the inherent technological inferiority and naiveté of the Oriental culture. In *Architecture of Bosnia*, Grabrijan and Neidhardt repeatedly linked sensibility of this culture to children's drawings and characterised the Orient as "emotional" (as compared to the "rational" West).²⁶ In the initial drafts of the text, they emphasised spontaneity and relativised feudal power relations. In spite of the ethnographic substance that backed them, these positions,

characteristic of Grabrijan's and Neidhardt's interpretations of the Bosnian Oriental vernacular in the 1930s and the 1940s, approached Le Corbusier's orientalist framings of architecture and cultural practice of Islamic societies.²⁷

In early 1950, however, Neidhardt initiated a conceptual revision of this work. As his exchange with Grabrijan regarding the production of *Architecture of Bosnia* reached its apex at this time, he strategically tested the disciplinary opinion about some of the most fundamental arguments of the book. Through his research commissions related to the historic core of Sarajevo and other involvements in the Bosnian architectural culture²⁸, he realised that the thesis on the inherent modernity of the Oriental house was politically complex and scientifically unstable. Particularly as the vernacular came into the purview of Yugoslav architects at the time (as the third chapter of the present dissertation will discuss), a methodical approach to the question became a topic of discussions in Sarajevo.²⁹ Neidhardt became specially concerned with the accuracy of certain historical projections about the Ottoman society that transpired from his correspondence with Grabrijan, as he tested them in discussions with Hamdija Kreševljaković,³⁰ the historian of the Ottoman Sarajevo and reviewer of Grabrijan's text. Was the Oriental house democratic or marked heavily by the social stature and caste? Were social differences between classes pronounced only in the countryside or also in the city? What were the exact names of objects of material culture taken from the Turkish language? These and other historical dilemmas combined with the methodological ones and opened a new, scientific perspective on the question of the "Oriental house in Sarajevo."

Another important difficulty that Neidhardt sought to overcome by resorting to the authority of science was the validity of the Oriental architectural paradigm in the circumstances of the new social order. In April 1950, for example, Neidhardt reported to Grabrijan that young architects-Communists³¹ criticised his work on the Oriental house in terms of its "idealism." What they wanted, he claimed, was "that around which revolves the entire socialist theory. Start with the roof above one's head, with the most primitive houses

in the social order of feudalism, then continue to the superstructure, etc.”³² Neidhardt’s answer to this dual, scientific and political challenge, was to pursue more consultative meetings with Hamdija Kreševljaković, intensify his own field research in the Oriental historic core and initiate and facilitate (by acquiring and sending books) the broadening of Grabrijan’s literature review.

Kreševljaković was one of the most authoritative scholars in the history of the Ottoman era in Bosnia. He specialised in cultural and economic history, while he also occasionally addressed issues of the history of the built environment. His published work included topics like printing offices, public bathrooms, water supply systems, trade, economy of raw materials, guilds and crafts. Kreševljaković would accompany Neidhardt on his field visits to Sarajevo’s historic core, or the two would meet at the historian’s home, where Neidhardt would come with a prepared list of questions.³³ One of the most recurring topics was the specificity of the Bosnian, relative to the Ottoman oriental house. In January 1950, for example, Neidhardt informed Grabrijan that Kreševljaković agreed to give them “a birth certificate of every building” they were working on.³⁴ He attached Kreševljaković’s book titled *Guilds and Crafts in Bosnia-Herzegovina (1463-1878)*³⁵ to the letter and proposed to use it as reference when writing that “social overview” that he thought the original manuscript lacked.³⁶

As the first draft of *Architecture of Bosnia* was already finished in early 1950, Neidhardt proposed to develop and fixate the new outlook on local specificity by adding a comprehensive “introduction” to the work, based on these new sources. Several months later, he also started arguing for a “conclusion” which would make an appeal for further investigation of our “recent past.”³⁷ Most of the two authors’ exchange throughout the following three years revolved around references, theses and composition of the “Introduction” and “Conclusion” to the book, which were meant to provide a new conceptual “wrapping” of Grabrijan’s original text. Neidhardt was convinced that the quality of the introduction was critical to the book’s success and that its “scientific”

consistency was what determined it. The scientific character was expected to immunise the work against politically-minded criticism. But in order for *Architecture of Bosnia* to become “a scientific people’s study,”³⁸ as Neidhardt described his aspirations in March 1950, it needed to be backed by scientific literature.

Importantly, history soon lost its authority as solid enough of a basis to back this effort. Neidhardt thought that in making this crucial amend to the project, they could solely not rely on Kreševljaković, whom he judged to be “too much in love with the old”.³⁹ However, the relativity of historical accounts was demonstrated even more forcefully by the historiographic treatment of the “origins of Bosnian Muslims.” In January of 1950, Neidhardt sent to Grabrijan the recently published, first issue of the *Annual Herald of the Society of Historians of Bosnia-Herzegovina*, referring him to two articles covering two of the most difficult themes related to the Ottoman rule: the inherent agony of feudal social relations and islamisation of Bosnia. In the first article titled “From the past of Bosnia-Herzegovina of the XIX century,”⁴⁰ one of the most prominent Bosnian historians Vladislav Skarić, described the struggles of the repressed, predominantly Christian, vassal class against their, predominantly Muslim, feudal lords in the XIX century. If this text merely implied the methodological-political problem of the Bosnian-Herzegovinian historiography, it gained the full expression in the second article, Aleksandar Solovjev’s “The Disappearance of Bogomilism and Islamisation of Bosnia.”⁴¹ Here Solovjev’s comprehensive literature review showed how disputable and contradictory a historical judgement could be about the issues carrying the pronounced political potency in contemporary times. The article examined the issue of ethnic and religious identity of the medieval inhabitants of Bosnia-Herzegovina who, after the centuries-long Ottoman rule and islamisation, constituted the Muslim majority of its people. The established historical account identified these Bosnian ancestors as Bogomils, a heretical sect which, in the circumstances of intense Papal persecution against them, embraced Islam and the Ottoman culture. However, Solovjev’s meticulously analysed sources, both primary and secondary, showed how, through several centuries, the

politically-motivated historians contested this thesis to deny the nativity of Bosnian Muslim population.⁴² Solovjev concluded with unequivocal affirmation of the historical existence of the Bogomils, as ancestors of Bosnian Muslims, and criticized the “needless scholarly negation of the most important social-religious movement in the Balkans, a movement (...) so contradictory in the historical dialectics of its becoming.”⁴³

Although dialectical thinking was often demanded and upheld in speeches and articles publically underpinning the revolutionary socialist reorganisation in all social realms (including architecture), Neidhardt must have been inspired to rely on the conception of dialectical understanding of history precisely by the Herald. In the same letter to Grabrijan to which he attached the volume, he insisted that the introduction to the book should “set up things dialectically, like everything comes out of the utilitarian need for survival.”⁴⁴ Yet the polemical tone of the historical works encouraged Neidhardt to turn to sources that based their arguments on meticulous descriptions of material conditions. This resulted in references from ethnography, archeology and, eventually, human geography.

Already in May 1950 Neidhardt referred Grabrijan to the book *Life and Customs of Muslims in Bosnia and Herzegovina* by the Croatian ethnographer and folklorist Antun Hangi.⁴⁵ Published in 1900 in Bosnian, and translated into German in 1907 (Figure II-03), the book offered a comprehensive description of the material culture, cultural practices and traditions of Bosnian Muslims. Hangi arrived to Bosnia as a school teacher, initially to Maglaj, a traditional Ottoman-era settlement on the river Bosna, in the central part of the Middle Bosnian Basin. Moving throughout Bosnia and Herzegovina several times, he collected the materials for the book through personal observation while living, as he wrote, “amongst the Muslims.”⁴⁶ Neidhardt advised Grabrijan “from the entire book to collect juice for one page.”⁴⁷ In that same month, Neidhardt discussed the medieval Bosnian tomb stones called *stećci* by referring to the theses of the Bosnian archeologist Vejsil Ćurčić.⁴⁸ The *stećci* tomb stones were most probably interesting for Grabrijan and Neidhardt as the most prominent aspect of the material culture of Bogomils, as the bearers of the ethnic and

cultural specificity of Bosnia. Ćurčić's text titled "Ancient Weapons in Bosnia and Herzegovina,"⁴⁹ later included in the Bibliography of *Architecture of Bosnia*, brought descriptions and photographs of the mysterious reliefs used to decorate the stones. A more important aspect of *stećci*, however, was the fact that they were a regional phenomenon, as they were mostly distributed around the valleys and hillsides, away from concentrations of other archeological findings (Figure II-04). This "regionalism" of the *stećci* tombstones was one of the aspects of Bosnian material culture that gave concreteness to the extra-urban expanse. Other such elements were the mountain vernacular Dinaric house and the prehistoric pile dwellings discovered along the river Sava, both of which came into the purview of Grabrijan and Neidhardt through their research geared towards establishing a scientific basis for the book.

Neidhardt and Grabrijan discussed the larger spatial whole inside of which the Bosnian vernacular house was integrated already in 1949. Neidhardt had initially implied that limits of this larger whole coincided with the limits of the Republic of Bosnia and Herzegovina.⁵⁰ Yet, under the influence of the authors' intense historical-ethnographic research, this idea started changing in mid-1950. In June of that year, the authors agreed to introduce a new opening chapter into the book, which would denote this larger whole, now identified more specifically as "Bosnia." Neidhardt referred to it as a chapter about "land" (*zemlja*), into which "house-kiosk, house of the dead (*stećak*), house watermill" could be introduced.⁵¹ The differentiation between "Bosnia" and "Herzegovina" was important, as it marked the departure from administratively established territorial units towards a fuzzier, presumably geographic conception. In August, it became clear that the authors settled at an even narrower, more specific whole, referred to by Neidhardt as the Middle Bosnian Basin. The desire for "scientific" precision was so pronounced that Neidhardt selected elements of the material culture that would be included (either through a written description or an image) in the "Land" chapter, according to their geographic distribution. "I am sending you one *stećak* from Kakanj," wrote Neidhardt, "That one would fit because it is from the Middle

Bosnian Basin, (...), so we can include it. (...) We are sticking to the Middle Bosnian Basin.”⁵²

It seems that Grabrijan was not sympathetic to the geographic paradigm as, in October of that same year, the Slovenian term *dežela* was brought up to designate this whole, reintroducing the administrative connotation.⁵³

The geographic framework, however, returned in a more scientific guise, through the work of Jovan Cvijić. Neidhardt first came across Cvijić's book *Balkan Peninsula and South Slavic Countries - Foundations of Human Geography* in January of 1951, while looking for information on the Dinaric log cabin. His reception of this work, however, went beyond a narrow reference, and turned into a factor that consolidated the book's conceptual setup. Cvijić's basic human geographic thesis on mutual conditioning between man and his environment, cohered with Neidhardt's informal motto “from the environment into the house”⁵⁴ that he used to describe *Architecture of Bosnia's* guiding thought. In his book, Cvijić offered detailed descriptions of the vernacular houses of the Balkan Peninsula, in relation to the climatic and topographic influences, but also ethnographic descriptions of specific ways of life of native populations. Importantly, he underlined the difference between such cultural elements that emerged through “pure” interactions between men and local conditions, and those that emerged through “civilisational influences,” as foreign “grafts” in a local soil. In Cvijić's comprehensive overview of house types in the Balkans, perhaps no other pair represented counterpoised qualities of these two categories better than the Dinaric house (representing the former) and the Oriental house (representing the latter). Grabrijan had already been interested in the “urbanism of the Bosnian village” and village house types had been recorded and discussed by the authors even before the war (to which Grabrijan's sketch books testify). (Figure II-05) Neidhardt paraphrased Cvijić when he wrote to Grabrijan that the Dinaric house (or the Dinaric log cabin) was the only Balkan house of purely Slavic origin and that the Oriental house originated in Asia Minor, where tropical climate determined the element of the two-storey porch (*divanhana*). Neidhardt continued to propose that the Oriental house was transposed to our climate,

which does not suit it and that the Introduction to *Architecture of Bosnia* needed to reflect on this “contrast” and the mutual conditioning of the Slavic and the Oriental house. “To speak only about the Oriental house,” Neidhardt claimed, “without speaking about its organic relationship with the rest of the environment, would be one-sided.”⁵⁵ Neidhardt accompanied this discussion with a “valley elevation”, in which tiny tall squarish roofs (forming the top tier) represented the Dinaric log cabins of the Bosnian village, situated just above the low pitched roofs representing the Oriental houses of the Bosnian city (Figure II-06).

On the basis of the overall theoretical framework that he inherited, Neidhardt’s predisposition to organicism was emboldened by various thesis and conceptions of Cvijić. Cvijić referred to the Balkan Peninsula as a “geographic organism”⁵⁶ and likened formation of cities to “crystalisation of matter.”⁵⁷ In February, Neidhardt paraphrased Cvijić describing the meandering and linking between different forms in the Oriental city as the “agglomeration, growing of crystals” and asked Grabrijan to reduce everything “organically” to basic elements.⁵⁸ Finally, Neidhardt believed that this kind of introduction that would “contain everything” would make the entirety of the book “seem organic.”⁵⁹ One of the most original of Cvijić’s contributions to geography was the conception of slow, long migrations that created new “ethnic amalgams” through spontaneous population movements. Neidhardt leaned on combined influences of Marxist historians’ dialectics and human geographic premise of self-organisation to construct a resolution of the tension between the Dinaric and the Oriental house.

In January 1950, he sent to Grabrijan a layout arrangement for the *Architecture of Bosnia* Introduction, “extensive as a comic,” in which he presented “a fight for survival” of a Bosnian man.⁶⁰ Neidhardt emphasised the unifying agency of geography and history: “All that is there is contained in Bosnia (...) What’s at stake is that dramatic moment of fight for survival until a settlement occurs (as if in a symphony) in open cities. It wouldn’t be bad to talk about migrations according to Cvijić.”⁶¹ This cyclical process of native population’s

flight to the mountains and forts and their gradual assimilation of the civilisational traits of their invaders, was eventually used as a concept of Grabrijan's text and presented in the Introduction through Neidhardt's drawings (Figure II-07). While it also contained a map in which the entirety of Bosnian-Herzegovinian territory was marked, the technique, relying on nuanced transparencies of Bosnia and Herzegovina in the forefront and Yugoslavia in the back, avoided the presentation of administrative borders. The caption offered a thoroughly geographic description: "Parallel to the mountain range of Dalmatia, there also extend the mountains of Bosnia and Herzegovina, which eventually descend into the valleys of the Pannonian Plain" (Figure II-08). On the opposite page, however, the photograph representing the Bosnian landscape was the one of the river Bosna Valley and the surrounding hills - the Middle Bosnian Basin.

What encouraged Grabrijan and Neidhardt to focus on the Middle Bosnian Basin in terms of their field research, without explicitly stating it in the Introduction, was Cvijić's conception of the "True Bosnia."⁶² Suspended between the administrative whole of Bosnia and Herzegovina and its cities, this designation marked all of those areas characterised by forests and greenery, "as if wrinkled by abundant river valleys, rich in springs."⁶³ Cvijić claimed that the most prominent part of the "True Bosnia" was the "Central Bosnia": the Basin of the Bosna river.⁶⁴ In his book on the Balkan Peninsula, he represented the "True Bosnia" with a drawing of the south-western hillsides of the Romania mountain, in the vicinity of Sarajevo (Figure II-09). What this landscape contrasted to, particularly strongly, were arid karst mountains of Herzegovina. In his portfolio, given in the final part of the book, Neidhardt postulated the geographic difference between Bosnia and Herzegovina, which required an independent research on the "unwritten laws" in these areas.⁶⁵

Cvijić's research was also amply used in the opening chapter of the book, the title of which settled at "People and the Land." The designation "land" was the cause of some controversy between the authors.⁶⁶ Yet, its administrative meaning of a "province," unequivocally established by the Slovenian term "dežela" used in discussions, was somewhat softened by

the Serbo-Croatian term “zemlja” used in the book. The authors probably avoided the term “region” because of its technocratic use to designate the “city region,” already prevalent in Yugoslavia of the early 1950s. Their principal geographic reference, Cvijić’s *Balkan Peninsula*, used the term “régions naturelles” in the French original.⁶⁷ The Serbian translation, referred to by Neidhardt, however, used a much blander term of “natural areas,”⁶⁸ which might have discouraged its use. The overall representation of the notion of “land” in *Architecture of Bosnia* was, however, unequivocally geographic. It dwelled on issues defined by Grabrijan’s and Neidhardt’s historical, ethnographic, archeological and human geographic research. It covered the themes of the “True Bosnia’s” extra-urban expanse: the *stećci* tomb stones, the origins of Bosnian Muslims, the Dinaric house, the Dinaric village and its blood cooperative (the last three thoroughly based on Cvijić’s work).

Architecture of Bosnia’s lack of scientific consistency and clarity in the sense of terminology, however, merely reflected a much larger problem of the entirety of the content and “guiding thought” of the work itself: how to relate (functionally or otherwise) a geographic-historical unity to the techno-social character of the territory. What Grabrijan and Neidhardt did not recognise, as they embraced their new set of references in earnest, was that the sciences had already been long involved in the establishment of functional links between this knowledge and the emerging modern society. Nearly all of the authors referred to in *Architecture of Bosnia* (including Kreševljaković, Skarić, Ćurčić, Hangi and Truhelka) were either employees or protégés of the *Landesmuseum*⁶⁹ a mighty cultural and research institution founded by the Habsburg administration in Bosnia, already in 1884. The official discourse behind the Museum’s foundation was a “grandiose vision of drawing of Bosnia and Herzegovina into an orbit of Western secular values and scientific practices.”⁷⁰ However, both this vision and the museum had their political-economic function. The Austria-Hungary’s occupation of Bosnia and Herzegovina in 1878 was facilitated by the international agreements at the Berlin Congress and interpreted by contemporary analysts as a compensation for its abstention from the “Scramble for Africa.”

As one anti-colonial commentator proposed at the time: “That little slice of Herzegovina could well be worth more than the whole of East Africa.”⁷¹ Benjamin von Kállay (1844–1902), the chief Habsburg administrator in Bosnia after 1882, sought to establish his administration as a role model of colonial rule for other European great powers. The Austria-Hungary’s “civilising mission in the East,” as the occupation of Bosnia was represented in both the popular press and diplomacy, was in actuality inseparable from its “geostrategic ambitions into the Balkans”⁷² and exploitation of Bosnia’s natural resources.⁷³

The *Landesmuseum’s* research was instrumentalised through all of these efforts. Investigations of Bosnia in the realm of ethnography, history and archeology were used to underpin Kállay’s policy of “Bosnianess” through which Austria-Hungary sought to establish a Bosnian nationality that would encompass Muslim, Catholic and Orthodox population and cut-off dangerous Croatian and particularly Serbian claims to Bosnia’s territory.⁷⁴ The first edition of Antun Hanganj’s book was, for example, bought up by the Habsburg administration in its entirety, while his research was supported and encouraged by Kosta Hörman, a military man and one of the most prominent Habsburg administrators in Bosnia and Herzegovina.⁷⁵ In the course of the first two decades of the Habsburg administration, the geological department of the Museum undertook extensive research of Bosnia’s mineral riches, according to which the campaign of exploitation was soon initiated.⁷⁶ Its research results also directed the investment into the country and planning of its infrastructure. This kind of political-economic institutional agency of the Museum survived the collapse of the Habsburg Monarchy. Within the framework of the nation-building regime of the inter-war Kingdom of Yugoslavia, the Museum established direct links with the Association of Yugoslavian Engineers and Architects. Vladislav Skarić, Vejsil Ćurčić and Friedrich Katzer, all researchers of the Museum, contributed to the first book that the Association published in Bosnia, with the explicit goal to promote infrastructure building and economic development.⁷⁷ Vladislav Skarić, the director of the Museum at the time, edited the volume. The *Landesmuseum’s* retreat from the realm of applied research

after 1945 could be explained only by the specialisation and emancipation of sciences through development of scientific institutions which took over this role.⁷⁸ The establishment of urbanism as a quasi-scientific discipline in the 1950s (and the concomitant development of regional planning) assembled the results of different scientific institutes' research of the territory. It could be claimed that the planning programmes produced for general urban plans of Bosnian cities in the Socialist Yugoslavia, recreated the nexus between *Landesmuseum's* research and its political and economic applications at the turn of the century.

The *Landesmuseum* never established the department of geography, yet Bosnia and Herzegovina was the subject of research by Austrian-Hungarian geographers. In particular, the Empire's specific position in Europe, where it was the only great power without overseas colonies, resulted in its imperialistic-scientific enterprise in Bosnia. The activities of "extensive data gathering, surveying and cartographic projects of the Balkan Peninsula" were related to the development plans, particularly of economically backward karst regions in Bosnia and Slovenia.⁷⁹ The German geographer Albrecht Penck, who was also a professor at the newly founded Department of Geography at the University of Vienna, undertook at least one field trip to Bosnia in 1899.⁸⁰ Penck was, however, already familiar with the geological particularities of Yugoslav lands through the work of Jovan Cvijić, for whom he acted as a doctoral thesis advisor between 1889 and 1893.⁸¹ The unequivocal political implications of Cvijić's field trips through Slovenian, Dalmatian and Bosnian-Herzegovinian karst, undertaken on behalf of the imperial scientific institution to the subordinated territories, have substantially inspired his turn to human geography and his disposition to apply it to political ends.⁸²

One of the most well-known such applications was his text "Annexation of Bosnia-Herzegovina and Serbian Question",⁸³ published in 1908 as a pointed response to the annexation of Bosnia and Herzegovina by Austria-Hungary. The text comprehensively reviewed the possibilities of "export routes" available to Serbia in this new situation and

argued that it established conditions for the total economic and cultural control of this country by Austria-Hungary. Cvijić quoted the “nationality principle” to contest the lawfulness of the Austrian rule over the territory which was as populated by Serbs as Bosnia and Herzegovina was, and brought this argument on a par with the problem of the Adriatic route, which was traditionally used as the Serbian trade outlet to international waters.

This kind of explicit linking between the issues of economy, race, nationality and security proposed by Cvijić in 1908 had already been established in the French human geography, and not least in relation to the Balkans. The step from scientific description to political-economic speculation had first been taken by the harbinger of the modern French geography Élisée Reclus (1830-1905)⁸⁴. Yet it was the school of human geography established by Paul Vidal de la Blache (1845-1918), that transferred this knowledge and speculation from the general to applied analysis. The most emblematic studies produced by Vidal and his followers were French regional monographs, which described “ways of life” - constellations of human practices characteristic of the specific regional environment, defined through long, lasting interactions between the man and his milieu.⁸⁵ Yet, Vidal also used geographic scientific discussions in the international geopolitical arena in defense of French colonial interests⁸⁶ and a host of his followers applied a similar approach in support of the French cause in the Balkans.⁸⁷

Cvijić maintained close relations with French human geographers. His scientific outlook, actually, consolidated during his war-time teaching stint at La Sorbonne, where he wrote his magnum opus *Péninsule balkanique - Géographie humaine*⁸⁸ under the auspices and influence of Vidal’s scholarly circle. Published in Paris in 1918, the book was based on Cvijić’s La Sorbonne lectures that were “principally of human geographic and ethnographic character.”⁸⁹ The lectures, in turn, sourced from the abundant material Cvijić had collected between 1887 and 1915, during his field trips in the South Slavic people’s lands.⁹⁰ Cvijić reasoned that this immediate relationship between the man and environment, which still

characterised most of the Balkans, was a perfect case to describe the “bases of human geography,” one of which was the conception of the milieu.

In the first part of the book titled “Le Milieu Geographique et le homme” (Figure II-10), Cvijić described themes like natural regions, relations between main historical events and relief, zones of civilisations, migrations, distribution of peoples, occupations and ways of life, types of settlements, types of houses and social changes. What this wealth of descriptions and analysis sought to convey was that mutuality which developed, throughout the history, between the man and his milieu. On the one hand, the book described how physical environment modified “the race.” In the section titled “accommodation to new geographic environment,” Cvijić convincingly described how, amongst the migrants, “even the most persistent ones accommodate to the new natural circumstances.”⁹¹

At the same time, Cvijić’s general position was that both cities and houses recorded a variety of external influences and, in turn, exerted their own influence on human agencies. House types evolved as a result of a wide range of processes: from deforestation and transformation of grazers into plowmen to shifting of civilisations and migrations of human types who brought their habits to new territories. Cvijić’s typological studies of houses developed in parallel with his studies of psychological human types. In his map representing the distribution of typical houses (Figure II-11), the Middle Bosnian Basin comprised a large green stain denoting the zone of the “Dinaric log cabin,” sprinkled with dotted areas marking the presence of the “Turkish-Eastern house.” In the text, Cvijić observed that both of these were disappearing: the log cabin was expanded by adding new parts, the logs were substituted, first with wattle and mud-brick and then with brick, bringing about a new type of house through the emergence of new material and building technology. The disappearance of the Oriental house, however, was caused by a range of different circumstances.

As a human geographer, Cvijić held the immediacy of contact between men and land in high regard, while he was deeply suspicious about the influence of civilisations. As a Serbian nationalist,⁹² he was particularly antagonistic to the cultural remnants of the Ottoman rule. The bond between ethnicity and land was one of the most common arguments for the particular distribution of national territories, in the discussions led between nations in the Paris Peace Conference after the First World War. Geographers, including Cvijić and many of his French colleagues, were deeply involved in providing scientific evidence that backed political decisions on defining borders between nations. Cvijić collaborated with the American expert group called the Inquiry, tasked with producing a “racial⁹³ map of Europe”, in order to assist (and promote American interests) in the territorial negotiations at the Conference.⁹⁴ Arguing for a principle of “territorial impress”⁹⁵ Cvijić managed to accomplish a number of territorial gains for the newly formed Kingdom of Yugoslavia. The American geographer and head of the Inquiry, Isaiah Bowman, leaned on this conception when he decisively promoted the assignment of the important Adriatic port outlet of Fiume to Yugoslavia, at the expense of Italy. “The Italians of Fiume were city dwellers”, Bowman argued, while Yugoslavs “occupied the region,” and were therefore attached to the land.⁹⁶

This value-founded distinction revealed the problematic incorporation of the urban into the knowledge system of human geography. Human geographers worked with Vidal de la Blache’s conception of regions as social organisms, that grew and developed through the naturalised agency of transportation, communications and markets.⁹⁷ The big city was perceived as a “high degree of emancipation from the local milieu.”⁹⁸ Thinking along these lines, Cvijić was critical of both European metropolises and Balkan Oriental cities, as productive of “destructive and malign influences.”⁹⁹ His ideal was a “town of the patriarchal regime,” a type of settlement bounded to distinct urban culture that ensued after the liberation of Serbia from the Ottoman rule, at the beginning of the 19th century. The Serbian population from the periphery moved to towns and changed them according to their traditional preferences, but there were also some influences they brought from

Europe, as they became merchants and students at foreign universities. Cvijić described straight, wide streets “akin to big city boulevards,” big gardens and small two-storey houses.¹⁰⁰ He further admitted that “the state also helped this movement”, by ordering that some of the buildings be constructed according to the plan. Twenty years later, however, Branko Maksimović, one of the first Yugoslav historians and theorists of urbanism, disputed Cvijić’s thesis and argued that in the towns of the patriarchal regime “the role and function of state administration (...) was the leading one, actually the only one existing” and that “in this process, the population presented more often a hindrance than a stimulus”.¹⁰¹

While this romantic human geographic projection of modernity could be explained by his distaste for big cities and his nationalist fervour, Cvijić, like other human geographers, recognised the importance of state’s intervention in the human milieu, in the realm of both population and infrastructure management. As Vidal de la Blache would have it, the state was a player in a “world game,”¹⁰² which influenced great territorial projects. Instead of focusing on urban organisation, Cvijić thought of cities in their large geographic settings, constantly modulated by geopolitical developments. His brief chapter about cities demonstrated how topographically distant changes influenced large and small towns. He described, for example, the case of the town of Serez, which was an important centre of fairs before the Suez Canal was pierced and Morava-Vardar railway was built. After this change, it lost its strategic importance and shrank.¹⁰³

Another way in which state’s agency intersected with geopolitical trends was its “disciplining role.” In their politically engaged papers, both Cvijić and his French colleagues frequently called for strict policies of assimilation towards minorities.¹⁰⁴ This projected a twofold role of the state — as the developer of the land and developer of the people — which grew ever-stronger and transformed, into the inter-war period. When in 1938 Juraj Neidhardt headed to Sarajevo for the first time, he travelled down the Middle Bosnian Basin on a narrow gauge railway, built half a century earlier, by Austria-Hungary. Scholars have recognised links between the ethnic diversity of Sarajevo and its degraded status in

the developmental campaigns of the Kingdom of Yugoslavia.¹⁰⁵ Yet, the ethno-political dimension of development lessened under the pressures of the unsettled political and economic situation in Europe in the wake of the Second World War. The "new economic policy"¹⁰⁶ of the Kingdom's prime minister Milan Stojadinović, launched in 1936, was a strategic answer to a complex set of foreign relations, (particularly with the Nazi Germany) and included turning the Middle Bosnian Basin into a "Yugoslav Ruhr." As a part of this strategy, the government founded a predominantly state-owned enterprise Jugočelik, of which Neidhardt became the leading designer in 1938. One of the first Neidhardt's commissions at this new position, was to design homes for the Jugočelik's workers in Zenica. The project responded to the specificity of the situation by two distinct, yet interwoven strategies.

The first strategy recognised the house as a part of the specific historical-geographic environment. Although the authors' elaborate conceptual system had not yet been developed, Grabrijan and Neidhardt, already before the war, founded their collaboration in Bosnia on their shared affinity to the Ottoman era heritage, in particular, its residential architecture. Inspired by Grabrijan's decade-long architectural-ethnographic investigations, Neidhardt sought to work with vaguely defined "principles and elements" of "old" local architecture: houses as "cubist corpuses," their roofs as "flat pyramids," horizontal compositional "tendency," tactile diversified "structures" of materials.¹⁰⁷ The houses featured cantilevered upper floors and semi-open first-storey porches that referenced the central space of the Oriental Bosnian house, called *divanhana*.

The 1942 publication of the project, accompanied by Grabrijan's text which interpreted Neidhardt's ideas, described these characteristics, but placed an even greater emphasis on the second strategy, which recognised the house as a part of the state enterprise programme - a typical project. Neidhardt's entire approach to cooperation with the Jugočelik relied on the idea of the "formation of the worker." The description of his regulation plan for the neighbourhood of Podbrežje, where his first modern Bosnian

houses were situated, stated that the mining workers in Zenica were “mostly of peasant origins. This is not the traditional worker whom we meet everywhere. (...) In this man a metamorphosis occurs: until now he lived on the ground, and now he enters its womb.”¹⁰⁸ What Neidhardt’s project postulated was an ongoing Bosnian worker’s “transition from peasantry to the working class.”¹⁰⁹ The most important way in which this observation influenced the interior organisation of the peasant-worker’s apartment, was the element of the “residential kitchen.” In other words, it followed the principle: “for worker peasant - residential kitchen, and for traditional worker - kitchen separated from the residential part.”¹¹⁰ (Figure II-12) Neidhardt and Grabrijan referred the conception of the “residential kitchen” to the peasant houses in Bosnia, most prominently the Dinaric house, where family would gather and spend the day around the hearth.

While the unity between the kitchen and the living room was a way to “approach the customs of the surrounding area,”¹¹¹ the advanced technology of the bathroom with the washbasin, laundry room and bathtub, was a “contribution to this apartment,” informed by the peasant-worker’s new circumstances of work, which demanded a thorough washing before entering the clean areas of the house.¹¹² Another element, which related to this same concern of accommodating the design to the changing culture of living, was the “economy part”: “It is accustomed amongst our workers to breed a cow or pig and almost each one, without exception, breeds chicken. This was taken into account when arranging the economy room. (...) In every garden a dunghill is planned, because it is necessary for breeding of any type of cattle.”¹¹³

Neidhardt continued promoting this conception of workers’ housing, also after the war. When in 1952, the republican governments of Serbia, Montenegro and Bosnia and Herzegovina launched a competition for design of individual houses for workers and clerks, to be built within a framework of a self-help housing programme, he proposed a house for one family, in which both the “residential kitchen” and domestic economy were even more elaborate than in his projects before the war (Figure II-13).¹¹⁴ The courtyard was now

closed in by means of walls and fully incorporated into the built volume of the house (akin to the open space of the Oriental Bosnian house). The kitchen, an obvious centerpiece of the plan, was moved to the middle of the public area of the house and fully integrated with it, as well as with the courtyard (through a large opening). As a response to the specific needs of the inhabitants, Neidhardt proposed the bathroom as “an extension of the kitchen,” usable for preparation of the food for domestic animals and for laundry washing. He integrated the water system by attaching the bathroom facilities to the kitchen and proposed (through his sketches), to prefabricate the entire “wet battery,” containing the kitchen and bathroom sinks and bathtub. The bathroom, he explained, would be easily warmed by the cooking heat and warm water carried from the stove to the bathtub.¹¹⁵ The logic of rationalisation and efficiency was extended to the construction method and material selection: two chimneys, “like tent columns,” carried the typical Bosnian hip pitched roof with four slopes, as well as the ceiling structure, which saved wood and simplified work (Figure II-14). The clay spread insulation and the on-site baked brick wall guaranteed further savings. Neidhardt presented all of the benefits of this kind of mass construction through his signature cluster of free-hand sketches (Figure II-15). In the bottom right corner, he emphasised the gradual enlargement of the house through self-help construction, as additional elements were added to the main corpus of the house. The project, later published in the book *Architecture of Bosnia*, contained functional diagrams, which not only represented the movement within the house in detail, but also populated the plans with vivid pictograms, presenting the activities of the family and animals during the day and at night.

In his description of the project, published in the *Arhitekt* journal in 1952, Neidhardt posited the already familiar thesis that “the greatest part of our workers in the industrial centres is still of peasant origin. For now, we cannot yet speak about the type of the industrial worker - consciously formed from father to son.” Neidhardt, however, now went further than this general observation and called for ethnographic architectural research:

“This is why we first have to examine the way of life, work and dwelling of our contemporary worker and give him what he needs, certainly with the perspective view of his future.”¹¹⁶ The article illustrated consequences of the “cabinet manner of work,” practiced by some of his contemporaries, by focusing, again, on the kitchen. Neidhardt argued that the “laboratory kitchens,” such as the small, compact, fully “mechanised” Frankfurt kitchen, did not suit Yugoslav housewives in their transition from the peasant class to the proletariat.

The environmental determinism of the peasant-workers’ housing that *Architecture of Bosnia’s* authors formulated was translated, from the inter-war enterprise programme of the Jugočelik to the post-war state programme of self-help housing. The new standard of living that the modern Bosnian house provided, as argued by Grabrijan even before the war, was meant to “teach the residents how to dwell. Every beginning is difficult.”¹¹⁷ Similarly, Neidhardt’s expectation from the modern Bosnian house project, was to “found a residential culture for the entire generation, according to the famous slogan ‘that people build houses and houses build people.’”¹¹⁸

The cultural framing of the problem of the modern workers’ dwelling, that Grabrijan and Neidhardt outlined in relation to the modern Bosnian house, particularly the focus on the kitchen and garden, were reminiscent of the design strategies that ensued within the Vienna municipal residential programme in the early 1920s. Neidhardt’s studies in Peter Behrens’s master class of the Academy of Fine Arts in Vienna (1921-1924) coincided with the height of the settlement movement, the campaign for housing led by cooperatives (organised by subsistence farmers and wild settlers), architects and intellectuals who supported them.¹¹⁹ Demonstrations, exhibitions and public promotions of designs and buildings that came out of the settlement movement, might have caught Neidhardt’s attention. Settlers’ houses designed by Adolf Loos, the architectural director of the Siedlungsamt, featured allotment gardens, influenced by the conception of the “productive garden” (*Nutzgarten*), defined by the German landscape architect Lebercht Migge.¹²⁰

Grabrijan extensively quoted Loos in his 1940s manuscript, published only in 1959 under the title “How our Contemporary House Emerged.”¹²¹ The text focused on Loos’ foregrounding of the garden in his typical projects for Viennese settlements and presented it as a phase in the development of the modern dwelling culture.

Both Loos’ 7-meter-wide row house design for Siedlung Friedenstadt of 1921 and Margarete Lihotzky’s Core House Type 7 exhibited in Vienna in 1923, proposed a “live-in kitchen” (*Wohnküche*),¹²² used as both the cooking and living room. Yet Lihotzky’s Core House also offered an alternative: a semi-prefabricated cooking-niche (*Kochniche*), that could be added to the core of the house, when the settler family is ready to afford it. The idea of modernising the traditional live-in kitchen that started in Vienna with the design of the cooking niche, was developed further, when Lihotzky joined the team working on the production of the total design for Frankfurt’s satellite settlements, headed by Ernest May. The design of Lihotzky’s fully prefabricated “laboratory kitchen” was, as the rest of the New Frankfurt designs, heavily influenced by the principles of rationalised factory production, as defined by the American scientific management.¹²³

The Frankfurt kitchen became an epitome of the modern household and was quickly introduced into the middle-class dwelling culture in Europe. In the early 1950s, at the time of Neidhardt’s single-family home design for the Yugoslav self-help housing programme, the prefabrication of Yugoslav laboratory kitchen was already under way at the Central Institute for Household Advancement of Slovenia,¹²⁴ where Branka Tancig Novak, the Slovenian architect, furthered her Austrian colleague’s pioneering work of “woman for women.”¹²⁵ However, even before Novak’s designs first hit the Yugoslav market in 1955, the typical workers’ apartment plans, defined by the Yugoslav Ministry of Construction in 1948 and 1949, promoted disintegration of the “residential kitchen” and separation of cooking and living into two distinct functions.¹²⁶

The Frankfurt kitchen was a result of determination with which Lihotzky already produced her Viennese design: “to save space and money, but most of all, to save time.”¹²⁷ This

benevolent goal, however, became a part of a larger scheme, which framed “the social needs of the inhabitants into the logic of a mechanical way of work in a larger company and reproduction of the work force into a set of social norms.”¹²⁸ If the early socialist Vienna’s housing programme could be defined by Adolf Loos’ maxim “Learning to live,”¹²⁹ then this pedagogical understanding of architecture actually merged with the “social factory” of New Frankfurt to define a new kind of modernity. The result was imposing and reactions similar to what Neidhardt criticised in the early socialist Yugoslavia: the Frankfurt kitchen represented well that novel rigidity that functional segregation imposed on the modern household.¹³⁰ The inhabitants tried to maintain their traditions, by fitting their chairs and family dinner tables into the kitchen room.¹³¹ While the laboratory kitchen obliterated the residential culture of the West-German farm-house,¹³² the early photographs of Frankfurt’s modern settlements showed the white modernist buildings and sheep grazing in the forefront, to evoke a modern arcadia.¹³³ (Figure II-16) Similarly, even before the war, Neidhardt’s modern Bosnian houses were photographed with a cow grazing in front (Figure II-17). Also, the cover of *Architecture of Bosnia* presented a heard of mixed grazing domestic animals in front of one of his modern Bosnian designs (Figure I-09).

The meaning of these suggestive images, however, changed with their historical situation. The New Frankfurt settlements not only transformed the common family life practices, but were also built with the funds collected through prevalent taxation of the lower class, which could barely afford the apartments.¹³⁴ Neidhardt’s post-war designs of the modern Bosnian house were produced within the framework of the Yugoslav state’s self-help housing programme, which was part of an effort to provide each worker with decent housing. The publication of his 1952 single family scheme included the poster he designed for the first wave of self-help housing campaigns organised by the Yugoslav state already in 1946 (Figure II-18). Like Neidhardt’s explication, the poster too put the emphasis on the peasant-worker transition: in the semi-rural setting, modern Bosnian houses in the forefront were being built by workers, both men and women. In the back, the Dinaric

cottages clustered, along with domestic animals and stacks of hay. In the field between, a heard of sheep could be seen, grazing.

Neidhardt's projects, with their residential kitchens, prefabricated "wet batteries" and small domestic economies, guaranteed that the Bosnian sheep were, unlike the Frankfurt sheep, more than a promotional mirage. The ethnographic approach to "ways of life" that Neidhardt promoted in 1952 was undoubtedly influenced by human geographic conceptions defined by Cvijić together with Vidal and other French human geographers. As the geopolitical importance of ethnicity, as a form of "territorial impress", was weakening with the stabilisation of European national borders after the Second World War, this form of knowledge was losing ground in the functionalist logic and developmental project of the modern state. Neidhardt's and Grabrijan's efforts to introduce it into the housing policy of the early socialist Yugoslavia resulted in fragments of "moderate" modernity (marked by local customs, traditional social relations, local materials, but also moderate rationalisation, subsistence farming, backed by the self-help contract between the citizens and the state), which evoked the political architectural strategies of the early socialist Vienna. In distinction to the "slow modernity" of the Viennese settlements,¹³⁵ however, the semi-coherent, dialectically processed unity between the rural vernacular of the Dinaric house, urban vernacular of the Bosnian oriental, modern technology and state intervention sought stability neither in the urban cosmopolis,¹³⁶ nor in the political (socialist) project, but in the new conception of unity between the city and the extra-urban expanse as a geographic-historical milieu. In the book *Architecture of Bosnia*, a guarantee of these fragments' unity was the unity of the geographic-historical region of the Middle Bosnian Basin. Just like Cvijić attempted with his "patriarchal town," Grabrijan and Neidhardt sought to introduce both the Dinaric and the Oriental man to modernity through modern Bosnian architecture and urbanism. And just like in the case of the "patriarchal town," what stood in the way of human-geographic immediacy between the man and the milieu, was the role of the modern state.

2.2 Ways of Ore - Infrastructures and Homes in the Regulation of Vareš

“The question is posed here, will the Bosnian Mining Basin in the future, produce only raw material and dispatch it to the distant industrial centres across the Sava and via international roads - or will it continue the development of its own industry, and will such industry be competitive in the international markets.”¹³⁷ This analytical, market-savvy observation appeared in the 1942 study *Sarajevo and its Satellites*, the first publication that resulted from Neidhardt's and Grabrijan's joint research and intellectual exchange.

Similarly to the book *Architecture of Bosnia and the Way to Modernity*, this study consisted of two identifiable parts: the first, significantly briefer, discussed the “traditional” architecture and urbanism of the historic core in Sarajevo and argued for the relevance of its qualities for the contemporary practice, while the second presented Neidhardt's projects and urban regulations in Sarajevo and its “satellite towns.” The study began with a polemical introduction, stating its ambition to be “but a humble contribution to the field in which very little has been done here,”¹³⁸ that field being that of urbanism. It ended with a conclusion outlining the “principles and elements” of the “Old Sarajevo architecture”¹³⁹ and discussing the “use of contemporary architecture in Bosnia.”¹⁴⁰

Grabrijan's and Neidhardt's research that the study was based on, was conducted in the 1930s. However, in *Sarajevo and its Satellites* it was presented as an analytical foundation for production of the regulation plan of Sarajevo. Marginalisation of this city in the Kingdom of Yugoslavia¹⁴¹ resulted in a prolonged process of its urban planning. After the Axis powers occupied the Kingdom in April of 1941, Bosnia and Herzegovina entered the territory of the Nazi puppet Independent State of Croatia. Already in December of 1941, the regime-controlled daily *Novi list* initiated a “survey” amongst most prominent architect-urbanists in Sarajevo about the importance and general directives of the future regulation plan.¹⁴² Inspired by the ongoing public and disciplinary discussion, Grabrijan and

Neidhardt agreed to present their vision of Sarajevo's urban development in a special issue of the *Tehnički vijesnik* ("the newsletter of the Association of Croatian Engineers").

Their proposal was largely based on Neidhardt's working experience in the Jugočelik concern. By 1941, Neidhardt produced six regulation plans for the Jugočelik's workers' settlements in Zenica, Vareš, Ilijaš, Breza, Kakanj and Ljubija, all of which were directly attached to its production facilities situated, in turn, close to the brown coal and iron ore reserves. The Jugočelik's planning and technical departments were based in Zenica, the only city in the list, where the concern also operated the coal mine and the Ironworks, founded in the Habsburg era. Another branch of the Jugočelik's mines and Ironworks was located in Vareš, a small, historic, iron-ore mining town in the branches of the Dinaric massif, bordering the river Bosna valley. Breza, Kakanj, Ilijaš and Ljubija were semi-rural towns attached to the mines. All of the settlements were located in the Middle Bosnian Basin (with the exception of Ljubija, located in the north-western Bosnian region called Bosanska Krajina). While some communication between these settlements existed since ancient times, it was the *Jugočelik's* business cycle that integrated them into a territorial system. With the regime change in 1941, the concern was taken over by the new government and renamed Hrvatski rudnici i talionice (Croatian Mines and Smelters), abbreviated HRUTAD.

In his short description of the main idea of the study, Neidhardt projected a firm relationship between this system and Sarajevo. "Sarajevo," he wrote, "lays in a mining basin, the size and prosperity of which depend on the prosperity of its satellites Breza, Vareš, Zenica, Ljubija etc. As the ore from the Earth's womb is increasingly required, the prosperity of Sarajevo is insured."¹⁴³ Indeed, at the time, Sarajevo's industries were substantially damaged by the economic crisis of the 1930s and the city's economy relied on trade and traditional crafts.¹⁴⁴ Meanwhile, the mining and iron-smelting industries of the Basin were dominantly state-owned and dependent on Sarajevo only for limited administrative services. Yet, Neidhardt projected the city's role as "the center of the mining

basin.” In the set of sketches prepared for the study, he presented this relationship as an “organic” one (Figure II-19). The first cluster of drawings showed an idiosyncratic mixture of “urbanistic principles,” including infrastructural (involving “networks,” “arteries” and “branching”) and formal ones (“longitudinal city,” “way of building”). The sketch also enlisted “the right to view” as an early instance of concern for the vernacular city. The second cluster of sketches was captioned “Biology,” and included a human skeleton, trunk, sunflower, sun and river. Finally, the third cluster captioned “Result”, showed a complex network of communication lines between Sarajevo and industrial settlements of the Basin, but also more distant connections to Belgrade and Slavonski Brod, the city on the river Sava, where the railway of the Middle Bosnian Basin ended at the border and connected to the Croatian system of railways.

What Neidhardt implied with this ensemble of drawings was an intention to use “urbanistic principles” to establish an organic relationship between the settlements in the Basin. The biological metaphor, so prominent in Neidhardt’s proposal, was certainly the inheritance from Neidhardt’s working experience with Le Corbusier. Yet, although he collaborated on at least four of Le Corbusier’s most emblematic “urbanisations,” including Algiers and Antwerp, Neidhardt disregarded his disapproval of decentralisation and based his proposal for Sarajevo’s functional region on an earlier experience. Just as the original title of the project (and the publication) “Sarajevo i njegovi trabanti” implied, by referring to the German word *trabanten* to denote this projected relationship, its character was formally similar to the relationship revolutionary modernist settlements around Frankfurt and Berlin maintained with their mother cities. Neidhardt must have inherited the conception of *Trabantenstädte* during his two- year-long stay in Berlin, where he worked as a designer at the office of Peter Behrens, between 1930 and 1932. The “principle of satellite towns” was defined through Ernst May’s work on the regulation of Frankfurt, in 1925 and 1926. Under the influence of Raymond Unwin’s ideas, the Frankfurt Siedlungen were located at a distance from the main city, connected by infrastructural links, but also detached, both by a

green belt and the ambiguity of their mutual conceptual relationship, important to the vision of future development. While the Frankfurt *Trabantensiedlungen* were not anti-urban, they capitalised on this detachment to, apparently convincingly, initiate a semi-autonomous project of social reform,¹⁴⁵ based on “Taylorist understanding of social politics, housing affairs, architectural conceptualisation and urban planning.”¹⁴⁶ The definition of the *Trabantenprinzip* in the German planning culture in mid-1920s emerged within a larger constellation of ideas and techniques that were already imbued with the logic of the factory. The 1900s conception of the “planned metropolis”, as a set of integrated infrastructural systems and typological urban elements, defined in a relational manner to embrace change over time, was derived in Berlin from procedures and principles of its technology-oriented industries.¹⁴⁷ The operationalisation of these elements on the new scale of the urban region, was hindered by the administrative frictions that occurred in the first attempts at the inter-municipal cooperation.¹⁴⁸ The Greater Berlin competition, largely resulting from these difficulties,¹⁴⁹ yielded some of the most influential redefinitions of the ambitions, tools and scale of planning, which achieved their full impact only after the First World War.¹⁵⁰ Infrastructure played a particularly important role in this new approach. The Eberstadt, Mohring and Petersen diagrams projected urban growth along the railway lines and green wedges,¹⁵¹ while Herman Jensen promoted the linkage of settlements on the scale of an urban region and infrastructural conception of green spaces, based on their use value.¹⁵² These ideas had a direct impact on the solutions proposed for German cities in the 1920s.

By the time of Neidhardt’s arrival in Berlin, the infrastructural model had been coopted into the vision of the city’s development, while the *Trabantenprinzip* got under some scrutiny. The Berlin *Stadtbaurat* Martin Wagner proposed in 1929, together with Walter Koeppen, the ‘Free Area Schema for the Municipality of Berlin and Surrounding Zone,’ which referenced both Eberstadt’s and Jensen’s Greater Berlin conceptions.¹⁵³ In this same year, he argued against the rigidity of the *Trabantenprinzip*, claiming that in circumstances of the

market-determined industrial development, the migration of businesses from the mother city to the *Trabantensiedlungen* and development of necessary competitive services there, would not be possible.¹⁵⁴ Both of these proposals contributed to lively discussions in the German architecture and planning culture at the turn of the decade. The content of the journal *Wasmuths Monatshefte Baukunst und Städtebau*, with which both Neidhardt and Grabrijan were familiar, reflected the efforts of German architects, urbanists and planners of the time, to comprehend and modulate the regional scale by means of infrastructure. In May 1930, for example, the journal published a long piece about the educational “urban planning film” *Die Stadt von Morgen*. The editor Werner Hegemann, a prominent urban planning critic, who facilitated an international exchange of the German planning culture (particularly with American planners), introduced the film with praise. The authors relied on the authority of Camilo Sitte to criticize the “thoughtlessness that forces us to live in these informal lump formations, which we euphemistically call cities.”¹⁵⁵ They explained how the film used the technique of animation to clearly convey “how little organic meaning lay in the development of our cities” and “how the conscious will to design could build an organic urban structure.”¹⁵⁶ The stills from the film showed the bird’s view representations of the urban situation with its determining territorial factors, underlined clearly in white letters: *Landflucht* and *Braunköhle*. The contrast was presented between the two possible outcomes of these conditions: one was the chaotic *Großstadt von heute* (with its “lumps” made of factories and blocks of tenement housing) and the regulated urban development, planned according to the *Trabantenprinzip*. One of the stills showed the planner’s hand putting the finishing touches on the plan, featuring the mother city and its satellites. (Figure II-20)

Another important theme in the discussions of the new territorial scale referred to its infrastructural connections, in terms of traffic and green areas. These two categories were integrated, particularly explicitly, in the inter-war plans for the Ruhr Coal District, where interests of big industries were clearly counterpoised to the “public interest.”¹⁵⁷ The

Settlement Association of the District was founded in 1920 with the power to influence economic development of the region, through plans for the preservation of green open spaces and regional traffic network, across the municipal divisions. The Ruhr Planning Association established a paradigm of the polycentric urban region (which only stabilised with the territorial reform of 1928), characterised by coordination between economic plans and green infrastructures as essential elements of the projected spatial order.¹⁵⁸ The switch of the role of “green” from the picturesque to functional, was complete by the end of the 1920s. In 1930 Leberecht Migge proposed the conception of “wetlstadt-grün,” based both on German experiences and American models. He affirmatively quoted Wagner’s and Koeppen’s “Free Area Schema”, which combined the green and traffic infrastructure to integrate the urban with the surrounding territory, way beyond its administrative borders.¹⁵⁹ (Figure II-21)

After coming to Berlin, Neidhardt introduced infrastructure into his work, as the determinant and tool of planning. Soon after taking up a position in Behrens’s office in March 1930, he entered an international competition for the regulatory plan of Zagreb. His proposal was based on the idea of the “green artery,” a combination of an urban avenue and abundant greenery that connected the bank of the river Sava at the southern edge of the city with the Medvednica hill in the north, incorporating a range of pre-existing green and public spaces in between (Figure II-22). The most prominent of these was Zrinjevac, a 19th century park, defined on the perimeter by important public institutions. In coherence with the explicit biological analogy of the German discussions on the city region and Migge’s “organisational green,” the “artery” pierced through Zagreb’s existing urban blocks, to connect the two principle recreational areas on the city’s periphery, while holding in high regard the question of urban composition. The plan’s description in the journal *Gradjevinski vijesnik* stated that “this axis would become the spine of the city, not only for its greenery and air, but also in the sense of traffic.”¹⁶⁰ Yet another important determinant of this spine

was the experience of Zrinjevac, which remained a lasting reference in Neidhardt's work as the paradigm of urban "beauty."¹⁶¹

Parallel considerations of the infrastructural and the plastic aspects of the urban characterised the discussions of Peter Behrens's project for Alexanderplatz, on which Neidhardt started working immediately upon arrival to his office, right at the time when the negotiations around modifications of the Luckhardt brothers' project (which won the competition in 1928) heated up. According to the testimony of Karl Mittel, an office colleague and friend of Neidhardt's, Behrens's team acquired an unfavourable role of a mediator between the requirements of American developers, who took over the construction of business buildings after the onset of the economic crisis, and the strict principles and vision of, then *Stadtbaurat*, Martin Wagner.¹⁶²

Wagner, who sought to control the tiniest details of his idea of Berlin's transformation into a *Weltstadt*, saw Alexanderplatz as one of the strategic points in that ambitious project. In his article titled "Das Formproblem eines Weltstadtplatzes" published in 1929 in the journal *Das Neue Berlin*,¹⁶³ Wagner outlined the programme for design of *Weltstadtplätze* as a seamless merger between infrastructure and architecture. The *Weltstadtplatz* is, as Wagner wrote, where "the purpose and form, ground plan and driveway, surface and road wall merge into an organic unity. World city squares are organisms with a pronounced formal face."¹⁶⁴

This idea was also present in Peter Behrens's pedagogical approach, which he explained in a brochure about his "Academic master school in Vienna," published in 1930. Here he proposed that *neue Sachlichkeit* ("this essential realism, as a fundamental condition") in the realm of town-planning relied on "the proportional grouping of great masses (...) to secure a wholly appropriate total effect."¹⁶⁵ Elsewhere Behrens argued that the modern age was characterised by hurry and, therefore, also by a new mode of perception of the distracted, fast-moving urban dweller.¹⁶⁶ A part of Behrens's overall determination to give a cultural expression to the industrial society¹⁶⁷ was inclusion of infrastructural projects into his

master school's studio work. In the final year of his studies with Behrens, in 1924, Neidhardt designed an airport for a "big city" (published in *L'Architecture d'Aujourd'hui* in 1935)¹⁶⁸ (Figure II-23), while his final project was the design for a wooden bridge over "some wide river."¹⁶⁹ Behrens school's promotional brochure, brought a selection of works by his former students, including Neidhardt's design for a Sanatorium, produced in 1929, during his recovery from tuberculosis in one such institution in Davos. The impressive photograph of a model showed a cluster of five towers on a steep, densely wooded slope, each positioned on a plinth in a form of a ziggurat. The laconic description of the project pointed out the proximity of a cogwheel railway (presented in detail in the model), the savings achieved with the "vertical" organisation of the scheme and closed corridors that connected the buildings (Figure II-24). Beyond the functional matters, however, the unity of the project was also compositional: the contrast between the stiff, mechanical structures and organically realistic pine trees put the cogwheel and towers, the infrastructure and architecture on a par.

The ambiguities of infrastructure (implied by Neidhardt's Berlin experiences), as functional structure, the subject and object of new aesthetic and factor of organic synthesis, were introduced into both the publication *Sarajevo and its Satellites* and the plan for Sarajevo and its region. Organisation of the publication vaguely followed the functionalist logic, with parts dedicated to leisure, circulation and work (with which housing was integrated). The discussion of circulation was, however, dominated by the description of the "East-West Artery," the main traffic axis, which serviced the longitudinal form of the city. A perspectival diagram presented a kind of motorised promenade, along which the main city landmarks simulated the reduced spatial experience of a fast-moving subject (Figure II-25). Yet, this idea of circulation as a controlled visual sequence, was abandoned on a regional scale, where the artery appeared integrated into the system of communication between Sarajevo and its satellites (Figure II-26).

What kind of communication was it? Very briefly Grabrijan and Neidhardt discussed the “traffic” of Sarajevo: its connections to the north (towards Brod), east (towards Višegrad) and south (towards Mostar); its longitudinal configuration determined by topography; and the growing importance of roads for passenger traffic.¹⁷⁰ Yet, the linkages between the central city and its satellites were not elaborated. While the German model, already in the 1910s, focused on the question of an “ideal settlement of inhabitants” and “adequate fast connections” on the regional scale,¹⁷¹ *Sarajevo and its Satellites* analysed and sought to reinforce the integration of the coal and steel producing periphery of Sarajevo, by facilitating a better and more efficient ore circulation. The publication succinctly described the existing production circuit on the regional scale: “Through time, an important economic artery developed between Zenica and Sarajevo, along the Brod-Sarajevo railway. Everything is assembled there: mine and ironworks in Zenica, mine in Kakanj, mine in Breza - at the beginning of this artery’s branch, it leads towards Vareš, also towards mine and ironworks in Vareš-Majdan - and at the end of this branch, while still on the main artery leading to Sarajevo, there is the mint and ammunition producing facility in Ilijaš (...) And the administrative centre of this economic-mining area is Sarajevo.”¹⁷²

The pragmatism of the proposal on the scale of the city region is surprising: the center-periphery tension that the inter-war modernist architects sought to tackle through the problematic issues of the *Trabantenprinzip* was ignored, and the emphasis was, instead, placed on the centre-periphery relations on a national and international scale, defined by the question that opened this subchapter: will the Bosnian Mining Basin continue producing primary goods and send them to other, technologically advanced production centres, or will it further perfect its own production facilities? This kind of framing of the planning problem could be considered as part of a more general framing of the national economic development in the years preceding the war, present in popular forums. After all, the new economic policy of the Kingdom of Yugoslavia, a part of which was the founding of the Jugočelik, epitomised a pioneering act of state intervention, not only in the economy,

but also in territorial development.¹⁷³ In 1941, for example, *Kalendar prosvjeta*, a journal with wide non-specialist reading audiences, wrote that “from the national-economic point of view, export of ore is detrimental and our manufacture economy, particularly our industry, should provide full protection to our natural riches.”¹⁷⁴ As Grabrijan’s and Neidhardt’s proposal of *Sarajevo and its Satellites* clearly demonstrated, this kind of reasoning entailed moving beyond the scale of the city-region, further into the territory, where it was easier to apprehend that natural riches, such as ore reserves, determined the infrastructural development and where clusters of settlements, including the entire city regions, were consolidated into peripheries of distant, more developed societies and their markets. It also entailed a different kind of territorial imagination, where the region was no longer determined by the urban referential system and instead, became a whole, articulated by a semi-natural unison between infrastructure networks and geography.

The study *Sarajevo and its Satellites* could, therefore, be understood as a symptom of transition between two ways of thinking about and planning of the territory: between the planning from the city outward (as urban planning) and planning from the territory and into the city (as regional planning). Indeed, and in spite of the terminology, Sarajevo’s role in Grabrijan’s and Neidhardt’s proposed system of settlements, was substantially different from the role that German “mother” cities played in the constellations determined by the *Trabantenprinzip*. Impoverished and marginalised, both without the developed industrial base and significant concentration of firms, Sarajevo was not in a position to compete with the economic development of the Basin. Administratively, all of the “satellites” that Grabrijan’s and Neidhardt’s study assigned to Sarajevo (except for one half of the municipality of Ilijaš) in reality pertained to the county of the historic town of Visoko and depended on Sarajevo only for the provision of most advanced services. Finally, except for the narrow-gauge railway line that connected Zenica and Sarajevo, all of the other “satellites” were connected with it through the poorly maintained road network. With the distance between Sarajevo and the mining and industrial settlements of the Basin

averaging 50 km and no prospects for development of public passenger transportation, it was evident that the projected infrastructural links in Neidhardt's scheme represented the "ways of ore," rather than the "ways of workers" in these industries.

This kind of reasoning that prioritised transportation of minerals over passenger transportation was pioneered in the Basin by the Habsburg regime. Austrian geologists prepared a report on Bosnian-Herzegovinian brown coal, iron ore and bauxite reserves already in November of 1879,¹⁷⁵ while complete geological studies were completed by 1903 (Figure II-27). Zenica, a town positioned in the Middle Bosnian Basin and lying on top of extensive coal reserves, was made a seat of the Direction for Coal. It was connected by rail to the city of Brod on the river Sava already in 1879. Only three years later, the rail was extended to Sarajevo.¹⁷⁶ In 1885, a branch of the railway was connected to the mountain town of Vareš, which, because of its rich iron ore reserves, acquired the designation of *Eisenerzdistrict* in Austrian studies (Figure II-28). However, the main ironworks complex was installed in Zenica in 1892, to facilitate easier transportation, while the difficult topography of Vareš limited investments to a less extensive basic processing plant. This dynamic development stalled in the inter-war period until the mid-1930s, when its renewed pace was a direct consequence of the supply requirements of European armament industries in the wake of the World War II.

Neidhardt took up a position with the technical department of Jugočelik in this same year (merely two years after he had left Le Corbusier's office). His first commission that entailed involvement in the infrastructural and territorial planning of the ore production cycle, was the regulation of Vareš Majdan, an industrial extension attached to the historical mountain settlement of Vareš. Upon arriving to Vareš in 1939, Neidhardt conducted an extensive territorial survey, which was presented in the *Sarajevo and its Satellites* study under the title "Existing conditions."¹⁷⁷

The text was related to the schematic map - plan of the proposed intervention (Figure II-29), in which all of the relevant environmental elements were presented and marked by

numbers. This section ended with the description of the ore circulation within the spatial scope defined by the plan, but also its functional links with other locations in the Middle Bosnian Basin and beyond: “The iron ore is mined (on the surface and underground) and transported, from the first three mines [16, 21] through Droškovac via electric railway [12] and into ironworks [10], and from Brezik [18] via special mining gauge [23] and one large funicular [11] straight into the ironworks. At the ironworks, the iron ore is smelted inside blast furnaces into raw iron (the coal required as fuel is obtained from Breza and coke is obtained from abroad). One part of the raw iron is used by the VM [Vareš Majdan ironworks] to produce moulded goods there, while the other, greater portion is transported to Zenica for further processing.”¹⁷⁸

This detailed tracing of the ore movement and iron production was complemented with a proposal for reorganisation of the existing order of operations in the Basin. A small diagram (Figure II-30) criticised the dispersion of these operations between Breza, Vareš and Zenica and proposed their concentration near Ilijaš. This idea was elaborated in a text titled “Rational production”: “The mine and the ironworks Vareš-Majdan lie in a gorge, almost without any possibility of extension. Furthermore, there is not enough industrial water here. Coal is brought from afar, i.e. Breza, and coke from abroad. The transportation is performed uphill. A question is raised, whether it would be more rational to position the centre of this industry closer to the main railway and valley of Ilijaš-Podlugovi Breza. In this case, the blast furnaces would be relocated from Vareš and the steelworks and rolling plant from Zenica. This is how the expensive and complicated transportation of coke, coal and other material to Vareš would be rejected. The original electric energy would be obtained from Breza (so the transportation of coal to produce the operational energy would be eliminated). The transportation of ore from Vareš would only be downhill. The transportation of raw iron to Zenica would be eliminated.”¹⁷⁹

The presentation concluded with the description of the regulation scheme: Neidhardt proposed to move the railway tracks and extend the production waste depot; he also

designated areas for extension of production facilities and proposed the location for four clusters of workers' housing. The miners' settlement was planned to be built close to the two Vareš mines, while the construction of three of the ironworks workers' settlements was planned in the Stavnja creek valley, in a relative proximity of the ironworks complex. In the map-diagram describing the regulation (Figure II-29), these houses could be seen arranged in the south, on the western bank of the Stavnja creek. In the vast territorial scheme, they looked like fine-grained annexes to the great infrastructural-geographical system of the ore and iron production. The elevation of the workers' settlement in Kralupi showed low-lying modern Bosnian houses, arranged irregularly on the hill side (Figure II-31). Integration of housing into the infrastructural production cycle, closely related to geography, was reminiscent of the projects that Neidhardt collaborated on in Le Corbusier's office, particularly those that came out of Le Corbusier's association with the regional syndicalist movement.

Neidhardt was involved in a detailed investigation of agricultural production that was used as the basis for design of the *Ferme radieuse* prototype,¹⁸⁰ he personally produced the *Ferme* model¹⁸¹ and collaborated on the village reorganisation programme along syndicalist lines. The *Ferme* project included a modern peasant house and farm production facilities, grouped around a spacious concrete courtyard (Figure II-32): the equipment shed, the animal shed, the barn.¹⁸² One of the most important parts of the farm as a "precise piece of equipment" was "a rail running across the ceiling."¹⁸³ Le Corbusier expected it to "function rather like a miniature railroad track" and reduce physical effort "to zero."¹⁸⁴ Yet, at the same time, the farm was expected to grow into the soil, by being responsive to geographic conditions and the character of the region. This strategy differed significantly from Le Corbusier's earlier efforts to introduce organic principle into his work. While the *Ville Radieuse* project relied on the conception of organic structure and growth, the *Ferme* went beyond this and was expected to become an integral part of the soil, climate and human work.¹⁸⁵ Here Le Corbusier's biological metaphor came close to being a literal

designation: he described the farm both as a “geometric plant,” intimately connected to the landscape (like a tree or hill), and as unequivocally “expressive of our human presence, as a piece of furniture or a machine.”¹⁸⁶

The farm’s organic aspects that grew into the soil were not of a “romantic regionalist” kind, but came out of the production scheme’s accommodation to the modes of human work that varied region to region.¹⁸⁷ This “quasi-natural event” was envisaged as a part of a larger cooperative village system, defined as a “function of a transportation system, storage needs, merchandise handling problems.”¹⁸⁸ This is why the first building in the village was a communal silo - a mechanised structure inside of which the fruits of labour of the fifty farms pertaining to it, would be stored. The village and the silo would be connected, by a branch road, to the national highway, along which loaded trucks would take the farm produce to the market. The entire system, made of ceiling “railroads,” branch roads, silos and highways that permeated and connected the modern farms and villages, was imagined as a “gigantic industrial programme” in the countryside, “one that makes mass-production inevitable.”¹⁸⁹ (Figure II-33)

The idea of the production and infrastructural system that “grows into the land” influenced Grabrijan’s and Neidhardt’s conception of the Middle Bosnian Mining Basin, as both the productive organism and machine, depicted in the master diagram of the *Sarajevo and its Satellites* study (Figure II-26). Its graphic allusion to an organism was based on the assumption that, in the planning, it was possible to establish a perfect unison between production process and geography. The planned infrastructural constellation emerged by seeking to achieve maximum efficiency of production, while responding to contingencies of geography. Nevertheless, while the *Village Radieuse* remained on a diagrammatic level, Neidhardt’s functional Euclidean diagrams, such as those presenting the “rational production” (Figure II-30), were complemented by the cartographic master diagram, seeking to incorporate the stylised topography into a scheme. This original effort, to introduce geography as a concept into the functional diagram, as more than a locational

contingency to which the prototype needed to be accommodated, was also recognisable in the design of Neidhardt's modern Bosnian houses.

The Kralupi neighbourhood plan in Vareš was implemented only after the war. The project for the initial cluster of eight houses was endorsed for construction in 1948. The Kralupi house was based on the Modern Bosnian house with six apartments that Neidhardt developed for the Middle Bosnian Basin, featuring the cubist corpus, pitched roof, single flight stairs and a porch. The houses were arranged on the hill according to "the right to view" principle. Just like Neidhardt's research and planning integrated the gigantic iron and coal producing machine into the Basin, his research and design sought to integrate the house, through an intricate strategy comprising Bosnian architectural elements and unwritten laws. While these two works (Figure II-34) seemed to pertain to two different conceptual registers, the blueprint and project documentation revealed two ways in which the Modern Bosnian house related to the new composite infrastructuralised geography of the Basin (Figure II-35). The first one was the plan configured around the "residential kitchen" and the subsistence economy yard¹⁹⁰ - resulting from Neidhardt's efforts to accommodate the modern residential culture to the local population. The second came out of an effort to rationalise the use of scarce construction materials - all fundamental elements of the house were made of slag, the recovered industrial by-product of an iron blast furnace: foundations were to be made of stone and slag mortar, both exterior and interior walls of custom-made, granulated slag blocks and all reinforced beams of the compound based on well-baked slag.¹⁹¹

This intention to unify the historical geography of the Middle Bosnian Basin with the economic geography of the Middle Bosnian Mining Basin was announced in the study *Sarajevo and its Satellites* on a page which introduced Neidhardt's portfolio of the HRUTAD-Jugočelik projects and regulations (Figure II-36). Here, a map of Bosnian mineral riches was presented above the photograph of the river Bosna and its surrounding topography and vegetation. On the next page, a photograph of the historic fortified town of Vranduk

near Zenica was shown and denoted as “physiognomy of the Bosnian Basin.”¹⁹² The text described the movement between Vranduk and Zenica as “a transition from the romantic landscape, to a thoroughly utilitarian area.”¹⁹³

The transition and unity represented in these pages remained the primary concern for Neidhardt and Grabrijan and animated their further research and production of the book *Architecture of Bosnia* after the war. Neidhardt’s design and planning experience with the Jugočelik was unique in Yugoslavia of the time and rather rare in Central and Eastern Europe.¹⁹⁴ It required the territorial research and imagination that went beyond the established conceptual frameworks of a functional city region. It resulted in a conception of territory defined by a perfect infrastructural response to a set of environmental circumstances. This perfect match was facilitated by planning.

This kind of conception of spatial planning, detached from a single urban referent, was discussed in Le Corbusier’s office, in relation to his involvement in regional syndicalist programme, which included the *Ferme* and *Village Radieuse* projects. At the time of Neidhardt’s arrival to Le Corbusier’s office, this involvement entered a new phase marked by his collaboration on the journal *Le Homme Reel*. The journal explored a variety of left-leaning political and social-organisational alternatives and upheld values of “new humanism.”¹⁹⁵ Both the *Ferme* and *Village Radieuse* were the direct architectural and planning response to regional syndicalist concept of political-economic and territorial organisation of the society. Their vision relied on a division of economy into even agricultural and industrial parts, each supervised by a commission, while a third commission would be charged with transportation and communication.¹⁹⁶ The principle organisational and conceptual unit of this system were geographic regions promoted into *metiers* - units of economic production.

The conception of region that resulted from this programme was, therefore, both “natural” and economic. The Middle Bosnian (Mining) Basin presented in Grabrijan’s and Neidhardt’s first study was meant to become one such region through planning and design. However,

the idiosyncratic, location-specific strategies of unification proposed in the Kralupi neighbourhood of Vareš, were rejected by the state planning commission and their construction discontinued already in 1949. The modest rationalisations proposed by Neidhardt were not sufficient on the new scale of development, while his Bosnian architectural elements played no role in a new set of concerns dominated by security.

2.3 Clouds of Smog - Security Calculations in Zenica

The first urban plan produced in the Socialist Yugoslavia was Juraj Neidhardt's regulation for the border twin cities of Bosanski Brod and Slavonski Brod, situated on the Bosnian and Croatian side of the Sava river. Its early completion, already in September of 1945, proves the urgency it held for the Bosnian and federal Yugoslav economic administration.

The Brod twin cities were crucial for the coal and iron industries of the Middle Bosnian Mining Basin, as they provided both the crossing over the Sava river and the railway connection between the Bosnian narrow gauge railway and Croatian railway lines, leading to Yugoslav capitals of Belgrade, Zagreb and Ljubljana, and further to Central Europe. The connection of the Basin with more developed parts of Yugoslavia and Europe had been established by the Habsburg administration back in 1879, merely one year after the occupation. The onset of export of Zenica's coal and Vareš's steel in this same year was made possible because of this infrastructural expediency of the new regime.

Neidhardt's title of the plan "The Doors of Bosnia," therefore, referred not only to the passenger traffic, but also circulation of minerals from the Basin to the north. This function of the regulation was underlined by a range of institutions Neidhardt cooperated with in the process of its production. Particularly important was re-establishment of traffic over the river Sava that all but stalled, after the bridge was destroyed by the Allies' military operations in 1944. The Ministry of Trade of the Bosnian Republic proposed three possible scenarios for resolving the communication crisis in the Brod cities. The first, and the worst-case scenario, accepted that the existing situation would last. In that case, the Ministry

proposed that it would be necessary to build temporary wooden warehouses for the storage of food. If the bridge would be built fast, then a great silo and big magazine should also be constructed to store goods for export and import. Finally, the Ministry argued that the second scenario would be “thoroughly eliminated if, in the foreseeable future, the building of the standard gauge railway started. In that case, it would be necessary to build a plant for processing of fruit and vegetables for export.”¹⁹⁷ This scenario also required the building of proper security from flood and excessive water, to provide optimal conditions for growing vegetables. The Ministry concluded that production of vegetables would be beneficial for the local economy of Brod, as “in normal times, it is always more expensive than grains, and processing is easier because the work related to vegetables could be easily carried out by women and children.”¹⁹⁸

This set of entangled territorial agencies of infrastructure, climate, river, economy and population was further complicated by the communication Neidhardt received from the Ministry of Industry and Mining. It underlined “That which is necessary to be done IMMEDIATELY,”¹⁹⁹ to resolve the communication crisis in Brod, as it was of immense importance for both republic and the Yugoslav federation. The document explained the urgency: “a/ Relatively big quantities of coal from the Middle Bosnian Basin (...) remain unused because there is no possibility of transshipment and transport over the Sava. There are particularly big quantities of fine-grained coal (...) for which there is a demand over the Sava, especially by industries and electrical plants; b/ Putting to work the blast furnaces in Vareš and, consequently, enhancing the production of iron and steel in the Ironworks of Zenica cannot be achieved currently, because of : aa/ the lack of coke; bb/impossibility to dispatch the ore from Vareš, and only by compensating coke with ore is it currently possible to get coke; cc/no import of old iron from the lands across the Sava. To instantly resolve this difficult situation, it would be necessary, as soon as possible and before constructing the railway bridge, to secure more river sailing devices, possibly reconstruct the old wooden bridge...”²⁰⁰ The Ministry underlined the fact that this was the “only

connection of Bosnia and Herzegovina with the lands across the Sava.”²⁰¹ The report concluded with the recommendation to build infrastructure in proportion with “the enhanced capacity of Bosnian-Herzegovinian industry and mining”²⁰² and “a detailed review of export and import,” listing the quantities of iron ore, coal, processed iron planned for export and coke, old iron and other goods planned for import through the Brod cities (Figure II-37).

These documents that established the importance that the Brod cities held for the regional and national economy, demanded from the urbanist to apprehend the city in relation to territorial processes and infrastructural developments. Within the wide scope of regional and national problems, the Brod cities were reduced to an infrastructural element that provided for a seamless circulation of goods across the territory. This new perspective on the urban was reminiscent of the human geographic practical analysis of correlations between geography, infrastructure, economy and national interests. Urbanism was understood both as the function and factor of a larger territorial whole. Neidhardt’s plan responded to this new task by drawing on his experience of planning of Antwerp, on which he collaborated with Le Corbusier in 1933.

The plan Neidhardt prepared for the cities of Bosanski Brod and Slavonski Brod was characterised by a compact, introverted form (Figure II-38). Its limits were defined by an orthogonal closed circuit of streets, while the only recognisable exchange with its surroundings were arrow-straight highways leading to Sarajevo and Zagreb. The diagonal position of the secondary street network (relative to these two primary routes) and its rigid meeting with the curve of the river, were identical to the urbanisation scheme developed for the left bank of the Scheldt in Antwerp. (Figure II-39) However, the narrow geography of its situation was not the only determinant of the apparent isomorphism between the two schemes. Rather, what must have aligned the Brod twins and Antwerp in Neidhardt’s mind even more determinately, was their role as outlets of important transport infrastructures connecting the mining basins of Bosnia and Rhineland with their

consumers. Just like Neidhardt's urbanisation of Bosanski Brod and Slavonski Brod, Le Corbusier's urbanisation of Antwerp was, as well, a function of larger, in that case global, territorial considerations.

At the beginning of his description of the project, published in the book *La Ville Radieuse*, Le Corbusier stated that "again and again we went beyond the verifiable present reality to the upper realm of the future reality, certain that this realm too could be checked with a maximum probability."²⁰³ This intricate sentence alluded to the "probable future" on the basis of the project's close reading of Antwerp's geography and one of the key determinants of the Antwerp plan: the visionary concept of Paul Otlet's "World City."

Le Corbusier carefully credited Otlet's memorandum, which defined the World City as a "practical instrument for international cooperation in every field"²⁰⁴ and merged it with his own conception of the International Business City, which entailed "the very considerable agglomeration of men and firms"²⁰⁵ in Antwerp. The programme for the World City, which foresaw "international collaboration" as an exchange of information between a range of international institutions incarnated by its architecture, was studied in detail by Le Corbusier and his team. However, when he exclaimed in the text that "a new city like the one planned for the left bank should have a reason for existing," Corbusier not only sought the justification for locating the World City in Antwerp, but also emphasised the fact that there were more necessary preconditions to achieve the desired international collaboration through the World City, than the programme of the "permanent Universal exhibition," referred to by Otlet. It was the geographical position and infrastructures of communication that assured this instrumentality: "Antwerp dominates the Estuaries of Central Europe, it is fated to be the point of exchange between America, on the one hand, and Central and Eastern Europe on the other."²⁰⁶ In the same vein, Le Corbusier relied on "the results to be expected from the Albert canal and various waterways which, in one way or another, will make of Antwerp the great Rhenish port, for which a provision was made in the Treaty of Versailles."²⁰⁷

Just like the World City, the perception of Antwerp as the “Rhenish port” in correlation with the treaty of Versailles, was closely linked to the project of assuring the world peace. The inter-war geopolitics of Europe revolved around the political-economic and strategic importance of the Ruhr area, the most extreme manifestation of which were arguments for founding the Rhineland-Westphalian state under the control of the League of Nations, which would “neutralise the area and make it inoffensive.”²⁰⁸ Of primary concern here were the immense natural and infrastructural riches of the Ruhr: “mines, metallurgy, railways, canals, coastwise and overseas shipping lines etc.,” as well as the imperial attitude that they aroused in the nation that controlled them. Here the infrastructural cycle of the Ruhr minerals drew the city of Antwerp into the Rhineland, just like iron and coal drew the city of Brod into the Middle Bosnian Mining Basin.

The hybrid technology of the World City and Albert canal, therefore, literally conflated the logic of political-economic security with geography and town planning. A very crude testimony to another instance of the same combined logic must have been presented to Neidhardt, when in the summer of 1945, he visited Bosanski Brod and Slavonski Brod. The repeated Allied bombing had left both sides of the river in ruins: 75 % of the building stock in Bosanski Brod was razed to the ground. The solid steel bridge over the Sava, built by the Habsburg regime in 1884 as a part of the infrastructural equipment of the Middle Bosnian Basin, was demolished by the Yugoslavian resistance forces of the People’s Liberation Army already in 1941, as a part of the retreat operation. The temporary wooden bridges erected by the German army, were repeatedly demolished by the Allies, not least to impede the outflow of iron and coal from Bosnia to the Reich.

These and many other similar war-time developments, introduced explicit discussions about security into the problematics of urbanism. Neidhardt’s regulation of the Brod cities was based on institutional remarks, which referred directly to the recent experience of war. The Municipal People’s Council in Bosanski Brod, for example, warned of the “inconvenient position of Bosanski Brod which, almost in its entirety, stretches along the railway, which is

why a great number of residential buildings was demolished on the occasion of destroying the traffic terminal."²⁰⁹ Development of city plans according to strategic and military concerns was, of course, nothing new. The change, however, already announced by the inter-war urbanism and turned, by the post-war planning, into an unwritten principle, referred to urban economic calculations of security, and nowhere was it made as clear as in the course of Juraj Neidhardt's painstaking production of the "conceptual design" for the regulation of Zenica.

Less than a year after the end of the World War II, Neidhardt's activities in the mining towns of the Middle Bosnian Mining Basin were renewed. He returned to Zenica in 1949, to witness the unbounded expansion of its Ironworks. The new Socialist regime intensified the development of Zenica, particularly as the plan for the construction of a new Ironworks complex in the city of Dobož, closer to the Brod export outlet on the Sava river, was ruined by the Yugoslav exit from the Cominform in 1948.

As a direct consequence of these developments, Neidhardt was commissioned to produce a concept for the city's regulation plan. By the time when the team of urbanistic experts from across Yugoslavia and institutional representatives from Bosnia congregated in 1954 in Bistričak, a mountain resort near Zenica, to discuss Neidhardt's proposal, the productivity of the Ironworks was four times higher than the maximum rate of its pre-war production in 1939.²¹⁰ The output of the coal mine was twice bigger than in 1939,²¹¹ while the installed electrical power plant had the capacity 2.5 times higher than before the war.²¹² This growth of production entailed two related processes: the increase of workforce and, consequently, number of inhabitants and the increase of air and water pollution, which was (already in 1954) discussed as a serious problem in both popular media and local party meetings.²¹³ The mining operations, initiated by the Habsburg regime in 1880, developed throughout the first half of the century, without regard to the existing city and its potentials for expansion.

Neidhardt started his urban analysis of Zenica in 1949, and soon realised that the degraded environment, requests of Zenica's industries and growth plans of the city administration radically narrowed the possibilities of his planning strategy. His first sketches entirely referred to the left bank of the river Bosna, focusing on a large swath of land between the Ironworks to the north-west, the large river meander to the south-east, historic city to the south and mining grounds to the west (Figure IV-08). While the growing influx of workers to the city determined the programme, the environmental parameters determined the spatial arrangement of the plan. The polluted air, toxic water and undermined terrain, as well as certain prospects of further degradation, resulted in the conception which Neidhardt compared, in 1957, to the "open palm." The metaphor underlined that the "residential neighbourhoods extended from the parent body of Zenica as fingers from the palm of the human hand."²¹⁴ This strategy was represented through a diagrammatic plan, showing the rough zoning of Zenica: residential zones, marked in black, spilled out by way of amorphous wiggling rays, into the surroundings (Figure II-40). The amoeboid outline of the photograph emphasised the main strategy of the plan, also described in words: "Satellite settlements penetrate into the areas of landscape, where the air is not polluted by the industry."²¹⁵

This strategy, presented in the book *Architecture of Bosnia* as a positive planning method, was actually a result of a long and difficult negotiation process between its author and a group of experts, managers and officials, held on 6th and 7th August 1954 in Bistričak near Zenica. The conference was organised to conduct the final external expert assessment of the plan, before it was sent for approval to the People's Council of the City of Zenica and then, ultimately to the Executive Council of the People's Republic of Bosnia and Herzegovina. This procedure underlined Zenica's importance that exceeded the local scale, determined by the competences of the City's People's Council. The opening statements at the conference emphasised Zenica's federal significance, which demanded that this city be observed "in that light and frame, in which economy is one of the basic features."²¹⁶ Yet, the

participants also immediately agreed that New Zenica's *raison d'être* was not simply its economy: "we are not building Zenica for the people to serve it, but for it to serve the people. From that point of view (...) we should keep in mind that we need to create the living conditions as good as possible for our men."²¹⁷

The measure of "as good as possible", in the course of the discussion, was determined less by mutually opposed expert stances historically polarising the debates on city planning, such as concentration and deconcentration, or urbanist and disurbanist outlook. The discussion in Zenica was underpinned by a variety of numerical parameters, which served as arguments and were ultimately articulated on the national scale. On the most general level, the data that determined the production efficiency were correlated with the data determining the public health. While the former were provided by representatives of the Ironworks and the coal Mine of Zenica, the latter were provided by the Secretariat of Public Health located in Belgrade.

Neidhardt presented the production of the plan as an unpredictable and difficult affair. He detailed a range of obstructive circumstances which, on many occasions, steered his design decisions away from the conceptions that he had already established. The most decisive of these was the discovery of the new coal reserves in the south, which, quite literally, undermined the first version of the plan. "The Southern belt Bilimbišće-Klopča-Drivuša," Neidhardt explained, "was envisaged as the future residential area of Zenica. In this way, we wanted to separate the residential area from any industrial pollution. The designer had already produced projects for this part of the city and the works started in the terrain of Bilimbišće, to construct the foundations for four three-storey buildings. However, according to the latest investigative works in this area, it was concluded that there were large deposits of coal there, which were very important for exploitation. The designer was arguing that the Mine should give up on its requests, in terms of the terrain Bilimbišće-Drivuša, because, along with all the production factors, it should be considered important, maybe the most important, the development of Zenica on the most convenient terrain."²¹⁸

Neidhardt added that the decision on this matter was "transferred to the highest instances in the administrative structures in the realm of mining and economy" and concluded "that in that post-war period, the exploitation of coal had to condition the building of housing," so "the urbanist was left to build merely in urban terrains in the existing part of Zenica, Babina Rijeka and Pehare."²¹⁹

These areas, to which Neidhardt was forced to condemn the future inhabitants of Zenica, were situated on the right bank of the river Bosna, across from the Ironworks, severely affected by the airborne pollutants it produced. Even more problematic was the situation of the mixed administrative-residential zone on the left bank, separated from the Ironworks by a narrow green belt. Neidhardt described the negotiations over this issue that ensued with the Ministry of Health, eventually resulting in an authorisation for the right bank settlements, while the left ones were authorised through a "compromise": only if the population density was fixed at a low rate, around 100 inhabitants per hectare.²²⁰

Throughout the discussion, this compromise-minded logic maintained the optimal relationship between public health and economy, by seeking the most favorable distribution of elements: the course of the railway, freight railway station, mines' shafts and tunnels, the Ironworks, contaminated coal separation field, green belts, housing units and, finally, population. The attending urbanistic experts and politicians alike interpreted investment in the built environment of Zenica as a twofold transaction. It was understood as a compensation the state offered to the workers for their sacrifice (because "from here, in Zenica, money will be flowing in for the entire community"²²¹). However, it was also understood as an investment into productivity, which would increase as a result of workers' wellbeing (parks, alleys and protective green belts were "objects" that also brought economic value through workers' health²²²).

The economic link between the living conditions and productivity had already been recognised by previous regimes that governed the Basin. In its most basic form, it resulted in the manipulation of wages and working hours, to rationalise the relation between the

investments, workers' capability, their productivity and revenues. In the last inter-war years, the growth-oriented campaign of the Jugočelik included the provision of housing and basic amenities into this calculus, resulting in the design projects and regulations produced by Neidhardt in 1939 and 1940. In his first regulation of Zenica in 1940, Neidhardt had already introduced air pollution as one of the design concerns and arranged green buffer zones and belts, as well as settlement zones to minimise its impact. These techniques were promoted by German architects, urbanists and reformers in the 1930s, as factors of both population health and public expenditures. Leberecht Migge outlined, in 1930, that the most important questions in relation to metropolitan greenery, were both standards of the required green areas per inhabitant and their cost.²²³ Martin Wagner defined basic standards of citizens' needs for green and open space in his doctoral dissertation, completed in 1915.²²⁴ Wagner's approach to this problem not only paved the way for "green policy," but also defined the general principle of intersection between urban development and population. The systematic link between productivity, health and environment, established in the meeting of experts near Zenica, therefore, had a long history in urban planning schemes that might have served as Neidhardt's reference. However, it was now part of a larger problem of state development, which entailed the category of "state population."

This category was tackled by a range of norms, such as those provided by the Federal Ministry of Health. Neidhardt's justification of the controversial health aspects of his plan relied on the authority of not only the institution, but also that of Dr. Sergije Ramzin, the esteemed Yugoslav expert in communal hygiene and a member of the Commission for Communal Hygiene attached to the Ministry. The first Yugoslav measurements of air pollution were conducted in Zenica in 1950, according to the program designed by Dr. Ramzin, which relied on sedimentation of airborne matter.²²⁵ On the basis of these and other measurements during the 1950s, a clear link was established between air pollutants and increased incidence of pulmonary diseases.²²⁶ In 1951, Ramzin presented two related

reports to the Commission, titled “Hygienic minimum in planning, reconstruction and construction of settlements”²²⁷ and “Securing and safeguarding air space in apartments and settlements.”²²⁸ Based on these reports, the Commission initiated the process of issuing federal laws and regulations about hygienic protection of atmosphere in settlements.²²⁹ These laws, in turn, underpinned the report that Ramzin contributed to the analytical documentation of the plan for Zenica, on which the approval of Neidhardt’s plan was based. Ramzin, of course, updated the measurements of air pollution in Zenica by conducting field research again, in 1953 and relying on the results of routine measurements collected by local institutions. Yet, the expert of the Hygiene Inspection of Zenica argued that the wind diagrams, on which the pollution calculus and zoning were based, were not reliable because the personnel that prepared them, lacked the required expertise and experience. He claimed that the precision of the report was even more contestable since “Dr. Ramzin himself spent a very short time in Zenica.”²³⁰ It could be said then that the state’s Commission and its experts served as mediators for processing the problematic quality of Zenica’s air into regulations, which were then returned to Zenica and used to argue the developments with certain prospects of its further deterioration.

There were still other norms that eliminated the possibility of locating New Zenica further away from the existing city and the Ironworks. Duration of workers’ commute time was also subject to a standard, which did not permit it to be longer than 30 minutes. The traffic experts warned that the idea of transporting the workers by bus was the “least economical one. Each ride, each individual corresponds to 54 dinars of pure loss!”²³¹ Neidhardt confirmed that “too large migrations inside an urban organism are not possible for a range of reasons”²³² and concluded that the proposed “economical” solution was a “necessity of life.”²³³

The only challenge to this logic came from Branko Maksimović, a professor of urbanism from the University of Belgrade. Maksimović, who largely concluded his career in urbanistic practice in the inter-war period, relied on that same mentality of modest rationalisation

that underpinned Neidhardt's self-help modern Bosnian houses and his slag-based modern Bosnian houses in Vareš, when he challenged the conception on the grounds of the risk it posed to workers' health. He described how his tour around Zenica, on the previous day, left him under the impression that the "air was truly horrendous."²³⁴ He argued that the green belt would not perform its function during the winter, that the city would grow beyond the limits assigned to it by the plan and that, for these reasons, New Zenica should be envisioned further to the south, beyond the areas designated for the Mine.

The distance between Maksimović's immediate experience of air and the quality of air calculated by the Commission of Public Health, was the same distance that separated Neidhardt's ethnographic inquiry into worker-peasants' everyday life practices and his calculations of health and productivity parameters in Zenica. It was also evocative of the distance between the inter-war pollution-neutralising technology of green belt and Neidhardt's post-war technique of "interpenetration with the landscape." This switch from the strategy of avoidance to a strategy of integration, signalled the shift of institutional framing of a planned object: from the city situated in nature to the overall environment, thoroughly imbued by security and efficiency concerns.

The limits of these concerns were mainly defined by the national scale, for instance, when experts concluded that "here a giant is constructed, around which we have to play and give it men, who will fuel it;"²³⁵ or when Zenica officials warned that the valid General Urban Plan was a precondition for implementation of larger investment schemes, which were fully dependent on loans from the Federal Budget.²³⁶ Yet, the concerns of the Bistričak forum surpassed the national scale when a representative of the Counter Airstrike Protection Agency observed that one of the main determinants of the future of Zenica was that it was the location of strong and key industry, "industry which plays a decisive role, both in peace and, even more, in war."²³⁷ This kind of reasoning integrated the Zenica industry with the export outlet in Brod, and further beyond, into geographic projections of

security that involved the Rhine basin, World City and Albert Canal - on which Neidhardt had worked years before.

The extent of the anticipated health impact, rationalisations on the national scale and, most of all, imposing compromises, resulted in a new kind of problematic working experience, marked by significant disempowerment of urbanist's agency. "There were moments," Neidhardt shared with the assembly in "Bistričak," "when one would gladly escape from all of that (...) but my honour did not permit me to do it."²³⁸ Reacting to the disempowerment of urban planning, starkly obvious in Zenica,²³⁹ *Architecture of Bosnia* assigned the problematic of the geographic-economic region to regional planning. This new preoccupation of architects was acquiring a disciplinary definition in Yugoslavia of the 1950s and was increasingly cast as a new objective science. Nevertheless, to be effective, it too needed to define its region.

¹ Jovan Cvijić, *Balkansko poluostrvo i južnoslovenske zemlje: osnovi antropogeografije, knjiga I* (Beograd: Državna štamparija Kraljevine Srba, Hrvata i Slovenaca, 1922), 17.

² Cvijić, *Balkansko poluostrvo*, 12.

³ Cvijić, *Balkansko poluostrvo*, 18.

⁴ Cvijić, *Balkansko poluostrvo*, 137.

⁵ Patricia A. Morton, "The uses and abuses of human geography," *The Journal of Architecture* 16, no. 6 (2011): 811-814.

⁶ Alessandra Ponte, "Archivierung des Planeten Erde: Architektur und Anthropogeografie," *Daidalos*, no.66 (1997): 120-125.

⁷ Yves Chataigneau, "Le bassin de Sarajevo," *Annales de Géographie* 37, No. 208 (1928): 308.

⁸ Chataigneau, "Le bassin de Sarajevo," 306.

⁹ Chataigneau, "Le bassin de Sarajevo," 320.

¹⁰ Chataigneau reported that around 100 000 Catholics emigrated to the northern bank of Sava along with the retreat of the Austrian army of Prince Eugène de Savoye in 1697, while the Orthodox immigrated throughout the XVIII century from Montenegro, South Serbia and Hercegovina - mostly to the highlands seeking to continue their cattle-breeding activities. Sephardic Jews made up considerable portion of the population of the city of Sarajevo where they were welcomed during their expulsion from Spain in the late XV century. Finally a couple of thousands of Muslim immigrated from Serbia as it gained independence, particularly in the mid 19 c. However, this immigration did not top the emigration which ensued with the occupation and annexation of Bosnia by Austria-Hungary after the Berlin Congress in 1878. when Muslim population massively moved along with the retreating Ottoman army and administration to Macedonia and Anatolia. At the same time, the Catholic population increased. See Chataigneau, "Le bassin de Sarajevo."

¹¹ Dejan Jović, "Communist Yugoslavia and its 'Others,'" in *Ideologies and National Identities: The Case of Twentieth-Century Southeastern Europe*, eds John Lampe and Mark Mazower (Budapest: Central European University Press, 2004), 277-302.

¹² Noel Malcom, *Bosnia: a Short History* (Oxford: Pan Books, 1994): 200- 201.

¹³ Marija Todorova, "The Ottoman menace in Post-Habsburg Historiography," in *Scaling the Balkans - Essays on Eastern European Entanglements*, ed. Marija Todorova (Boston: Brill, 2019), 245.

¹⁴ Džemal Čelić, ed., *Grabrijan i Sarajevo* (Sarajevo: Muzej grada Sarajeva, 1950), 9.

¹⁵ Dijana Alić, "Transformations of the Oriental in the Architectural Work of Juraj Neidhard and Dušan Grabrijan" (PhD diss., University of New South Wales, 2010), 46.

¹⁶ Jože Plečnik, quoted in Alić, "Transformations of the Oriental," 46.

¹⁷ Dušan Grabrijan, *Plečnik in njegova šola* (Maribor: Založba obzorja, 1968), 44.

¹⁸ Cvijić, *Balkansko poluostrvo*, 29-30.

¹⁹ Dušan Grabrijan, "Orientalska hiša v Sarajevu s posebnim ozirom na sodobno," in *Arhitektura*, no. 23-24 (Zagreb, 1949): 45.

²⁰ Grabrijan, "Orientalska hiša," 46.

²¹ Grabrijan, "Orientalska hiša," 51.

- ²² Dušan Grabrijan's sketch book, Box 7, unmarked, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia
- ²³ See, for example: Ćiro Truhelka, *Uspomene jednog poionira* (Zenica: Vrijeme, 2012), 29-30.
- ²⁴ See, for example: Ismet Huseinović and Džemaludin Babić, *Svjetlost Evrope u Bosni i Hrrcegovini* (Sarajevo: Buybook, 2004)., and Dayana Reynolds Cordileone, "Displaying Bosnia: Imperialism, Orientalism, and Exhibitionary Cultures in Vienna and Beyond:1878–1914," *Austrian History Yearbook*, No. 46 (2015): 29–50, doi:10.1017/S0067237814000083
- ²⁵ See Grabrijan and Neidhardt, *Arhitektura Bosne*, 291.
- ²⁶ The Introduction to the book *Architecture of Bosnia*, for example, reads: Because opposites attract, it does not surprise that the "Oriental man" adores technics so much, and that "Western man" is so attracted by the oriental architecture." In Grabrijan and Neidhardt, *Arhitektura Bosne*, 14.
- ²⁷ Ćelik, "Le Corbusier, Orientalism, Colonialism."
- ²⁸ As an employee of the Urbanistic office of the city of Sarajevo, he was in a position to get informed, both formally and informally, about timely issues of importance to the city. Already in 1948, the potential redevelopment of the oriental historic core was a frequent topic of discussion in the meetings of the Executive Council of the People's Committee of the City of Sarajevo. The Committee involved the Office in different tasks related to the Core's evaluation.
- ²⁹ One of the likely triggers for this social-political widening of his concerns was realization, in January 1950, that the Society of Engineers and Technicians was to publish a book by two of his colleagues - Jahiel Finci and Ivan Taubman - about Ottoman architecture in Sarajevo. Finci was a deputy of the Minster for Construction and, given his party affiliation, immensely powerful figure in the Sarajevo architecture culture. Neidhardt felt this rival publication was a threat, not only because its subject-matter was similar to *Architecture of Bosnia's*, but also because of Finci's general influence in both the emerging institutional apparatus and the disciplinary public sphere.
- ³⁰ Hamdija Kreševljaković (1888-1959), Bosnian and Herzegovinian historian. Affiliate of the Provincial Museum in Sarajevo, he dedicated his life's work to the history of the Ottoman era in Bosnia and Herzegovina. He collected and preserved a wealth of documents related to the four and a half centuries of Turkish rule of the Balkans. His best known works intersect economic, administrative and cultural history of the period.
- ³¹ This was, most probably, Strahinja Banović, architect and one of Grabrijan's students in the Technical Secondary School in Sarajevo.
- ³² Correspondence from Juraj Neidhardt to Dušan Grabrijan, April 1950, Box 7, 1950/7-22 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³³ Correspondence from Juraj Neidhardt to Dušan Grabrijan, November 1949, Box 5-1, 1949/47 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³⁴ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, 1950/7-5 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³⁵ Kreševljaković, H. (1935) *Esnafi i obrti u Bosni i Hercegovini (1463-1878)* (Guilds and Crafts in Bosnia-Herzegovina), Zagreb: Jugoslovenska akademija znanosti i umjetnosti.
- ³⁶ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, 1950/7-4 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³⁷ Correspondence from Juraj Neidhardt to Dušan Grabrijan, April 1950, Box 7, 1950/7-22 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

- ³⁸ Correspondence from Juraj Neidhardt to Dušan Grabrijan, March 1950, Box 7, 1950/7-9 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ³⁹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, April 1950, Box 7, 1950/7-22 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁴⁰ Vladislav Skarić, "Iz prošlosti Bosne i Hercegovine XIX vijeka," in *Godišnjak istorijskog društva Bosne i Hercegovina* 1, No.1 (Sarajevo: Istorijsko društvo BiH, 1949): 7-41.
- ⁴¹ Aleksandar Solovjev, "Nestanak Bogumilstva i islamizacija Bosne," in *Godišnjak istorijskog društva Bosne i Hercegovina* 1, No.1 (Sarajevo: Istorijsko društvo BiH, 1949): 42-79.
- ⁴² This tendency has been observed in a range of works, starting with the medieval politically driven surveys ordered by the Vatican and the Austro-Hungarian Empire, to the research articles authored by the inter-war regime-friendly historians in the Kingdom of Yugoslavia. The former promoted the Western imperialistic cause by misrepresenting the number of Muslims as minimal against the prevailing number of Catholics. Solovjev described the case of author Benedikt Kuripešić who travelled through Bosnia in 1530 on a mission to inform the King of Austria-Hungary about its population's prevailing political mood: "Kuripešić's 'itinerary' is dedicated to the King in Vienna who had only just received the royal cape of Hungary, Croatia and Dalmatia, the king who is meant to defend Christianity from Islam and to return to the Hungarian crown Bosnia that it has lost. Kuripešić would like to show that the population of Bosnia is impatiently expecting the imperial liberation army. This is why he exaggerates the number of Catholics and decreases the number of Muslims." (in Solovjev, "Nestanak Bogumilstva," 54) Meanwhile the inter-war historians denied domesticity to the Muslim population, arguing that it consisted of Turkish settlers, while only the Christian population was native. One of the most radical revisionist stances towards the historical question of the Bogumils quoted by Solovjev belongs to Vaso Glušac, historian and Serbian senator in the Kingdom of Yugoslavia. Glušac, active promotor of Serbian national cause, claimed that Bosnian Church was not heretic, but purely Orthodox (in Solovjev, "Nestanak Bogumilstva," 24). Solovjev also quoted and criticized the thesis of historian Petar Gaković who admitted to the existence of the Bogumil heretics, but claimed that Turkish conquerors imprisoned and took away all of them, leaving Catholic and Ortodox population in place, and, subsequently, populating the land with Muslim settlers. (in Solovjev, "Nestanak Bogumilstva," 45)
- ⁴³ Solovjev, "Nestanak Bogumilstva," 79.
- ⁴⁴ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1950, Box 7, 1950/7-4 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁴⁵ Correspondence from Juraj Neidhardt to Dušan Grabrijan, May 1950, Box 7-1, unmarked, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁴⁶ Antun Hangi, *Život i običaji Muslimana u Bosni i Hercegovini*, Sarajevo: Naklada Danijela A. Kajona, 1906), 5.
- ⁴⁷ Correspondence from Juraj Neidhardt to Dušan Grabrijan, May 1950, Box 7-1, unmarked, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁴⁸ Correspondence from Juraj Neidhardt to Dušan Grabrijan, August 1950, Box 7, 1950/7-38 4E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁴⁹ Vejsil Ćurčić, "Starinsko oružje u Bosni i Hercegovini," *Glasnik hrvatskog državnog muzeja u Sarajevu* LV (1943).
- ⁵⁰ Correspondence from Juraj Neidhardt to Dušan Grabrijan, June 1950, Box 7, 1950/7-33 9E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁵¹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, August 1950, Box 7, 1950/7-38 4E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

- ⁵² Correspondence from Juraj Neidhardt to Dušan Grabrijan, August 1950, Box 4-1, 1950/1 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁵³ Correspondence from Juraj Neidhardt to Dušan Grabrijan, October 1950, Box 7, 1950/7-42 8E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁵⁴ Correspondence from Juraj Neidhardt to Dušan Grabrijan, July 1950, Box 7, 1950/7-37 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁵⁵ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1951, Box 4-1, 1951/11 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁵⁶ Cvijić, *Balkansko poluostrvo*, 13.
- ⁵⁷ Cvijić, *Balkansko poluostrvo*, 173.
- ⁵⁸ Correspondence from Juraj Neidhardt to Dušan Grabrijan, February 1951, Box 4-1, 1951/5 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁵⁹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1951, Box 4-1, 1951/1 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁶⁰ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1951, Box 4-1, 1951/1 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁶¹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1951, Box 4-1, 1951/1 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁶² Cvijić, *Balkansko poluostrvo*, 75.
- ⁶³ Cvijić, *Balkansko poluostrvo*, 76.
- ⁶⁴ Cvijić, *Balkansko poluostrvo*, 75.
- ⁶⁵ See, for example: Grabrijan and Neidhardt, *Arhitektura Bosne*, 474-475.
- ⁶⁶ The term has been seemingly fixed by Grabrijan, as in the correspondence between the authors of 1950 Neidhardt asked, on various occasions, for clarification about what the term “dežela” actually meant. See for example: Correspondence from Juraj Neidhardt to Dušan Grabrijan, January 1951, Box 4-1, 1951/12 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁶⁷ Jovan Cvijić, *La Péninsule Balkanique - Géographie humaine* (Paris: Libraire Armand Colin, 1918), 45.
- ⁶⁸ Cvijić, *Balkansko poluostrvo*, 45.
- ⁶⁹ The German term “Landesmuseum” has been translated to Bosnian as “Zemaljski muzej,” meaning literally “Land’s Museum.” This name is still in use today.
- ⁷⁰ Robert J. Donia, *Sarajevo: Biografija grada* (Sarajevo: Institut za istoriju Sarajevo), 112.
- ⁷¹ Reynolds Cordileone, “Displaying Bosnia,” 31.
- ⁷² Robert J. Donia, “The Proximate Colony: Bosnia-Herzegovina under Austro-Hungarian Rule” *Godišnjak/Jahrbuch ANUBIH* 42 (2013): 197.
- ⁷³ Donia, “The Proximate Colony,” 7., and Donia, *Sarajevo*, 89.
- ⁷⁴ Donia, *Sarajevo*, 113.

⁷⁵ Hrvatski biografski leksikon, "Antun Hangi," Leksikografski zavod Miroslav Krleža, accessed December 19, 2017, <http://hbl.lzmk.hr/clanak.aspx?id=7206>.

⁷⁶ See, for example: Friedrich Katzer, *Geologischer Führer durch Bosnien und die Hercegovina* (Sarajevo: Landesdruckerei, 1903).

⁷⁷ Sarajevska sekcija udruženja jugoslavenskih inženjera i arhitekata, *Bosna i Hercegovina* (Sarajevo: Zemaljska štamparija, 1922).

⁷⁸ Almaz Dautbegović, *Spomenica stogodišnjice rada Zemaljskog muzeja Bosne i Hercegovine 1888-1988* (Sarajevo: Zemaljski muzej BiH, 1988), 23.

⁷⁹ Johannes Mattes, "Coming from Abroad: The Discourse on Scientific Centralism and Cvijić's Studies in Vienna," in *150th Anniversary of Jovan Cvijić's Birth. Proceedings of the International Conference held at the Serbian Academy of Sciences and Arts*, eds. V. Jović and A.M. Petrović (Belgrade, 2015): 14.

⁸⁰ He made this trip together with American geographer W. M. Davis. Geoffrey J. Martin, *American Geography and Geographers: Toward Geographical Science* (Oxford: Oxford University Press, 2015), 35.

⁸¹ Cvijić was probably attracted to the doctoral studies in Vienna because of the popularity of the book *Das Antlitz der Erde*, written by the Austrian geologist and geographer Eduard Suess, who taught at Vienna's Department of Geography. In this book, Suess argued for a recognition of the unity of all life on Earth and coined the term "biosphere." Cvijić's work, however, departed from this natural-scientific outlook and adopted a more politically-minded approach, which eventually drew him to human geography. This change was tightly bounded to the "methodological emphasis on field research, excursions and practical exercises" which Cvijić inherited from Penck, see Mattes, "Coming from Abroad," 23.

⁸² Mattes, "Coming from Abroad," 17.

⁸³ Jovan Cvijić, "Aneksija Bosne i Hercegovine i srpsko pitanje," in *Jovan Cvijić Sabrana dela, Knjiga 3 (Tom I): Govori i članci* ed. Radomir Lukić. (Beograd: Srpska akademija nauka i umetnosti, 1989).

⁸⁴ Both books also investigated the Balkans. In *La Nouvelle Géographie universelle*, the first volume of which was published in 1883, Reclus had no further intention than "describing the world" and limited his observation to "a double or triple the regional scale." Yet in his 1905 book *Man and the Earth*, he intended, along with this description, to outline the "history of humanity" and offer a "more general vision". After describing the local physical conditions of the region and its people, Reclus discussed the functioning of the state in its various aspects. Beyond this national scale, however, he delved into the analysis of international life, the agencies of world "powers" and "the major driving forces in the history of humanity: industrial development, the rise of socialism, colonization." See: Michael Sivignon, "Le politique dans la géographie des Balkans: Reclus et ses successeurs, d'une géographie universelle à l'autre," *Hérodote*, No. 117(2005): 155.

⁸⁵ Jacques Ancel, *Peuples et nations des Balkans* (Paris: Armand Colin, 1930).

⁸⁶ See, for example, on Vidal's work in Peru: Guilherme Ribeiro, "La géographie vidalienne et la géopolitique," *Géographie et cultures*, 75 (2010):8.

⁸⁷ Jacques Ancel, Jacques Bourcart, Jean Brunhes, Yves Chataigneau and Jules Sion. While the scientific aspects of their work focused on the analysis of “ways of life” to determine relationships between the great variety of ethnic types and their complex geographical distribution, their geopolitical aspects focused on the productive interplay between the concept of the nation and its geography. The French foreign policy in the Balkans was marked by the promotion of Serbian expansion, as a guarantee of stability and resistance to the German influence. In the inter-war period this determination turned into alignment with the Serb-dominated Kingdom of Yugoslavia and reinforcement of Yugoslav nationalism, serviced by the prolific French human geographic research and political activism in the Balkans. Châtaigneau, for example, wrote both about the “solidarity of the natural regions” of Yugoslavia and its “complementing resources” as bases of national unity. See: Michael Sivignon, “Le politique dans la géographie des Balkans: Reclus et ses successeurs, d’une géographie universelle à l’autre,” *Hérodote*, No. 117(2005):153.

⁸⁸ Cvijić, *La Péninsule Balkanique*.

⁸⁹ Cvijić, *La Péninsule Balkanique*, V.

⁹⁰ “Direct observation” as a method, he claimed, was reliable in the case of South Slavs, because their population was not “processed, modified and all, but homogenised under the influence of civilisations.” See: Cvijić, *La Péninsule Balkanique*, 1.

⁹¹ Quoting the example of the migration of highlanders to the plains he wrote: “They came to different atmospheric pressure and different climatic circumstances. They were exclusively graziers, and they [now] had to (...) get used to agriculture, pig-breeding, cultivation of plums etc. They changed food, apartments and clothing. They had to get used to the land in which communications, trade and external connections were different to those in their parental land.” Cvijić, *Balkansko poluostrvo*, 206-207.

⁹² Vedran Duančić, “Nationalist geographies in interwar Yugoslavia: manoeuvring between national and transnational spaces,” *European Review of History: Revue européenne d'histoire* 25, No.3-4 (2018): 589.

⁹³ The Inquiry defined: “the word ‘race’ should be used only in its ethnological meaning.” See: Jeremy W. Crampton, “The cartographic calculation of space: race mapping and the Balkans at the Paris Peace Conference of 1919,” *Social & Cultural Geography* 7, No. 5 (2006): 739.

⁹⁴ Crampton, “The cartographic calculations.”

⁹⁵ Crampton, “The cartographic calculations,” 741.

⁹⁶ Crampton, “The cartographic calculations,” 747.

⁹⁷ Archer, “Regions as Social Organisms,” 503.

⁹⁸ Paul Vidal de la Blache, “La Géographie politique, à propos des écrits de M. Frédéric Ratzel,” *Annales de Géographie* 7, No.32 (1898): 107.

⁹⁹ Cvijić, *Balkansko poluostrvo*, 314.

¹⁰⁰ Cvijić, *Balkansko poluostrvo*, 316.

¹⁰¹ Ibid.

¹⁰² Jean-Baptiste Arrault, “Une Géographie inattendue: le système mondial vu par Paul Vidal de la Blache,” *L'Espace géographique*, 37, no.1 (2008): 76.

¹⁰³ Cvijić, *Balkansko poluostrvo*, 304.

¹⁰⁴ In his chapter dedicated to psychological traits of Bosnian Muslims, Cvijić observed that “the lowest strata of this population” demonstrated little Yugoslav national sentiment, and that “one of the main tasks of the Yugoslav state will be to discipline them.” Presenting the discipline of Muslims, as a factor of stability of the inter-war Yugoslav project, was echoed in the works of Yves Châtaigneau, who pursued the same national unity when in 1920, he argued for assimilation of Macedonians with Serbs and Gaston Gravier, who called for a state-led “reversal” of Islamisation in the southern Serbian province of Kosovo. Gaston Gravier “L’Albanie et ses limites,” *Revue de Paris* (15 janvier 1913): 200-224, 433-448.

¹⁰⁵ By transferring all of the administrative institutions from Sarajevo to Belgrade, the state acquired full control over the development of Bosnia, the entire administrative unit of which received less than one third of the capital invested in Croatia and Serbia through industrialisation by 1938. See: Donia, *Sarajevo*, 155. and Kemal Hrelja, “Razvoj industrije u Bosni i Hercegovini do Drugog svjetskog rata,” *Acta historico-oeconomica Iugoslaviae* 1 (Zagreb, 1984): 34.

¹⁰⁶ Branko Petranović and Momčilo Zečević, “Nova ekonomska politika Milana Stojadinovića,” *Jugoslavija 1918-1988 tematska zbirka dokumenata* (Beograd: RAD, 1988), 363.

¹⁰⁷ Dušan Grabrijan and Juraj Neidhardt, “Sarajevo i njegovi trabanti,” in *Tehnički vijesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942): 310-313.

¹⁰⁸ Grabrijan and Neidhardt, “Sarajevo i njegovi trabanti,” 282.

¹⁰⁹ Grabrijan and Neidhardt, “Sarajevo i njegovi trabanti,” 298.

¹¹⁰ Grabrijan and Neidhardt, “Sarajevo i njegovi trabanti,” 292.

¹¹¹ Grabrijan and Neidhardt, “Sarajevo i njegovi trabanti,” 296.

¹¹² Grabrijan and Neidhardt, “Sarajevo i njegovi trabanti,” 300.

¹¹³ Ibid.

¹¹⁴ Juraj Neidhardt, “Povodom akcije za izgradnju individualnih stanova: naša dosadašnja praksa, iskustva za budući rad,” in *Arhitekt - časopis za arhitekturu, urbanizam i primenjeno umetnost*, no.2 (1952).

¹¹⁵ Grabrijan and Neidhardt, *Arhitektura Bosne*, 236.

¹¹⁶ Neidhardt argued that “It is necessary for the architect to much more and in a timely manner relate to the people for which he works, as well as to get familiar with the area (...) In short, one should not work in a cabinet manner but in the contact with the terrain and live people.” See: Neidhardt, “Povodom akcije,” 5.

¹¹⁷ Grabrijan and Neidhardt, “Sarajevo i njegovi trabanti,” 294.

¹¹⁸ Jelica Karlić Kapetanović, *Juraj Neidhardt: život i djelo* (Sarajevo: Veselin Masleša, 1990), 104.

¹¹⁹ Eve Blau, *The Architecture of Red Vienna 1919-1934* (Cambridge Massachusetts-London England: The MIT Press, 1999), 88-133.

¹²⁰ Blau, *The Architecture of Red Vienna 1919-1934*, 100.

¹²¹ Dušan Grabrijan, *Kako je nastajala naša sodobna hiša* (Ljubljana: Mladinska knjiga, 1959).

¹²² Sophie Hochhäusl, “From Vienna to Frankfurt Inside Core-House Type 7: A History of Scarcity through the Modern Kitchen,” *Architectural Histories* 1, No.1, Art. 24 (2013).

¹²³ Frank Eckardt, "Bauhaus and the 'New Frankfurt'; Limited opportunities, limited concepts" in *Bauhaus and the City: A Contested Heritage for a Challenging Future*, eds. Laura Colini and Frank Eckardt (Königshausen & Neumann, 2011), 26.

¹²⁴ Original name: Centralni zavod za napredek gospodinjstva LRS.

¹²⁵ Susan R. Henderson, "Römerstadt: the modern garden city," *Planning Perspectives* 25, No.3 (2010): 218.

¹²⁶ See for example: *Pregled osnova stanova za 1948* (Beograd: Izdavačko preduzeće Ministarstva građevina FNRJ, 1948)

¹²⁷ Hochhäusl, "From Vienna to Frankfurt."

¹²⁸ Eckardt, "Bauhaus and the "New Frankfurt," 23.

¹²⁹ Blau, *The Architecture of Red Vienna*, 101.

¹³⁰ Eckardt, "Bauhaus and the "New Frankfurt," 26.

¹³¹ Martina Hessler, "The Frankfurt Kitchen: The Model of Modernity and the 'Madness' of Traditional Users, 1926–1933," in *Cold War Kitchen: Americanization, Technology, and European Users*, eds. Ruth Oldenziel and Karin Zachmann (Cambridge: MIT Press, 2009), 163–184.

¹³² Von Hodenberg describes how "in Westphalian farmhouses as well as rural workers' dwellings, family life revolved around a large eat-in kitchen (Wohnküche). The more expensively furnished living room was called gute Stube (parlour); it was 'a cold pomp, only used on holidays, at most once on Sundays.' The decline of the showcase rural parlour began with the post-1945 construction wave, as new flats often had small kitchens." See: Christina von Hodenberg, "Square-eyed Farmers and Gloomy Ethnographers: The Advent of Television in the West German Village," *Journal of Contemporary History* 51, No.4 (2016): 839-865 <https://doi.org/10.1177/0022009415585892>

¹³³ Henderson, "Römerstadt," 326.

¹³⁴ Hochhaeusl, "From Vienna to Frankfurt."

¹³⁵ Ibid.

¹³⁶ Blau, *The Architecture of Red Vienna*, 353-357.

¹³⁷ Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 274.

¹³⁸ Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 209.

¹³⁹ Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 310.

¹⁴⁰ Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 316.

¹⁴¹ Donia, *Sarajevo*, 155.

¹⁴² Muhamed Kadić, "Žurna potreba izrade regulacione osnove Sarajeva," *Novi list* (7.12.1941.).

¹⁴³ Dušan Grabrijan's notebooks, Sarajevo 1942, Box 2, IV 2/7, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

¹⁴⁴ Donia, *Sarajevo*, 189.

¹⁴⁵ Paola Vigano, "The Modern Project: A Research Hypothesis," *Urban Planning* 4, No.3 (2019): 84.

¹⁴⁶ Eckardt, "Bauhaus and the "New Frankfurt," 23.

- ¹⁴⁷ Eve Blau, "Supranational Principle as Urban Model: Otto Wagner's Grossstadt and City Making in Central Europe," in *Histoire de l'art du XIXe siècle (1848-1914), bilans et perspectives*, eds Claire Barbillon, Catherine Chevillot and François-René Martin (Paris: Musée d'Orsay, Ecole du Louvre, 2012), 504.
- ¹⁴⁸ Ursula Von Petz, "Robert Schmidt and the public park policy in the Ruhr district, 1900-1930," *Planning Perspectives* 14, No.2 (1999): 169.
- ¹⁴⁹ It was organized to provide a joint vision for the municipalities that were reluctant to unite under one authority. See: Von Petz, "Robert Schmidt," 170.
- ¹⁵⁰ Eberstad's and Mohring's approach was based in the realization that "planning had to become policy-oriented and not limited by a 'localized design focus' - planning on a new scale;" See: John Robert Mullin, "Ideology, planning theory and the German city in the inter-war years," *Town Planning Review*, 53, no. 2 (April 1982): 119.
- ¹⁵¹ Mullin, "Ideology, planning theory," 119. and Katharina Borsi, "Drawing the region: Hermann Jansen's vision of Greater Berlin in 1910," *The Journal of Architecture* 20, no.1 (2015): 50.
- ¹⁵² Borsi, "Drawing the region," 51.
- ¹⁵³ Borsi, "Drawing the region," 59.
- ¹⁵⁴ Gert Kähler, *Wohnung und Stadt, Hamburg, Frankfurt, Wien. Modelle sozialen-Wohnens in den zwanziger Jahren* (Braunschweig, Vieweg & Sohn Verlagsgesellschaft, 1985), 246.
- ¹⁵⁵ Maximilian von Goldbeck and Erich Kotzer, "Die Stadt von Morgen: ein film vom städtebau," in *Wasmuths Monatshefte Baukunst & Städtebau* 25, no.5 (May 1930): 237.
- ¹⁵⁶ Goldbeck and Kotzer, "Die Stadt von Morgen," 238.
- ¹⁵⁷ Von Petz, "Robert Schmidt," 179.
- ¹⁵⁸ Ibid.
- ¹⁵⁹ Leberecht Migge, "Wetstadt Grün: Ein aufruf zur rentablen parkpolitik," in *Wasmuths Monatshefte Baukunst & Städtebau* 25, no.5 (May 1930): 245.
- ¹⁶⁰ Juraj Neidhardt, "Problemi regulacije Zgreba," *Gradjevinski vijesnik* 6, No.1 (1937): 6.
- ¹⁶¹ Neidhardt quoted "the beauty of Zrinjevac" in the discussions about the endorsement of the General Urban Plan of Sarajevo and in a number of his articles published in the popular press.
- ¹⁶² Giacomo Calandra di Roccolino, "Il progetti di Peter Behrens per Alexanderplatz 1928-1932," *engramma*, June 2010, accessed June 17, 2016, http://www.engramma.it/eOS/index.php?id_articolo=506.
- ¹⁶³ Martin Wagner, "Das Formproblem eines Weltstadtplatzes" in *Das Neue Berlin*, No.1 (1929): 33-38.
- ¹⁶⁴ Wagner, "Das Formproblem," 33.
- ¹⁶⁵ Karl Maria Grimme, *Peter Behrens and his Academic Master School in Vienna* (Wien Berlin Leipzig: Adolf Luser Verlag, 1930), 14.
- ¹⁶⁶ Blau, *Architecture of Red Vienna*, 168.
- ¹⁶⁷ Stanford Anderson, *Peter Behrens and New Architecture for the Twentieth Century* (Cambridge Mass. and London: The MIT Press, 2000): 96-100.
- ¹⁶⁸ G.H. Pingusson, "Project d'aéroport," in *L'Architecture d'aujourd'hui* 5, no.3 (march 1935): 79.

- ¹⁶⁹ Kapetanović, *Juraj Neidhardt*, 24.
- ¹⁷⁰ Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 203.
- ¹⁷¹ Borsi, "Drawing the region," 51.
- ¹⁷² Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 274.
- ¹⁷³ David Turnock, *The Economy of East Central Europe 1815-1989 - Stages of Transformation in a Peripheral Region* (London and New York: Routledge, 2006), 215.
- ¹⁷⁴ Živojin Praštalo, "Naša industrija gvoždja," *Kalendar SPKD Prosvjeta* (01.01.1941).
- ¹⁷⁵ Katzer, *Geologischer Führer*.
- ¹⁷⁶ The process of connecting the Basin with the Austrian railway network unfolded in the following order: Bosanski Brod - Doboj (completed February 12, 1879), Doboj - Žepče (completed April 22, 1879), Žepče - Zenica (completed June 5, 1879), Zenica - Sarajevo (completed October 5, 1882).
- ¹⁷⁷ Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 277.
- ¹⁷⁸ Ibid.
- ¹⁷⁹ Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 277-278.
- ¹⁸⁰ Kapetanović, *Juraj Neidhardt*, 24 and "Black Book," Le Corbusier Archive, Fondation Le Corbusier, Paris, France.
- ¹⁸¹ Neidhardt's letter to his colleague Karl Mittel testifies to this. See: Kapetanović, *Juraj Neidhardt*, 47.
- ¹⁸² Le Corbusier, *The Radiant City* (New York: The Orion Press, 1964), 327.
- ¹⁸³ Le Corbusier, *The Radiant City*, 326.
- ¹⁸⁴ Ibid.
- ¹⁸⁵ Mary C. McLeod, "Urbanism and Utopia - Le Corbusier from Regional Syndicalism to Vichy," (PhD diss., Princeton University, 1985), 299.
- ¹⁸⁶ Le Corbusier, *The Radiant City*, 322.
- ¹⁸⁷ McLeod, "Urbanism and Utopia," 327.
- ¹⁸⁸ Ibid.
- ¹⁸⁹ McLeod, "Urbanism and Utopia," 330.
- ¹⁹⁰ Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 300.
- ¹⁹¹ Project for a House with Six Apartments in Vareš, Projects, Ministry of Construction fonds, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ¹⁹² Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 273.
- ¹⁹³ Grabrijan and Neidhardt, "Sarajevo i njegovi trabanti," 282.
- ¹⁹⁴ Turnock, *The Economy of East Central Europe*, 215.
- ¹⁹⁵ McLeod, "Urbanism and Utopia," 151.

- ¹⁹⁶ McLeod, "Urbanism and Utopia," 297.
- ¹⁹⁷ Report issued by the Ministry of Trade of Bosnia and Herzegovina about the problem of the regulation of Slavonski and Bosanski Brod, 1945, 6044/45, Box 5, Ministry of Construction, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ¹⁹⁸ Ibid.
- ¹⁹⁹ Report issued by the Ministry of Industry and Mining about the problem of the regulation of Slavonski and Bosanski Brod, 1945, 1945 6044/45, Box 5, Ministry of Construction, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ²⁰⁰ Ibid.
- ²⁰¹ Ibid.
- ²⁰² Ibid.
- ²⁰³ Le Corbusier, *The Radiant City*, 270.
- ²⁰⁴ Le Corbusier, *The Radiant City*, 285.
- ²⁰⁵ Le Corbusier, *The Radiant City*, 270.
- ²⁰⁶ Le Corbusier, *The Radiant City*, 277.
- ²⁰⁷ Le Corbusier, *The Radiant City*, 271.
- ²⁰⁸ See: Royal J. Schmidt, *Versailles and the Ruhr: Seedbed of World War I* (Springer Netherlands, 1968).
- ²⁰⁹ Report issued by the Ministry of Industry and Mining about the problem of the regulation of Slavonski and Bosanski Brod, 1945, 1945 6044/45, Box 5, Ministry of Construction, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ²¹⁰ Narodni odbor Sreza Zenica - Komisija za Perspektivni plan, "Materijal za Perspektivni plan 1957-1961" (Zenica: NOSZ, 1957), 20.
- ²¹¹ Narodni odbor Sreza Zenica, "Materijal za Perspektivni plan," 10.
- ²¹² Narodni odbor Sreza Zenica, "Materijal za Perspektivni plan," 20.
- ²¹³ Minutes of the meeting of the People's Council of the Zenica County and representatives of the Zenica Ironworks, October 13, 1951., unmarked, Archive of the Ironworks of Zenica, destroyed in 2018.
- ²¹⁴ Grabrijan and Neidhardt, *Arhitektura Bosne*, 456.
- ²¹⁵ Ibid.
- ²¹⁶ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 6.and 7. 8.1954., 3, unmarked, Archive of the Cantonal Institute for Urbanism and Spatial Regulation of Zenica, Zenica, Bosnia and Herzegovina.
- ²¹⁷ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 3.
- ²¹⁸ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 8.
- ²¹⁹ Ibid.
- ²²⁰ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 11.

- ²²¹ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 20.
- ²²² Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 21.
- ²²³ Migge, "Wetstadt Grün," 242.
- ²²⁴ Martin Wagner, "The Sanitary Green of Cities: A Contribution to the Free Area Theory" (1915), quoted in Borsi, "Drawing the region," 59.
- ²²⁵ Mirjana R. Obradović. "Ramzin Dr Sergije Konstantinovič," *Zbornik radova Instituta za savremenu istoriju*, No. 10 (2007): 193.
- ²²⁶ Ibid.
- ²²⁷ Conclusions of the First Meeting of the Commission for Comunal Hygiene held on 15.,16. and 17. of May, 1951, Unit: 6, 1951-1955, Box: 5, Fund: 610, Sekretarijat za narodno zdravlje i socijalnu zaštitu, Archive of Yugoslavia, Belgrade, Serbia.
- ²²⁸ Conclusions of the Second Meeting of the Commission for Comunal Hygiene held on 19., 20., 21. and 22. of December, 1951, Unit: 6, 1951-1955, Box: 5, Fund: 610, Sekretarijat za narodno zdravlje i socijalnu zaštitu, Archive of Yugoslavia, Belgrade, Serbia.
- ²²⁹ Ibid.
- ²³⁰ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 28.
- ²³¹ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 27.
- ²³² Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 30.
- ²³³ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 32.
- ²³⁴ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 24.
- ²³⁵ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 31.
- ²³⁶ The report produced for the Perspective Plan of the city of Zenica in 1957 offers details about the requested and awarded loans (for investment in the Zenica Mine) in the Federal Competitions, as well as on the general investment priorities. The need for housing is still present and pervasive. Narodni odbor Sreza Zenica - Komisija za Perspektivni plan, "Materijal za Perspektivni plan 1957-1961" (Zenica: NOSZ, 1957): 16.
- ²³⁷ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 37.
- ²³⁸ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 9.
- ²³⁹ Mili Neidhardt confided to Nada Grabrijan that after a meeting in Zenica regarding the Regulation plan, Neidhardt came back home with a "desire to commit suicide." This could be a meeting held with the local authorities, two months prior to the Bistričak conference. Correspondence from Ljudmila Neidhardt to Nada Grabrijan, April 1954, Box 5, 1954/2 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

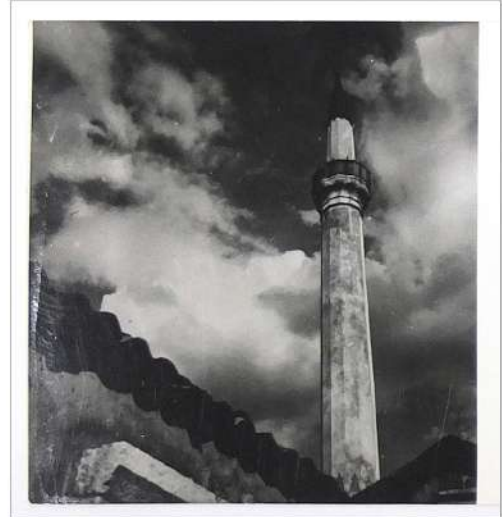


Figure II-02 - A sample of photographs representing ethnographic and architectural details, collected by Dušan Grabrijan, photographer unknown, probably early 1930s (source: Box 7, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

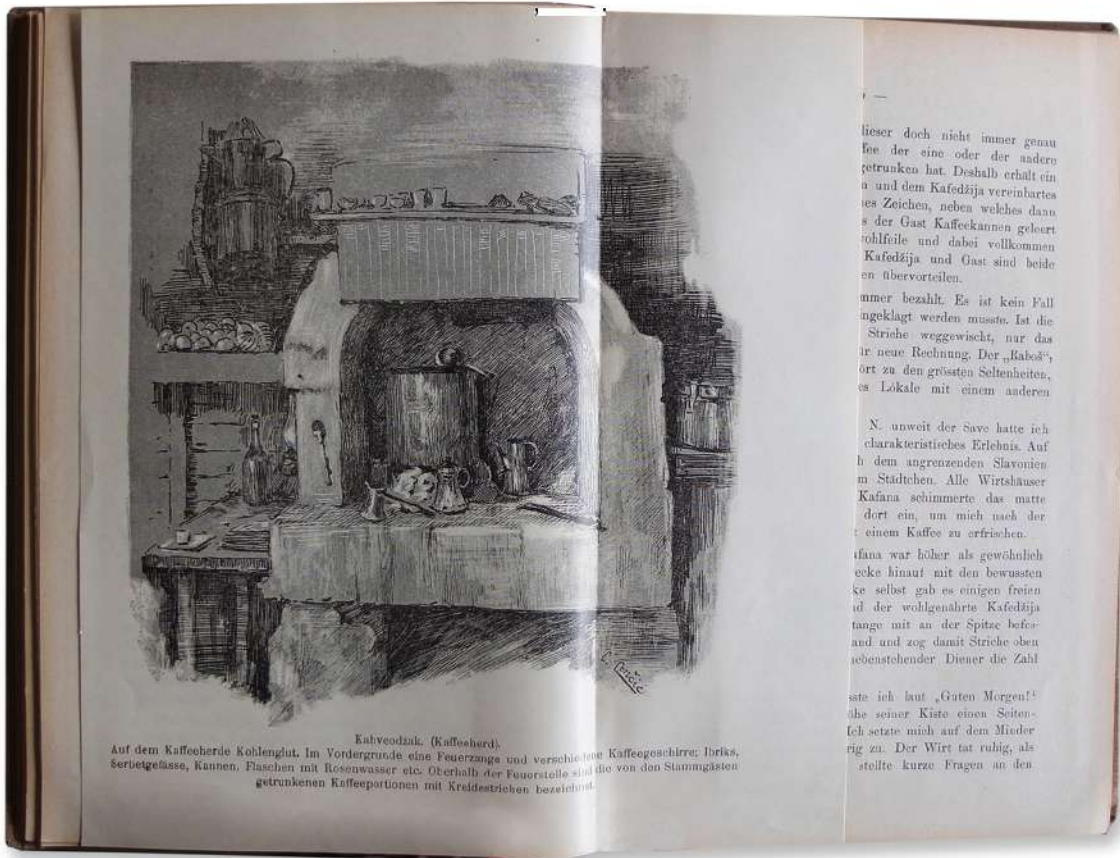
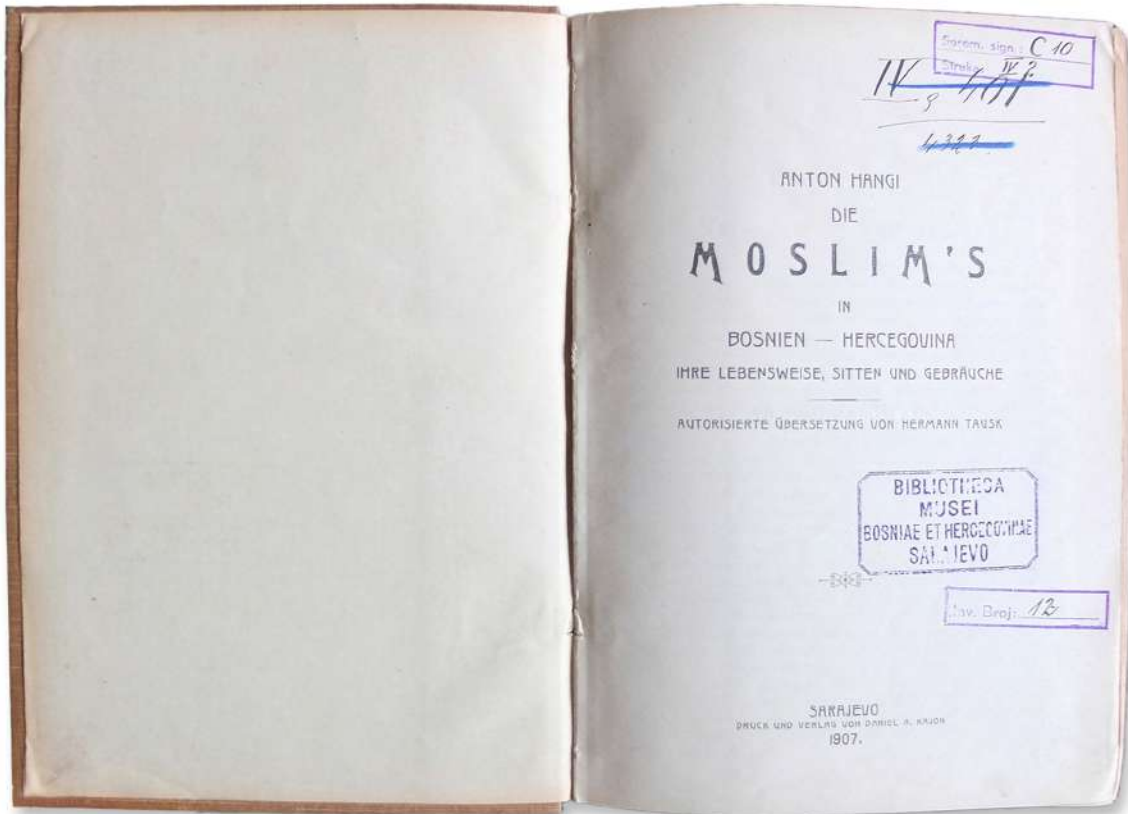


Figure II-03 - A sample illustration from Anton Hangi's book *The Muslims in Bosnia and Herzegovina* (source: Anton Hangi, *Die Moslims in Bosnien-Hercegovina: ihre lebensweise, sitten und gebräuche* (Sarajevo: Druck und Verlag von Daniel A. Kajon, 1907),97).

Kako vidimo iz tih stihova, mačevi grebešćaci spominju se zajedno s puškama. U napred navedenim stihovima (Vuk, II, str. 594.) spominje se »mač i puška«. Mačevi su kovani od željeza, pa je vrlo teško shvatiti ovaj atribut »zeleno« jedine, ako je obrta mača bila damascirana, pa se u zeleno prelevata. Vukovom naziva ovakav mač »zelenka« i veli, da su podrijetlom iz Španije.

Nekoji su ovakvi mačevi bili zlatom obiljeni:

»Pa eto ti dva hanova sina,
Dadoše mu dva mača zelena,
Sva u sivo obiljena zlatom.«
(Vuk, II, str. 575.)

Sve vrste mačeva, o kojima smo govorili, dolazile su većim dijelom iz drugih zemalja. U našim krajevima se ovo oružje vrlo slabo kovalo.

Osim pozitivnih vesti, da je bilo kovača mačeva u Dabrovniku, napominje i Novaković (na ozn. mj. str. 167.), po Dečanskoj hrisovulji, da u jednom selu dečanskog vladništva ima čovjek Bogdan Mčar, t. j. mačar, majstor koji gradi mačeve, a u drugome Dojak Mačarević ili Mčarević, sin takvog jednog majstora. P. misli krajevima, kao na pr. u okolini Prači, kotar Rogatica, ima danas pravoslavni ili ponodica imenom Mačar. Ne zna se, da li su oni tako prozvani po nekome mjestu ili po zanatu kovača mačeva. Ako po posljednjem, onda se tu radi o vrlo starim ponodničim imenima.

Po narodnoj pjesmi kovani su mačevi i u Rimu u Boci Kotorskoj:

»Sto će meni ritajanski mačevi
Ti kod moje sablje Šamirjanke!«
(Vuk, III, str. 432.)

U Rimu je od starine bilo vrlo vještih majstora od svake ruke oružja, pa je vjerovatno, da su i mačeve kovali.

Mač se nosio u bedru, no bilo je i kraćih mačeva, koji su se valjda nosili u panom.

Jedno je zašudno, da se u narodnoj pjesmi ne spominju gotovo nikako mačevi s ovim oružjem, koji su se bez dvojbe vrlo često odigravali.

Uobče mi se čini, da su međane mačevima hotimično izbjegavali. Na to nam upućuju ovi stihovi iz Jakičeve pjesme »Mejdan i ženidba mladog Matijana«, u kojoj (str. 298.) Ledain ban savjetuje svoga sina, kako će se ponašati, kad će Terdin na mejdan pozove:

»Turin će te s pivom ponuditi,
A ti njega sabljom i s međanom;
Imat će ti dva mača zelena,
Od jednoga skovana kovačar,
Ti mu nemoj mača ni jednoga.«

Takvi se i običi. Kratko vrijeme iza toga odigrao se mejdan, ali na koplja, a ne na mačeve.

I u Vukovoj pjesmi »Bajo Prijemni i beg Ljubović« (III, str. 452.) odigrao se Baji dva mača zelena i begu baci oba preko krila.

»Eto beče, dva mača zelena,
Oba mača od jednog kovača,
Ti uberi, koga tebi drago,
Uzmi nožice, ostavi gorega,
Da ne tečeš, da je prijeara.«



Sl. 106. — Stećak s Ravanskih vrata na Koprivici; Međan mačevima, prikazan u avatama.



Sl. 106a. — Podbork s Duzim polju između Čerčanin i Vran planine. Dvojica međanidba dale međan mačevima, među njima diverzi.

Figure II-04 - A sample illustration from Vejsil Čurčić's text "Old Weapons in Bosnia and Herzegovina" (source: Vejsil Čurčić, "Starinsko oružje u Bosni i Hercegovini," Glasnik hrvatskog državnog muzeja u Sarajevu, Vol. LV (1943):93).

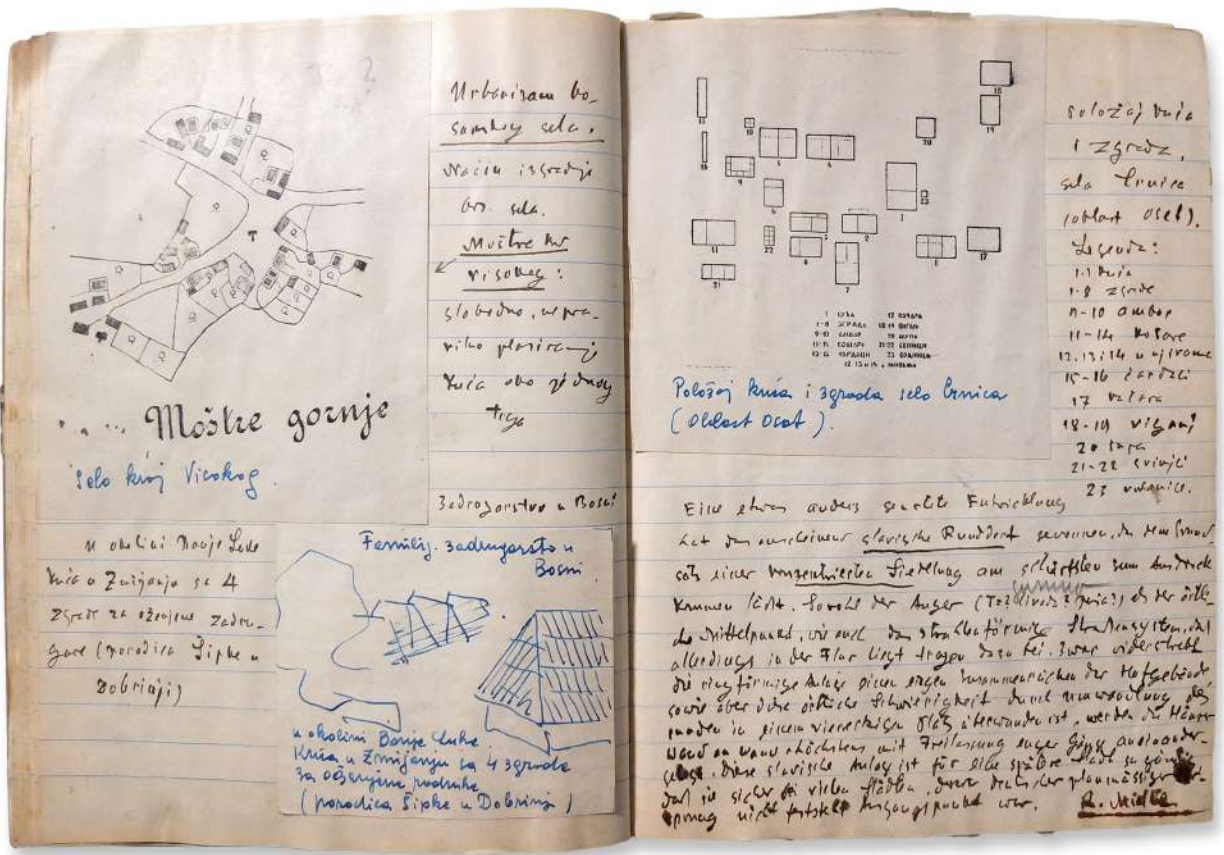


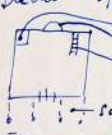
Figure II-05 - A sample from Dušan Grabrijan's research diary representing information on Bosnian village Crnica (source: Box 2, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

3. Zato mi sponega čisto da se kritični osmislj. Trava
 da mi izplebliti perice jedinstveno.


Čel. kuse da kuhinja kod orijent. mihala uje i po stambena
 prastomija. To je karakteristično za različite evropske.

Mi ponovimo vječ o kuzubotna Osemjema mestit
 od 100%. samo 7 en imle kuzpote. prema tome
 trebalo bi spomenuti i Mahalšte koje su bile keredruševie

čuro za namena predavanje
 Mihrol prema jugoistoku = Meka
 nimbena rjevite propovjedi petkom
 Oro je kuhleuotivno slop to
 namena polit. predurije koje su
 se odvijale u Osemjema. To doh...



Na terenu parka cara Dušana bio je ATMEJDAN,
 to jest kuzpodiom. Tu su bile lake. a na mjestu
 sadovnje Krosave cara Dušana bio je Drovce = Kouh.
 Ti kralj u tome rastom da je Drovce bio na
 drugom mjestu misli - Monika Ham mjestu.
 To je rasno jer ja cu u sbici sadovnj knjig je
 uočiti drovce i ATMEJDAN. To mi izplesta
 da u tom pojosiama selo



Noslost od Kouha nema
 slike barem iz 16. st. p.
 To samo utolila da se neopće varede. To je
 rasno da.

Two pjesma narodna o Husarubepoj smrti gjepta je
 Mosola li trebalo dakt uko počasno utjezo. na zavjetku
 ili početku samo je namojuce pveneti.
 u narodu li trebalo pvenet a sato je dookubita i seacha
 kuzpote (arhitektura) da se radi zemlja kon tusta
 tustni guski - tustni običaji. Plouenha i orijent. kuzie
 mestupolno uplinovnje.

Običaj pvenet običaj kuzie li postoje pvenela mndila
 Mm 12 jela. = sato je kuhinja prototorna ali samo
 masna.

Kuzie pvenet se može običajne nite tuzat nego miješima
 zato tako gajje. Dvžim da obice mogu bi ktem. valike
 ali mupfo. Male obice se brzo maso.

soj knjig
 To mi izple
 Tim pojosiama se
 - Mahle
 caviča
 Kuzie u sdy
 mly.
 at mejdan
 Drovce = Kouh
 oče varede. To je
 smrt

Figure II-06 - Neidhardt's representation of a valley elevation (source: Correspondence from Juraj Neidhardt to Dušan Grabrijan, 03 January 1951, Box 7, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

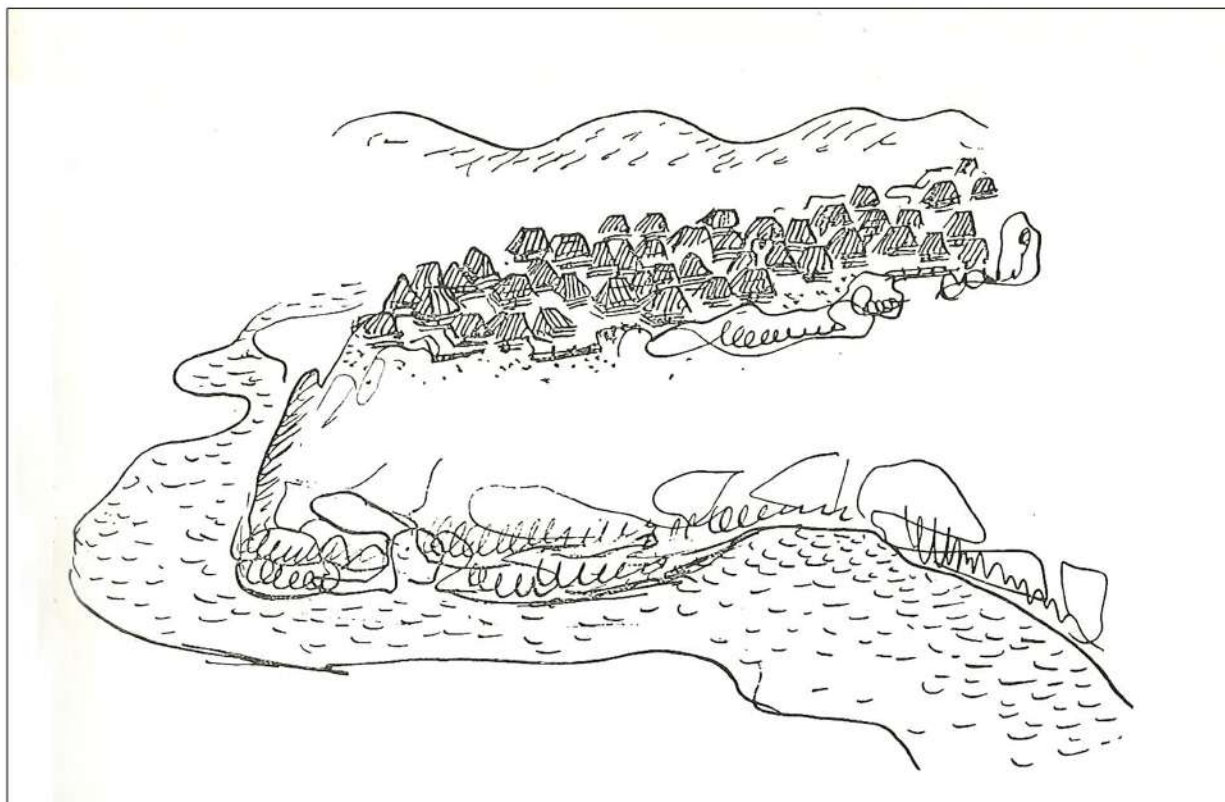
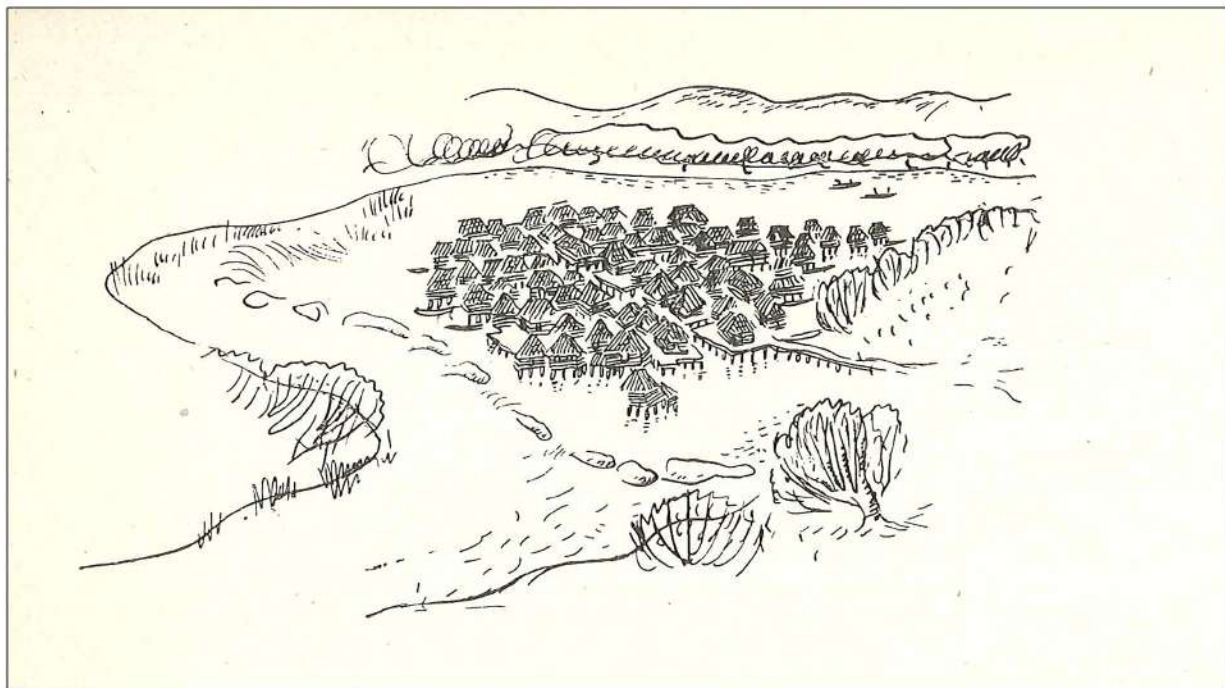


Figure II-07 - Neidhardt's drawings representing historical settlements of the Bosnian Basin as phases of "fight for survival" (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 10-11).

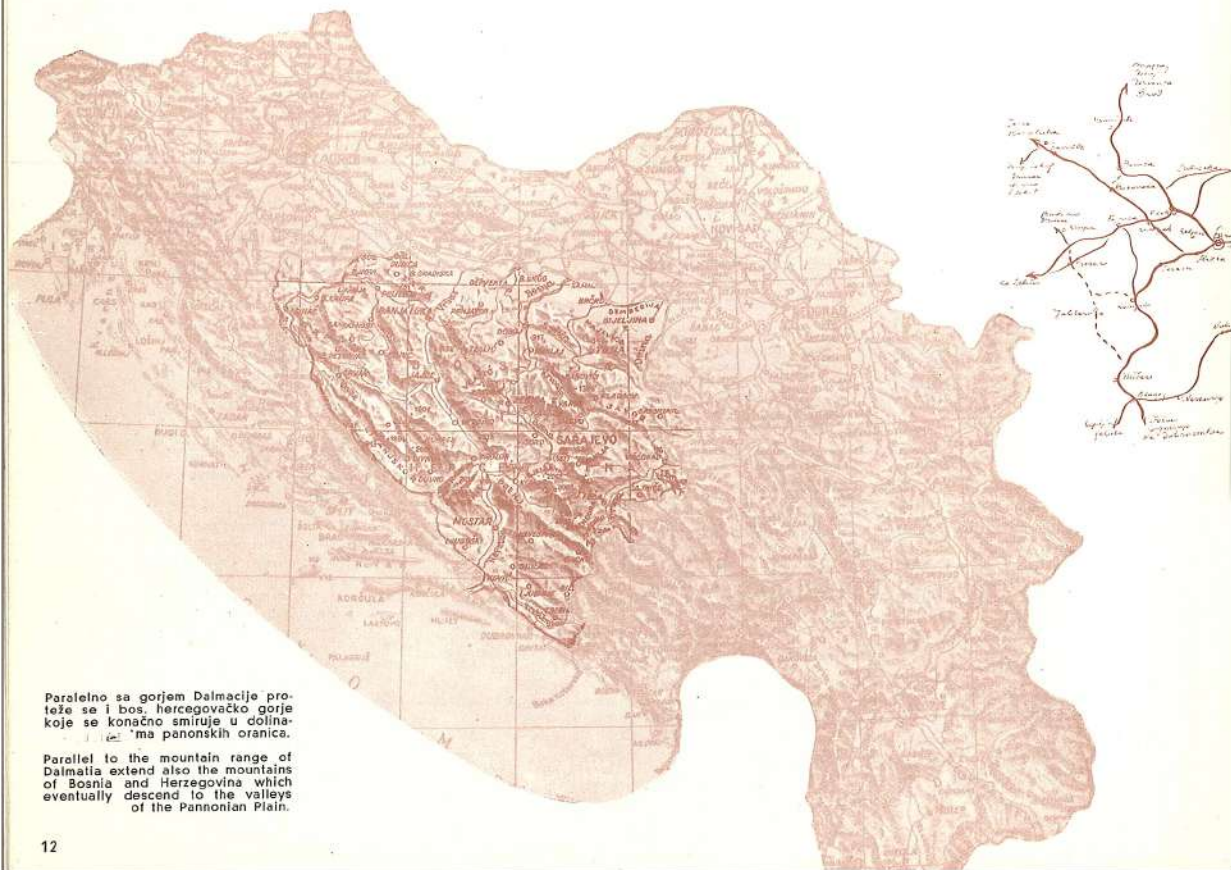
Feudalna arhitektura — Tko je gradio ovu arhitekturu? Drvenu i zemljanu domaći dunderi, a kamenu dalmatinski klesari — t. j. ljudi iz naroda. Sporedno je, iko je naručivao i kome je služila ova arhitektura, ona je proizašla iz naroda, pa s pravom možemo govoriti o domaćoj umjetnosti. Ovdje se radi o dvjema arhitekturama, koje nastupaju u Bosni jedna pored druge — uz arhaičnu seosku, suprotna gradska, a svaka je za sebe likovni fenomen.

Orijentalna arhitektura — Na svaki način ova je arhitektura nastala pod utjecajem Orijenta, ali to nisu jednostavno presađeni, već iz naroda organski izrasli oblici i tvorbe. Bosna je bila periferija turskog carstva; što bliže Carigradu, tim je više bilo zlata. Italija je robustna i bogata, a periferna Dalmacija je skromna. Turska je sva u zlatu, a Bosna je jednostavna. Nesiguran život nije dopuštao da bi imućni seljak zidao svoju kuću drugačije od siromašnog, da mu se ne bi pril-

kom prve invazije ugnjezdio u kuću okupator. Možda su baš te okolnosti utjecale, da je bosanska kuća ostala jednostavna, bez suvišnog ureda, kao i dalmatinska periferija venecijanske republike. Zato su domaći utjecaji ovdje jači, nego što bi bili, kad bi se potpuno prilagodili otomanskom carstvu. Osnovni oblici su svakako preuzeti iz orijentalne arhitekture, ali su prerađeni i talentom dundera prilagođeni domaćim potrebama i zbog toga je bosanska kuća drugačija od turske.

Sadrži domaće elemente, i razlikuje se od turske kuće.

Dok pretjerana natrpanost renesanse u Italiji djeluje zasitno, dotle u Dalmaciji prazne plohe pokraj bogatih upravo osvježuju. Isto vrijedi i za orijentalnu periferiju. Kako su divne ove strukturne površine običnih dunderskih zidova pokraj kupola. Ako nigdje, ovdje može da se govori o domaćem, koje leži baš u tom priprostom i jednostavnom. Ne radi se o bogatiji, već o tipljenoj.



Paralelno sa gorjem Dalmacije proteže se i bos. hercegovacko gorje koje se konačno smiruje u dolinama panonskih oranica.

Parallel to the mountain range of Dalmatia extend also the mountains of Bosnia and Herzegovina which eventually descend to the valleys of the Pannonian Plain.

Figure II-08 - A map of Bosnia and Herzegovina, discretely marked within a topographical map of Yugoslavia (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 13).



Figure II-09 - A drawing of the south- western slopes of Romania, near Sarajevo from Jovan Cvijic's book *Balkan Peninsula and the South Slavic Lands* (source: Jovan Cvijic, *Balkansko poluostrvo i južnoslovenske zemlje: osnovi antropogeografije, knjiga I* (Beograd: Državna štamparija Kraljevine Srba, Hrvata i Slovenaca, 1922), 75).

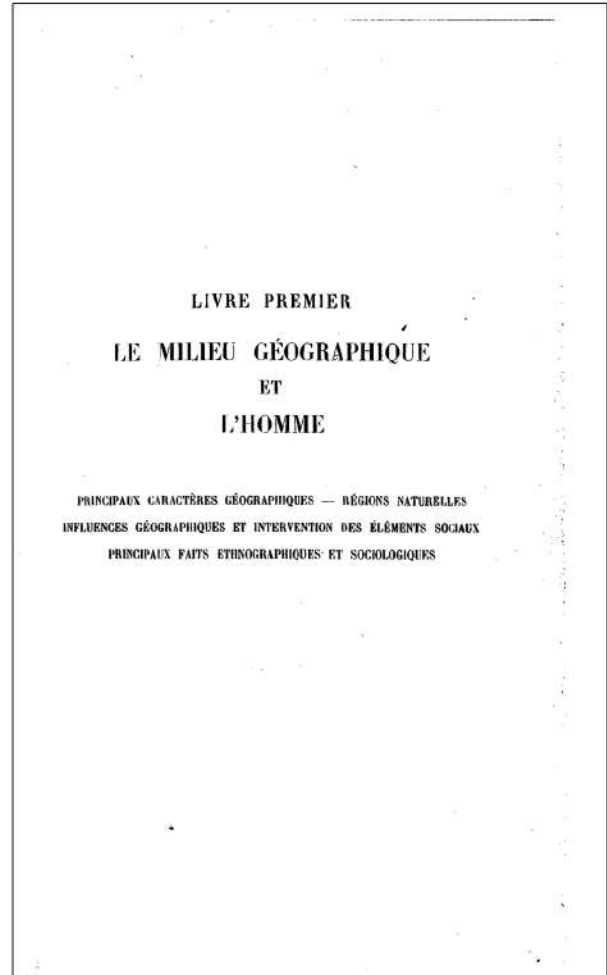
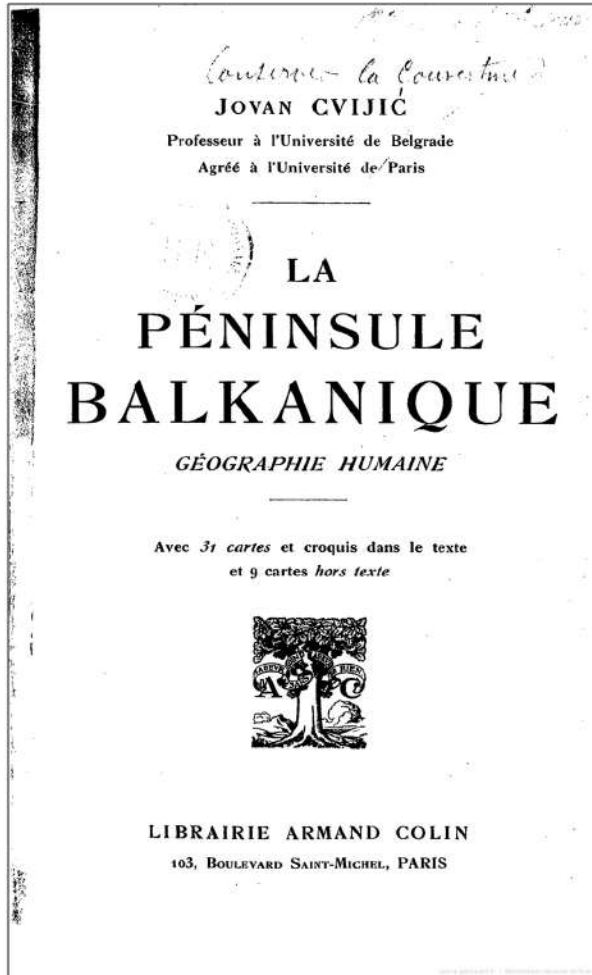


Figure II-10-The title page and the opening page of the first tome of Jovan Cvijić's book *Balkan Peninsula*, French edition, 1918 (source: Jovan Cvijić, *La Péninsule Balkanique: Géographie humaine* (Paris: Libraire Armand Colin, 1918), 9).

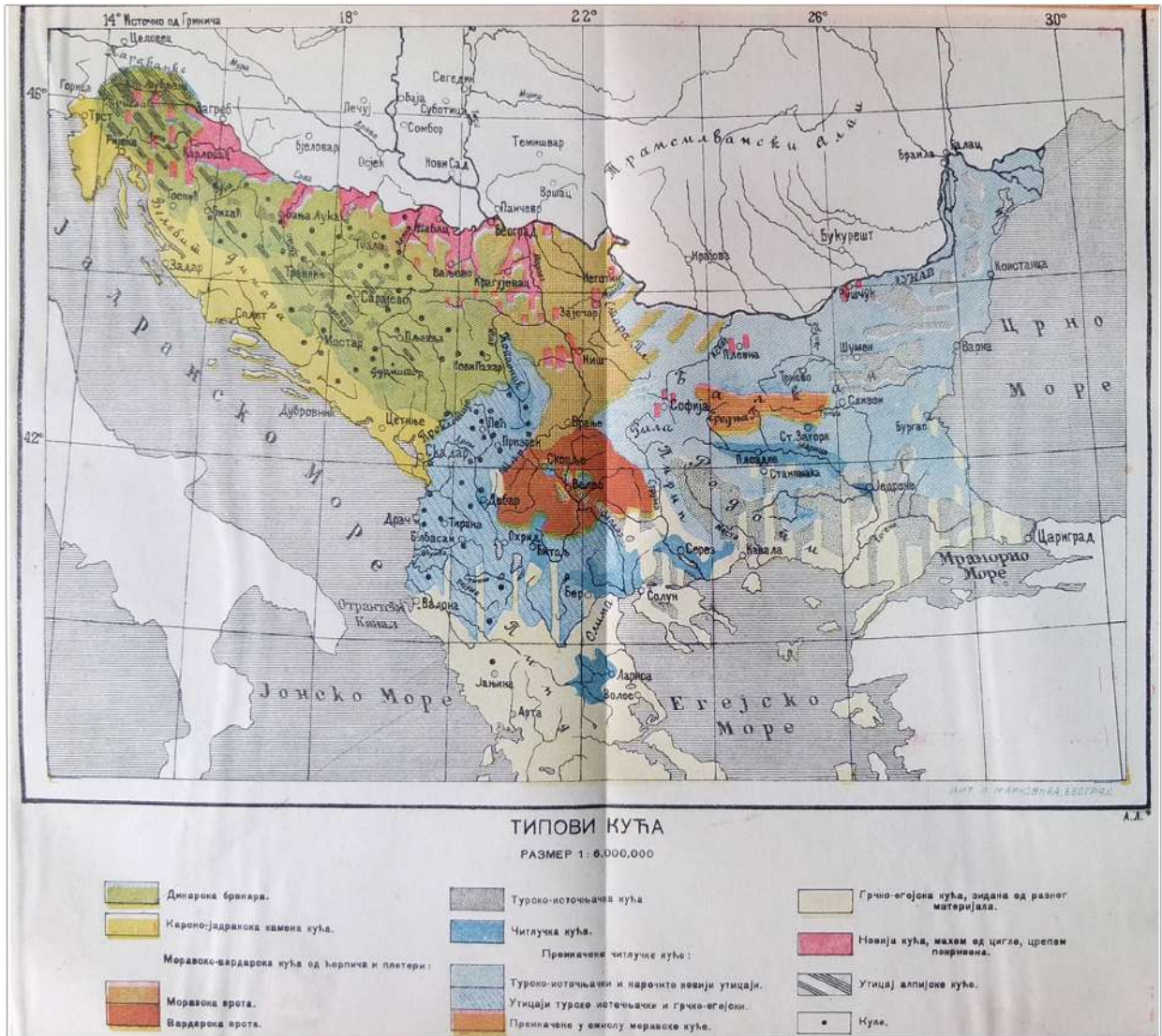


Figure II-11 - Map representing distribution of house types, from Jovan Cvijić's book *Balkan Peninsula* (source: Jovan Cvijić, *Balkansko poluostrvo i južnoslovenske zemlje: osnovi antropogeografije, knjiga I* (Beograd: Državna štamparija Kraljevine Srba, Hrvata i Slovenaca, 1922)).

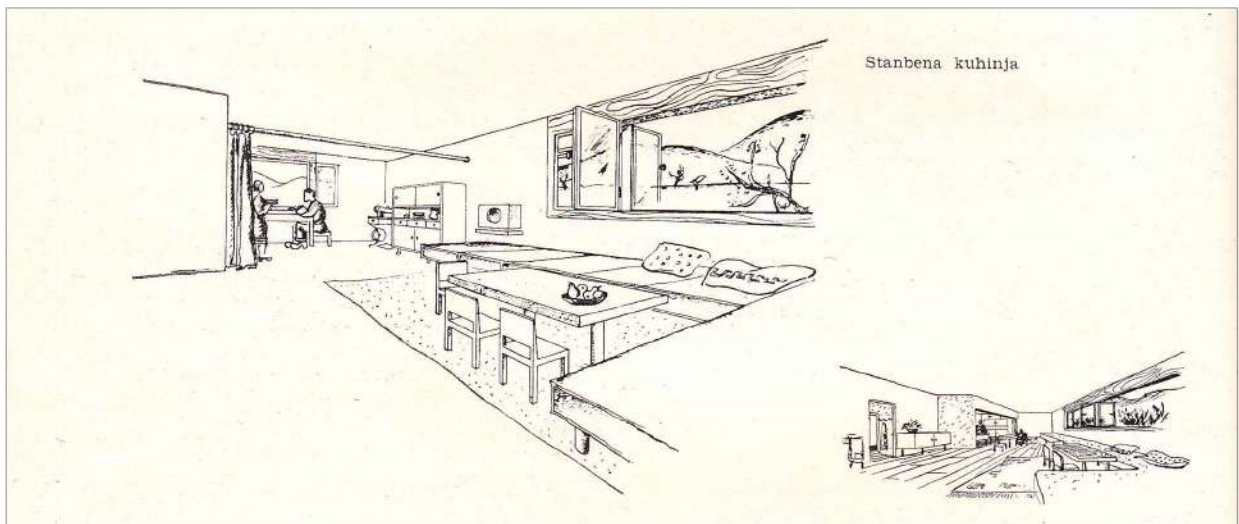
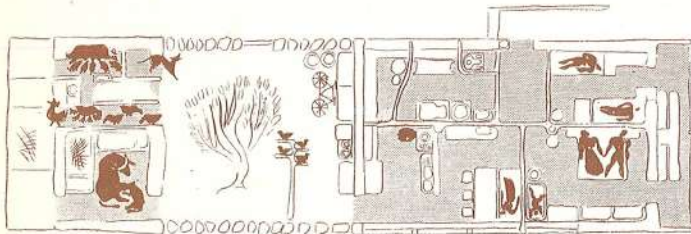


Figure II-12 - Perspective sketch of the "residential kitchen" designed for the workers' houses in the Middle Bosnian Mining Basin, by Juraj Neidhardt, 1939 (source: Dušan Grabrijan and Juraj Neidhardt, "Sarajevo i njegovi trabanti," in *Tehnički vijesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942):300).

Život u kući.
Life in the house.

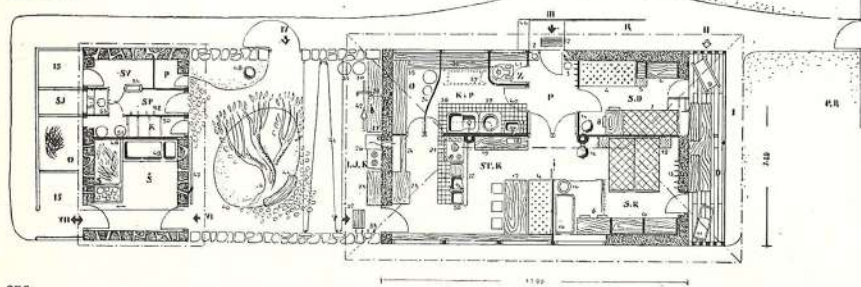


Danju.
During the day.



Noću.
During the night.

Prizemlje.
First floor.



Podrum.
Cellar.



Prizemna individualna kuća sa 5½ kreveta. Varijanta A, na padini u Zenici.

Legenda:

- R — ulazna rampa
- P — predsoblje
- Z — zahod
- K i P — kupaonica i praonica
- O — ostava
- ST. K — stambena kuhinja sa nišom za kuhanje
- S. D — spavaća soba za djecu
- S. R — spavaća soba za roditelje
- D — divanhana (balcon)
- I. K — ljetna kuhinja ispod produžene strehe
- B — bačva
- A — avlija, žiženje obuće, sušenje rublja, ispuš za kokoši i t. d.
- Š — štala
- K — kokošinjac
- SP — spremište
- SV — svinjac
- P — pas
- J. S — ispuš za svinju — posebno za govede

One-storied individual house with 5 beds and a cot. Variant A, on sloping ground at Zenitsa.

Legend:

- R — ramp
- P — anteroom
- Z — toilet
- K and P — bathroom and laundry
- O — box-room
- ST. K — dining kitchen
- S. D — children's bedroom
- S. R — parent's bedroom
- D — balcony
- I. K — summer kitchen under the roof projection
- B — garden
- A — courtyard (footgear cleaning, linen drying, poultry run, etc.)
- Š — stable
- K — poultry house
- SP — pantry
- SV — hog house
- P — kennel
- I. S — hog run and a separate cattle run

Figure II-13 - Project of a house for one family, by Juraj Neidhardt, 1950 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 238).

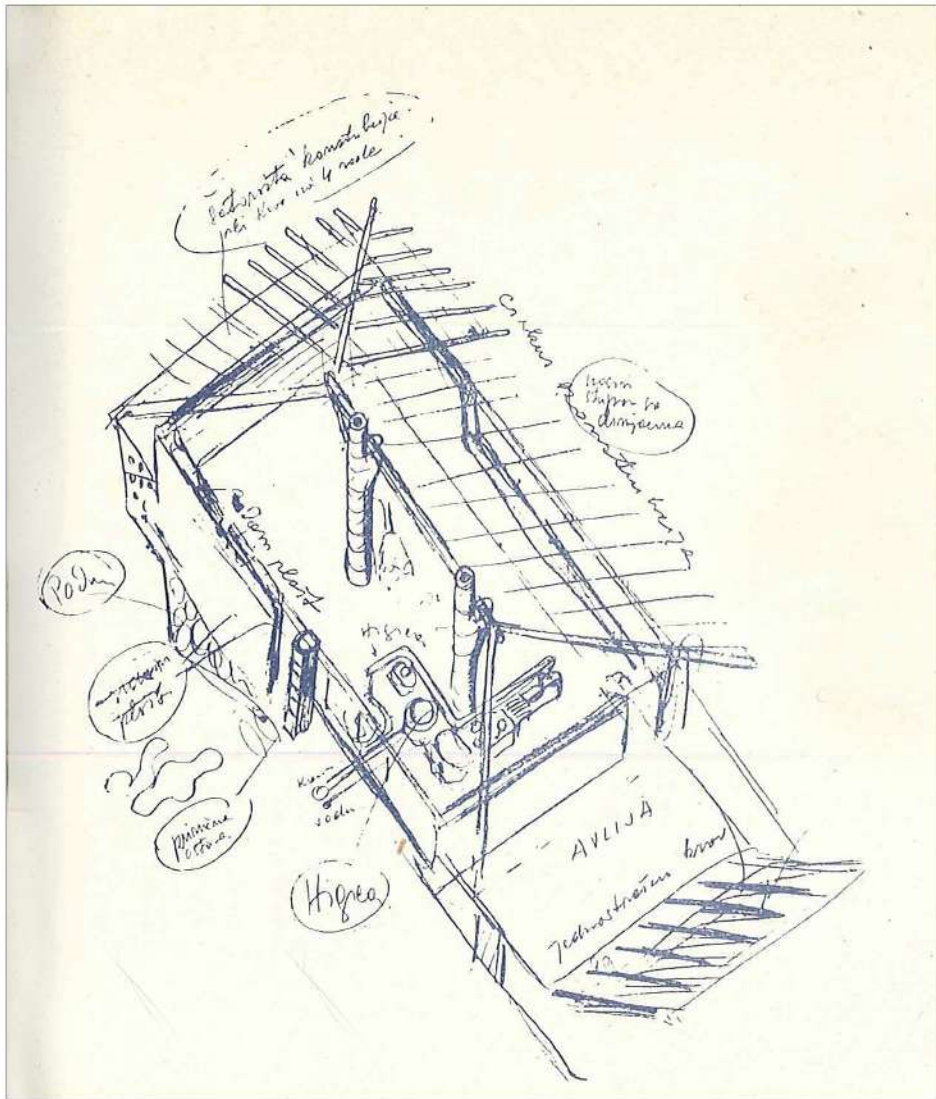
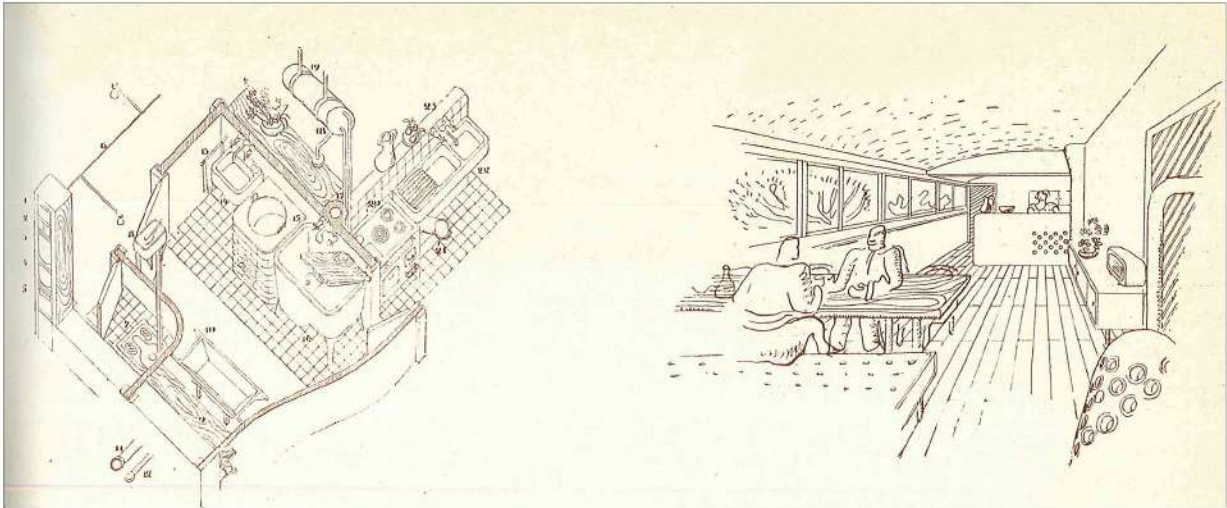


Figure II-14 - The prefabricated “utility core” and the perspective sketch of the “residential kitchen” (top) and the construction system (bottom), by Juraj Neidhardt, 1950 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 241).



Figure II-16 - View from the Nidda Valley of the Römerstadt apartment block designed by Franz Schuster, 1928 (source: Susan R. Henderson, "Römerstadt: the modern garden city," *Planning Perspectives*, 25, no.3 (2010): 326).



Figure II-17 - View of Juraj Neidhardt's house with six apartments in Podbrežje near Zenica, 1939 (source: Dušan Grabrijan and Juraj Neidhardt, "Sarajevo i njegovi trabanti," in *Tehnički vijesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942):294).



Figure II-18 - Poster "People Build State Helps," by Juraj Neidhardt, 1946 (source: Juraj Neidhardt, "Povodom akcije za izgradnju individualnih stanova: naša dosadašnja praksa, iskustva za budući rad," in *Arhitekt - časopis za arhitekturu, urbanizam i primenjenu umetnost*, no.2 (1952)).

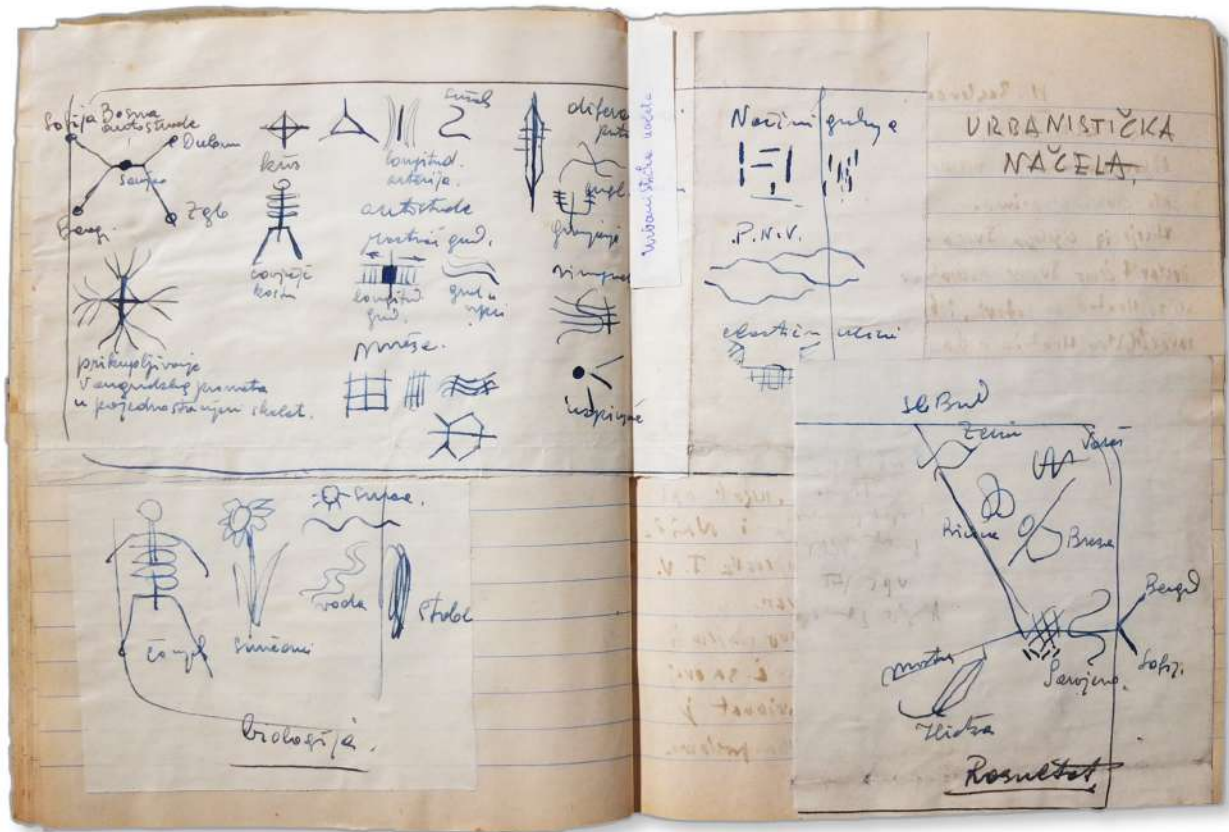


Figure II-19 - A double spread from Dušan Grabrijan's research diary with clippings of Juraj Neidhardt's sketches for the publication *Sarajevo and its Satellites*, probably 1942 (source: Box 2, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

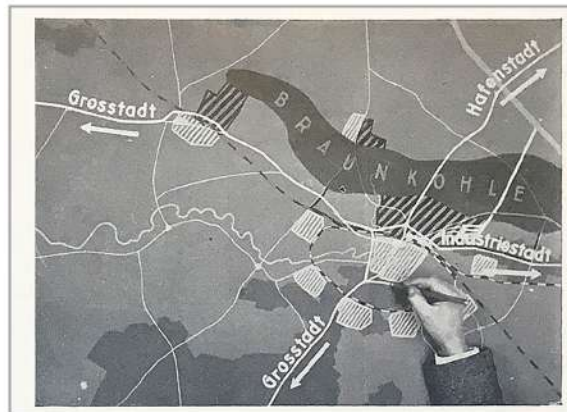
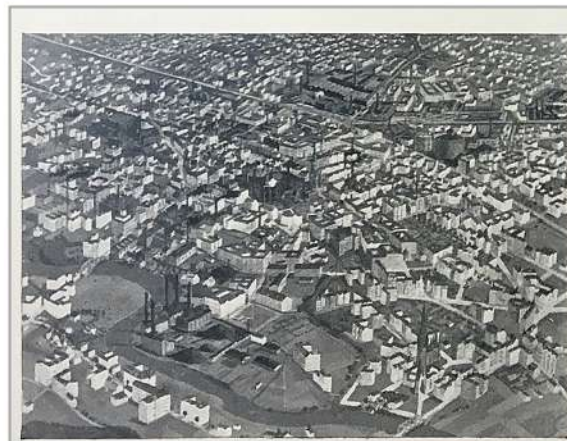


Figure II-20 - Stills from the animated film *Die Stadt von Morgen*, by Maximilian von Goldbeck and Erich Kotzer (source: Maximilian von Goldbeck and Erich Kotzer, "Die Stadt von Morgen: ein film vom städtebau," in *Wasmuths Monatshefte Baukunst & Städtebau* 25, no.5 (May 1930):238).



Figure II-21 - Diagram 'Free Area Schema for the Municipality of Berlin and Surrounding Zone,' by Martin Wagner and Walter Koeppen, (source: Leberecht Migge, "Wetstadt Grün: Ein aufruf zur rentablen parkpolitik," in *Wasmuths Monatshefte Baukunst & Städtebau* 25, no.5 (May 1930):245).

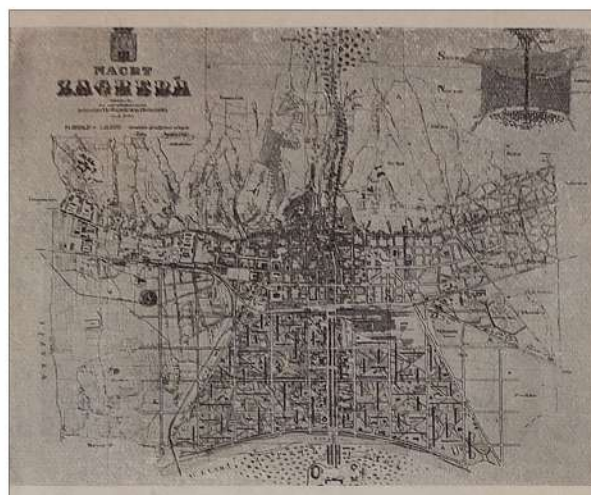


Figure II-22 - Regulation of Zagreb, by Juraj Neidhardt, 1930 (source: Juraj Neidhardt, "Problem regulacije Zagreba," in *Gradjevinski vijesnik* 6, no.1 (January 1937):6).

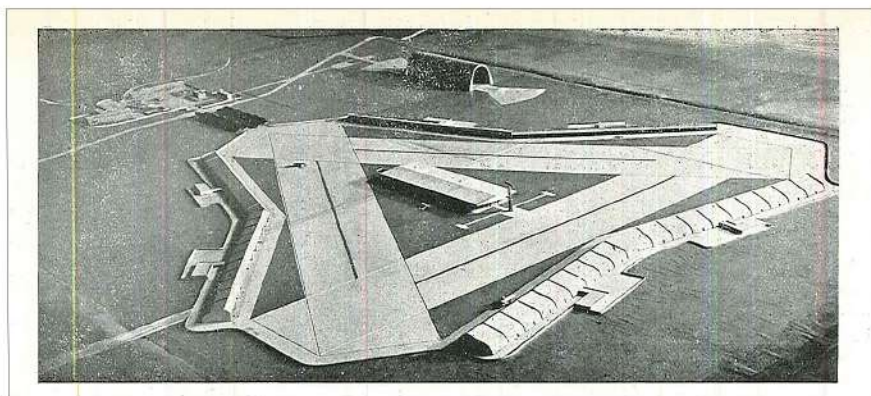


Figure II-23 - Project of an airport, by Juraj Neidhardt, 1924 (source: G.H. Pingusson, "Project d'aéroport," in *L'Architecture d'Aujourd'hui* 5, no.3 (march 1935): 79).

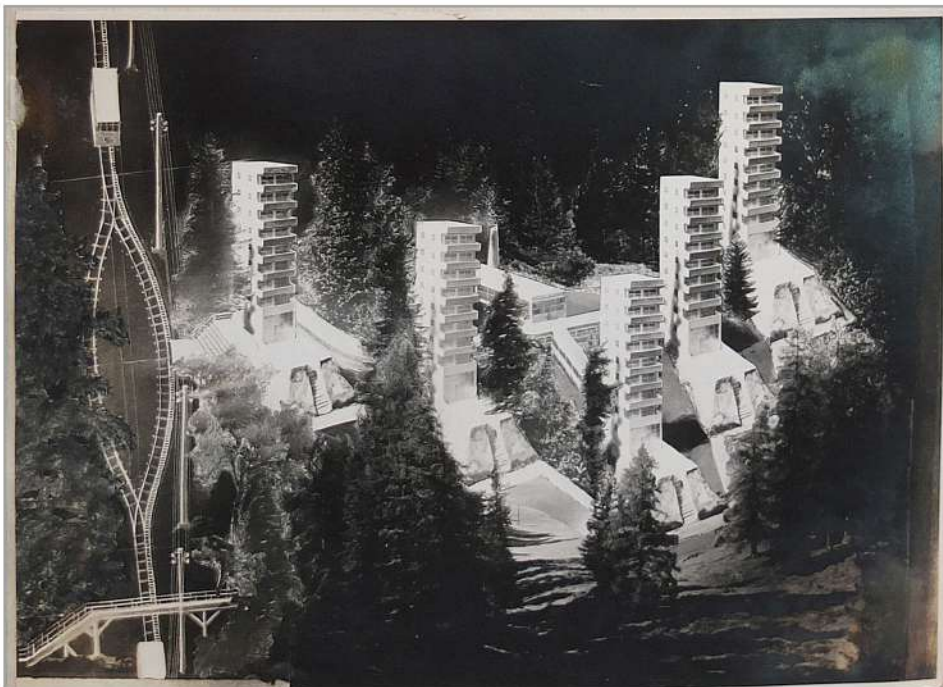
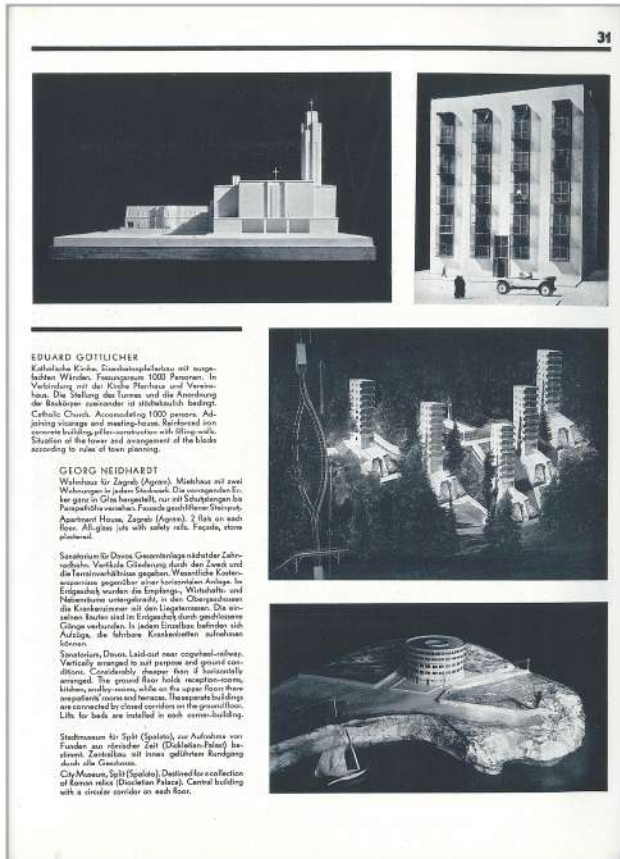


Figure II-24 - Cover and a page from the publication about Peter Behrens' masterclass representing the project for a sanatorium in Davos designed by Juraj Neidhardt in 1929 (top) and the same photograph from Dušan Grabrijan's archive (bottom) (source: Karl Maria Grimme, *Peter Behrens and his Academic Master School in Vienna* (Wien Berlin Leipzig: Adolf Luser Verlag, 1930), 31 and Box 2, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

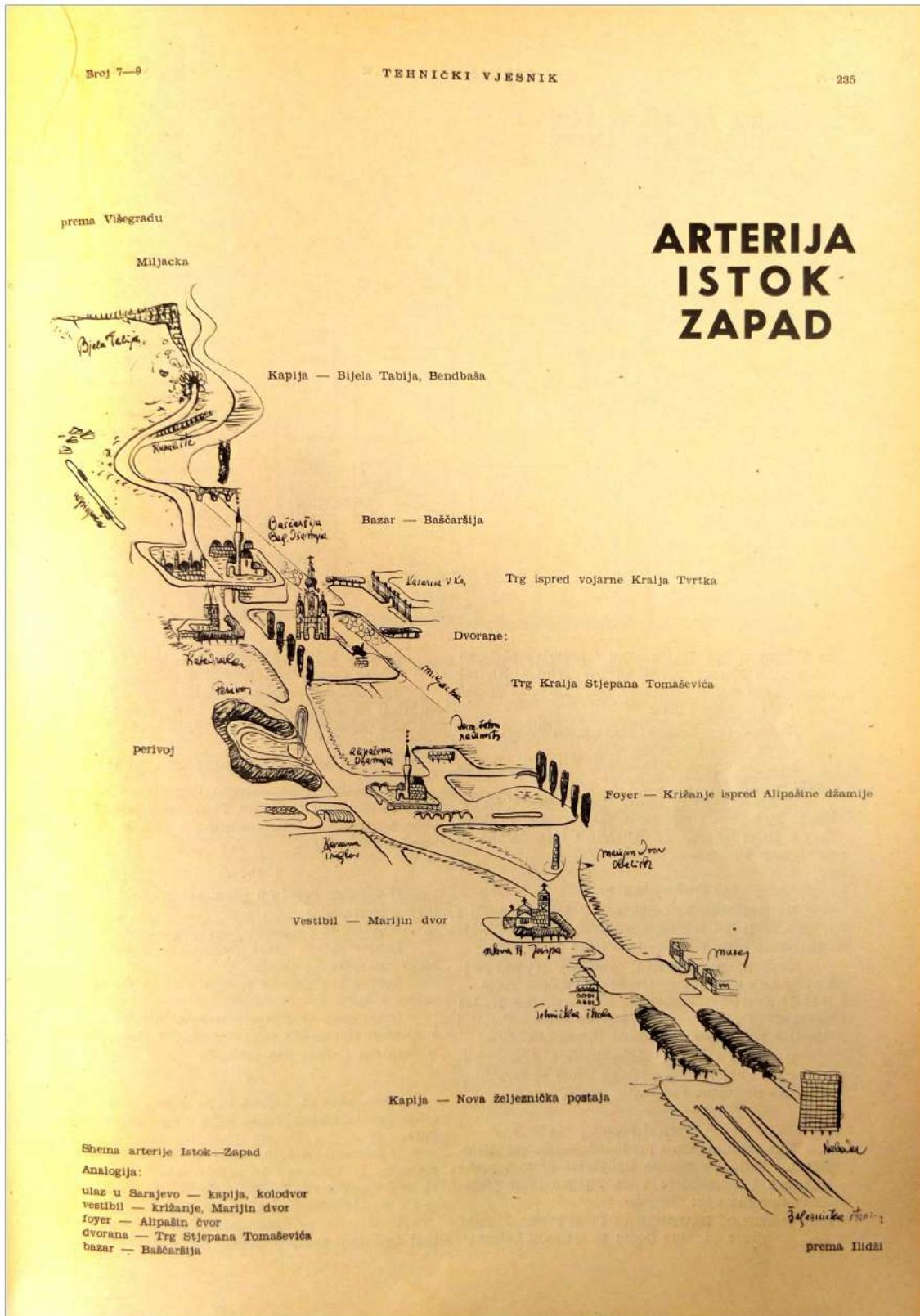


Figure II-25-The panoramic diagram representing the concept for the main East-West traffic axis in Sarajevo, by Juraj Neidhardt, 1942 (source: Dušan Grabrijan and Juraj Neidhardt, "Sarajevo i njegovi trabanti," in *Tehnički vijesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942):235).



Šematski prikaz novoprojektiranih naselja u
srednjem bosanskom rudarskom bazenu

LEGENDA

1. Staro i Novo Sarajevo
2. Ilidža
3. Ilijaš
4. Breza
5. Trčica
6. Vareš — Majdan
7. Zenica

Figure II-26 - The sketch of Sarajevo and its satellites in the Middle Bosnian Basin, by Juraj Neidhardt, 1942 (source: Dušan Grabrijan and Juraj Neidhardt, "Sarajevo i njegovi trabanti," in *Tehnički vijesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942):273).

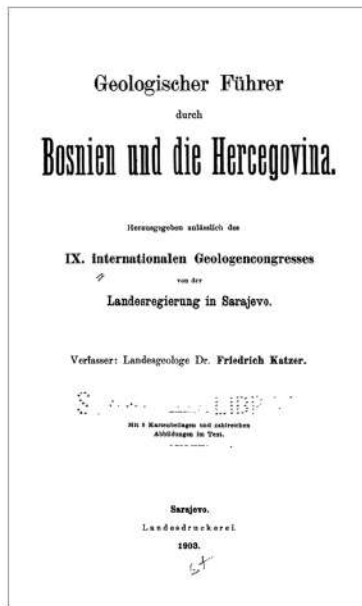


Figure II-27 - Cover page of the *Geological Guide for Bosnia and Herzegovina*, 1903 (source: Friedrich Katzer, *Geologischer Führer durch Bosnien und die Hercegovina* (Sarajevo: Landesdruckerei, 1903)).



Figure II-28 - Ironworks of Vareš in Habsburg era postcards, around 1910 (source: Željko Ivanković, *Vareš i vareški kraj kroz stoljeća* (Vareš: HKD Napredak, 2019), 202, 157).



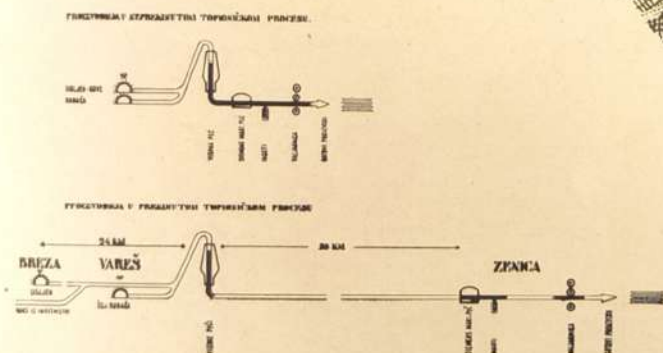
Figure II-29 - Regulation of Vareš Majdan, by Juraj Neidhardt, 1939 (source: Dušan Grabrijan and Juraj Neidhardt, "Sarajevo i njegovi trabanti," in *Tehnički vijesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942):278).

REGULACIJA VEREŠ-MAJDANA (V. M.)

POSTOJEĆE STANJE

VM. leži u tjesnacu između brda Perun i obronaka Zvijezda-planine, u dolini potoka Stavnje, na cesti Podlugovi-Vareš i na kraju željezničke pruge Podlugovi-VM. Nastavak ove pruge prema Droškovcu (14)* služi samo veleobrotnim postrojenjima, koja su kao na vrpci uz prugu nanizana. Kod Droškovca se područje VM. grana. Na zapadu je površinski rudnik Smreka (16), a na istoku glavni rov Kulina Bana. Potonji poduhvaća visinski više ležeća rudišta Droškovac, Brezik (18) i Pržiće (21).

Željezna rudača se kopa (na površini i pod zemljom) te se iz prva tri rudišta odvozi preko Droškovca električnom željeznicom (12) u željezaru (10), a iz Brezika preko posebnog rudarskog kolosjeka (23) i preko jedne velike spuštaljke (11) ravno u



željezaru. U željezari se željezna ruda topi u visokim pećima u sirovo željezo (potreban uglj za gorivo dovozi se iz Breze a koks iz inozemstva). Od jednog dijela sirovog željeza željezara VM sama proizvodi lijevanu robu, dok se ostali veći dio dostavlja željezari u Zenicu na daljnju preradu.

RACIONALNA PROIZVODNJA

Suvremena topionička tehnika ide za tim, da se ruda po mogućnosti od iskopa pa sve do gotovih valjanih proizvoda preraduje na jednom istom mjestu i to tamo, gdje se nalaze sve potrebne osnovne sirovine t. j. ruda i ugljen odnosno koks.

Rudnik i željezara Vareš-Majdan leže u tjesnacu gotovo bez mogućnosti proširivanja. K tome ovdje nema dovoljno tvorničke vode. Ugljen se dovlači iz daleka, t. j. iz Breze, a koks iz inozemstva. Dovlačenje je uzbrdo.

Nameće se pitanje, da li ne bi bilo racionalnije središnjicu tog veleobrtu smjestiti bliže uz glavnu prugu u nizinski teren Ilijaš-Podlugovi Breza. U to-

*) Vidi sliku na str. 278.



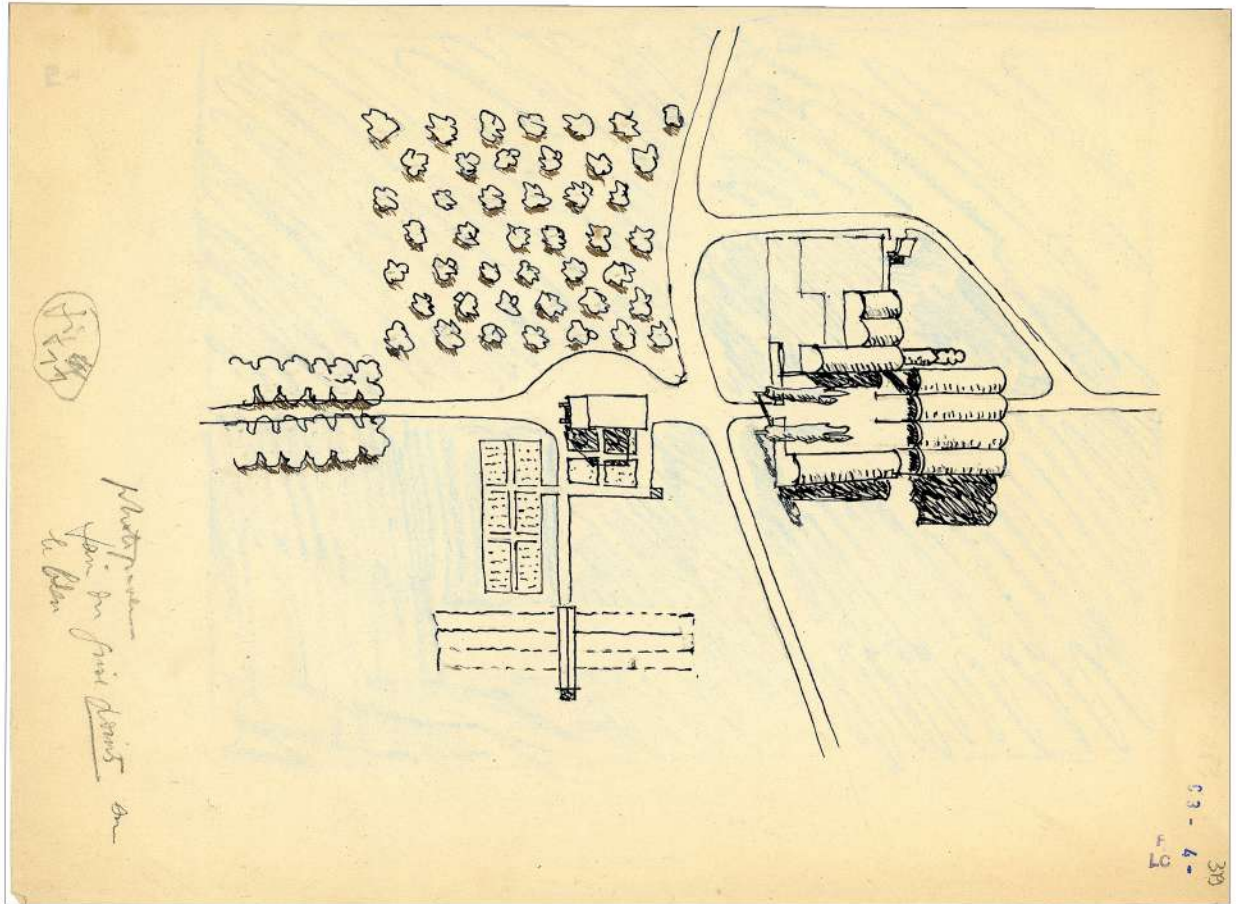
Figure II-30 - Diagram representing "rational production" (top) and less rational organisation of production (bottom) (source: Dušan Grabrijan and Juraj Neidhardt, "Sarajevo i njegovi trabanti," in *Tehnički vjesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942):277).



Figure II-31 - Drawing representing workers' housing in Kralupi neighbourhood in Vareš Majdan, by Juraj Neidhardt, 1939 (source: Dušan Grabrijan and Juraj Neidhardt, "Sarajevo i njegovi trabanti," in *Tehnički vijesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942):279).



Figure II-32 - Model of "Le Ferme Radieuse" project, by Le Corbusier, 1933, model by Juraj Neidhardt (this and next page)(source: Le Corbusier Archive, Fondation Le Corbusier, Paris, France).



Photograph
from the first drawing on
the plan

1/1/14

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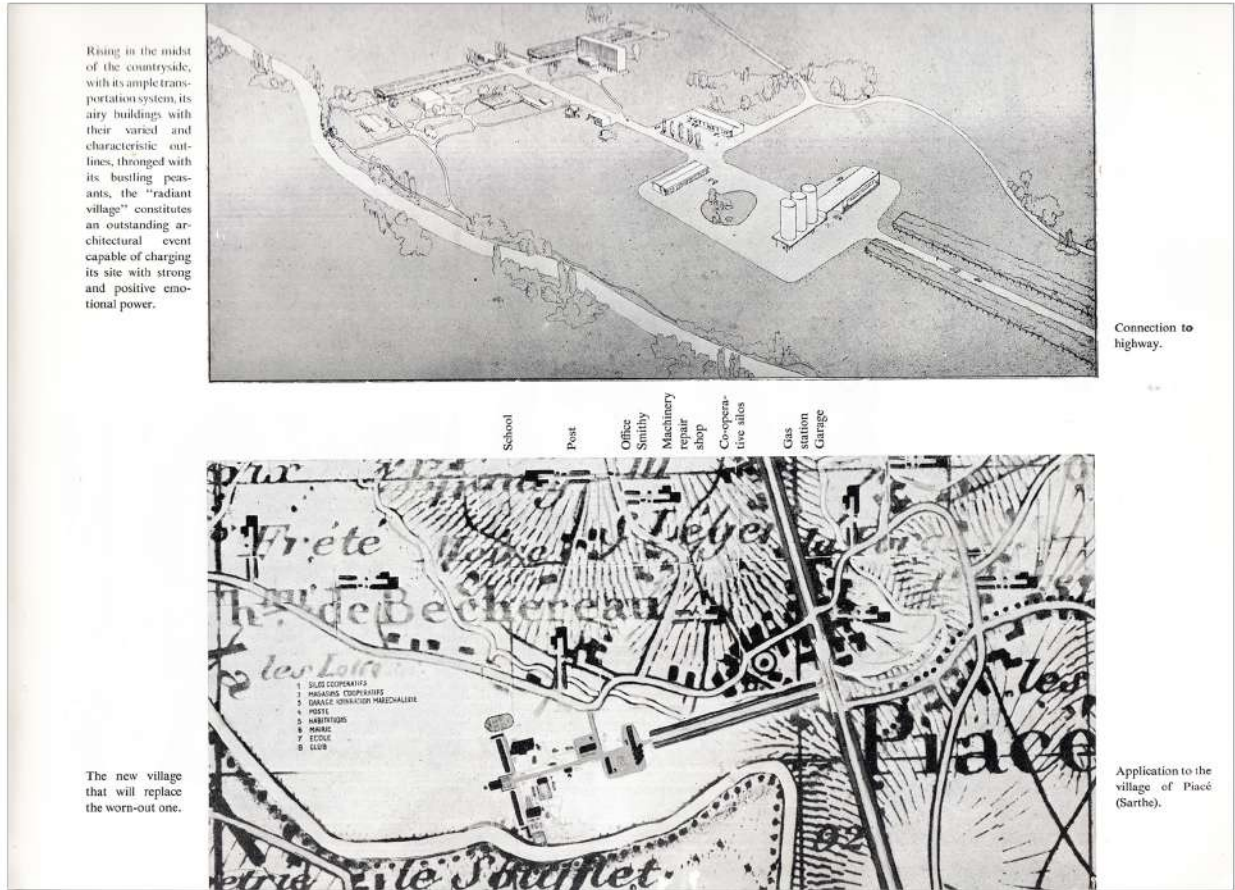


Figure II-33 - Perspective of the Village Radiouse (top) and a map with a plan of the Village Radiouse (bottom), by Le Corbusier, 1933 (source: Le Corbusier, *The Radiant City* (New York: The Orion Press, 1964): 342)



Figure II-34 - Kralupi neighbourhood in Vareš Majdan under construction, probably around 1950, by Juraj Neidhardt (top) and mining infrastructure and the town of Vareš (bottom) (source: Željko Ivanković, *Vareš i vareški kraj kroz stoljeća* (Vareš: HKD Napredak, 2019), 280,291).

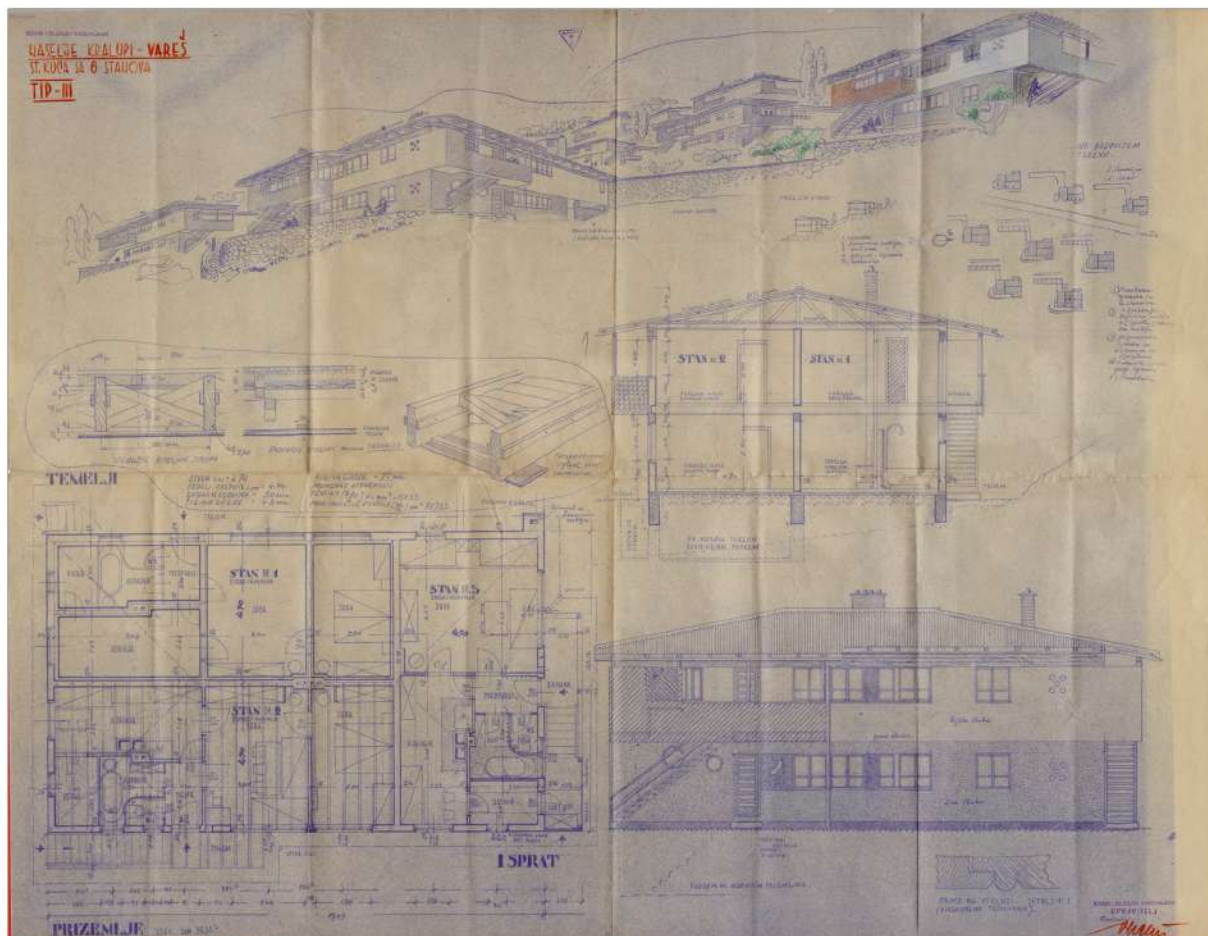
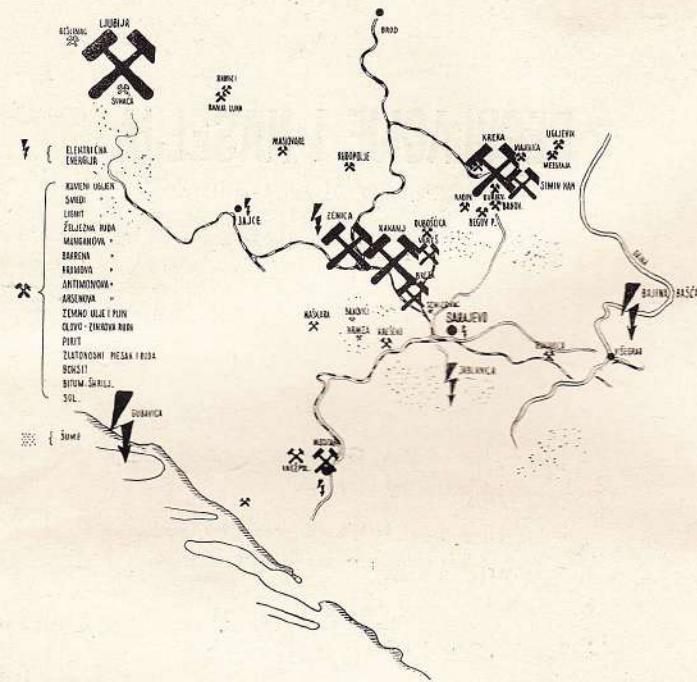


Figure II-35 - An executed house in the Kralupi neighbourhood in Vareš (top) and the blueprint of the project for the house with six apartments by Juraj Neidhardt (bottom), 1948 (source: Projects, Ministry of Construction funds, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina).

B.B.

UGAJ-J. RUDE, ŠUME
I ELEKTR. ENERGIJA

KARTA PRIRODNIH BOGATSTAVA
SREDNJEG BOSANSKOG BAZENA



Bosna — Bazen

Figure II-36 - Page from the publication *Sarajevo and its Satellites*, representing the map of mineral riches of Bosnia and Herzegovina and a photograph of the Middle Bosnian Basin (source: Dušan Grabrijan and Juraj Neidhardt, "Sarajevo i njegovi trabanti," in *Tehnički vijesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942):272).

- 2 -

ARHIV
M
H

1. Jedina vaza Bosne i Hercegovine sa krajevima preko Save, ako bi ova most bio podignut makar samo kao provizorni, postojale bi se određene prednosti u vaštavanju prosečnih potrebnih kareza koji se izlaze u-3 meseci.

2. Kod izrade regulacionog plana u buduću smatra ovo Ministarstvo da obojerna komisija, koja isia po tom predmetu donijeti odluku, treba da ima u vidu

a/ da se bilo u Sl. Brodu bilo u Bos. Brodu, kako to već bude njezinski riješili, pošigu takova postrojenja /kolosejci, rampe, dizalnice, sušnice, te sve ostalo/, koji se u cilju osti moći odgovoriti potrebama trafika, koje se namisu u vazd za najmanji kapacitetom bosansko-hercegovske industrije i rudarstva.

b/ da se paralelno rješavaju ne samo problemi željeznikosa i cestovnog saobraćaja, nego naročito ova dva povežu sa rješavanjem problema riječnog saobraćaja izrazinom odgovarajućeg nivoa, što znači da se jedna dosta velika količina potreba pokriva pri preuzetju pod upravom i nadzorom ovog ministarstva i putem riječnog saobraćaja.

Niže dolje navodi sa pregled u slavnim crtama uvoza i izvoza pojedinih predmeta preko Bos. Broda, pa se skraćuje prikaz, da bi ukupan izvozni promet ovih predmeta iznosio količine okruglo najmanje oko 750.000 tona roba, dok je uvoz okruglo najmanje oko 250.000 tona. Od ove količine došlo bi u obzir za kombinirani prijevoz rijekom i željeznicom oko 50.000 tona za uvoz i oko 175.000 tona za izvoz, što znači ne vrijedi oko četvrtine cjelokupnog prometa, / 270.000 : 1.000.000 tona /.

U projektu izgradnje željeznike kraje, kako je dat od strane J.D. zamisleno je dosta pitanje ovog poveznika riječnog i željeznikosa saobraćaja, pa bi kod izradnje regulacionog plana trebalo ići to naročito u vidu, što ima više, jer ovo ministarstvo vjeruje, da će kapacitet riječnog saobraćaja morati biti još mnogo veći a obzirom na potrebe predmeta i uslova, koji se nalaze pod upravom i nadzorom ostalih resursa, sigurno nećemo je, da su se potrebne također vrlo velike.

Najveći objekti, koji bi se prevozili, su dijelovi električnih centrala do najveće težine 75000 komada od oko 35 tona, pa bi u tu svrhu trebalo predviđati porizanje odgovarajuće dizalnice.

Detaljan pregled izvoza i uvoza:

1. IZVOZ

1./ Uprava drž. metal. preduzeća:

a/ rudnik i željezara Vares, željezna ruda u svileni oko 50.000 tona
 silvevo gvozdje 5.000 tona
 ostalo u kom. silva 3.000 tona

b/ željezara Zenica, razno željezo, trafika, silva roba oko 41.500 tona

2./ Uprava drž. ugljenokopa:

a/ Rudnik Bakanj oko 150.000 tona
 b/ " Breza " 100.000 tona
 c/ " Zenica " 70.000 tona
 d/ Breza " 90.000 tona
 e/ ostali rudnici i silva b. 112.000 tona..... 650.000 tona

3./ Drž. električna preduzeća, stari bakar /..... 100 tona

4./ Uprava drž. preduzeća za tekstil i kožu..... tona

5./ " " hemijski preduzeća

a/ Elektro-Bosna, b/ Destilacija, drva J.D. Tešić, c/ Sibirski fabrička lukavica, d/ Solvar i d. Lukavica, e/ Celuloza, Drvar /ova za silva ne radi/ ukupno 100.000 tona

Svega oko 750.000 tona

- 3 -

ARHIV
M
H

1. IZVOZ

1./ Uprava drž. metal. preduzeća

a/ željezara Vares, koksa..... oko 50.000 tona
 vatrosainog mater. oko 1.000 tona
 ostalog materijala oko 500 tona

b/ željezara Zenica staros gvozdja.... oko 40.000 tona
 vatrosainog mater. oko 3.000 tona
 valjevi..... oko 200 tona
 silintermagneziti..... oko 1.200 tona
 ingoti od KID-e..... oko 12.000 tona
 ostalo..... oko 3.000 tona
 cement sa Varesom oko 3.000 tona

2./ Uprava drž. ugljenokopa tekoni..... oko 4.000 tona
 škerolji..... oko 4.000 tona
 masivo i ostalo oko 1.500 tona

3./ Elektroih... razni tehn. materijal..... oko 1.200 tona

4./ Uprava drž. preduzeća tekstil i kožu /svaga 50.000 tona

5./ Uprava drž. hemijskih preduzeća svaga 50.000 tona

Ukupno oko 331.000 tona

Kod pretovara hemijskih artikala /silva i suporta kiselina za željezaru Zenicu, melase, razni kemikalije, spirita, petilalkohola itd./ potrebno je predviđati kod izgradnje instalacija potrebne naprave za ovaj pretovar. Instalacije koliceza ovakove robe nije poznate željeznikosa stanici u Bos. Brodu, a polje nije stvara unistena, a za silva ovo ministarstvo nije moći prihvatiti u relativno kratkom roku do tom u tu svrhu.

Ovo ministarstvo smatra je da nakon obnova vlastite centrala moći podmiriti potrebnu unutar poduzeća B. i B., dok u početku izvne industrije podatke se najbolje dati nadležno ministarstvo Sarajeva.

Koliko je potrebno bunkera za usalj. ruda, koja predviđati, koje veličine, moći je obojerna komisija za izradnju ovih objekata i sama ocijeniti na temelju gorenjih podataka, te se od strane ovog ministarstva neće upuđivati posebna prijava, isto tako ni u slučaju tih postrojenja, što se preputa također odgovarajućim komar. i. Ovo je ministarstvo navelo sa gorinju samo svoju stvarnu potrebu za instalacijama u cilju omogućavanja nesmetanog odvijanja transporta i pretovara, što najveće interesira ovo ministarstvo, a samo izvođač projekata i donošenje detaljnih odluka, preputa se njezodavnima.

Sart težinu - silvoda narodu!

Po ovlaštenju ministra:
 Potpis nečitljiv.

Figure II-37 - Report issued by the Ministry of Industry and Mining about the problem of the regulation of Slavonski and Bosanski Brod, 1945 (source: 6044/45, Box 5, Ministry of Construction, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina).

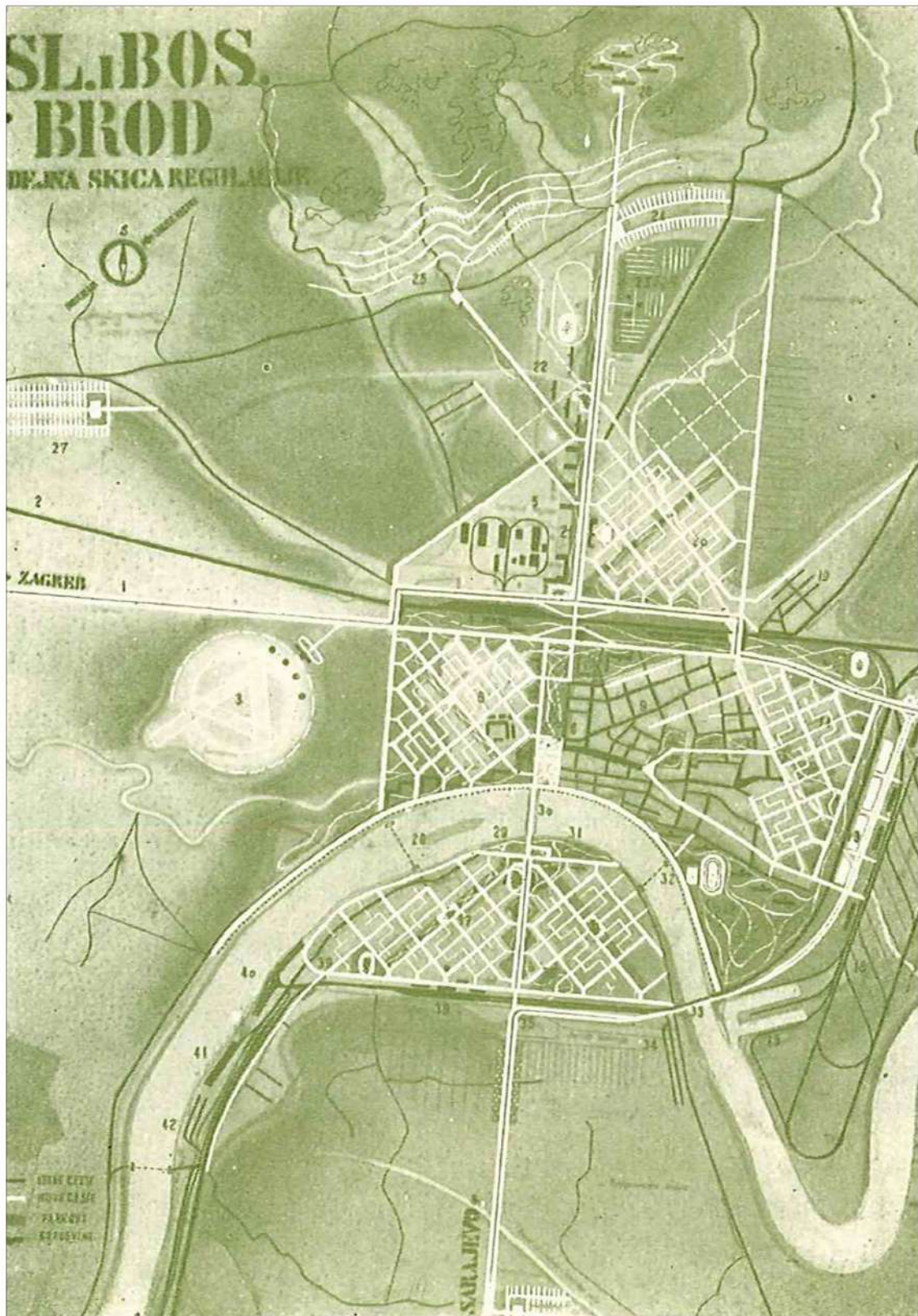


Figure II-38 - Conceptual sketch for regulation of Slavonki and Bosanski Brod, by Juraj Neidhardt, 1945 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 455).

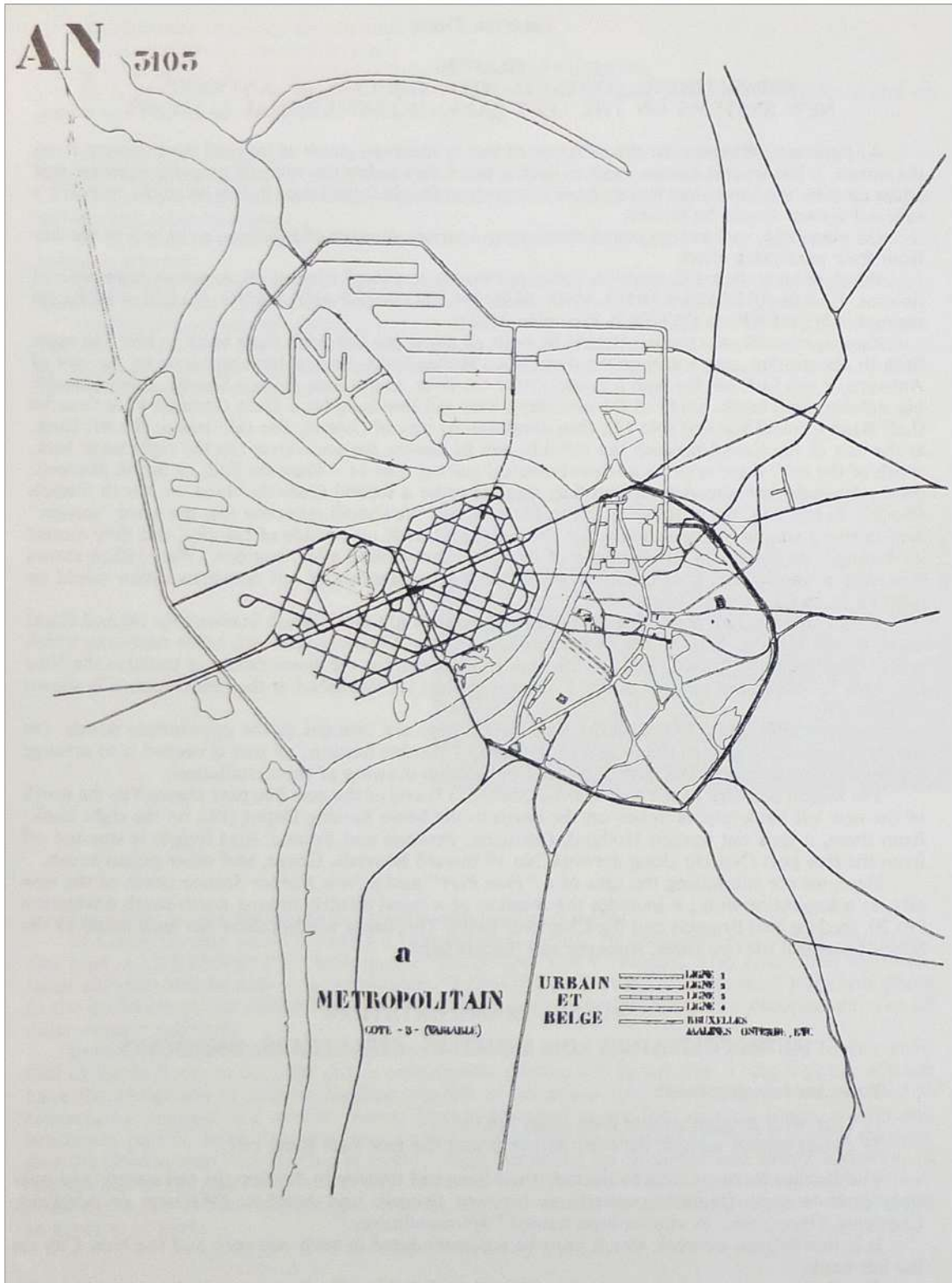


Figure II-39 - Circulation plan for Antwerp, by Le Corbusier, 1933 (source: Le Corbusier, *The Radiant City* (New York: The Orion Press, 1964), 274).



Figure II-40 - Map diagram of the regulation of Zenica, by Juraj Neidhardt (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 456)

Chapter 3 - Regionalism and (Regional) Planning in Early Socialist Yugoslavia

“Is there a concrete possibility for us to continue the natural space (landscape of a certain prospect) and extend it into the city space (absolutely social and humanized), in a way that this ‘transcending of nature’ unfolds inside a truly living organic movement.”¹ - thus asked Zagreb-based art historian Grgo Gamulin in 1966. His inspired, powerful text “Spaces in the Regions”² repeatedly articulated this question on the backdrop of, by that time already relatively universally pervasive condemnation of the functionalist urbanism of “scattered bodies,” but also a lot more locally specific provocative evocation of the “imagined and wished for” organicness of the Yugoslav socialist society.³

Like many others did before him, Gamulin suggested that Yugoslav political-economic and social vanguardism (“the forefront of the development of socialism”) still kept the possibilities “wide open” for that society to devise a unique brand of a “socialist urbanization”. An attentive observer of the Yugoslav architectural culture, he reported that both “often miserable and extorted” empiricism and “theory pervaded by the ruthless irony of the technocrats” resulted in the recent architectural publications striving to “find some possible perspective” by trying to define “Yugoslav space and, sometimes even socialist.”⁴

Perhaps surprisingly for an art historian, Gamulin knowingly referred to a range of recent publications from the field of urbanism and spatial planning to suggest that the pursuit for the Yugoslav space was rightfully territorial in scale and character, but claimed that it was, in fact, erroneously formulated. Too diverse in terms of topographies, climates, histories and ethnic mentalities, Yugoslavian space, Gamulin argued, was “pure abstraction, as a reality and as ‘generative infrastructure.’”⁵ Instead of the “obsolete” category of national space, new perspectives for a deserving socialist urbanization were opened by the examination of “spaces in the regions”: “climates, not only in the geographic but also spiritual sense of the word, which therefore correspond to physical and spiritual spheres.”⁶

Gamulin's call for the defining of the techniques which would be able to meaningfully relate "socialist urbanization" and "spiritual climates of the regions" recalled the conceptual efforts presented in the book *Architecture of Bosnia and the Way to Modernity* a decade before. Yet, if in the early Yugoslav context the book could postulate its regionalist design methodology as the "way to modernity," Gamulin's text proposed to focus on the "spaces in the regions" as a remedy to a crisis, measured by obliterations of their "spiritual climates" by the socialist urbanization. Gamulin framed the regional problem as a possibility of "organic socialism," understood as "growing in" of the socialist organizational forms into regional specificities.

Indeed, for Gamulin, both architecture and urbanism were the determining elements for the regional question. Departing from this premise, he inexorably judged that Yugoslav architects so far had shown neither willingness nor creative capabilities to "creatively preserve" whole regions.⁷ He affirmatively reviewed some pertinent international approaches, in particular Frank Lloyd Wright's "organic method" and Fumihiko Maki's "group form," and proposed that, even if "modern technics erased all local particularisms" and "materials and individual elements (buildings)" were the same everywhere, "regionalism could be reflected in their compositions and bonding."⁸ Yet, Gamulin warned that architectural creation of a "group form" capable of corresponding with the "natural and historical coordinates of a region" would only accomplish "the first condition of regional continuation between natural and artificial space."⁹ Beyond the conception of this "stereometric element" lurked another, presumably yet greater challenge: the problem of city planning, "that which wins us over in old Korčula and appalls us in its new neighborhood". Gamulin concluded his text by summoning the creative inspiration yet again, "this time not of an architect, but of an urbanist, if these two can at all be separated."¹⁰

Writing seventeen years after the initial conception of the book *Architecture of Bosnia* (and nine years after its publication), Gamulin explicitly formulated the question that the

structure and the form of the book only implied: how to extend the regionally consistent approach from the domain of design to the one of planning? Although they shared the opinion that regional specificity was important for both art and society, the historical moments in which these two questions were posed were still profoundly different. Both restructuring of the Yugoslav socio-economic organization and changes in architectural and urbanistic cultures throughout the first two decades of the Yugoslav socialist development were intense. *Architecture of Bosnia and the Way to Modernity* was conceived at the cusp of the centralized “planist” state-led development in Yugoslavia. Its publication eight years later, however, coincided with social-economic reforms that were marked by commentators as the true beginning of the implementation of workers’ self-management.¹¹

The years of 1945 and 1948 were revolutionary in a political and explicit way, the first being the year of the socialist revolution and the second the year of the break with the Eastern Block. The year of 1950 was, however, marked by a more profound (and less publicized) internal inflection point in the dynamic agenda of the “Yugoslav experiment.” After the economic shock caused by Yugoslavia’s departure from the Cominform and the consequent cut-off from the Eastern markets, supplies and aid, the poor harvest of 1950 “brought matters to a head,” in the sense that it upset the already strained balance between the overtly ambitious industrialization and underinvested agriculture.¹² The nominal introduction of self-management in 1950, progressive liberalization, introduction of the quasi-free market, political-economic decentralization and the constant increase of foreign debt were all processes set off by this initial failure of the planned state intervention. They were also all processes that foregrounded the logic of efficiency, as opposed to the planned and coordinated regional development¹³ (which was meant to tackle the problem of disparity between the center and the periphery). The architectural and urbanistic disciplinary cultures registered and were influenced by these changes.

Juraj Neidhardt’s design and planning experience in the Middle Bosnian Mining Basin is illustrative in this sense. The territorial calculations and rationalizations in Vareš and

Zenica that conditioned *Architecture of Bosnia's* separation of design and planning, also corresponded to the similar separation that occurred within the discipline. The first disciplinary congress of Yugoslav architects and urbanists held in Dubrovnik in November 1950 showed a vivid interest in both the regional diversity of Yugoslav landscapes and the territorial scale as themes crucial to the definition of what Gamulin will (fifteen years later) call the "Yugoslav space." By 1957, however, both the landscape and the territory were assigned to the new sub-disciplinary field of regional planning that, through mappings, plans and regulations, supposed to mediate between architecture, economy and geography.

This chapter argues that the incapacity of the book *Architecture of Bosnia* to conceptually reconcile and technically relate the region and the territory was a part of a larger incapacity of Yugoslav architecture and urbanism to mediate between geography and the "Yugoslav experiment." It further argues that the (rather limited) success of the book was largely a consequence of the architectural disciplinary attitudes to the geographic knowledge. The chapter proposes that, with designation of geography as the specific disciplinary purview of regional planning, the wider geographic implications of the book *Architecture of Bosnia* were not understood by the Yugoslav disciplinary public and were relegated to the issue of style.

The symbolic closure of Neidhardt's regionalist disciplinary project occurred in 1962, in relation to the endorsement of the General Urban Plan of Sarajevo - the city to which *Architecture of Bosnia* was particularly dedicated. The discussions led between the Yugoslav experts in urban planning (Neidhardt included) at this event demonstrated that neither the "unwritten laws" of the book nor the grand promise of the regional planning (that aimed to spatially underpin the lofty socio-economic ambitions of the Yugoslav experiment) could meaningfully contribute to the calculative territorial logic of the plan.

In spite of its failure to instigate a wide following that it anticipated, the book remained the demonstration of a profound challenge to this logic. Not only in terms of its content, but also in terms of its form and the production process, the book was an example of resistance

to the rationalizations and calculations of both the state and the market. Through a great financial, physical and professional sacrifice and commitment, clever social strategies, years of hard work and immense passion, the authors managed to produce a thoroughly original and extraordinary object that defied the established optimal standards in every possible way: format, layout, size and visual materials were all unique for Yugoslav books of the time. Yet, for the same reason, *Architecture of Bosnia* was the most expensive Yugoslav architectural book, and generally the most expensive one (to the date of its publication and for years to come). This revenge taken by the logic of calculative rationality upon the book's project of specificity and difference was more than symbolic: not only its prescriptive design methodology but also its expensiveness contributed to its underwhelming reception.

3.1 *Architecture of Bosnia's* Model of Disciplinary Organization

The text "Spaces in the Regions" relied on the richly textured photographs of historic urban sceneries sampled exclusively from the Adriatic coast (Figure III-01) to illustrate the ideal of the "natural-artificial continuation" that it called for. Gamulin was, however, careful to put this "physical-spiritual" region of his childhood on par with the one of his youth,¹⁴ quoting "Muslim architecture of Bosnia and Macedonia"¹⁵ as another historic-geographic value of Yugoslavia endangered by generic urbanization. Yet, in his pointed criticism of Yugoslav architects as ignorant of the regional problem, Gamulin neither highlighted nor exempted *Architecture of Bosnia's* contribution. Neidhardt's ideas must have been familiar to Gamulin, at least through his picture-book-style series titled "Observations," in which five articles were published between July 1962 and October 1963 in the Zagreb-based architectural journal *Čovjek i prostor*.¹⁶ Furthermore, in his eulogy to Le Corbusier, published in the same journal in 1965, Neidhardt referred to Gamulin directly to evoke his conception of the regional ambience as a coordinate for artistic creation.¹⁷ In fact, the very basis of Gamulin's life-long theoretical project relied on a very similar conception of the local groundedness of art. Together with Ljubo Karaman and Cvito Fisković, Gamulin

represented a strain in Croatian art-history that sought to emancipate Dalmatian culture from its characterization of a passive reflection of the foreign civilisational influences by relying on the notion of the specificity of the local¹⁸ and peripheral milieu.¹⁹

With that in mind, one must ask why did Gamulin overlook Neidhardt's efforts in his text "Spaces in the Regions"? What was it, in Neidhardt's practical and theoretical work, including the book *Architecture of Bosnia*, that made it undeserving of a recognition and a favorable place within the architectural-cultural field delineated by Gamulin's intricate and sophisticated argument? The question is speculative, yet important if one wants to grasp the prospects of success that the book faced at the time of its publication. For, even Gamulin, who throughout the 1960s called for a "spiritual and landscape integration"²⁰ of architecture and urbanism, might have thought Neidhardt's "directions" too coercive and restrictive for a creative individual expression.

While some of *Architecture of Bosnia's* disciplinary pretensions could be sensed in the "mathematical" presentations of Neidhardt's projects, their true scope was fully exposed only in the final section of the book. Titled "The Sarajevo School," it promoted the establishment of a regional school of modern architecture, based on the "unwritten laws." The section opened with a double spread showing the panorama of Sarajevo's historic core, children's drawings and a picture of Neidhardt in the midst of the teaching process, with his students in the studio at the Faculty of Architecture in Sarajevo (Figure III-02). The text described the "creative discipline" and "collective harmony" propagated by means of "unwritten laws" and students' teamwork on large urbanistic compositions.²¹

In his letters to Grabrijan, Neidhardt often emphasized the need for "ideology in our profession" and complained of the "chaos and disorder" of the contemporary architectural expression.²² Neidhardt believed that modern architects could overcome this problem by integrating into the specific regional environment through the adherence to the "unwritten laws." In his teaching sessions at the Faculty of Architecture, Neidhardt also relied on "the elements" of the local architecture that he had defined. The works of his students,

represented in the book, demonstrated a range of meandering flat prisms, combining flat and vaulted roofs, segmented windows and rustic stone walls. The homogenized expression of the exhibition pavilion, architect's home, crematorium and tourist agency evoked modulated patterns of Neidhardt's "kilim city" (Figure III-03). The following pages represented one plan and nine designs (six built and three as models) by those architects who Neidhardt felt worked in accordance with Grabrian's and his propagation of "a synthesis of the contemporary and our local architectural expression."²³ The included projects showed greater variety than those in the students' section. Some were produced by Neidhardt's declared followers, such as the Dalmatian architect (and Jože Plečnik's student) Andrija Čičin-Šain, whose family homes in the town of Konjic appeared as a variation on the theme of Neidhardt's modern Bosnian houses; as well as Neidhardt's collaborator in Zenica, architect Karlo Kužatko, whose works in that city combined the inter-war modernist features with portions of rustic walls and cantilevers supported by expressive colonnades (which Neidhardt surely associated with the Bosnian architecture element of a *doksat*) (Figure III-04).

The section closed with an explicit "recapitulation" of the entire book, illustrated with Neidhardt's projects. One of the pages combined fifth facade representations of the Ottoman-era architectural monuments with the fifth facade representations of Neidhardt's designs in Sarajevo, while the caption designated them as the "plastic patterns of the *kilim* city." (Figure III-05) The idea of the "*kilim* city" combined the *Ville Radieuse* conception of the redent blocks, meandering through a generous parkland, with a new local "alphabet," determined by the "laws" and the "elements." In the accompanying text, Neidhardt once again underlined "the creative discipline"²⁴ that would lead to the building of a "great culture."²⁵

This idea of a codified and unified creative production and discipline relied on the disciplinary culture of the functionalist principles, not only in the sense of content, but also as a further development of the rule-based disciplinary coordination. Yet, it also evoked

German architect Herman Muthesius' call for a production of unified culture through *Typisierung*, which relied, just like Grabrijan's and Neidhardt's thesis did, on both the notion of the vernacular²⁶ and the understanding of architecture's relation to its environment.²⁷ Similar concerns led to a similar proposal of a "unified formal character in the cityscape"²⁸ and to a similar reaction from the disciplinary public. Both Werkbund members (to whom Muthesius' program had been presented)²⁹ and Yugoslav architects interpreted these calls for creative unison as stylistic impositions.

Consequently, some of the earliest reviews of the book focused entirely on its ethnographic investigations and the discovery of "old architecture." The Slovenian review, published in the cultural column of the daily *Primorski dnevnik*, focused entirely on Grabrijan's contribution and ignored the disciplinary appeal presented through Neidhardt's portfolio.³⁰ Similarly, the review in the Sarajevo daily *Oslobođenje* praised the grandness of the research endeavor that the book represented and emphasized Le Corbusier's endorsement, while it only briefly noted that Neidhardt had shown in it "all of his projects in which precisely the influence of the heritage is pronounced" and that he propagated this approach as "the only way for our contemporary architect."³¹

The most important review, however, which gave the book an almost "official" verdict on the federal level, was the one which appeared in the most important architectural journal in Yugoslavia at the time – the Zagreb-based *Arhitektura*. After months of eager expectation, the review was finally published in September of 1958³² and caused a relative disappointment on the part of the authors' team: the overall assessment was indeterminate, "neither for nor against."³³

Written by a young Zagreb Architecture School graduate Andrija Mutnjaković, the review balanced between criticism and praise. While it recognized that it seemed somewhat "ill-advised and out of place" to speak about "national architecture,"³⁴ in the "time of the international crystallization of the contemporary architectural expression", it acknowledged the value of the book in terms of its approach, distinguishing it from some

inter-war examples of similar attempts that ended in “cheap imitation.”³⁵ While it confirmed great value of the oriental architecture,³⁶ it mentioned its provincialism and historical controversy.³⁷ Although it praised Neidhardt’s ability to subtly merge national and contemporary characteristics in design,³⁸ it judged “some” of his works for their “formalism.”³⁹ Finally and most importantly, Mutnjaković warned against the copying of Neidhardt’s achievements that could result in “degeneration,” and instead directed architects with these affinities to the field, where they should research the essence of this architecture for themselves.⁴⁰

Precisely this final observation brought the entirety of *Architecture of Bosnia*’s mission into question. It recognized its inspirational qualities, but ignored its “scientific” research pretensions and denied its value as a manual of “directions.” The other important review of the book, published in Belgrade already in January 1958, concluded with an almost identical verdict. Written by Oliver Minić, an architect and a great admirer of Neidhardt’s work, as well as an enthusiast for the “Oriental” architectural heritage of Sandžak and Macedonia, the review praised both the “revelation” presented in the book and Neidhardt’s architecture, but criticized its lack of a systematic approach and scientific rigor. Minić admitted that Neidhardt had managed to “produce followers” and “attract young enthusiastic architects,” some of whom created architecture with “taste and measure.”⁴¹ However, he warned that “already today one could feel that this road does not open to further achievements. Possibly because success was achieved too quickly and easily.” Just like Mutnjaković will do some months later, Minić too recommended further research to those architects interested in the “old neglected architecture.”

Finally, some of the most explicit judgements of this kind were formulated in Sarajevo by Neidhardt’s disciplinary adversaries and competitors. Particularly vocal was architect Dušan Smiljanić, the nemesis of Neidhardt’s Bosnian career, whose criticism followed his work from the first inter-war days in Jugočelik, where he acted as his supervisor.⁴² Except for the contestation of the book’s claim that the Oriental architecture in Bosnia was

Bosnian and the criticism of the socio-economic controversies of feudalism that this heritage implied (both of which the authors had anticipated), Smiljanić particularly criticized Neidhardt's design prescriptions. He claimed that "one of the authors - prof. Neidhardt - used the book as his own propaganda," that "Neidhardt immodestly wants to prescribe how we should build during the next five centuries" and that "along with Brasilia, India etc., Neidhardt wants to create here one more colony of Le Corbusier."⁴³

The formal judgement of the book, then, was coherent across Yugoslavia: Neidhardt's Yugoslav peers thought that *Architecture of Bosnia* was immensely valuable as a document of the local architectural values, but less so as a "direction" for practice and "a way to modernity." None of the reviews registered the geographic-historical framework of the book, except for the two that were included in it.⁴⁴ Historian Hamdija Kreševljaković praised Grabrijan's study of the Old Sarajevo as "a success" and as "uncontestable" from the historical point of view. Le Corbusier, however, focused precisely on the value of the book to serve as a guide for design practice. The review opened with an enviable recognition: that the book helped Le Corbusier "dispel" a life-long ambiguity about the relation of contemporary work to "folklore." In distinction to "lazy and stupid" approaches that merely coated their modern designs in a "varnish of culture," *Architecture of Bosnia* was an example of regarding local architecture "*en fonction du milieu qui l'a crée, de l'époque qui l'a fait naître, des moyens financiers et techniques qui l'ont autorisée.*"⁴⁵ Only if historic architecture was understood in relation to its milieu, Le Corbusier claimed, was it justified to give "new life to certain accords of the past" through "some common elements": "a way of paving, a way of building, a special quality of mortar, a certain way of carving and working the wood (...) selection of certain dimensions etc."⁴⁶

Le Corbusier's quoting of milieu as the conditioning factor of architecture was surely, at least partially, based on the war-time surge of his interest in geography⁴⁷; yet, in relation to "folklore", it also evoked an important role that the vernacular played as a "conceptual model" in architectural modernism.⁴⁸ He concluded his review with a mention of his

memories of Yugoslavia from his *Voyage d'Orient*, which historians designated as a key experience that revealed to Le Corbusier the “organic” bond between societies and their vernacular artifacts. This bond, in turn, served as a model for imagining a contemporary architecture that would be integrated, similarly “organically,” into the modern industrial society.⁴⁹ Both of these valences of the vernacular - the geographic and the functional - were present in the disciplinary discussions of the early Yugoslav architects.

In the late 1940s, journal *Arhitektura* published several notable contributions featuring very different contemporary approaches to the “people’s architecture.” Before the Yugoslav break from the Eastern Block in 1948, the uncritical soc-realistic appropriations of the vernacular motives were occasionally promoted.⁵⁰ However, already in 1949, this kind of viewpoint all but disappeared and the journal started promoting a “dialectical” and “developmental” understanding of the “national form.” In 1950, Neven Šegvić, the *Arhitektura*’s editor-in-chief, published his own long and imposing review titled “Creative Components of Yugoslav Architecture.” The article explicitly dismissed the attitudes of the Soviet architecture towards heritage as “revisionist,” “counter-revolutionary” and reliant on “survived pseudo-classicist shapes of the West and America.”⁵¹ It illustrated the “correct” socialist approach to the built heritage by describing valuable elements in the vernacular architectures of Macedonia and Dubrovnik. Šegvić underlined the popular, spontaneously organized Oriental Ottoman-era architecture and urbanism of Macedonia and promoted it as an “inexhaustible treasury for the most contemporary architectural creativity.” (Figure III-06) The article praised comfort, right to view, sun protection, plasticity of material textures, merging of houses with landscapes etc.⁵² Some of this content might have been appropriated from Dušan Grabrijan’s text “Orientalska hiša v Sarajevu,” or from Vladimir Antolić’s observations about Macedonian vernacular urbanism,⁵³ both published in the same journal in the previous year. While both of these articles underlined the “civilizational” rather than geographic and ethnographic specificities of this heritage, already in the first Conference of Yugoslav Architects and Urbanists held in November 1950

in Dubrovnik, the theme of the vernacular was aligned with the themes of landscape and territory, as potential conceptual and technical resource for defining what Gamulin will, fifteen years later, address as the “Yugoslav space.”

This determination of the Conference to contribute to the Yugoslav socio-economic specificity was underlined by Branislav Krstić, the participant in and the chronicler of the event. Yugoslav architects and urbanists, he claimed, were conscious of the fact that “they are acting in the society that was thoroughly changed, in relation to the capitalist one before the War” and they were “striving to determine the content and tasks of architecture and urbanism in the new one”.⁵⁴ According to Krstić’s invaluable testimony, four themes emerged as particularly significant for the revolutionary disciplinary practice: the need for unity of architecture and urbanism, the need for a more studious approach to the construction in the countryside, that architectural heritage was architectural concern and that land planning was an urbanistic concern.⁵⁵

Three reports that were presented at the conference specifically discussed the position of the contemporary practice towards the vernacular. Dušan Grabrijan’s report, titled “Our Oriental and Contemporary House,” was a reinterpretation of his article published in 1936 in a popular Yugoslavian journal *Jugoslovenski list*⁵⁶ and centered on the analogies between LeCorbusier’s architecture and the historic Ottoman core of Sarajevo. On this occasion, however, Grabrijan focused on reconstructing possible influences that Le Corbusier could have absorbed during his *voyage d’Orient*, directly from the Macedonian house.⁵⁷ In spite of the production of the book *Architecture of Bosnia and the Way to Modernity* being then in full swing, Grabrijan neither referred to the project nor his joint research with Neidhardt - possibly because of the secretive mode of work that the authors imposed on themselves - but leaned on information collected during his field trip to Macedonia in the summer of the previous year. The collaboration between Neidhardt and Grabrijan in the months preceding the Dubrovnik Conference was marked by Neidhardt’s insistence on enriching the project with human-geographic and historical-ethnographic data and his insistence on the

territorial consistency of their research (drawing examples and motifs precisely from the Middle Bosnian Basin, excluding the rest of Bosnia).⁵⁸ This could have been the reason for Grabrijan's closing remarks titled "What is Macedonian,"⁵⁹ in which he explicitly underlined the regional specificity of the Macedonian oriental architecture against the Turkish and Arabic varieties. By concluding that the Yugoslav course from the Oriental to the contemporary European architecture was possible "via our Macedonian house," Grabrijan implied the larger methodology which Neidhardt would explicitly formulate in his design manifesto in the second half of the book *Architecture of Bosnia*: "it is important to find, for every place, those specificities, that scale, that module, that way of life, which best suits to that prospect, in order to understand those factors which influence the urbanistic plan."⁶⁰

This was exactly what the other two regionalist reports formulated more precisely than Grabrijan did. Croatian architect and an inter-war member of the Zagreb-based Yugoslav CIAM group Josip Seissel claimed that research in the historic cities had special importance for urbanism: "it discloses specific tendencies in the development of the specific town, which gives it specific physiognomy, which makes it different from the other town, and these tendencies have to be respected when its further development is planned."⁶¹ Seissel quoted the importance of the "permanent accumulation" related to "a geographic area with its climate, vegetation, its construction material etc.," quoting "our Mediterranean cities and towns" as a problem of "artistic realization" of urbanism, but also asserting that it was but one of the Yugoslav geographic regions with these qualities.⁶² The report closed with explicit criticism of both schematic inter-war urbanism and the post-war urbanism of zoning and traffic schemes, and demanded the geographically-specific enrichment with tradition of our contemporary work through the focus on the "dimensions and shapes of space and ambience" and "internal relations in building."⁶³

Finally, Serbian architect Jovan Krunić argued for the definition of "principles" of architectural heritage as well, rather than "repetitive interpretation" of its known details and ornaments. Focusing on the Macedonian "historic agglomerations", as Grabrijan did, he

claimed that their apparent chaos concealed “rules of planned arrangement” and “conscious urbanistic will.”⁶⁴ Like Seissel, Krunić underlined that what he propagated was a general approach, rather than the exclusively valuable heritage of one Yugoslav region, and that these “works of the past” were scattered across Yugoslavia. This casual observation will be documented by Grabrijan himself in his impressive contribution to the Slovenian monograph *The World of Visual Arts*, published merely some months later in Ljubljana. In his text titled “Heritage of the Peoples of the Federal People’s Republic of Yugoslavia in Architecture”, Grabrijan argued that the research of the composite of the diverse Yugoslavian architectural heritages should guide the contemporary architectural production. This research, in turn, should be guided by dialectics, which meant observing architecture in “time, place and scale” or, in other words “material, climate, temperament” and “techniques, customs, tradition, social structures”.⁶⁵

While Grabrijan implied that the geographic kind of approach to architecture was coherent with dialectical materialism, Krunić finished his report with a considerably more explicit political claim: while it was beneficial for Yugoslav architects to observe international trends of development of the contemporary architecture, it was “unworthy, illogical and directly absurd to literally copy any ready-made architectural expressions or urbanistic formulae. We are not allowed to do this, neither by our political and economic position of independence and self-rule, nor great quality of our architectural traditions of the past.”⁶⁶

Krunić’s association of the disciplinary revolution with both economic planning and geographic reading of vernacular architecture was echoed in many other reports, but it was Croatian architect Zdenko Strižić’s description of the new disciplinary role that was most suggestive and most forceful. His conception of the “urbanistic networks of the land” had been recently preceded by his 1948 experience of producing the “Regulatory Plan of the Plitvice Lakes,” a magnificent natural prospect in continental Croatia. This opportunity to practice “regional planning” *avant la lettre* was surely the basis for Strižić’s claim that the landscape of Yugoslavia was so diverse and so sensitive that “everywhere they managed to

hurt it with architecture.”⁶⁷ In his original conference contribution centered around the architectural education in the new socio-economic circumstances and titled “The Figure of the Architect,” Strižić proposed that “the new architect has to have his sense for nature developed, particularly for the topographic and vegetative relief and profile. He has to see, in our villages and cities from the previous periods, how they use the plasticity of the terrain, how they subordinate to it or how, from calm group of settlements, a rare dominant element harmoniously rises.”⁶⁸ The new figure of the socialist Yugoslav architect, which Strižić tried to imagine, therefore answered to the demands of “today’s planned economy” by intervening in “a very wide field” of expertise,⁶⁹ including managing both “urbanistic networks” (which were “spreading across regions”) and the “plastic” landscape of those same regions.⁷⁰

Although it was published seven years after the Conference, the book *Architecture of Bosnia* was a sublimation of the early-Yugoslav architects’ parallel concern for the specificity of the regional landscapes and the “urbanistic networks” that increasingly contained them. This statement was most explicitly made in the part of Neidhardt’s portfolio dedicated to urban planning. Although the book investigated the geographic-historical region of the Middle Bosnian Basin, Neidhardt decided to present, along with his plan for Zenica, three more plans he produced for the cities that did not belong to the Basin: Bosanski-Slavonski Brod, Mostar and Trebinje. Neidhardt observed, in the text, that what unified these plans was their industrial character and that they all belonged to an “industrial basin rich in resources.”⁷¹ Indeed, just like the regulation of the Brod cities was initiated in haste, already in 1945 and of Zenica in 1949, due to their importance for the national economy, so the plans for Mostar and Trebinje were influenced by the bauxite reserves and hydroelectric potential of the rivers Neretva and Trebišnjica that run through these cities. In his text “Four Cities - Four Physiognomies,” Neidhardt presented his urban planning endeavors as conditioned by both geography and economy. These were now constitutive of a new kind of an economic region, that Neidhardt compared to a “chain” that stretched from the river

Sava to the Adriatic Sea, from the Pannonia to the Mediterranean. To each city's "physiognomy" was assigned a geographic-regional characterization: the "Posavina" (the Brod cities), "Bosnian" (Zenica), "Herzegovinian" (Mostar) and "Mediterranean" (Trebinje) (Figure III-07).

Neidhardt used this "departure" from the Middle Bosnian Basin to emphasize that the "unwritten laws" varied depending on the geographic circumstances of the city that was investigated. He argued that, just like the vegetation and the vernacular architectures varied region to region, so modern architecture should register these variations by leaning on the architectural-ethnographic research.⁷² The "unwritten laws" of Hercegovina, the karst, semi-Mediterranean region to which both Mostar and Trebinje belonged, conditioned a different modernist-regionalist approach to design. With these fragmentary, but consistent observations scattered throughout his texts dedicated to urban planning, Neidhardt extended *Architecture of Bosnia's* model of disciplinary organization from the narrow confines of the "Sarajevo School" to the national space. Beyond the uncritical fascination with the Oriental difference or even the critical-regionalist elaboration of a specific geographic-historical context through design, *Architecture of Bosnia's* vision was a systematic disciplinary approach to the economic and geographic aspects of the national space.

3.2 Planning and Architecture (of Bosnia) in the Yugoslav Experiment

In his text on the "Four Cities", Neidhardt explicitly assigned this geographic-economic complexity to "regionalism" and "regional planning." Resolving problems in their totality, he claimed, meant observing them "regionally." Therefore, the "way" represented in the book was "from the detail into the whole and vice versa, from interior into architecture, from architecture into urbanism, from urbanism into regionalism."⁷³ In this text, that could have been written as late as 1955, Neidhardt prefigured the Yugoslav institutionalization of regional planning that started in 1957, the same year of *Architecture of Bosnia's*

publication. The discussions held in Arandelovac at the 6th Conference of the Association of Yugoslav Urbanists⁷⁴ brought together long-established issues of socio-economic planning and the technical expertise of architects.

The beginnings of socio-economic planning in Yugoslavia were tightly bonded to the (politically determined) Soviet role models. Both the administrative-territorial organization of the Yugoslav “planning commissions” and the first Yugoslav Five Year Plan, launched in 1947, were conceived thoroughly under the influence of the Gosplan, the State Planning Committee of the USSR. Two channels of knowledge transfer were particularly important: the counseling services of the economist Ivan Yevenko, and the early translation, already in 1946, of the classic pamphlet “Socialist Planning of the National Economy of the USSR” by the economist Aleksandr Dmitrievich Kurski.⁷⁵ What made Kurski’s pamphlet particularly suggestive, however, was that it situated the overwhelming subject-matter of planning inside the recent Soviet experience, particularly in relation to the third Soviet Five Year Plan, its only partial execution in the wake of the Second World War and the rationalities behind the war-time planning maneuvers.

Completed and launched in 1938, the third state economic-social plan of the USSR was marked by a particular focus on refining the methods of approximation between economy and geography: specific planning indicators were defined for each region according to its geographic and economic features.⁷⁶ Kurski suggested a twofold principle of efficiency and equality, tightly bounded with the economic regionalization. Indeed, the partitioning of the state territory into “economic regions” was considered one of the most important methodological economic planning tools.⁷⁷

Both of these principles of territorial rationalization were associable with the disurbanist stream of thought in urban planning theories. From the Garden City movements across Europe to the Regional Planning Association of America, planners argued for a more territorially balanced distribution of industries and a more moderate, geographically conditioned concentration of resources, production and workers’ settlements. In the USSR,

however, this argument was underpinned by the Leninist demand to “end the division between town and country” and therefore bore considerable ideological undertones. The third Five Year Plan in particular, was characterized by the Communist Party’s directive to balance the level of development of the regions and the consequent focus of the Gosplan on the distribution of industry in the underdeveloped Russian East, particularly in the small and medium-sized cities.⁷⁸

Finally, as many other post-Second World War economists, both of the USSR and of the Anglo-Saxon economic theory, Kurski sought to draw clear conclusions from the recent experience of coordinating economic aspects with the war-effort⁷⁹: “the military intervention of the foreign states, as well as the civil war, set new tasks for planning which became powerful tool of mobilization of all resources of the land and all efforts of the people to defend.”⁸⁰

Efficiency (of extraction, transportation, production), equality (in regional development levels), and security (of economy in general) were, therefore, three principles of territorial rationalization that transpired from the first translated literature on economic planning available to the Yugoslav emerging planning workforce. The Federal Planning Commission (abbreviated FPC in the remainder of the text), the principle socio-economic planning authority in Yugoslavia, not only based its first Five Year Plan on these experiences and principles established by the Gosplan, but also propagated them explicitly in their meetings with professionals from all realms of expertise, including architects and engineers.⁸¹

The elimination of economic disparities became a particularly pronounced aspect of the “Yugoslav Experiment” in the 1940s and 1950s. The official position of the Yugoslav Communist Party (abbreviated CPY in the remainder of the text), at the onset of the First Five Year Plan, was that “the idea of an integrated socialist economy was incompatible with economic inequality among the republics.”⁸² The economic disparity between the developed North (Slovenia, Croatia and North Serbia) and the underdeveloped South (Bosnia-Herzegovina, Macedonia, Montenegro and South Serbia) was considered to be an

unfortunate consequence of the capitalist regime of the Kingdom of Yugoslavia and planning commissions were seen as a crucial institutional asset in the pursuit for equality.⁸³ In 1947, Edvard Kardelj, one of the leaders of the CPY, claimed that “all those foreign technocratic schools of urbanism (...) still somewhat confuse our architects and urbanists, and disturb them in fully understanding our tasks in the realm of building of our cities and villages.”⁸⁴ In his much-reproduced speech, held at the Conference of Representatives of the Ministries of Communal Affairs and Secretaries of County and City People’s Councils, Kardelj observed that in the new Yugoslavia there will be a “gradual disappearance of the difference between the center and the periphery of cities, that we inherited from the capitalist society.”⁸⁵

In spite of its declarative egalitarian pursuit, however, “Yugoslavia was unable to solve the problem of uneven development, and had in fact further increased centralization of economic resources.”⁸⁶ The first Yugoslav conceptions of regional planning that started being defined in mid-1950s were largely addressed to this inability to control economic and territorial disparity by other means.⁸⁷ Juraj Neidhardt’s difficult experience with the territorial rationalizations in Zenica and the Brod cities could be understood as a part of the problem that the Yugoslav regional planning was meant to resolve. In his text “Four Cities” Neidhardt made several general observations about urban planning, based on his working experiences. He noted the imposed prioritization of industry over workers’ living conditions in Zenica⁸⁸ and how in Brod the urban planning “components” were persistently “followed by the economic components.”⁸⁹ His reference to “regionalism” as an answer to the “totality” of planning problems was therefore also an appeal for some form of control over these relentless rationalizations.

However, what arguably gave this appeal an even greater urgency than the urban planning endeavors described in the book, was Neidhardt’s experience of its material production. Being a Bosnian-Slovenian enterprise, the literal making of *Architecture of Bosnia and the Way to Modernity* was an exceptionally colorful example of the center-periphery political-

economic relations and the ways in which the Yugoslav socio-economic restructuring influenced it. These two republics were typical representatives of the statistical range of the Yugoslav economic development: Slovenia was not only the most economically developed, but it also persistently showed the highest rate of economic growth in the federation. Bosnia and Herzegovina was amongst the underdeveloped and slowest-growing economies of Yugoslavia.⁹⁰

In administrative and business terms, the *Architecture of Bosnia* project started as a part of the Slovenian program of educational publications, and was initially supported by appropriate republican funds. As an assistant professor at the Faculty of Architecture in Ljubljana, Dušan Grabrijan applied for the publication of his manuscript to its Commission for Publications in 1949. As a “significance” of his work he quoted “addressing/cultivating our architectural heritage.”⁹¹ The approval of the project on the Commission’s part was certainly due to Grabrijan’s good academic reputation, but was also an act of the Slovenian political-economic solidarity with Bosnia and Herzegovina. The political organization of the Yugoslav federation as a modern socialist container for a mosaic of distinct ethnic cultural particularities was a conscious political determination of the socialist leadership: rather than building the nation of South Slavs, they sought to assemble a variety of different cultures by means of modern physical and governmental infrastructure.⁹² Slovenian and Bosnian cultures had little in common: their languages, ethnic compositions, political histories, and also their vernacular architectures, were certainly very different. The publication of a book about Bosnian architecture by the principle Slovenian state publishing house Državna založba Slovenije (abbreviated DZS in the remainder of the text), its acceptance as promotion of “our architectural heritage”, and its financing from the precarious republican post-war budget, were all good examples of the more inspiring aspects of the Yugoslav Experiment.

However, if the centrally established policy of ethnic and economic solidarity facilitated the start of the project, the centrally managed state economic planning complicated its

execution. The unusually long production of the book was partially due to the contradictions and difficulties associated with the radical overhaul of the traditional industrial and professional modes of organization that the planist regime imposed in all of the socio-economic realms. As soon as the Law on the Five Year Plan was endorsed in the National Assembly in June 1947, its most readily enforceable aspect started making impact: the efforts to increase the productivity of work in all industries.

Only months after the endorsement of the Law (and while Dušan Grabrijan was possibly only contemplating the first outline of his initial text about the Oriental House in Sarajevo), Maks Blejec, the experienced and highly esteemed Slovenian manual typesetter, wrote a range of reports for the Main Directorate of Graphic Industry of Slovenia, in which he established an explicit functional relationship between normativity of the working operations and products, the reduction of product prices and, in the final instance, “fulfilling the plan of accumulation and therefore electrification and industrialization of our state.”⁹³ However, establishing production norms in graphic industry, both of working operations and finished products, proved to be controversial. Publishers argued that the wholesale “industrialization” of the graphic business was impossible. It was wrong, they claimed, to set standards for typesetting.⁹⁴ The typesetting operations, which often resolved important aspects of the layout design of printed matter, were difficult to standardize without the loss of the essential quality of the work. Books, in particular, were difficult to treat as mass-produced industrial items because of the complex making process and extreme variety in both form and content.⁹⁵

The reduction of the design aspects of the book-making in order to reduce the production cost was comparable to the homogenization of the architectural production, resulting from the standardization and typification of projects that were under way in the construction industry. The ominous atmosphere of continuous insecurity within which Grabrijan’s and Neidhardt’s book project unfolded (regarding the page count and the paper quality), was at least partially due to the bureaucratic meddling of the state-controlled economic planning

agencies into the DZS's affairs, particularly during the first two years of the book production. At the same time, the counterparts of these agencies in the field of construction industry discontinued the execution of Neidhardt's inter-war project of the modern Bosnian house, and replaced it with the "typical plans" of the Federal Ministry of Construction in order to reduce the construction cost.

Indeed, the standardization and typification in the graphic industry raised many similar issues and problems that were inherent to the standardization in the construction industry: both relied on materialization of more subtle and complex creative-managerial endeavors of publishing and architectural or engineering design. It does not surprise then that the homology between the construction and the graphic industries was noted by the federal state administration. In January 1949, the Federal Ministry of Light Industry organized a joint conference of construction and graphic workers and enterprises, where the production of the nomenclature of norms and production of methodology for technical normativity were discussed. A report titled "Publishing - Graphic Workshops - Main Directorate of Graphic Industry", prepared in Ljubljana in May 1949, explicitly claimed that "publishing we can easily compare with the business of building construction", quoting its dense web of involved agents: "writers, translators, journalists, scientists, proofreaders, architects, illustrators, painters and photographers, and on the other side, printing houses, cliché manufacturers, lithographers, bookbinders, paper, paint and textile producers, and many other professions which are necessary to produce products and half-products that are published by the publishing sector."⁹⁶

This brief period of the centralized socio-economic planning in Yugoslavia was an operative background to the first acute reckoning of the professionals with the rationalizations inherent to the welfare state-led development. The production of the book *Architecture of Bosnia and the Way to Modernity* was a long and painstaking act of defiance of these processes in the realm of book-publishing. While publishers strove to increase, or rather retrieve the inter-war quality of publications, the economic administrators strove to

increase productivity. This is why one publisher was compelled to remind the planning administrators that it was a “matter of quality books, not just the volumes and pace of book production.” DZS reported on another occasion that if publishing was to be compared with construction, then “putting the planning administrators in charge of the coordination of actors involved in publishing is like charging a painter (and not a builder) with coordination of construction.” While the bureaucrats pushed for standardization of finished products in order to align planning of the graphic industry with planning methodology of other industrial branches, publishers claimed that graphic industry was not an ordinary industrial branch but an artistic craft.⁹⁷

Because of its combination of technical and creative aspects of production, construction was indeed an understandably easy referent for the publishers. But if the publishers felt the involvement of the planning apparatus in their production chain was a violent and unproductive interception, what was Yugoslavian architects’ and urbanists’ reaction to the onrush of planism? In distinction to the domain of graphics and publishing, the general efficiency promoted through planning was already a staple of the discourses and techniques of modern architecture and urbanism. Its bureaucratization was therefore bound to provoke reactions beyond mere opposition and restructure both the profession and the discipline in more profound ways.

Indeed, the 1950 Dubrovnik Conference discussed different aspects of socio-economic planning. The first Five Year Plan was designated as a “great construction program” in which architects and urbanists were obliged to take part,⁹⁸ while several conference papers directly addressed the issue of standards and norms in design. Yet, no other contribution prefigured the disciplinary consequences of planism as the two papers presented by the Slovenian Edvard Ravnikar.

Ravnikar’s professional background assembled Grabrijan’s and Neidhardt’s key references: he studied with Jože Plečnik, whose culturally-grounded design approach he inherited and enriched with his own investigations; however, he no less relied on Le Corbusier, in whose

office he worked in the late 1930s. By the time of the conference, Ravnikar had already authored several noted urban plans for Slovenian new towns, as well as landmark buildings and had worked in the Slovenian Ministry of Construction for years. His two contributions that could be described as separate interpretations of urbanism and architecture in the age of planning were therefore based not only on his professional references, but also on the profound and immediate knowledge about all of these disciplinary realms in Yugoslavia.

Drawing on his own planning and design experiences in Ljubljana and the industrial settlement of Strnišče, Ravnikar reconfirmed the major part of the thesis proposed at the conference by his architect-urbanist colleagues: that a close collaboration between architecture and urbanism was essential,⁹⁹ that this collaboration needed to be regionally sensitive¹⁰⁰ and that “cities needed to be developed regionally”¹⁰¹ - on the basis of the “broader analysis of urban issues.”¹⁰² The most remarkable and original element of Ravnikar’s proposal, however, concerned his conception of this regional development: total decentralization of urbanization (consisting of housing and only most essential services) in combination with state of the art transportation technologies which would provide this decentralized population with opportunities of satisfying their less essential needs in the urban centers.

Ravnikar’s model for this kind of organization was Slovenia, which, being historically a transit territory, had already acquired well developed transportation network and had beautiful landscapes that could, as he argued, largely justify the proposal to live non-urbanely. The principal argumentation behind the proposal was, however, purely rational. In the manner of FPC’s “planist” reasoning, Ravnikar argued that this kind of urbanization was considerably cheaper than building classical satellite settlements equipped with all of the necessary services. In the case of Strnišče, a settlement being planned at that time in the proximity of the aluminium production facility in the northeastern Slovenia, Ravnikar proposed that a construction of a dispersed linear urbanization around the motorway, connecting the chosen site and the historic city of Ptuj, would facilitate savings of 28%,

relative to the sum required for the construction of the concentrated settlement. Both this case-study and two more that were described in the report, were elaborated through appendices that contained no drawings, but tables with calculations of the “investment costs.”¹⁰³

While in his first post-war urbanistic regulations, which included a less radical version of the Strnišče plan, Ravnikar relied on “new urban design solutions from Scandinavia and Switzerland”,¹⁰⁴ his planist reference was England, “a classic country of modern urbanism and economic planning.”¹⁰⁵ Ravnikar quoted the British New Towns, a post-war garden city movement-inspired urbanization policy, as an example of an overtly ambitious vision which has proven that expertise had to be revised according to what was realistic in the given moment. By saying that “urbanism as it is practiced today cannot be a dogma for which we should sacrifice valuable resources without optimal success,”¹⁰⁶ Ravnikar argued against conceptual models and for analysis-based expenditure-centered urbanism of the territory.

While that has not been asserted in so many words, Ravnikar’s vision of territorial urbanism was thoroughly subordinated to planism. At the same time, in his other conference contribution which tackled the issue of the disciplinary reorganization, Ravnikar argued resolutely against planism in architecture. After a critical analysis of the disciplinary developments after the war, he condemned all those aspects of the profession that resulted from the organizational efforts of the FPC: “new norms, regulations, rule-books, types, priorities at all levels are nothing else but ever-renewed unsuccessful attempts to execute bureaucratically a work which is not for the bureau.”¹⁰⁷

By arguing for the calculative rationality of the territory and for the liberalization of the architectural profession, Ravnikar’s two papers prefigured disciplinary separation of architecture and urban planning in Yugoslavia. Between 1950 and 1957, the Dubrovnik conference participants parted ways and formed two distinct associations;¹⁰⁸ most of the key inter-war disciplinary figures of architect-urbanists retreated from urban planning into teaching and the denomination of “urbanist” came to be occasionally replaced with that of a

“planner.” Meanwhile, architectural production was decentralized through the new professional organization into independent self-managed offices (with freedom of choosing commissions and conceptual approaches¹⁰⁹).

While the Dubrovnik discussions largely counted with the circumstances of the state-led rationalizations, these disciplinary changes unfolded under the dual influence of both the state and the market. As the workers’ self-management was nominally introduced in 1950 and the FPC dismantled in 1951, the CPY announced the beginning of the rule of “objective economic laws” in 1952.¹¹⁰ In this same year, the established regional economic convergence policies started being reduced.¹¹¹ These reforms were immediately registered by the multi-valent politics and economics of the *Architecture of Bosnia* project.

In July of 1951, the publisher notified the authors that the book was too expensive to be produced and that the additional sources of funding needed to be explored.¹¹² By the end of 1951, they reached an agreement that appeal should be made to the Bosnian government to co-finance the production of the book (given that its subject matter concerned Bosnian architectural heritage).¹¹³ To be able to do this, however, Neidhardt requested that Serbo-Croatian translation of Grabrijan’s original Slovenian text be included in the book.¹¹⁴ This discrete inclusion of politics of identity into the rationelle of profitability on the part of the publisher had one ultimate goal: to reduce the financial strain imposed on the enterprise and, by the same token, reduce the final price of the book.

In February of 1952, the Bosnian government approved 500.000 dinars worth of subvention.¹¹⁵ The English translation of the part of the text was agreed upon, most probably on the basis of these newly-acquired resources. The arrival of Le Corbusier’s flattering foreword to the book in June coincided with the popularization of his public profile and *oeuvre* in Yugoslavia, due to the announcements of his exhibition that was planned for opening in Belgrade in December. This resulted in the increase of the Bosnian subvention for the production of the book by additional 800.000 dinars. ¹¹⁶¹¹⁷ As this generosity of the Bosnian government was a direct result of Neidhardt’s social skills

and connections in Sarajevo,¹¹⁸ his negotiating position was strengthened, and he demanded that 50 additional pages be added to the book, in order to be able to present a greater number of his projects.

Although the subvention contributed to the financial security of the project, the DZS needed additional reassurance in terms of its commercial potential. Already in April of 1953, the publisher advertised the book in the Slovenian architectural journal *Arhitekt* and offered it to its readers at a reduced price of 1000 dinars for pre-orders¹¹⁹(Figure III-08). The ad also announced that the publication of the book was planned for “the end of the year” and that the regular price was to be set at 1250 dinars.¹²⁰ While the ad promised a book that would “reveal to us the great spatial and visual riches of the Bosnian oriental architecture and give us an impulse to enrich our contemporary architecture with it,” it mostly relied on the commercial potential of Le Corbusier’s public profile. It featured a quote titled “From Le Corbusier’s Foreword,” reminding the readers of Le Corbusier’s professional history with Neidhardt, and of his visit to Yugoslavia during his *voyage d’Orient*, when he “loved its landscapes, its houses and its people.” The quote also included Le Corbusier’s judgement about the book as having “great emotional, technical, aesthetic etc. eloquence.”¹²¹ Other elements of the commercial interest emphasized by the ad were the Serbo-Croatian text, “400 pages on paper for art print” and “600 photos, drawings and sketches in one-color and multi-color print.”¹²²

Five months after the promotional ad was published, however, only 60 subscriptions were sold, which was judged as “not the best” rate.¹²³ Meanwhile, Neidhardt gave little attention to the question of the honorarium that the DZS owed to him;¹²⁴ he hired a proofreader in Belgrade and two architects in Ljubljana to check the English translation of the text at his own expense; he personally financed the production of the visual material (particularly photographs) and bought generous gifts for the DZS’s production team working on the book. Contrary to the economic efficiency featured in his architectural and urbanistic conceptions, Neidhardt seemed to have been thoroughly disinterested in the commercial

aspects of the book-project. By March of 1954, the number of subscribers rose to 108.¹²⁵ However, in April of the same year, DZS agreed to Neidhardt's initiative to produce the book as a fully bilingual edition, both in Serbo-Croatian and English.¹²⁶ The publisher obviously anticipated that the book would be internationally relevant in its final form, yet this new conception increased its financial burden once again.

This new dynamics that the new agency of the "objective economic laws" imposed on socio-economic relations in Yugoslavia was difficult to accept for the CPY. The communist graphic workers of Slovenia, for example, assembled in 1954 to discuss the need of maintaining the business profitability, while keeping in mind the ideological importance of the daily newspapers and the need to reduce prices of books, relative to the living standards.¹²⁷ As the publishers and the printshops applied these principles in production, the *Architecture of Bosnia* project was halted once again in March of 1955, when Neidhardt was informed that a further sum of 500.000 dinars¹²⁸ was necessary to complete it. Print in color was cancelled in order to save 300.000¹²⁹ and Neidhardt was asked to provide additional 200.000 dinars.¹³⁰

Neidhardt's financial contributions to the project must have entitled him to insist further on taking time to perfect those aspects that he deemed important.¹³¹ The last two years of the book production were chiefly spent on Neidhardt's work on the layout design for his portfolio, which he referred to as "Renaissance." After all of the negotiated additions, the inclusion of the integral English translation and the exuberantly plentiful visual material, Neidhardt's portfolio was 185 pages long. By December of 1955, the number of subscriptions had increased - around 300 books in Serbo-Croatian were pre-ordered, which represented almost a third of the planned print-run of 1000 copies.¹³² In February 1957, Neidhardt pre-ordered 100 copies himself, and accepted that the honorarium for his work on the layout be paid by additional 38 copies.¹³³

The ratio between secure gains and expenditures related to *Architecture of Bosnia* therefore changed dynamically throughout the 1950s. As a result, color printing was reintroduced to

the financial plan in 1956 (two colors) and finally fixed in 1957 as the definite four-color scheme. As discussed in Chapter 1 of the present thesis, the inclusion of color in the book was one of the decisive layout design aspects for the author - a determinant of ambience which Neidhardt deemed to be a crucial resource of the medium as the message. In the process of book-production, however, it became a factor which, amongst others, controlled the profitability of the project.

Despite all of the calculations, the book turned out to be a financially non-lucrative affair for both Državna Založba Slovenije and Juraj Neidhardt. Already in late 1955, one of the DZS's representatives reported that the production of the book demanded huge expenditures on the part of the publisher: the hitherto expenses amounted to 7 million dinars,¹³⁴ less than a half of which was covered by the Bosnian and Slovenian government. When the moment of publication finally arrived in late 1957, the only financial valve still available for the publisher to stabilize the ratio of gains and expenditures (or, in other words, pursue "the profitability principle") was the setting of the price of the book.

If determined according to the production expenditures, this price amounted to the incredible 7000¹³⁵ dinars. In November 1957, one month before the publishing, Ćiril Vidmar, the director of the DZS Editorial Department (and de facto boss of the enterprise) travelled to Sarajevo to personally request additional funds for the book from the Bosnian government, in order to reduce the final market price per copy. He was not successful. The Slovenian government, in turn, promised the additional 1.5 million dinars of contribution to the project, which permitted the DZS to promise the authors that the final market price of the book will be reduced to 3.500¹³⁶ dinars per copy.¹³⁷ However, this promise materialized only partially, and in January 1958, Neidhardt received unpleasant news from Vidmar: the Slovenian government had reduced the promised subsidy and, in response, the DZS had to increase the price to 4.500 dinars.¹³⁸¹³⁹

The fact that this price was astronomical in relation to the Yugoslav living standards becomes clear upon its comparison with the prices of other books published by the DZS in

mid-1950s. Between 1955 and 1958, DZS published around 430 publications, only 1.6% of which surpassed the price of 2.000 dinars. No other book, but *Architecture of Bosnia*, surpassed the price of 3.000 dinars. The catalogue of the DZS publications for 1957 also offered a 7.000 dinars worth luxurious variant in leather binding (Figure III-09). Given that Slovenian books were the most expensive on the Yugoslavian market,¹⁴⁰ it could be said that DZS's and Neidhardt's production venture resulted in the most expensive book in Yugoslavia in years. This was significantly consequential for the circulation of the book.

At least in Bosnia, the bookshops avoided ordering *Architecture of Bosnia* without previously securing buyers through pre-orders. It is rightful to assume that the situation was similar, at least in the cities across the "underdeveloped South." Neidhardt tried to counter this "revenge" of the market by putting all of his efforts into the promotion of the book. He campaigned in Sarajevo to make the book-sellers order the books in order to minimize the potential losses of the publisher. He gave away his copies, mainly to the important communist officials in Bosnia and Herzegovina, to colleagues in Yugoslavia, but also sent some abroad. Already in December 1957, he sent one copy to Le Corbusier, who answered a month later, praising the book and asking for another copy for his office.¹⁴¹ Two other copies were sent to the French architectural journal *L'Architecture d'Aujourd'hui* and to the Royal Institute of British Architects. Both sent polite letters in return. Mili Neidhardt complained in one letter to Nada Grabrijan about the entire "capital" that was given away in the form of these book-presents. "Many merely congratulate and expect the book as a gift, because it is so expensive,"¹⁴² she explained.

For the publisher, the book was not merely another accomplished project: its technical complexity was an advertisement for the capabilities of the Slovenian graphic industry and "Državna založba Slovenije" was "very proud of the achievement."¹⁴³ Without being massively distributed, *Architecture of Bosnia* found its way to the specialized audiences with real interest in the subject matter. As a manifesto and a propaganda of a particular approach to architecture, however, it was less successful. While its price surely influenced

this outcome to a certain extent, it was the larger disciplinary circumstances of the late 1950s that made its subtly geographic theme alien to the mainstream architectural discourse and discussions.

3.3 The Elusive Region of Regional Planning

Neidhardt's brief reference to "regionalism" in *Architecture of Bosnia* was followed by an intriguing declaration. "On the initiative of the professor J. N.," he claimed, "a group of architects is organized who are working on four profiles through our country: Slovenia-Istria, Croatia-Litoral, Slavonia-Bosnia-Dalmatia, Vojvodina-Serbia-Macedonia."¹⁴⁴ Accompanied by a map of Bosnia's natural riches and a photograph of the "symbols of mining and metallurgy: human and steel arm", the idea of "national profiles" implied the ultimate unification of the Yugoslav regional spaces with the economically calculated national territory (Figure III-10).

Although no other testimony about this grand vision of a pan-Yugoslavian disciplinary project survives, its context in the book compels one to imagine it as the reinforcement of the Yugoslav "spaces in the regions," connected into chains of economic operations. If combined with such a "profile," the regionalist methodology of design represented in the book would have acquired architecture's full integration into geography. The representational techniques which sought to systematically relate geography and architecture figured in Neidhardt's work in different guises. Years later, Neidhardt drew a range of connected valley sections representing different regions "from the Sava to the sea" (Figure IV-36), as a part of his project for the Tourist Highway (described in the fourth chapter of the present dissertation). He also occasionally drew "valley elevations" (Figure I-27 and Figure III-11) which represented different types of buildings and activities in relation to their geographic situation.

The valley section had long before Neidhardt's drawings been employed as a representational technique to argue for urban and social "evolution," which brings

geography, economy and “way of life” into a perfect union. Scottish geographer and planner Patrick Geddes devised the “valley section” diagram (basing it on the work of both pioneering French sociologist Frédéric Le Play and French anarchist geographer Élisée Reclus.)¹⁴⁵ His theoretical work was most concretely applied to planning by the Regional Planning Association of America that understood the region as a “conceptual form of wholeness”¹⁴⁶ and the “unit of environment.”¹⁴⁷ In their view, the region was to be understood “not simply as a territory on an intermediate scale, but ‘as a value’ and a “‘geographic reality’, both naturally and humanistically defined.”¹⁴⁸ Although Neidhardt’s conception of “regionalism” was not as explicit, his usage of the “valley section,” his geographic references and his general organicist logic of “integration” into a whole, resembled this “organic ideology” of inter-war regional planning. The notion of regionalism developed in the book *Architecture of Bosnia* implied that architecture could be integrated into such geographic economic wholes by means of “unwritten laws” (defined and codified in each different region) and regional planning.

By mid 1950s, most Yugoslav architects accepted the idea of a new sub-discipline of regional planning as a scientific set of techniques capable of connecting urban plans and, ultimately, architecture, with geographies. Regional planning was a topic discussed in the conferences of urban planners of Yugoslavia, organized independently from 1952. As the “region” was being defined as a “scientific” and technical term in urban planning, the simultaneous liberalization of architectural design resulted in an increasing number of exquisite architectural realizations. However, the idea of coordinated disciplinary action of design and planning under the banner of the Yugoslav specificity, so prominent in the Dubrovnik conference, was a thing of the past. The publication of the first conference of the Federal Union of the Associations of Yugoslav Architects held in 1958 opened with a quote of a writer and literary critic Milan Bogdanović, which celebrated “competition of qualities” in creative work, and argued that without struggle of opinions, quality could not reach the

desired heights. The quote closed with the conclusion that “that kind of struggle for quality in full freedom we truly have today.”¹⁴⁹

When *Architecture of Bosnia* was published in December of 1957, its “unwritten law”-based design was a direct opposition to this newly acquired and celebrated “freedom.” Perhaps somewhat ironically, the only comparable model of disciplinary organization was the visionary planning system of “Synthurbanism,” proposed by avant-garde architect and artist Vjenceslav Richter. Referring to the specificity of self-managed socialism, the efficiency of communication, production and provision of services, Richter imagined a mega-structural urban unit in the form of a ziggurat for 10 000 inhabitants. Starting from the opposite premise of total detachment from geography, Richter devised a system that brought back design and planning, disciplined and coordinated architects’ work and “harmonized” not only the cityscape, but also the territory. Richter indeed claimed that “Synthurbanism” was a proof that “intimate bonding between authentic nature and high urbanization” was possible.¹⁵⁰ (Figure III-12) If *Architecture of Bosnia* sought to devise a system of the regional integration of the discipline, then “Synthurbanism” sought to define the territorial.

Although published only in 1964, the concept had been in the making since the mid-1950s. Its idea of a territorial synthesis of architecture and urbanism was therefore a part of the same disciplinary climate that resulted in the first focused attempt to turn enthusiasm for regional planning into a set of disciplinary principles and techniques. In May 1957, the 6th Conference organized by the Union of Yugoslav Urbanists in Arandjelovac explored the theme through a set of reports by some of the most authoritative urban planners in Yugoslavia.

The introductory paper, titled “Economic Laws of Urbanization and Regional Planning”, presented by Slovenian architect and urban planner Marjan Tepina, opened by reminding listeners that since 1951 “the development of our socio-economic system was characterized by tendencies the goal of which is liberation of agency of objective economic

laws.”¹⁵¹ Tepina claimed that regional planning was crucial to these new circumstances and explained its relation to urbanism. While he proposed that urbanism could be understood as an independent method of economic planning to which political economy was crucial, he also posited that it should not lose its artistic sensibility. To be able to continue adhering to the plastic spatial concerns (which were inherent to urbanism and were able to track down “cultural needs and propensities” of a “whole man”) in the realm of regional planning, “it was important for urbanists to master the bases of those laws of economics and techniques that are solid foundation to every economic planning.”¹⁵²

Tepina’s dual concern - for both economics and the plasticity of the territory - emerged from the same intellectual milieu that was described above: while the idea that “the artistic method” and “principles of culture” determined urbanism came from Jože Plečnik, with whom he studied, the rudiments of “geo-economics” in Tepina’s proposal must have been assembled as combined influences of Le Corbusier, for whom he worked between 1938 and 1939, and planist discourse and practice, in which he was engaged through the involvement with institutions such as Ministry of Construction, Council for Construction and Communal Works and Institute for Economic Planning. The kind of a new hybrid expertise that Tepina wanted to create, however, had an ambiguous object of inquiry. While he clearly stated that the emergence of urbanism into the territory referred to the “economically determined geographical space”¹⁵³ in the realm of the economic analysis, the method of the artistic approach to territory remained untackled.

The most elaborate methodology of the regional planning in Yugoslavia at that moment was hardly more concrete in this respect. Devised by the Urbanistic Institute of Croatia and presented in another conference report, it prescribed that the phase of “regional spatial planning” was to be followed by the phase of “regional spatial design.”¹⁵⁴ Leaving the design aspect aside, the report focused on providing an extensive and precise list of analytical aspects on which planning was supposed to be based (natural conditions, population, economics, energy)¹⁵⁵ and endorsed the principle of “decentralization and integration of

industry and agriculture” as a way to “bring the region and its elements into an organic order.”¹⁵⁶ In this, the report quoted neither foreign nor domestic socialist ideologues, but rather German architect-urbanist Ludwig Hilberseimer, whose work underwent a territorial turn after his arrival to America in the 1940s.

Hilberseimer’s most complete statement on regional planning was presented in his 1949 book *The New Regional Pattern*.¹⁵⁷ The integration of agriculture and industry as a concept was associated with two ideologically opposed references: Russian anarchist Peter Kropotkin and American industrialist Henry Ford. In Hilberseimer’s account, Kropotkin’s idea of “scattered factories in the fields” promoted regional economic self-sufficiency and independence from centralized government based on new energy sources, new technologies and skilled labor; meanwhile, Ford’s decentralized industrial villages showed that that kind of thinking was possible and viable also in capitalism.¹⁵⁸

Neither one of these two references, however, grounded the planning operation geographically, which was what Hilberseimer demanded. This grounding was facilitated by another reference, on the basis of which Hilberseimer developed his idea of the region and its profound importance for planning: Patrick Geddes’ organic conception of the region, epitomized by his valley section. Wherever applied, he claimed, the valley section would “bring about the definite and natural relation of each part of the region to all other parts,” by assigning to each part “elements of complete living - the natural products, the suitable occupation, the localized type of worker with his family life.”¹⁵⁹

This reference offered geographic basis for Hilberseimer’s condemnation of the overt regional specialization of industries and his demand for diversified and well-balanced regional economy in which a self-sufficient region does not import what it can itself produce. On top of this geographically-grounded conception, however, Hilberseimer laid out his “patterns” of three schematic “planning systems.”¹⁶⁰ Akin to the geometricized aesthetics of Vjenceslav Richer’s territorial order, the “plasticity” of Hilberseimer’s planning was the one of “organization,” wedded to the geographic “order”, less by the

qualities of the landscape than by means of rational distribution of the factories and the fields.

While architect Branko Petrović and his colleagues from the Croatian Urbanistic Institute nominally inherited Hilberseimer's dictum of industry-agriculture integration (along with its ambiguous ideological references¹⁶¹), they promoted "methodology" sustained from the explicit systemic prescriptions regarding the plastic aspect of planning. The aesthetic qualities of landscape, recorded by architect-author's own camera, were recognized and presented merely as "recreational and tourist attractions¹⁶² (Figure III-13). However, the publication of the regional spatial plan of the county of Krapina, on which the methodology was based, suggested that a certain level of monumentality was associated with what represented the most original feature of Petrović's and his team's approach: loosely inspired by Walter Christaller's theory of central places, the authors took a resolute decision of making basic services available to each and every citizen of the territory by assuring that the farthest consumer's position relative to the service center is less than one hour of walking distance. The ideological significance of this organizational act was, however, made comprehensible only vaguely at the level of settlement planning, to which a rather conventional, picturesque perspective view of one of the Krapina county service centers testified (Figure III-14).

An effort to maintain relevance of the aesthetic aspects of architectural knowledge in regional planning was much more concrete in the third report presented in the Arandjelovac conference by one of the most important Serbian modernist architects, Nikola Dobrović. Regional planning, Dobrović claimed, was "plastic sculpting of space on all possible scales;"¹⁶³ through it architecture has overcome itself and became "macrourbanistic architecture," the instruments of which now were: "roads, railway, tracks, dams, artificial lakes, plantation units, saltworks, vineyards, forest stands, pastures, canals, etc. as well as natural formations."¹⁶⁴

Consistent with his signature style of imposing erudition and avantgarde contemplation, Dobrović likened the efforts of the emerging field of spatial planning to “warfare in peace.” Not only that planning and war, as he claimed, shared resources and methods, but it was also the two world wars that “demonstrated the consequences of saturation of space by technical-economic facilities.”¹⁶⁵ As soon as peace was established, “study and coordination of these forces, according to some kind of principles, became the task of the day.”¹⁶⁶ Dobrović, who, like Neidhardt, retreated to academia after a brief and unsuccessful attempt at practicing urbanism under the circumstances of the new socio-economic order, maintained his involvement and authority in the Union of Urbanists, despite his obvious reservations about its achievements: he characterized the Yugoslavian planning practice as schematic, rectilinear, dominated by engineers and economists and reduced to the “merely rational factors.” The time has come, Dobrović claimed, for the architect-urbanists to re-emerge in the field and pose a question of “irrational factors, a myriad of which exists in spatial planning.”¹⁶⁷

Just like his fellow architect-urbanists in the Dubrovnik conference (at which his absence was much lamented), Dobrović foregrounded the specificity of the Yugoslav political conception to call for creation of “our own school of spatial planning,” adjusted to this specificity.¹⁶⁸ Although he claimed that neither Eastern nor Western endeavors contained enough reliable elements in this area of expertise which could be readily incorporated into the Yugoslav practice, Dobrović did refer several times to the book *La Maison des hommes*, by Francois de Pierrefeu and Le Corbusier, translated to Serbo-Croatian in the previous year. While he quoted *ad verbatim* several passages from de Pierrefeu’s text which described the chaos of the capitalist social-economic order and its territorial consequences, Dobrović silently incorporated various other conceptions and terms from the book.

Written while Le Corbusier and his circle of syndicalism-inclined intellectuals collaborated with the Vichy regime, *La Maison des hommes* described the program for a thorough reform of the French construction policy, administration of construction and disciplinary

instauration of architecture and urbanism. The book propagated an “expedient disposition” of the entirety of the French “built domain” on a “national scale,” with “ a geographical basis” and “a view to general efficiency.”¹⁶⁹ Along with *Sur les quatre routes*¹⁷⁰ and *Les trois établissements humains*,¹⁷¹ *La Maison des hommes* documented the general territorial turn of Le Corbusier’s thought on urbanism in the 1940s. While conceptions such as the compact metropolitan densification through highrises, the resolute rejection of the garden city model, integrated national transportation networks, linear industrial cities and agricultural grids were discussed and advocated in all three publications, *La Maison des hommes* further substantiated the ideas on the organization of the built environment with a proposal of the disciplinary organization necessary to further elaborate and execute these ideas.

What Pierrefeu and Le Corbusier imagined was a national Corporation of Architects, which would operate according to a fixed set of principles - “a doctrine of the built domain” (turned into a national law) and “rulebooks tuned to different aspects of human geography and demography.”¹⁷² The Corporation would “intervene” by “sifting critically” the projects that would be submitted to it from the outside and by conducting scientific research “applied to the art of building.”¹⁷³ Indeed, the resonances between Le Corbusier’s syndicalist model of architectural production and the early Yugoslav attempts to centrally organize architectural profession must have been obvious to Dobrović. After all, it was him who, already in 1945 (and before the activities of the FPC set off the institutionalization of planism) proposed the formation of the great central Yugoslavian urbanistic institute which was meant to create and direct the entirety of the national urbanistic policy, from the regional to the neighborhood scale.¹⁷⁴ While this proposal was rejected because of its overt centralism, the planist impulse towards standardization and efficiency resulted in the institutionalization of the Federal Commission for Revisions of architectural and engineering projects, as well as Federal Institute for Construction, which essentially enacted some aspects of de Pierrefeu’s and Le Corbusier’s Corporation. In the background

of such disciplinary organization, *La Maison des Hommes* imagined a political-economic organization which closely resembled the one of Yugoslavia: “end of economic liberalism,”¹⁷⁵ “quasi-closed economy,”¹⁷⁶ “mobilization of the land” through the unlimited expropriative powers of the state,¹⁷⁷ endless powers of planning and total extermination of land speculation.¹⁷⁸

These similarities are less surprising if the circumstances of the production of *La Maison des hommes* are taken into account. In 1941, both Le Corbusier and de Pierrefeu started working for the Committee for the Study of Building of the Vichy government (renamed Committee for Studies of Housing and Construction in 1942), which was in charge of formulating a national building policy and involved in creating France's first large-scale economic plan.¹⁷⁹ However, just like in the case of the Yugoslav architect-urbanists in the Dubrovnik conference, the ideas that they propagated were not new, but emboldened and inflated by the enhanced operational possibilities of the centralist state. The potent interventionism of the Vichy government provided a fitting administrative framework within which further development of the neo-syndicalist ideas about the comprehensive and coordinated planning of both the city and the countryside was possible.

While Le Corbusier's neo-syndicalism was an attempt to ground architecture, via human geography (and syndicalist economic organization) into an organic order, the horizons of organization opened by the centralized state pushed this propensity towards organic integration to a yet another level: what was propagated through de Pierrefeu and Le Corbusier's Corporation was an organic national integration of architecture as a discipline, via geography. In both cases, geographic region was key to this integration, but to decipher its specific qualities, the Corporation, with its bureaucratic and analytical mode of work was insufficient. That is why *La Maison des Hommes* introduced another agency into its organizational scheme - The Director.¹⁸⁰

The final chapter of the book, dedicated in its entirety to this figure, opened with the description of the arboreal diagram titled “Tree of the built domain” (Figure I-52). In the

strict sense of the order established by the diagram (analyzed in the first chapter of this dissertation), the Director occupied the position in which the central branch of the “general doctrine” met “the arch of the application to concrete reality” and joined the trunk of the tree.¹⁸¹ While this central position in the organization of the built domain demanded that the Director be “the first in his craft”¹⁸² (a superior technician), the main talent and task of this figure was mediation between geography and further human undertaking.¹⁸³ Although the tree of the built domain was a unified national tree, which implied that there was one national Director in its center, the text clarified that this figure could, in fact, be regional: “he is in the center of each region, (...) declaring the plastic law of the landscape, choosing its attire in accordance with the local sun, with the climate of the prospect, with its history, with specific race and specific culture which it feeds.”¹⁸⁴ This is why the Director was required to be a great connoisseur of human geography (“that science above all other sciences”¹⁸⁵); this knowledge would allow him to develop conceptions that would fit “in that genius mosaic of the regionalism of France.”¹⁸⁶ Importantly, the Director was expected not only to integrate the general doctrine into the regional specificity, but also to establish a balance between “the State and the Region, between the Region and the Corporation.”¹⁸⁷ The book, however, offered no technical guidance for these integrations. The only way for the Director to work with the regional specificity, as was suggested in the final pages, was to “supersede the rational.”¹⁸⁸

This operation, presented as a principal talent, truly a function of this “poet of the soil”¹⁸⁹ was picked up by Nikola Dobrović from de Pierrefeu’s and LeCorbusier’s text, and presented in the Arandjelovac Conference as the lacking aspect in the ongoing Yugoslav planning endeavors. For a new figure of the planner to be created, Dobrović proposed, the “irrational factors” needed to be incorporated into his work.¹⁹⁰ What Dobrović meant by this can be discerned by considering his contribution to the “city-forming” (one of his many original idiomatic inventions) of the Yugoslav capital Belgrade, and particularly the way in which he presented it as his urbanistic magnum opus in his first book *Urbanism through*

the Centuries I - Yugoslavia, published in 1950. While its original idea was the presentation and celebration of the “mosaic” of diverse Yugoslavian city-building traditions, Dobrović finished the documentary part of the book with his Belgrade urbanistic portfolio. Similarly as Neidhardt, Dobrović used the narrational linearity of the book to cast his projects as a “natural” extension of the organic historical development of the city.

After presenting Belgrade in the context of the circulation routes between Europe and the Middle East (Figure III-15), he assessed the situation of the city with regard to the “three-dimensional forming of the distant plastic impression.” Dobrović claimed that the specificity of the Belgrade physiognomy resided in its “formula of water surfaces” of the rivers Sava and Danube and made several similarly geographically-minded observations related to his “directive proposals” for various key urbanistic fragments of Belgrade. All of these ideas were represented as perspective sketches or axonometries and used for “palpation of the plastic-functional role” they played in the “organic whole of the city.”¹⁹¹ For example, Dobrović’s proposal for Kalemegdan, a large park situated on the top of the medieval fortress in the center of Old Belgrade, was presented as an answer to a conceptual research question: “should this final outgrowth of the Šumadija range, as geologists call it, defying Europe for centuries, be expressed plastically as an elevated forehead, or should it bow down and adhere to the Danube”? The answer was provided with a drawing (Figure III-15) and a comment: “The sketch represents the urbanistic role of the Belgrade ridge, plastic crest and the Kalemegdan with a forcefully elevated forehead and an unbowed head. The topography of the terrain, the logical urbanistic form of the city and the presence of the idea are fully coherent, thus forming a ruling motif with an agency over the longest possible distance.”¹⁹²

Finally, and again similarly to Neidhardt, Dobrović tried to use the presentation of his Belgrade portfolio to articulate an urbanistic methodology of work that was, as he claimed, uniquely fitting to the needs of the society which “in all its actions thinks and creates in a planned manner.”¹⁹³ Clearly inspired by the opening horizon of what in Arandjelovac he’ll

call “total planning,” Dobrović defined the “guiding principles” of urbanism, the founding one of which was “urbanistic derivation”: “the possibility of fitting and growing-in of smaller spatial segments, in the form of particular secondary compositions in their wider (integral) frame.”¹⁹⁴ The width of this frame ranged, as Dobrović’s projects illustrated, from the widest possible inter-continental scale to the city gravitational area and its geographical region. The “irrational factors” that he will propagate years later, with de Pierrefeu and Le Corbusier, emerged from the mediation between the frame and the “derivatory unit”. From the position of the city at the intersection of international traffic routes to the “plastic agency” of the Belgrade ridge in the Kalemegdan project, Dobrović’s interpretations of the geographic features seemed to serve as bases for this mediation.

While he did not specifically regard human geography, Dobrović closed his book with a cautious announcement: the presentation of the historic urbanistic cultures of Yugoslavia as a mosaic of disparate elements was mostly due to his responsibilities in practice, which made him unable to conduct a deeper analysis of the documentary material. However, Dobrović made it clear that a certain common point of the Yugoslav historical urbanistic production existed and that its identification demanded clarification of the question of folklore, monumentality, climate and terrain, but also contemporary technics.

At that point, the early 1950s, there was only one architect who could judge Dobrović’s hypothesis with enough substance, provided by a similarly painstaking field research of folklore across the Yugoslav lands - Dušan Grabrijan. While at the time of the publication of Dobrović’s book, the conception of *Architecture of Bosnia* was at its height, even more significant coherence to his doubts was provided by the Grabrijan’s aforementioned text “Heritage of the Peoples of the Federal People’s Republic of Yugoslavia in Architecture.” Here Grabrijan, like Dobrović, evoked the conception of a mosaic to illustrate the diversity and richness of “one of the most interesting countries in the world.”¹⁹⁵ “Everything is there,” he claimed: “Byzantine, Orient, Mediterranean and Central Europe.” This kind of land-mosaic was a potential focal point of the new culture, because of the possibility of

“exchange of opinions.”¹⁹⁶ While he rejected the possibility of unification provided by some “common point,” the existence of which Dobrović insinuated, at the very end of his text he claimed that the socialist synthesis on the basis of folklore research was possible through disciplinary organization. Grabrijan quoted precisely Dobrović’s experience, evoked in a recent unidentified article of his, of a seminar-trip taken across Yugoslavia with a group from the Faculty of Architecture in Belgrade. In this article Dobrović reported about his students’ enthusiasm for “our renaissance and baroque” - presumably studied in the Western-most Yugoslav republics of Slovenia and Croatia. On the basis of this and his own experiences in Bosnia and Macedonia, Grabrijan argued that this sensibility for the art of the brotherly “other” within Yugoslavia was key to the discovery of the elements of a Yugoslav synthesis. Just like Serbian students appreciated architectural heritage of their western compatriots, so the Northern newcomers to Bosnia saw riches of the oriental heritage that the locals did not see.

The incorporation of “irrational factors” into planning remained an unfulfilled agenda of the Yugoslav modernist architect-urbanists and no other planning challenge demonstrated the closing prospects of this visionary pursuit for the “Yugoslav spaces in the regions” as the production of the General Urban Plan for Sarajevo (abbreviated GUP in the further text). After a painstaking, decade-long research, the Urbanistic Office of the City of Sarajevo prepared a draft of the GUP Programme and organised an assembly of experts to discuss it, in June of 1961. Just like in Zenica years before, the meeting was attended by the most prominent of Yugoslav urbanists, including representatives of Urbanistic Offices of Belgrade, Ljubljana, Rijeka and Split, but also local urbanists, such as Juraj Neidhardt.

The first two days of discussions clearly demonstrated the centrality of the regional problem. While the assembly discussed and defined the aspects of the plan through calculations, including the number of inhabitants, distances between dwelling and work, rates of settlement densities, numbers and capacities of schools and hospitals and square metres of cultural facilities per inhabitant, the geographic determinants remained an

element of uncertainty. What bounded Sarajevo to the Middle Bosnian Basin as far as Zenica and further, as concluded by the participants, was not so much the movement of people as it was the water supply. The abundant waters of the Sarajevo field that formed the river Bosna were under pressure caused by “serious consumers” in the Basin, such as the Ironworks of Zenica. The discussion concluded that between Sarajevo and Zenica one “Yugoslav prospect” was being created and that no further serious urban planning was possible before the prior completion of the regional plan.

In spite of its serious and critical disciplinary inauguration in Arandjelovac, the Yugoslav regional planning was still a theoretically and practically unsubstantiated subdiscipline in the early 1960. No other methodologically underpinned plans had been produced except the one of the Krapina county, and even that first success was soon relativised, as the county was annexed to the Zagreb county in 1963. However, already in 1961 in Sarajevo, the assembly of Yugoslav experts agreed that regions were a question utterly unrelated to administrative territorial organisation. Branko Kalajdžić, an urbanist from the Urbanistic Office of the City of Split, for example, claimed that the centre of Sarajevo could no longer be in and around the historic core of Bašćaršija, but should be determined “geographically,” relative to the elusive borders of the future region. Yet, this departure from the historic core did not imply a complete detachment of the plan from history. On the contrary, Kalajdžić (who worked in the Urbanistic Office of Sarajevo for years) relied on Neidhardt’s work to criticise the plan for its “two-dimensionality.” Overly impressed by the economic and engineering data, Kalajdžić claimed, Sarajevo’s urbanists had disregarded the “architectural principles, which Juraj Neidhardt has been working on here, for years, dedicating his whole life to these themes, to these spatial architectural principles and they are very clearly reflected in this city. They are missing in this plan.”¹⁹⁷

Emboldened by these comments, Neidhardt spoke to the assembly for the first time only on the third day of their meetings. His main criticism to the plan concerned the conception of the urban circulation network, particularly the main east-west thoroughfare that ran

straight and uninterrupted through the long and narrow valley of the Miljacka river basin, inside of which the city was situated. Neidhardt argued that the main direction of development structured the entire urban space too rigidly, proposing a “much more natural form, similar to the letter ‘S,’ that would grow into the landscape.” The “direction” that should be taken in the planning of Sarajevo was the one of “landscape in the city.”¹⁹⁸

Neidhardt used this opportunity to criticise the contemporary architectural production in Sarajevo: each architect, he argued, worked for himself, “without any shared ideological basis, just as if we were ‘unknown builders’ who knew how to unify.” Yet, this sense, claimed Neidhardt, was lacking: “We all work well, but we do not know how to unify well. That is a typical thing of our civilisation, a lack of the sense of unification.”¹⁹⁹ The reference to unity obviously related to his model of disciplinary organisation, presented in the book *Architecture of Bosnia*. Nevertheless, neither its “unwritten laws” nor projects represented in its pages, could be meaningfully incorporated into the discussion about the “Yugoslav prospect” between Sarajevo and Zenica. This failure to contribute to the General Urban Plan of Sarajevo marked the finalisation of Neidhardt’s disciplinary project, initiated a decade before, through his work on the book.

¹ Grgo Gamulin, “Prostori u regijama,” *Život umjetnosti*, no.1 (1966): 40.

² Ibid.

³ Gamulin, “Prostori u regijama,” 39.

⁴ Gamulin, “Prostori u regijama,” 40.

⁵ Ibid.

⁶ Ibid.

- ⁷ Gamulin, "Prostori u regijama," 43.
- ⁸ Gamulin, "Prostori u regijama," 47.
- ⁹ Gamulin, "Prostori u regijama," 51.
- ¹⁰ Ibid.
- ¹¹ Nicholas R. Lang, "The Dialectics of Decentralization: Economic Reform and Regional Inequality in Yugoslavia," *World Politics* 27, No.3 (Apr., 1975): 320.
- ¹² Alfred A. L. Caesar, "Yugoslavia: Geography and Post-War Planning," *Institute of British Geographers - Transactions and Papers*, no. 30 (1962): 39.
- ¹³ Lang, "The Dialectics of Decentralization," 317.
- ¹⁴ Grgo Gamulin was born in 1910, in the historic town of Jelsa on the island of Hvar, in the Adriatic coast. His place of residence changed frequently, as he moved around the coast and eventually to Bosnia. He started his secondary education in Sarajevo, before moving back to Split.
- ¹⁵ Gamulin, "Prostori u regijama," 43.
- ¹⁶ Juraj Neidhardt, "Zapažanja I - Humana arhitektura," ("Observations I - Humane Architecture") *Čovjek i prostor (Čip)*, No.112 (July 1962): 8; Juraj Neidhardt, "Zapažanja II - Slike bez riječi," ("Observations II - Images without words") *Čovjek i prostor (Čip)*, No. 113 (August 1962):8; Juraj Neidhardt, "Zapažanja III - Igra kupola," ("Observations III - Play of Domes") *Čovjek i prostor (Čip)*, No. 115 (October 1962): 8; Juraj Neidhardt, "Zapažanja IV - Prostor pod vedrim nebom," ("Observations IV - Space under the open sky") *Čovjek i prostor (Čip)*, No. 118 (January 1963):8; Juraj Neidhardt, "Zapažanja V - Kamene spona," ("Observations V - Stone Bonds") *Čovjek i prostor (Čip)*, No. 127, (October 1963):8.
- ¹⁷ Juraj Neidhardt, "Le Corbusier i mi," *Čovjek i prostor (Čip)*, No. 127 (September 1965): 5-6.
- ¹⁸ Ivana Prijatelj Pavičić, "Reflections on the History of Dalmatian Culture and Art in the Immediate Post-War Period," *Il capitale culturale*, No. 14 (2016): 897.
DOI: <http://dx.doi.org/10.13138/2039-2362/1461>
- ¹⁹ Pavičić, "Reflections on the History of Dalmatian Culture," 900.
- ²⁰ Grgo Gamulin, "Integracija u strukturi," *Život umjetnosti*, no.10 (1969): 98.
- ²¹ Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 484.
- ²² Correspondence from Juraj Neidhardt to Dušan Grabrijan, June 1949, Box 5-1, 1949/11 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ²³ Grabrijan and Neidhardt, *Arhitektura Bosne*, 491.
- ²⁴ Grabrijan and Neidhardt, *Arhitektura Bosne*, 495.
- ²⁵ Ibid.
- ²⁶ Francesco Passanti, "The Vernacular, Modernism, and Le Corbusier," *Journal of the Society of Architectural Historians* 56, no. 4 (Dec. 1997): 438-451.
- ²⁷ Laurent Stalder, "On 'Sachlichkeit': Some Additional Remarks on an Anglo-German Encounter," in *Forty Ways To Think About Architecture: Architectural history and theory today*, eds. Iain Borden, Murray Fraser and Barbara Penner (John Wiley & Sons Ltd, 2014), 174-179.
- ²⁸ Stanford Anderson, *Peter Behrens and New Architecture for the Twentieth Century* (Cambridge Mass. and London: The MIT Press, 2000), 216.
- ²⁹ Anderson, *Peter Behrens*, 215.

- 30 "Veliki spomenik slovenskomu arhitektu Dušanu Grabrijanu: 'Arhitektura Bosne in pot v sodobno,'" *Primorski dnevnik*, March 2, 1958. Box 2, 20/5 A DO J, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- 31 H. Belica, "Arhitektura Bosne i put u savremeno: povodom knjige arhitekata Grabrijana i Neidhardta" in *Oslobođenje*, January 15, 1958.
- 32 Andrija Mutnjaković, "D. Grabrijan i J. Neidhardt - Arhitektura Bosne i put u savremeno," *Arhitektura* 12, No. 1-6 (1958): 69-73.
- 33 Mili Neidhardt wrote to Nada Grabrijan about the disappointment with the review. Correspondence from Ljudmila Neidhardt to Nada Grabrijan, September 1958, Box 9, 27/10 Ed, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- 34 Mutnjaković, "D. Grabrijan i J. Neidhardt," 69.
- 35 Mutnjaković, "D. Grabrijan i J. Neidhardt," 70.
- 36 Mutnjaković, "D. Grabrijan i J. Neidhardt," 71.
- 37 Mutnjaković, "D. Grabrijan i J. Neidhardt," 70-71.
- 38 Ibid.
- 39 Mutnjaković, "D. Grabrijan i J. Neidhardt," 72.
- 40 Ibid.
- 41 Oliver Minić, "Veličina i pouka stare zanemarene arhitekture," *Književne novine IX*, No. 59-60 (January 10, 1958): 8.
- 42 Jelica Karlić Kapetanović, *Juraj Neidhardt: život i djelo* (Sarajevo: Veselin Masleša, 1990), 103.
- 43 Resume of Smiljanić's criticism and their rebuttal (unmarked, Juraj Neidhardt's Private Archive, Archive of the Academy of Sciences and Arts of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina).
- 44 Grabrijan and Neidhardt, *Arhitektura Bosne*, 2.
- 45 Grabrijan and Neidhardt, *Arhitektura Bosne*, 6.
- 46 Ibid.
- 47 Hashim Sarkis, "Le Corbusier's 'Geo-Architecture' and the Emergence of Territorial Aesthetic," in *Re-scaling the Environment - New Landscapes of Design (East West Central: Re-building Europe, 1950-1990)*, eds. Akos Moravanszky and Karl R. Kogler (Birkhauser Architecture, 2016), 115-134.
- 48 Passanti, "The Vernacular, Modernism, and Le Corbusier," 438.
- 49 Passanti, "The Vernacular, Modernism, and Le Corbusier," 447.
- 50 See, for example Branislav Kojić, "Arhitektura ruskog sela," *Arhitektura* 1-2, no.4-6 (1947): 12-13.
- 51 Neven Šegvić, "Stvaralačke komponente arhitekture FNRJ," *Urbanizam i arhitektura* 4, no.5-6 (1950): 26.
- 52 Šegvić, "Stvaralačke komponente," 28.
- 53 Vlado Antolić, "O problemima urbanizma i arhitekture Makedonije," *Arhitektura* 3, no. 25-27 (1949): 19-23.
- 54 Branislav Krstić, ed., *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih* (Beograd: Branislav Krstić, 2014), 10.

- ⁵⁵ Krstić, *Atinska povelja*, 38.
- ⁵⁶ Dušan Grabrijan, "Le Corbusier i Sarajevo," in *Grabrijan i Sarajevo*, ed. Džemal Čelić (Sarajevo: Muzej grada Sarajeva, 1950), 29-36., originally published in *Jugoslovenski list* (October 31, 1936.)
- ⁵⁷ Dušan Grabrijan, "Naše orijentalne i savremena kuća," in *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*, ed. Branislav Krstić (Beograd: Branislav Krstić, 2014), 425.
- ⁵⁸ Correspondence from Juraj Neidhardt to Dušan Grabrijan, August 1950, Box 4-1, 1950/1 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁵⁹ Grabrijan, "Naše orijentalne i savremena kuća," 435.
- ⁶⁰ Grabrijan and Neidhardt, *Arhitektura Bosne*, 209.
- ⁶¹ Josip Seissel, "Problemi izgradnje mediteranskih gradova i naselja," in *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*, ed. Branislav Krstić (Beograd: Branislav Krstić, 2014), 312-313.
- ⁶² Seissel, "Problemi izgradnje mediteranskih gradova i naselja," 313-314.
- ⁶³ Ibid.
- ⁶⁴ Jovan Krunić, "Arhitektonsko nasledje i proces stvaranja arhitektonskog izraza," in *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*, ed. Branislav Krstić (Beograd: Branislav Krstić, 2014), 159.
- ⁶⁵ Dušan Grabrijan, "Dediščina narodov Federativne Ljudske Republike Jugoslavije u arhitekturi," in *Likovni svet* (Ljubljana: Državna založba Slovenije, 1951), 82.
- ⁶⁶ Krunić, "Arhitektonsko nasledje," 162.
- ⁶⁷ Zdenko Strižić, "Lik arhitekta," in *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*, ed. Branislav Krstić (Beograd: Branislav Krstić, 2014), 318.
- ⁶⁸ Ibid.
- ⁶⁹ Strižić, "Lik arhitekta," 315.
- ⁷⁰ Strižić, "Lik arhitekta," 315.
- ⁷¹ Grabrijan and Neidhardt, *Arhitektura Bosne*, 452.
- ⁷² Grabrijan and Neidhardt, *Arhitektura Bosne*, 458.
- ⁷³ Grabrijan and Neidhardt, *Arhitektura Bosne*, 452.
- ⁷⁴ Original name was: Savez društava urbanista Jugoslavije.
- ⁷⁵ Aleksandr Kurski, *Sotsialističeskoye Planirovaniye Narodnogo Khozyaistva SSSR* (Socialist Planning of the National Economy of the USSR) (Moscow: Gosplanizdat, 1945). It was translated by the in-house publishing services of the Federal Planning Commission, the chief state planning commission of Yugoslavia in 1947, as Aleksandr Kurski, *Socijalističko planiranje narodne privrede SSSR* (Beograd: Izdanje Savezne planske komisije, 1947).
- ⁷⁶ N.I. Moskovkin and N.I. Zaprudskii, eds., *Страницы памяти. О планах, планировании и плановиках* (Moscow: Profizdat, 1987), 177.
- ⁷⁷ Kurski, *Socijalističko planiranje*, 50.
- ⁷⁸ Moskovkin and Zaprudskii, eds., *Страницы памяти*, 177.
- ⁷⁹ Harry Schwartz, "Recent Activities of Soviet Economists," *The American Economic Review* 36, no. 4 (September, 1946): 650.
- ⁸⁰ Kurski, *Socijalističko planiranje*, 18.

- ⁸¹ Minutes of the meeting about the Five Year Plan in construction, held on 15. and 16. of January, 1947 in Belgrade, Box: 3, Fund: 41, Savezna planska komisija, Archive of Yugoslavia, Belgrade, Serbia. and Minutes of the meeting about construction, held on 30. and 31. of January, 1947 in Belgrade, Box: 3, Fund: 41, Savezna planska komisija, Archive of Yugoslavia, Belgrade, Serbia.
- ⁸² Lang, "The Dialectics of Decentralization," 314.
- ⁸³ Minutes of the meeting of the FPC with ministries and republican planning commissions, held on 01., 02. and 03. of October, 1946 in Belgrade, Box: 2, Fund: 41, Savezna planska komisija, Archive of Yugoslavia, Belgrade, Serbia.
- ⁸⁴ Edvard Kardelj, "Zadaci naše lokalne privrede i komunalnog gazdinstva," in O Komuni, ed. Edvard Kardelj (Beograd: Radnička štampa, 1981), 55-94.
- ⁸⁵ Kardelj, "Zadaci naše lokalne privrede," 60.
- ⁸⁶ Nikola Bojić, "Social and Physical Planning: Two Approaches to Territorial Production in Socialist Yugoslavia between 1955 and 1963," *Architectural Histories*, 6, no.1, 25 (2018): 3.
- ⁸⁷ Bojić, "Social and Physical Planning," 2.
- ⁸⁸ Grabrijan and Neidhardt, *Arhitektura Bosne*, 457.
- ⁸⁹ Grabrijan and Neidhardt, *Arhitektura Bosne*, 454.
- ⁹⁰ Leonard Kukić, "Economic Growth, Regional Development, and Nation Formation under Socialism - Evidence from Yugoslavia" (PhD diss., Department of Economic History of the London School of Economics, 2017), 103.
- ⁹¹ Dušan Grabrijan's written communication to the Commission for Publications of the Technical University in Ljubljana, Box 57, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁹² Dejan Jović, "Communist Yugoslavia and its 'Others,'" in *Ideologies and National Identities: The Case of Twentieth-Century Southeastern Europe*, eds. John Lampe and Mark Mazower (Budapest: Central European University Press, 2004), 290.
- ⁹³ Maks Blejec, "Five-year plan and the reduction of the full product price in graphic industry of Slovenia," no.145/05, Technical unit: 5, Archival unit: 119-154, Glavna direkcija grafične industrije Ljudske Republike Slovenije 1945-1950; archival sign: AS 1456, Archive of Slovenia, Ljubljana, Slovenia.
- ⁹⁴ Report of the Department of Printed Matter at the Conference on Print, held on December 12, 1949, no.142, Technical unit: 5, Archival unit: 119-154, Glavna direkcija grafične industrije Ljudske Republike Slovenije 1945-1950, archival sign: AS 1456, Archive of Slovenia, Ljubljana, Slovenia.
- ⁹⁵ Planning of publishing-printing profession, no.372, Technical unit: 28, Archival unit: 370-387, Planska komisija Ljudske republike Slovenije, archival sign: AS 284, Archive of Slovenia, Ljubljana, Slovenia.
- ⁹⁶ Publishing - graphic workshops - Main Directorate of Graphic Industry, no.132/5, Technical unit: 5, Archival unit: 119-154, Glavna direkcija grafične industrije Ljudske Republike Slovenije 1945-1950, archival sign: AS 1456, Archive of Slovenia, Ljubljana, Slovenia.
- ⁹⁷ Report of the Department of Printed Matter at the Conference on Print, held on December 12, 1949, no.142/5 66, Technical unit: 5, Archival unit: 119-154, Glavna direkcija grafične industrije Ljudske Republike Slovenije 1945-1950, archival sign: AS 1456, Archive of Slovenia, Ljubljana, Slovenia.
- ⁹⁸ Krstić, *Atinska povelja*, 16.
- ⁹⁹ Edvard Ravnar, "Kratek oris modernoga urbanizma u Sloveniji," in *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*, ed. Branislav Krstić (Beograd: Branislav Krstić, 2014): 330.

¹⁰⁰ Ibid.

¹⁰¹ Ravnikar, "Kratek oris modernoga urbanizma u Sloveniji," 332.

¹⁰² Ravnikar, "Kratek oris modernoga urbanizma u Sloveniji," 335.

¹⁰³ Ravnikar, "Kratek oris modernoga urbanizma u Sloveniji," 338-346.

¹⁰⁴ Alenka di Battista and Matevž Čelik, "New Cities in Slovenia 1945-1960," in *Unfinished Modernizations - Between Utopia and Pragmatism*, eds. Maroje Mrduljaš and Vladimir Kulić (Zagreb: UHA/CCA, 2012), 251.

¹⁰⁵ Ravnikar, "Kratek oris modernoga urbanizma u Sloveniji," 330.

¹⁰⁶ Ravnikar, "Kratek oris modernoga urbanizma u Sloveniji," 331.

¹⁰⁷ Ravnikar, "Kratek oris modernoga urbanizma u Sloveniji," 438.

¹⁰⁸ The first congress of the Union of Urbanistic Societies of Yugoslavia (UUSY) was held in 1955, while the first congress of the Union of Architects of Yugoslavia (UAY) was held only in 1958.

¹⁰⁹ Vladimir Kulić and Maroje Mrduljaš, *Modernism in-between - Mediatory Architectures of Socialist Yugoslavia* (Berlin: Jovis, 2012), 28.

¹¹⁰ Lang, "The Dialectics of Decentralization," 316.

¹¹¹ Lang, "The Dialectics of Decentralization," 317.

¹¹² Slovenian student of architecture Samec occasionally transferred messages between the DZS and Neidhardt. In July 1951, he informed Neidhardt that the position of Ćiril Vidmar, the director of the DZS Editorial Department was that the book was too expensive to be produced. See: Correspondence from Juraj Neidhardt to Dušan Grabrijan, July 1951, Box 4-1, 1951/44 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

¹¹³ In August 1951, Neidhardt advised Grabrijan to write to Rodoljub Čolaković, an important Bosnian government and communist official, to explain how "for five years he was working on Bosnian heritage with collaborators," and ask for financial support. See: Correspondence from Juraj Neidhardt to Dušan Grabrijan, August 1951, Box 4-1, 1951/48 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

¹¹⁴ In September 1951 Neidhardt wrote to Grabrijan that it was necessary to "make concessions in terms of language" if they wanted to ask for funding from the Bosnian government. See: Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 1951, Box 4-1, 1951/50 4-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

¹¹⁵ Correspondence from Nada Grabrijan to Džemal Čelić, November 1980, Box 10, unmarked, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

¹¹⁶ See: Correspondence from Ljudmila Neidhardt to Nada Grabrijan, December 1952, Box 2, 1953/2 29, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

¹¹⁷ Approximate to the buying power of today's 25.800 \$

¹¹⁸ Neidhardt's and Mili's correspondence testify to his repeated meetings with a range of highly ranked communist officials in relation to the promotion of the project of the book, including Đuro Pucar, Rodoljub Čolaković, Cvijetin Mijatović and Hasan Brkić, occupying important positions in the Government of Bosnia and Herzegovina.

¹¹⁹ Approximate to the buying power of today's 32 \$

¹²⁰ Approximate to the buying power of today's 40 \$

¹²¹ Državna založba Slovenije, "Ad for the book Bosanska Orientalna arhitektura v Sarajevu s posebnim ozirom na sodobno," *Arhitekt - revija za arhitekturo, urbanizem in oblikovanje izdelkov*, no.8 (1953): 2.

122 Ibid.

123 See: Correspondence from Nada Grabrijan to Juraj Neidhardt, November 1953, Box 2, 1953/2 27 1E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

124 In March 1953 Ljudmila Neidhardt testified that Juraj would probably give up on his honorarium, only if the book could be advertised around the world. See: Correspondence from Ljudmila Neidhardt to Nada Grabrijan, March 1953, Box 2, 1953/2 12 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

125 In April 1954 Mili wrote to Nada that there were 108 pre-ordered books and that she believed that the book would be "formally plundered." See: Correspondence from Ljudmila Neidhardt to Nada Grabrijan, April 1954, Box 2, 1954/2 4, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

126 Ibid.

127 Minutes of the meeting of the communists, graphic workers of Ljubljana, held on June 6, 1954, no. 793, Technical unit: 30, Archival unit: 728-823, Centralni komitet zveze komunistov Slovenije, archival sign: AS 1589 / III, Archive of Slovenia, Ljubljana, Slovenia.

128 Approximate to the buying power of today's 16.000 \$

129 Approximate to the buying power of today's 9.600 \$

130 Approximate to the buying power of today's 6.400 \$

131 In a letter written to Nada Grabrijan on March 27, 1955 Mili Neidhardt reported that Neidhardt's share in the first prize that his team won in the Yugoslav competition for urbanistic solution of the new socialist centre of Sarajevo in Marijin Dvor was 200.000 (6.400\$), which exactly equaled what was missing to finance the completion of the book. She insinuated that this missing sum could be covered by the award money. Another possibility was Neidhardt giving up on his honorarium for the production of the additional content for his portfolio in the book and the layout design for those additional 50 pages. Another channel of Neidhardt's own financial contribution to the project was production of photographs and printing cliches for the additional content of his portfolio in Sarajevo, at his own expense. On December 05, 1955, for example Mili Neidhardt wrote that "this evening he brought a cliche one meter long. It's cost was 5.660 dinars. He has to take it to Ljubljana." (Approximate to the buying power of today's 170 \$)

132 Correspondence from Ljudmila Neidhardt to Nada Grabrijan, December 1955, Box 27, 27/10 Bi, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

133 Correspondence from Ljudmila Neidhardt to Nada Grabrijan, February 1957, Box 27, 27/10 Ča, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

134 Approximate to the buying power of today's 219.500 \$

135 Approximate to the buying power of today's 210 \$

136 Approximate to the buying power of today's 105 \$

137 Correspondence from Ljudmila Neidhardt to Nada Grabrijan, November 1957, Box 27, 27/10 Dd, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

138 Approximate to the buying power of today's 135 \$

139 Vidmar Wrote to Neidhardt in February 1958 that "the Council for Education and Culture in Ljubljana significantly reduced to my greatest surprises the already promised additional subsidy. (...) Meanwhile, we had to raise the price of the book to 4,500 dinars" See: Correspondence from Ćiril Vidmar to Juraj Neidhardt, February 1958, unmarked, Juraj Neidhardt's private archive, Archive of the Academy of Sciences and Arts of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.

- ¹⁴⁰ What made Slovenian books particularly expensive were smaller print-runs, mostly due to the Slovenian language which was not popularly understood in any of the other Yugoslav republics. After radical increase in paper prices in summer of 1951, the “factor” of publication prices was set to 6.5 which got Slovenian publishing into a difficult situation. The estimated prices of books were 500-1000 dinars. See: Meeting of the Politburo of the CC of the CP of Slovenia, October 12, 1951, no. 129, Technical unit: 2, Archival unit: 24-167, Centralni komitet zveze komunistov Slovenije, archival sign: AS 1589 / III, Archive of Slovenia, Ljubljana, Slovenia.
- ¹⁴¹ Correspondence from Le Corbusier to Juraj Neidhardt, January 1958, unmarked, Juraj Neidhardt's private archive, Archive of the Academy of Sciences and Arts of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ¹⁴² Correspondence from Ljudmila Neidhardt to Nada Grabrijan, January 1958, Box 27, 27/10 De, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁴³ “Veliki spomenik slovenskomu arhitektu Dušanu Grabrijanu: ‘Arhitektura Bosne in pot v sodobno,’” *Primorski dnevnik*, March 2, 1958. Box 2, 20/5 A DO J, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁴⁴ Grabrijan and Neidhardt, *Arhitektura Bosne*, 452.
- ¹⁴⁵ Federico Ferretti, “Situated Knowledge and Visual Education: Patrick Geddes and Reclus's Geography (1886–1932),” *Journal of Geography* 116, no.1 (2017): 7.
- ¹⁴⁶ Garrett Dash Nelson. “Regional planning as cultural criticism: reclaiming the radical wholes of interwar regional thinkers,” *Regional Studies* (2020), <https://doi.org/10.1080/00343404.2020.1737664>.
- ¹⁴⁷ Nelson, “Regional planning as cultural criticism,” 8.
- ¹⁴⁸ Nelson, “Regional planning as cultural criticism,” 7.
- ¹⁴⁹ Savez arhitekata Jugoslavije, *Prvi kongres* (Beograd: SAJ, 1958): 8.
- ¹⁵⁰ Vjenceslav Richter, *Sinturbanizam* (Zagreb: Mladost, 1964): 3.
- ¹⁵¹ Marjan Tepina, “Ekonomske zakonitosti urbanizacije i regionalno planiranje,” in *Regionalno prostorno planiranje*, ed. Organizacioni odbor za pripremu šestog savetovanja i Prvog redovnog kongresa Saveza društava urbanista Jugoslavije (Beograd: Izdanje urbanista Srbije, 1957): 9.
- ¹⁵² Tepina, “Ekonomske zakonitosti urbanizacije,” 17.
- ¹⁵³ Tepina, “Ekonomske zakonitosti urbanizacije,” 15.
- ¹⁵⁴ Franjo Gašparović, Branko Petrović i Stanko Žuljić, “Regionalno prostorno planiranje,” in *Regionalno prostorno planiranje*, ed. Organizacioni odbor za pripremu šestog savetovanja i Prvog redovnog kongresa Saveza društava urbanista Jugoslavije (Beograd: Izdanje urbanista Srbije, 1957), 54-55.
- ¹⁵⁵ Gašparović et al., “Regionalno prostorno planiranje,” 106-113.
- ¹⁵⁶ Gašparović et al., “Regionalno prostorno planiranje,” 97.
- ¹⁵⁷ Ludwig Hilberseimer, *The New Regional Pattern - Industries and Gardens Workshops and Farms* (Chicago: Paul Theobald, 1949).
- ¹⁵⁸ Hilberseimer, *The New Regional Pattern*, 83.
- ¹⁵⁹ Hilberseimer, *The New Regional Pattern*, 89.
- ¹⁶⁰ Hilberseimer, *The New Regional Pattern*, 137.
- ¹⁶¹ Bojić, “Social and Physical Planning,” 6.

- ¹⁶² Branko Petrović and Stanko Žuljić, *Kotar Krapina - Regionalni prostorni plan* (Zagreb: Urbanistički institut NR Hrvatske, 1958), 115.
- ¹⁶³ Nikola Dobrović, "Osnovi potencijalnog prostornog planiranja," in *Regionalno prostorno planiranje*, ed. Organizacioni odbor za pripremu šestog savetovanja i Prvog redovnog kongresa Saveza društava urbanista Jugoslavije (Beograd: Izdanje urbanista Srbije, 1957), 82.
- ¹⁶⁴ Ibid.
- ¹⁶⁵ Dobrović, "Osnovi potencijalnog prostornog planiranja," 43.
- ¹⁶⁶ Dobrović, "Osnovi potencijalnog prostornog planiranja," 40.
- ¹⁶⁷ Dobrović, "Osnovi potencijalnog prostornog planiranja," 72-73.
- ¹⁶⁸ Dobrović, "Osnovi potencijalnog prostornog planiranja," 79.
- ¹⁶⁹ François de Pierrefeu and Le Corbusier, *Savremena kuća dostojna ljudi* (Beograd: Gradjevinska knjiga, 1956), 14.
- ¹⁷⁰ Le Corbusier, *Sur les 4 routes* (Paris: Gallimard, 1941).
- ¹⁷¹ Le Corbusier and ASCORAL, *Les trois établissements humains* (Paris: Denoel, 1945).
- ¹⁷² Pierrefeu and Le Corbusier, *Savremena kuća*, 178.
- ¹⁷³ Pierrefeu and Le Corbusier, *Savremena kuća*, 134.
- ¹⁷⁴ Saša Sedlar, "Uvijeti za razvoj urbanizma u Jugoslaviji do osnivanja urbanističkih društava," in *Deset godina urbanističkog saveza Jugoslavije*, ed. Saša Sedlar (Zagreb, Savez urbanističkih društava Jugoslavije, 1965), 8.
- ¹⁷⁵ Pierrefeu and Le Corbusier, *Savremena kuća*, 180.
- ¹⁷⁶ Pierrefeu and Le Corbusier, *Savremena kuća*, 182.
- ¹⁷⁷ Pierrefeu and Le Corbusier, *Savremena kuća*, 184.
- ¹⁷⁸ Pierrefeu and Le Corbusier, *Savremena kuća*, 186.
- ¹⁷⁹ McLeod, "Urbanism and Utopia," 385.
- ¹⁸⁰ The term used in French original was "L'Ordonnateur." The 1947 English translation of the book translates the term as "The Law-Giver." The 1956 Serbo-Croatian translation uses the term "Reditelj." I will use English translation of the Serbo-Croatian term, "The Director," in order to try to convey its etymological agency in the Yugoslav historical context.
- ¹⁸¹ Pierrefeu and Le Corbusier, *Savremena kuća*, 188.
- ¹⁸² Pierrefeu and Le Corbusier, *Savremena kuća*, 190.
- ¹⁸³ Pierrefeu and Le Corbusier, *Savremena kuća*, 196.
- ¹⁸⁴ Ibid.
- ¹⁸⁵ Pierrefeu and Le Corbusier, *Savremena kuća*, 192.
- ¹⁸⁶ Ibid.
- ¹⁸⁷ Pierrefeu and Le Corbusier, *Savremena kuća*, 194.
- ¹⁸⁸ Pierrefeu and Le Corbusier, *Savremena kuća*, 202.
- ¹⁸⁹ McLeod, "Urbanism and Utopia," 386.

¹⁹⁰ Dobrović, "Osnovi potencijalnog prostornog planiranja," 83.

¹⁹¹ Nikola Dobrović, *Urbanizam kroz vekove I - Jugoslavija* (Beograd: Naučna knjiga, 1950).

¹⁹² Dobrović, *Urbanizam kroz vekove I*, unmarked.

¹⁹³ Dobrović, *Urbanizam kroz vekove I*, unmarked.

¹⁹⁴ Dobrović, *Urbanizam kroz vekove I*, unmarked.

¹⁹⁵ Grabrijan, "Dediščina narodov Federativne Ljudske Republike Jugoslavije," 65.

¹⁹⁶ Ibid.

¹⁹⁷ Minutes of the meeting from the joint assembly of the extended Urbanistic Council of the city of Sarajevo and Expert Council for Urbanism of the People's Council of the Sarajevo County regarding the revision of the Program for the General Urban Plan of the City of Sarajevo, June 26., 27. and 28., 1961. Day 2, unmarked, Archive of the Institute for Development Planning of the Canton of Sarajevo.

¹⁹⁸ Minutes of the meeting from the joint assembly of the extended Urbanistic Council of the city of Sarajevo and Expert Council for Urbanism of the People's Council of the Sarajevo County regarding the revision of the Program for the General Urban Plan of the City of Sarajevo, June 26., 27. and 28., 1961. Day 3, unmarked, Archive of the Institute for Development Planning of the Canton of Sarajevo.

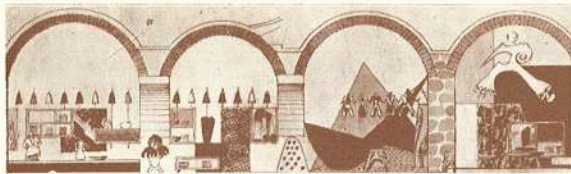
¹⁹⁹ Ibid.



Figure III-01 - Završje in Istria, a photograph used to represent the idea of “natural-artificial continuation” (source: Grgo Gamulin, “Prostori u regijama,” *Život umjetnosti*, no.1 (1966): 40).

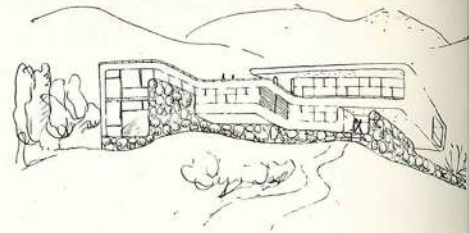


Figure III-02 - Juraj Neidhardt and his students in his design studio at the Faculty of Architecture in Sarajevo (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 477).



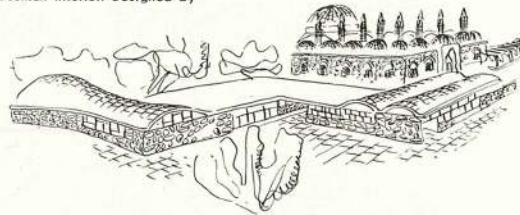
Slika 7. Unutarnje urođenje ostataka Tašihana. Elementi folklorne postaju u savremenom bosanskom interijeru jedan od najvažnijih faktora. Rad Z. Petrović.

Fig. 7. The interior arrangement of the remnants of Tašihana: the folklore elements become one of the most important factors in the modern Bosnian interior. Designed by Z. Petrović.



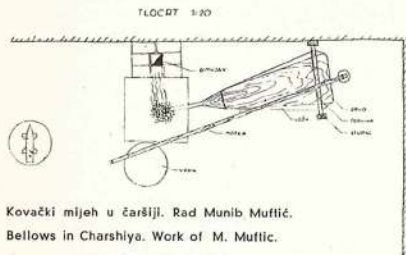
Slika 6. Atelje arhitekta sa porodičnim domom. Kompozicija izrađena po uzoru aglomeracije kuća iz Vijećnice (za koju je jedan njemački arhitekt postavio pitanje »Alt oder modern?«). Rad B. Mileusnić.

Fig. 6. Architect's studio with his home. The complex is designed on the model of the agglomeration behind the Town-hall (for which a German architect has raised the question: "Alt oder modern?"). Designed by B. Mileusnić.

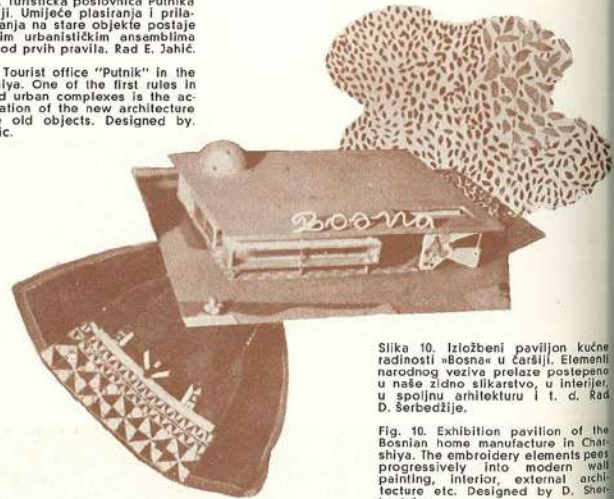
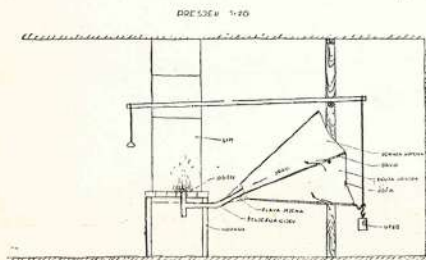


Slika 8. Turistička poslovница Putnik u čaršiji. Umijeće plasiranja i prilagodavanja na stare objekte postaje u starim urbanističkim ansamblima jedno od prvih pravila. Rad E. Jahić.

Fig. 8. Tourist office "Putnik" in the Charshiya. One of the first rules in the old urban complexes is the accommodation of the new architecture to the old objects. Designed by E. Jahić.



Kovački miješ u čaršiji. Rad Munib Muftić.
Bellows in Charshiya. Work of M. Muftić.



Slika 10. Izložbeni paviljon kućne radinosti »Bosna« u čaršiji. Elementi narodnog vozića prelaze postepeno u naše zidno slikarstvo, u interijer, u spoljnu arhitekturu i t. d. Rad D. Serbedžije.

Fig. 10. Exhibition pavilion of the Bosnian home manufacture in Charshiya. The embroidery elements pass progressively into modern wall painting, interior, external architecture etc. Designed by D. Serbedžija.

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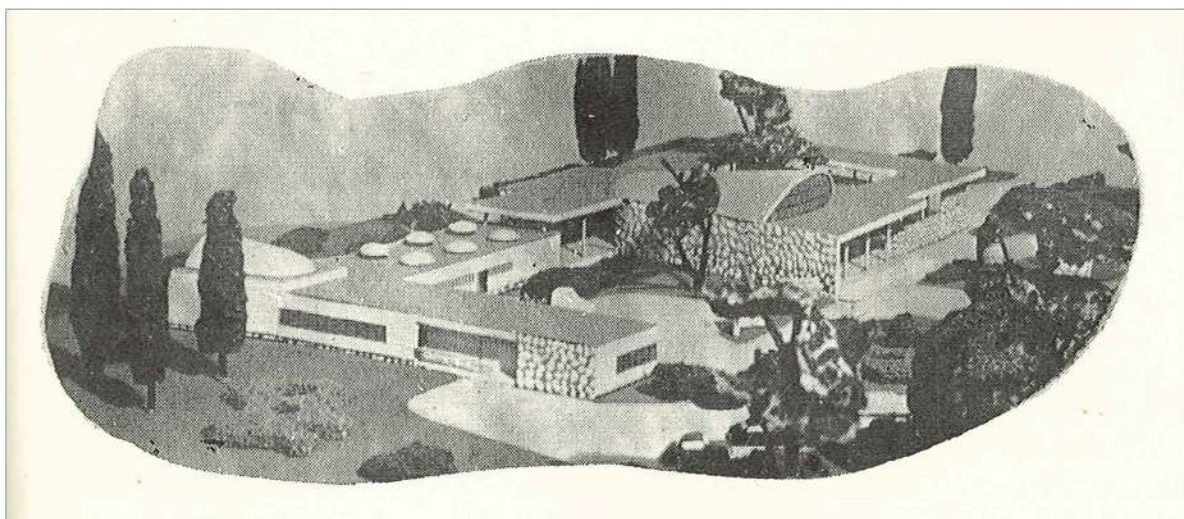
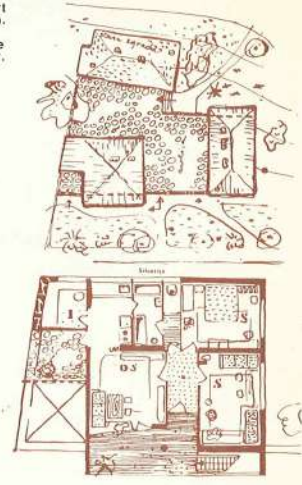


Figure III-03 - Designs produced in Juraj Neidhardt's studio: architect's home (top right), tourist agency (middle), exhibition pavilion (bottom right) and crematorium (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 485, 486).



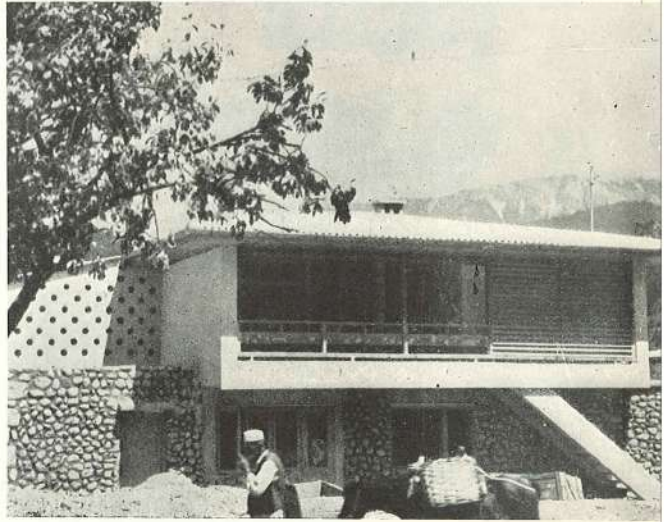
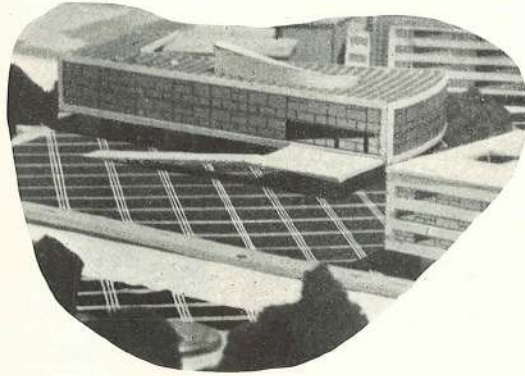
Situacija i tlocrt prizemlja.
Layout and plan of the first floor.



Stambene zgrade u Konjicu. Projektant ing. arh. Čičin-Šain.
Dwelling buildings at Konjic. Designed by eng. arch. Chichin-Shain.

Robna kuća u Titovoj ulici.
(Proj. J. N.)
Corner house in the Tito Street. Designed by J. N.

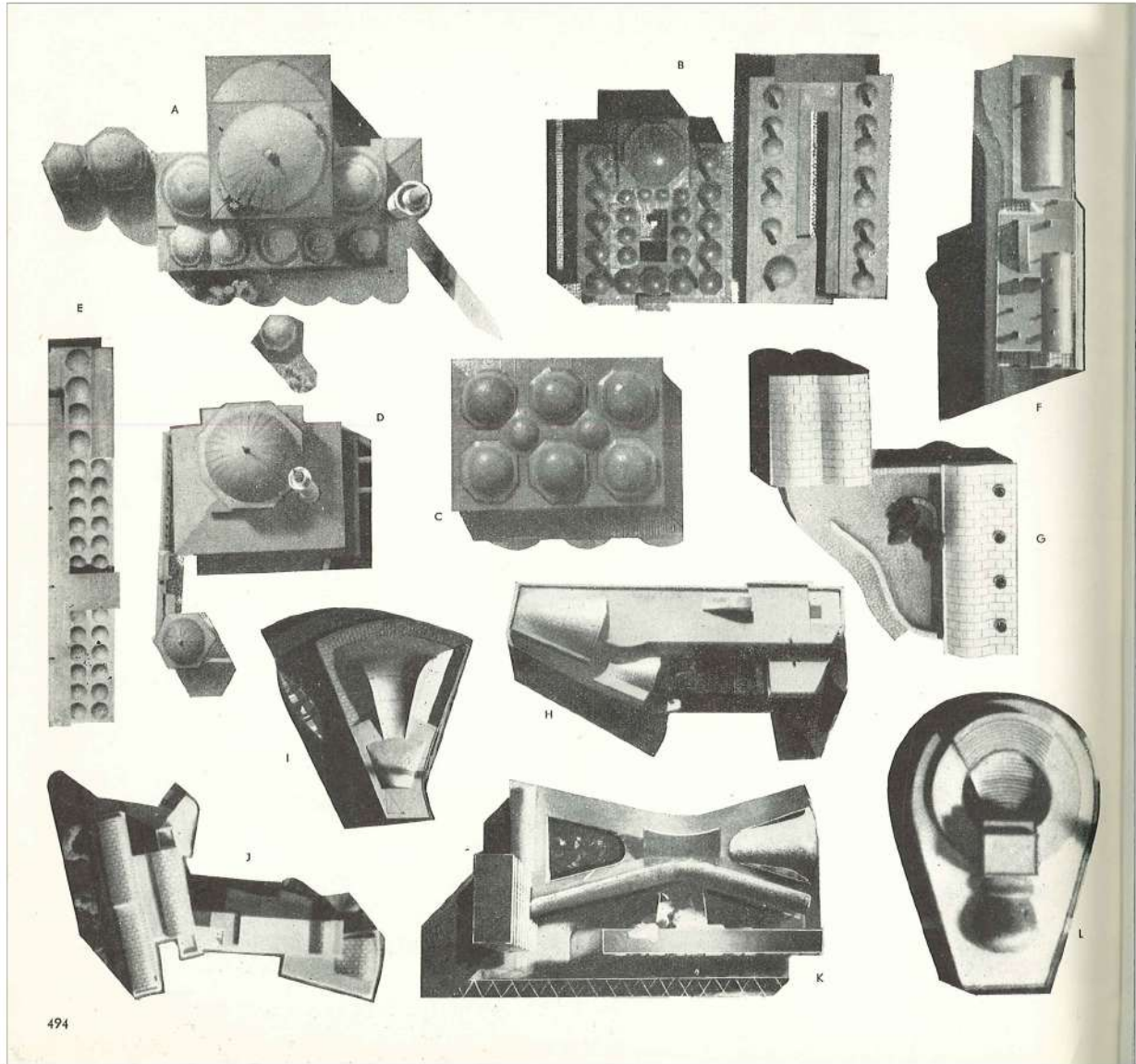
Porodični dom u Konjicu. Projektant Ing. arh. Čičin-Šain.
Family house at Konjic. Designed by engineer architect Chichin-Shain.



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Figure III-04 - Designs by architects working in Bosnia, that Neidhardt promoted as followers of *Architecture of Bosnia's* conception of design: Andrija Čičin-Šain's family houses in Konjic (top left and bottom right), Karlo Kužatko's Trade Union House in Zenica (left) and Milivoj Petričić's collective residential building in Sarajevo (right) (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 491, 493).



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Figure III-05 - "Plastic patterns of the 'kilim city'" - Neidhardt's representation of the fifth facades of the Ottoman era monuments and his own designs (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 494).



Figure III-06 - Illustration of the qualities of the Macedonian heritage (source: Neven Šegvić, "Stvara-lačke komponente arhitekture FNRJ," *Arhitektura* 4, no.5-6 (Zagreb, 1950): 24).

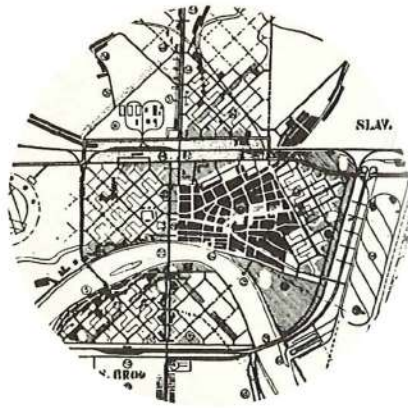


Figure III-07 - Illustration for Neidhardt's text "Four Cities - Four Physiognomies," representing the four different geographic-regional characterisations of cities: the "posavina" (the Brod cities), "bosnian" (Zenica), "herzegovinian" (Mostar) and "mediterranean" (Trebinje) (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 452).



Konec letošnjega leta Dušan Grabrijan - Jozef Neidhardt

Državni založbi Slovenije, Ljubljana

Podpisani obvezno naročam v subskripciji:

izvodov **D. GRABRIJAN - J. Neidhardt:**
BOSANSKA ORIENTALNA ARHITEKTURA V SARAJEVU
 Cena din

izvodov **D. Grabrijan: MAKEDONSKA HIŠA**
 Cena din

Plačljivo takoj — v zaporednih mesečnih obrokih po din.

Ime in priimek

Poklic

Mesto bivanja ulica št.
 1953.

Neželeno črtajte! Lastnoročni podpis:

srečal, in še srečnojši, ko sem videl poskusne odtise knjige, ki sta jo pripravila s prijateljem Grabrijanom. Posvetila sta jo posebnostim jugoslovanske folklorne in moderne arhitekture. ... Strani te knjige imajo veliko čustveno, tehnično, estetsko itd. itd. zgovornost. Knjiga bo koristila. Jaz osebno, ki sem prepotoval Jugoslavijo pred več kot štiri desetletji leti in ki sem imel rad njene pokrajine, njene hiše in njene ljudi, sem z velikim zadovoljstvom ugotovil v knjigi Grabrijana in Neidhardta duha novega časa, skladno povezanega z vsem, kar sem ohranil v prijetnem spominu.»



1960 - v AD 16. št. 4. in 5. str. 118-119
 avtor: D. Grabrijan

SARAJEVU

800 fotografij, načrtov in v srbščini. Obširni 1000 din samo do 15. okt.

OVENIJE



Konec letošnjega leta Dušan Grabrijan - Jozef Neidhardt

BOSANSKA ORIENTALNA ARHITEKTURA V SARAJEVU
Š POSEBNIM OZIROM NA SODOBNO

Ured in Založba

SIJAVNA ZALOŽBA SLOVENIJE



1960 - v AD 16. št. 4. in 5. str. 118-119
 avtor: D. Grabrijan

Figure III-08 - Advertisement for the book under its initial title *Bosnian Oriental Architecture in Sarajevo* in the Slovenian architecture journal *Arhitekt*, topped by the coupon for pre-orders (source: *Arhitekt*, no.8 (Ljubljana, April 1953): 1).

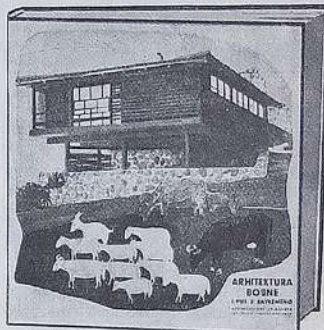
IV. UMETNOST

GRABRIJAN DUŠAN - JURA J NEIDHARDT: *Arhitektura Bosne i put u savremeno*. Predgovor Le Corbusier, 1957. 503 str. s slikami. 25,5 × 22 cm. 1000 izv. Pl. 4500 din. Us. 7000 din.

MIHELIČ FRANCE: *Katalog za IV. Bienale 1957 v Sao Paolu*. Gravures de France Mihelič. Drugi, spremenjeni natis. 1957. 24 str. s slikami. 20 × 22 cm. 620 izv. Broš. Ni v prodaji.

SMREKAR HINKO: *Monografija*. Besedilo Karel Dobida. Urednik Zoran Kržišnik. 1957. 65 str. besedila + 141 reprodukcij. 4°. (Sloven-

ski likovni umetniki.) 2000 izv. Pl. 2100 din. Us. 5200 din.



V. UČNE KNJIGE

a) Osnovne šole

Prva čitanka. Sestavil uredniški odbor. Risal in opremil Tone Kralj. 1957. 168 str. s slikami. 8°. 18.000 izv. Kart. 200 din.

Druga čitanka. Sestavila Josip Ribičič in Venceslav Winkler. Ilustriral Lojze Perko. 1957. 136 str. s slikami. 8°. 25.000 izv. Kart. 110 din.

Tretja čitanka. Sestavili Vlado Rappè, Josip Ribičič in Venceslav

Winkler. 1957. 240 str. s slikami. 8°. 30.000 izv. Kart. 160 din.

Četrta čitanka. Sestavili Vlado Rappè, Josip Ribičič in Venceslav Winkler. 1957. 306 str. s slikami. 8°. 20.000 izv. Kart. 190 din.

Računica za prvi razred osnovnih šol. Sestavil Rudolf Završnik. Ilustriral Mirko Lebez. 1957. 94 str. s slikami. 8°. 25.000 izv. Broš. 80 din.

11



Figure III-09 - The book represented in the annual catalogue of the publisher Državna založba Slovenije (source: Državna založba Slovenije, *Dodatek k jubilejnemu katalogu izdaj 1957* (Državna založba Slovenije (Ljubljana, 1957):11).

problems, as a link in a chain. Naturally in this book we shall take into account only those problems which are directly connected with its contents.

Almost in all our settlements appear the same problems as in Sarajevo. There is nothing changing but climate, vegetation, people's costumes, sizes of the cities, building principles etc. It is therefore very important to establish, for each city, its own laws of the old building system in order to see how to build the new. As we have discovered a series of unwritten laws valid for the cultural inheritance of Sarajevo, with all ethical principles involved, so we have to establish, in a larger sense, also the new written laws for both single cities and Bosnia as a unity. Some of these principles can be included, without any difficulty, in our modern cities, as i. e. the principle of green city, carpet-city, "water as soul of the city", respect to the proximity, right of view, human considerations etc.

Having, in this concrete case, to deal with the regulation of an industrial basin being rich in raw

materials — naphta refineries at Brod, coal and steel production in the Bosnian basin, bauxite production and current supply possibilities in the Herzegovinian basin — parallelly to the building problems regarding the industry also the question of the conservation of the old monuments, as well as the question of further development of the tourism etc. can and shall be raised in all their complexity, to say, by treating them from the regional point of view.

Owing to the fact that no study of this kind which would embrace single regions by means of cross sections through the federation, in a smaller sense, and through the entire Yugoslavia in a larger signification, this fragmentary attempt has to be considered but as a simple aim of the urbanists to solve these problems as entirety.

On the initiative of the Professor J. N., a group of architects has been organized in order to establish the stated cross sections, i. e. through the areas of Slovenia, Istria, Croatian Littoral, Slavonia, Bosnia, Dalmatia, Vojvodina, Serbia and Makedonia.



Pregledna karta prirodnih bogatstva bosansko-hercegovačkog bazena: rude, šume, električna energija i t. d.

A clear map showing the natural richness of the Bosnian-Herzegovinian basin: ores, woods, electric power etc.

Simboli rudarstva i metalurgije (ljudska i čelična ruka — J. N.).
Symbols of Mining and metallurgical Industry (man and steel hand — J. N.).



Figure III-10-The map of Bosnian natural riches and "human and steel hand," accompanying Juraj Neidhardt's reference to "regionalism." (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 453).

(Hansia živet vnskivavala: Ja en van pot to,
 notite. To ekle knjige sakupite toka za 1 stranica
 o urb. Sarjeva mi je poznat. Ne radi se o cjelom Sarjevu norem
 nepo o starom Sarjevu (u vesu sa onj. kvim i čaršijom) + Novo Sarjevo
 isječak olo čaršije, u nekjem slučajni govriti o žep. muh. Trus. čarš.
 itol. To ne sprda u Nas sektor. Postank i propost čaršije nije loš
 uslov. Posledu Van imo centona onj ita imolite. Ne znam ga.
 Mislim da je bože da knjiga ima nite mnogih elucicija (izim knje)
 najo uholito uclilid dobn razrast, člankha, Post. i propost čaršije.
 P.N.V + Dmota + Vira bez pokustia itol. to su zaista dobn zabnats,
 čarš. bi se želio samo ovdene kritike ali mnogo užije. To su
 perle. Niz perla - knjiga. Mi smo na dobnom putu i nemoj to
 skloniti. Glede Moh. mislim da je tu imo i slov. šovinizma.
 Glede zalošle, mislim da se se uci putu. Knjiga mora izaci kako lico da
 žibo, pa makar čemo pucloviti stvari. Glavno je zariiti stvar
 ja ču suda ustank sa mokum batenijam itol. Zastija patijha sa Brusca
 Besist. - kao muzejom NOBA mislim da u mupone žariiti knjizi
 isto tuho to koncentrovat na toj isječak Sarjeva.
 Sve isto ten van putu - sve se ideje se mogu na 1 stranici
 ispitati. 1 gran rudiya treba 1 budo rudi. Kadu pite knjige
 unjehe, misli te da je zastija i bice dobn. Hoću mojele su
 žene koje misle da je sadnji put.
 Bete Vi me to ubuete ili upletete u člankha.
 Niz perla blifertan bice dobn, i sve zaokružit
 Novo - staro. - ogledalo društva. To je bimbomija, aloli je Carl.
 apstaktno njerava grubove imamo puliku konkratno
 od Trelo - 7 sumica
 Kompletan njećiril. BiH.

čaršije imanje i d.

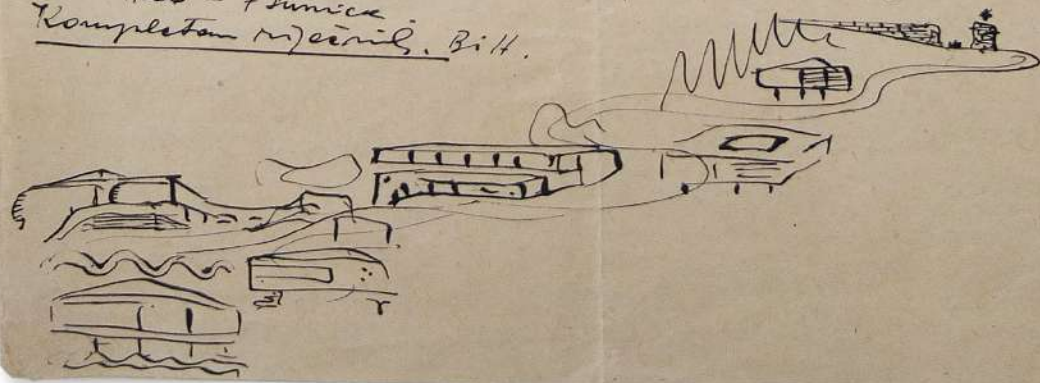


Figure III-11 - One of Neidhardt's "valley elevations," sent in a letter to Grabrijan in May 1950 (Correspondence from Juraj Neidhardt to Dušan Grabrijan, May 1950, Box 11, unmarked, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

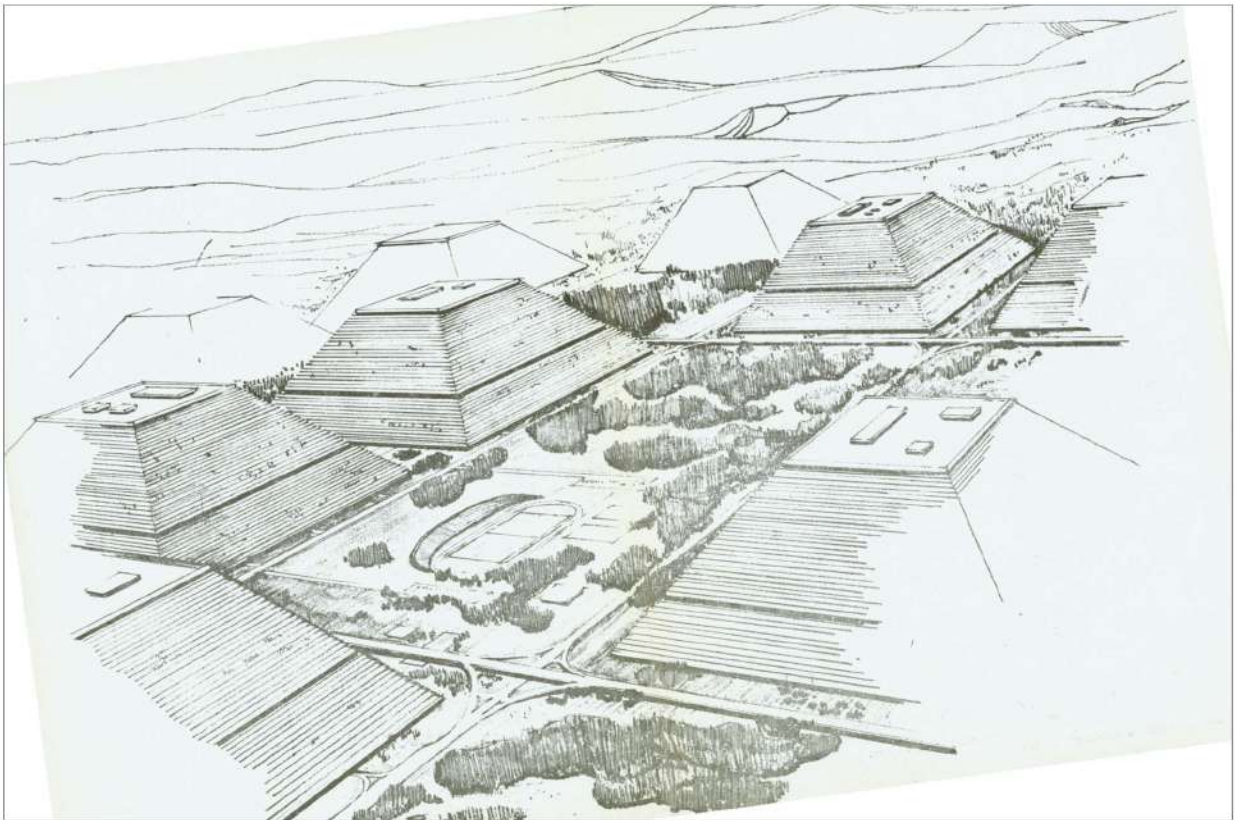
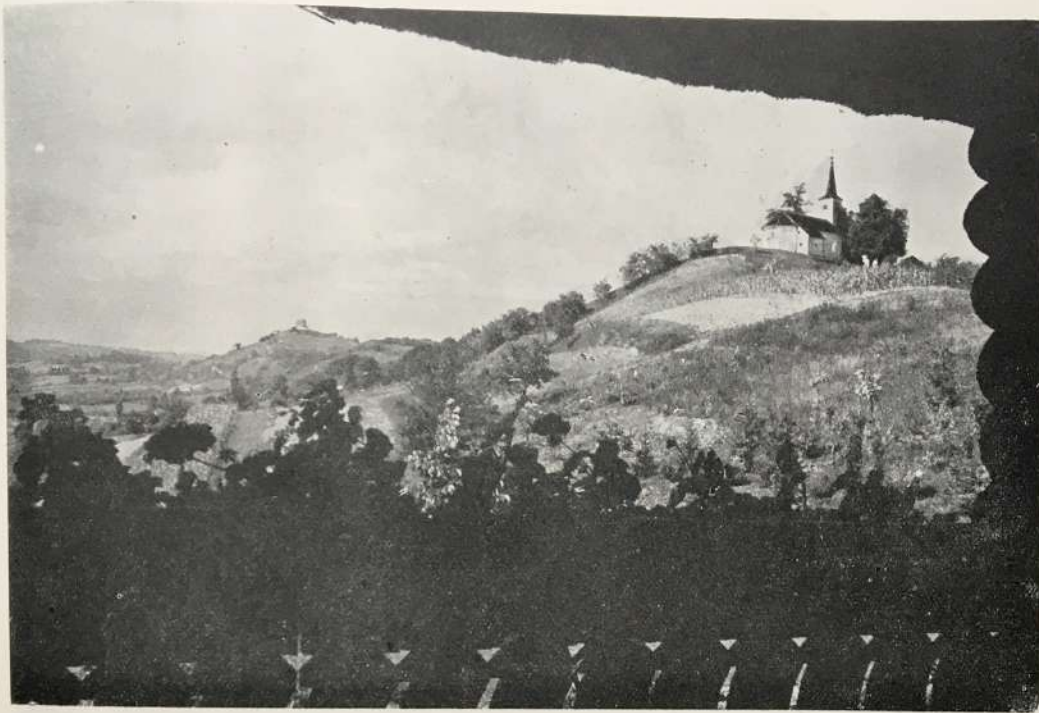


Figure III-12 - Ziggurats of the “Synthurbanism” project, demonstrating an “intimate bond” between “authentic nature and high urbanization” by Vjenceslav Richter, (source: Vjenceslav Richter, *Sinturbanizam* (Zagreb: Mladost, 1964), 1-2).



76. Hrvatsko Zagorje je općenito kraj s izvanrednim pejzažnim kvalitetima. Na slici: Pogled iz hotela u Kumrovcu.
(Snimio: B. Petrović)



17. Belec. (Saimka prije Drugog svjetskog rata)

Regionalni plan Krapine

113

Figure III-13 - Photographs of the Krapina County landscape in the "regional spatial plan" of the Krapina County (source: Urbanistički institut NR Hrvatske, *Kotar Krapina - Regionalni prostorni plan* (Zagreb: Urbanistički institut NR Hrvatske, 1958), 113).

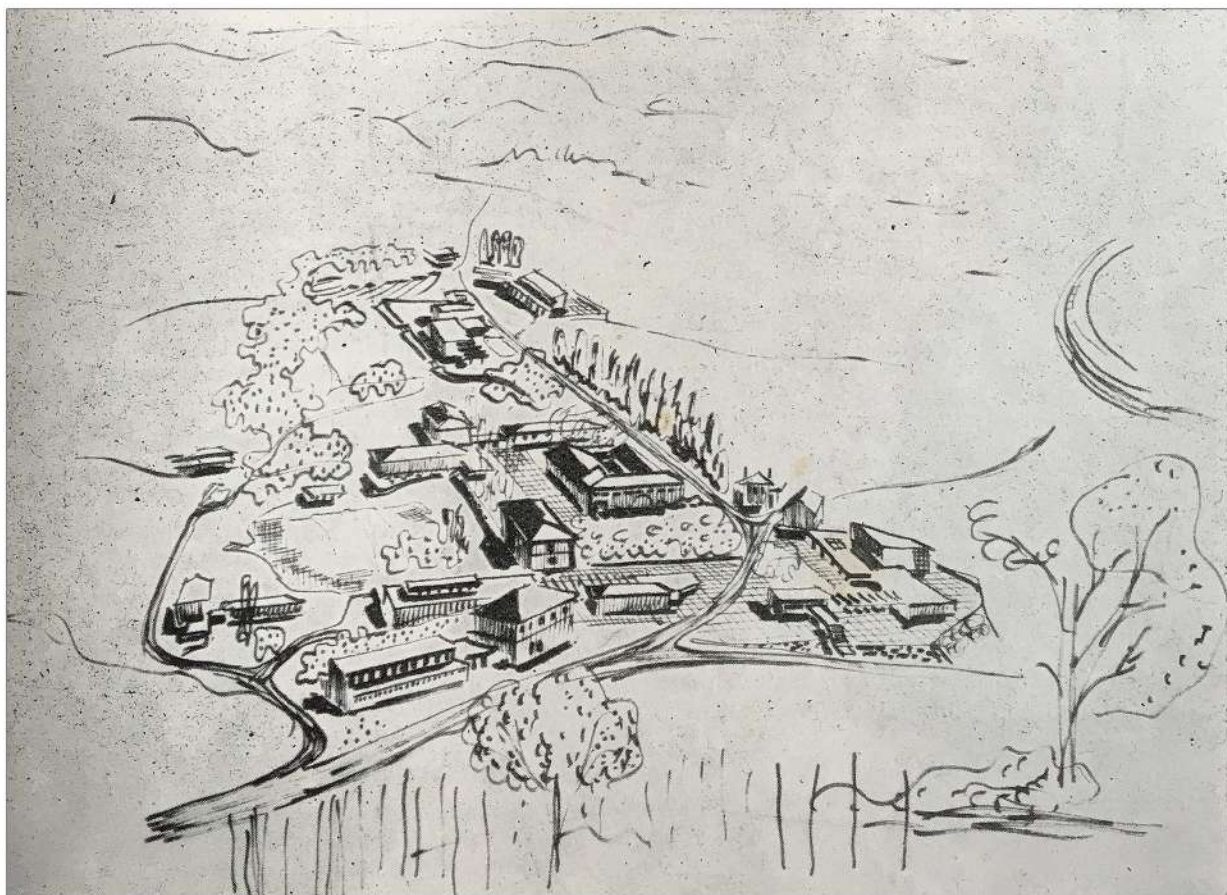


Figure III-14 - Drawing representing the future center of the Klanjec settlement (source: Urbanistički institut NR Hrvatske, *Kotar Krapina - Regionalni prostorni plan* (Zagreb: Urbanistički institut NR Hrvatske, 1958),165).

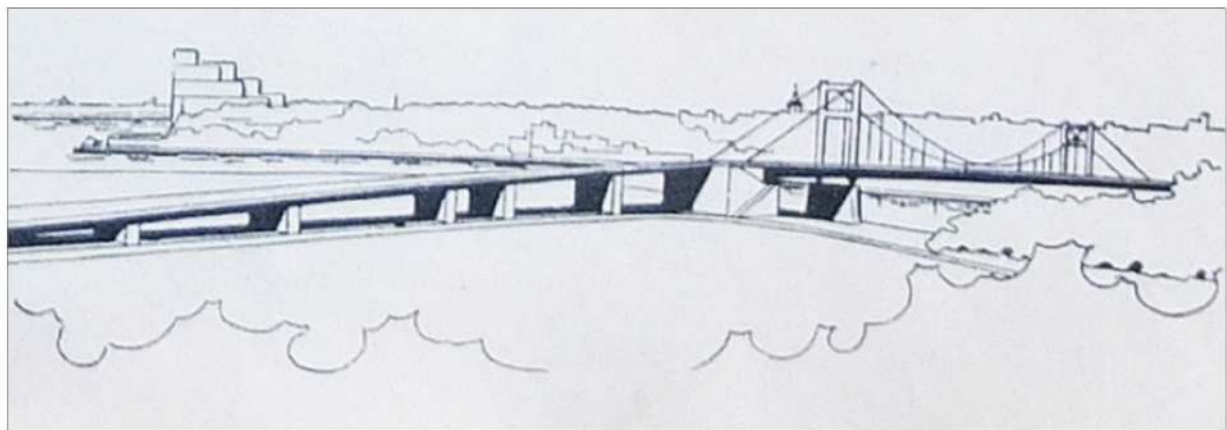
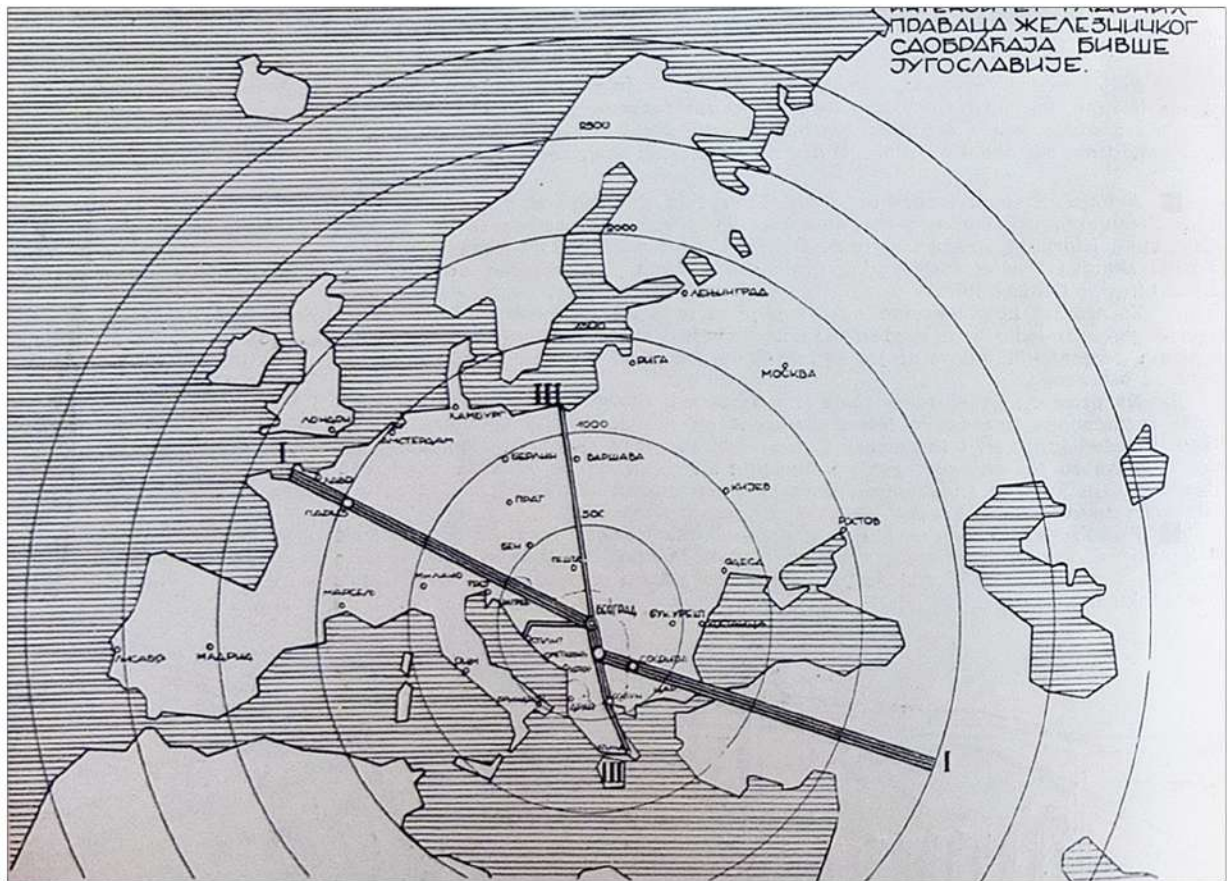


Figure III-15 - Map representing intensity of the main railway routes of Yugoslavia (top) and drawing of the "Belgrade ridge" by Nikola Dobrović (bottom) (source: Nikola Dobrović, *Urbanizam kroz vekove I - Jugoslavija* (Beograd: Naučna knjiga, 1950)).

Chapter 4 - Architecture and Infrastructure in the Milieu and their Politics

“From the environment into the city, into the house”¹ - the benevolence of the motto under which *Architecture of Bosnia* was produced was complicated by the resolute technocratic intervention into the territory of the Middle Bosnian Basin which involved Neidhardt’s urbanistic plans and regulations. If the modern Bosnian house was really to be understood as an organism in the milieu, then it could be said that its “life-functions” established a myriad of “organic,” material, truly metabolic relations with the techno-social milieu governed by administrators, urbanists and other efficiency-minded social technicians. The goal of this chapter is to describe the politics of these relations.

The political character of *Architecture of Bosnia’s* proposal, as well as of some of the projects designed and executed on the basis of this proposal, has, so far, been discussed by historians exclusively in terms of the Yugoslav ethnic diversity. What was at stake in these histories, was the rich representational quality of Neidhardt’s architecture. In the Yugoslav context, it was seen as a prime expression of the productive tension between the emerging culture of federalism and its multiple particularisms.² On a less positive note, the difficult legacy of the Ottoman conquest, the islamisation of Bosnia and consequently, the controversial national identity of Bosnian Muslims, were seen as both a motivation for the conception and possible impediment to a favorable reception of the book.³ The politics of Neidhardt’s architecture was identified in the association of its formal, representational features with Bosniak nationalism.⁴

As the second chapter of this dissertation has indicated, the authors’ concern about the perceived “idealism” and “orientalism” of the initial version of the book’s argument was related, albeit laterally, to the identity politics. This concern was one of the triggers for the authors to look for a ‘scientific’ grounding of architecture’s relation to its environment in human geography. Indeed, Neidhardt’s disciplinary adversaries openly questioned the appropriateness of “Turkish lords’ homes” to be a model for the socialist architectural production.⁵ The “Islamic” and “Turkish” character of the vernacular on which *Architecture of Bosnia* focused might have discouraged some of the potential followers of Neidhardt’s “school,” in spite of their general sympathy for the geographic hypothesis of the book.

Conversely, there might have been others who, like the authors, had a particular and arguably orientalist affinity to the “other” of the Bosnian oriental architecture. Whatever the summary of these silent political motivations may have been, it has been overwhelmed by the effect of the reinforced design liberalism of the second half of the 1950s and translation of the quest for organicist integration to the scale of regional planning, described in the third chapter of this dissertation. Indeed, it was the disciplinary implication of *Architecture of Bosnia's* proposal - the design in unison - that was perceived as anachronistic, imposing and detrimental to the technologically-driven development of architecture.

This perceived anachronism, however, has had another important dimension. Beyond the disciplinary reorganisation that the book called for, the opinion about the relevance of its message was also affected by the overall consensus about the quality of Neidhardt's executed buildings.

Between 1938 and 1957, some sixty structures were erected in the Middle Bosnian Basin on the basis of Neidhardt's designs, while he supervised the construction of about a half of them. About two thirds were built as a part of “regulatory plans” previously designed by Neidhardt. Almost all were residential buildings of different kinds. Another dozen structures were erected on the basis of projects designed by the followers of the principles popularised by Neidhardt through his own buildings and talks, even before their digested version was presented in *Architecture of Bosnia* in 1957. Both the public and disciplinary opinions about these attempted articulations of the regionalist Bosnian architecture were best encapsulated by the image headline which appeared in the most popular Sarajevo daily *Oslobodjenje* in December of 1955, describing one of the residential buildings that Neidhardt would publish two years later in the book, as a representative of the “Sarajevo school” of architecture: “Beautiful but too expensive.”⁶ A similar accusation could be heard in the discussion between Neidhardt and one of his most consistent and outspoken critics, the architect Dušan Smiljanić, which ensued after the publication of the book and amounted to its defense in front of the local disciplinary academia.

Indeed, Neidhardt's designs (including his most emblematic project for the modern Bosnian house with six apartments) were vetted unmercifully by the Federal “revisionary

commissions” in the era of the strongest centralised control over construction and often designated as uneconomical. The revisionary commission’s reports, which scrutinised the representations of Neidhardt’s projects based on the prices of construction materials, construction labor and optimal exploitation, could serve as an entry point into the kind of politics that imbued the constellation held together by the techno-social milieu.

In the early Socialist Yugoslavia, the pursuit for the “optimal” that characterised the modern state governance was developing in a constant tension with the emancipatory postulates of the “Yugoslav Experiment.” Through the progressive political and economic liberalisation of the 1950s, this regime combined with existing geographies to produce manifold polarities between the centre and the periphery, the city and the village, the developed and the underdeveloped. Neidhardt’s efforts, both in planning and design, to introduce geographic knowledge into the state project of optimised development brought forward the problem of relationship and, ultimately, the distinction between architecture and infrastructure. Observed on the backdrop of Neidhardt’s infrastructural schemes in Sarajevo, Zenica and the Middle Bosnian Basin, the design rules of the geographic-historical region defined by *Architecture of Bosnia*, were little more than an accessory to these grand interventions of massive social and political impact. Yet, the book sought to represent this knowledge as unified and instrumental in achieving a geographic harmony on the architectural, urban and territorial scale.

The book’s strategies of unification, structuring and modulation (discussed in the first chapter of the present dissertation) precisely dealt with discrepancy between the geographic-historical and the functional. The separation between design and planning established by the book was vital in assuring the consistency of its message. The Ski House on the Trebević Hill near Sarajevo, one of the most celebrated of Neidhardt’s architectural works, is a good example in this regard. Its purported organic unity with the landscape relied on the conception of the geographic-historical region which marginalised the peripheral culture of the Dinaric mountain villages. Yet Neidhardt’s planning of the green recreational infrastructure of Sarajevo reopened the problem of the city-village polarisation, which the book managed to seal by relying on the human-geographic conception of spontaneous development of “social organisms.” The socio-economic

planning of the Socialist State, which underlined Neidhardt's infrastructural schemes, seriously undermined the stability of such "organism." Indeed, the terms under which the Ski House could be considered as connected to and integrated into geography changed radically, depending whether one observed it as an extension of the infrastructural agency of the "Recreational Ribbon." This chapter deals with describing architectural politics when one applies the latter optics and seeks to situate architecture in the socio-technical milieu.

Beyond the messages embedded in the architectural representations by designers, context or disciplinary and popular public, the materiality of architecture in the environment has channeled, enabled or inhibited different social, political, economic and ecological processes. It is by becoming a part of these entangled occurrences, or in a word, part of the milieu, that Neidhardt's architecture defined its politics. While these connections are numerous, constantly evolving, mutable and ongoing (testified to by a cloud of smog, submerging Neidhardt's modern Bosnian houses in Zenica at the present moment), this chapter will focus on those which most directly influenced, and thereby illuminated, the prospects of emancipatory policies of the "Yugoslav experiment" in the Middle Bosnian Basin and beyond, as a function of geography.

4.1 The Ski House and the Recreational Ribbon Trebević-Ilidža

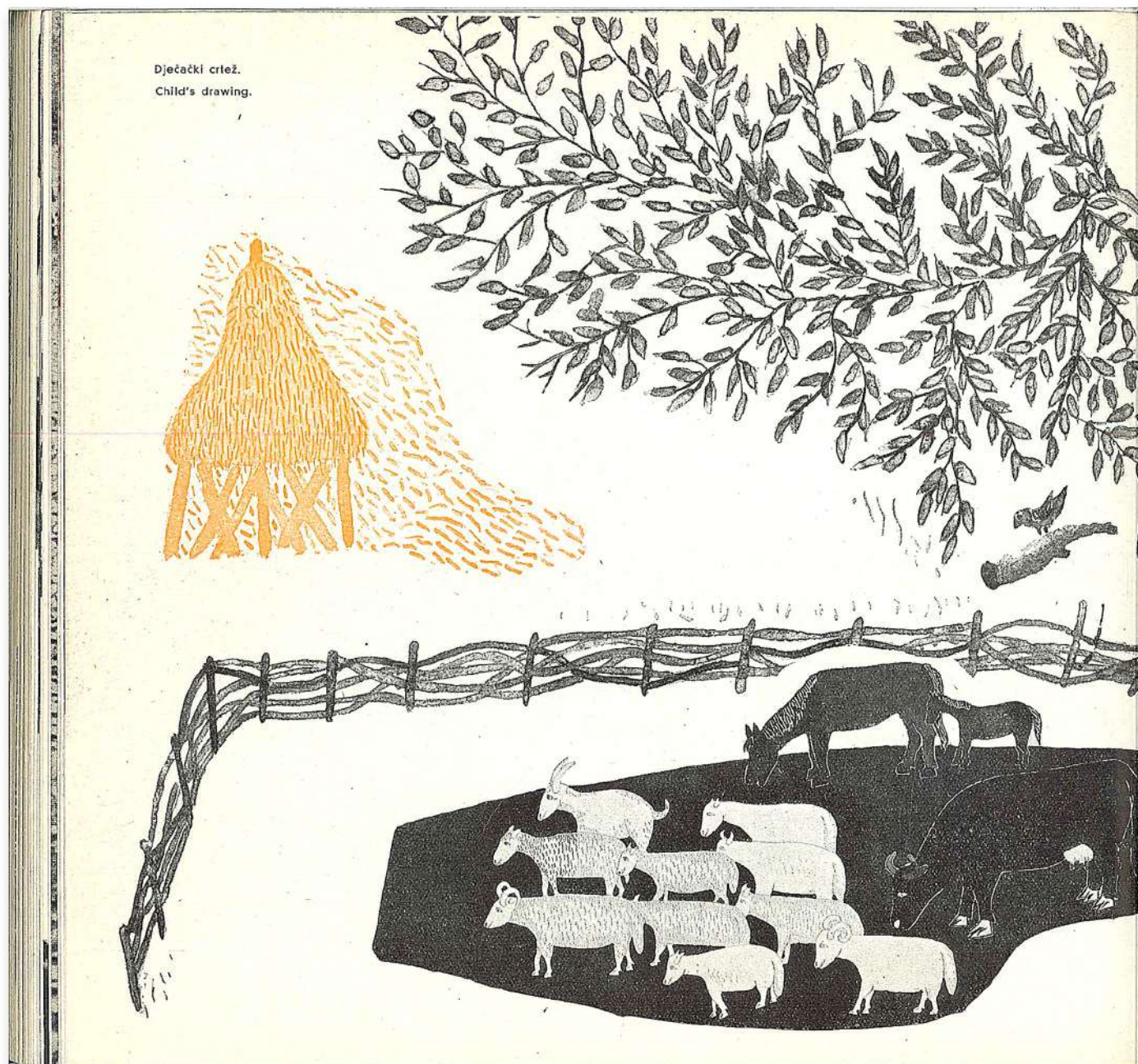
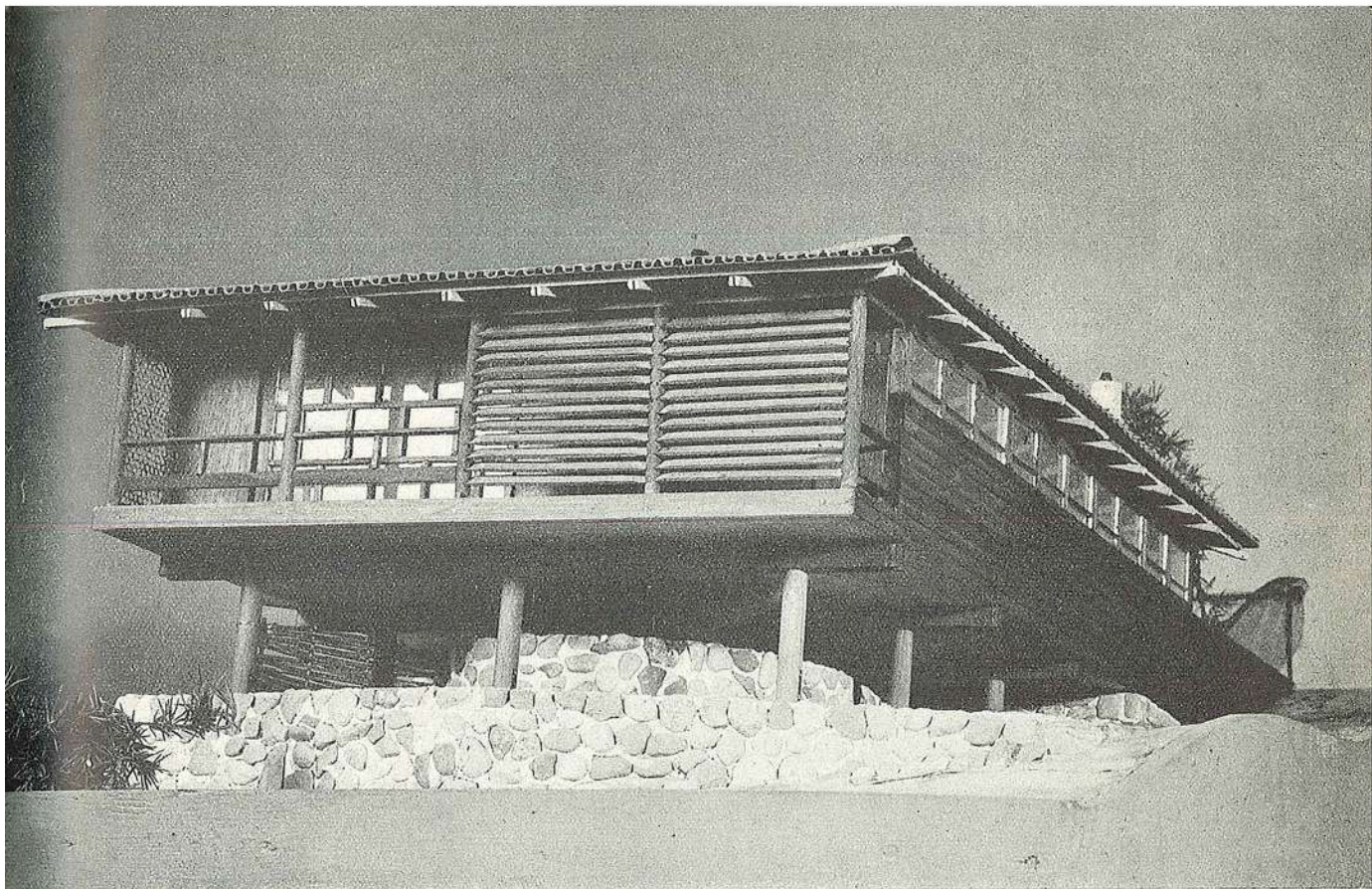


Figure IV-01 - A double spread representing the project model for the Ski House on the Trebević hill near Sarajevo, by Juraj Neidhardt, 1947 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 278-279).



Skijaška kuća na Trebeviću (g. 1947) — struktura: kameni podzid, žaluzije, mreža prozora, mušebak, nadstrešnica, valoviti salonit, oplata iz okoraka, drveni stupovi... Primjer korištenja elemenata nasljedstva bosanske arhitekture i u savremenom stvaranju.

Ski-lodge on Trebević. Constituting parts: masonry socle, Venetian blinds, windows, lattices, eaves, corrugated saloon, wooden lining of walls, wooden pillars. Utilization of inherited architectural elements in a modern structure.

A beautifully immersive child's drawing is arranged along a photograph of an architectural model. (Figure IV-01). Although they are each assigned a separate page, as a double spread they form a composition. A careful proportioning of images relative to one another and tuning of their greyscale tones has resulted in a representation of unity: a herd of mixed domestic animals pasturing in front of the house of wood and stone, a thoroughly drawn dense treetop serving as a visual connection, a yellow haystack in the distance adding a hint of warm colour. There is no doubt that this is a village, yet the house is obviously not an ordinary farm-house. Its floating prismatic volume, the wooden brise-soleil, the ribbon window and a colonnade of wooden *pilotis* introduce an allusion to the modernist architectural idiom, while the arrangement of the retracted and buttressed wall, the entrance sucked under the cantilevered first floor and a semi-enclosed veranda communicate a sophisticated design strategy, adjusted to the circumstances of the mountain climate. Indeed, the caption informs the reader that the model represents the project of a Ski House, designed and constructed between 1947 and 1949.

The Ski House in Sarajevo was probably the design most associated with Neidhardt's mode of work as "organic." With its location designated on a densely wooded hillside of the Trebević, one of the city's highest mountains, it permitted a seemingly unmediated union between architecture and nature. It was the first of Neidhardt's projects executed after the revolution, immediately recognised as one of the important works of the modern Yugoslav architecture, published and exhibited on multiple occasions.⁷ The fact that it perished in fire, only a few years after its opening, only added to its disciplinary intrigue. As testified by Zlatko Ugljen, the famed Bosnian regionalist architect and Neidhardt's student, this was "that rare architecture which becomes an organic whole (sic!) of the landscape."⁸ The architect Aleksandar Trumić, whose namesake father designed the ski jump that the ski house was intended to service, similarly reminisced how visiting the house was like "visiting nature via modern architecture."⁹ Indeed the images of the wood-and-stone building, clinging to a steep slope and surrounded by tall evergreen trees on a snowy day give away the impression of unity, continuity and connection (Figure IV-02).

The building, in fact, brought the "elements of Bosnian architecture," codified by the book *Architecture of Bosnia and the Way to Modernity* (such as the cantilevered upper floor and

the pitched roof), to the outermost edge of the city. With no other structure in sight, except the adjacent ski-jump, this “modern Bosnian house” was implanted into the landscape which represented the specific Bosnian environment that the book claimed was constitutive of the original Bosnian vernacular. While the cluster of Neidhardt’s modern Bosnian houses in the Kralupi neighbourhood in Vareš occupied a seemingly similarly pristine location, the existence of the regulation plan, although designed by Neidhardt himself, must have felt as some form of mediation. The Ski House, in turn, was projected directly onto the site - just like the original Bosnian vernacular would have been positioned by an unknown builder. Its further integration was pursued by both the material and techniques. Stone and wood from the local area were used. These were distributed by following “the mode of work of the unknown builder”¹⁰: the solid ground floor base was built in stone, with a light wooden structure on top of it. The curvilinear wall that closed the ground floor and marked the entrance was the sole formal feature that departed from “the elements,” but it too had the obvious organic connotation. During the construction of the building, Neidhardt walked up the Trebević Hill for hours every second day to reach the site and conduct supervision - even that technical aspect of work conformed to the imperative of pursuing the most immediate contact with the landscape.¹¹

The Trebević Hill was a common motif in Neidhardt’s work, beyond this particular project. In *Architecture of Bosnia’s* opening panorama and map drawn for orientation, it was sketched as one of the geographic determinants of the Middle Bosnian Basin.¹² (Figure I-43) In the book’s portfolio, it figured as the ultimate visual spectacle in the city. Neidhardt pursued views of the Trebević in his urbanistic project for the new socialist centre of Sarajevo in Marijin Dvor.¹³ The hill also served as a reference point in his efforts to articulate the urban space of Sarajevo as a sequence of semi-enclosed squares, each one of which permitted for the opening of vistas to its northern slopes.¹⁴ The view of the Trebević seemed to be a feature which reinforced the connection between the city and its “natural” surroundings - complementary to the material and ecological “green penetrations,” it was a lyrical accessory to the infrastructural regime of the “green wedge”, which Neidhardt inherited from the German planning trends of the 1920s. An opportunity to design a house on the Trebević Hill must have, therefore, been important for Neidhardt. Its praised balance

of forms and “humanoid beauty”¹⁵ were a result of the two-year-long, painstaking work of “sculpting every detail”¹⁶ and “bothering construction workers” with perfectionism.¹⁷

Neidhardt’s fascination with the hill is not difficult to understand. On a purely plastic level (that he regarded with great attention), the Trebević is one of the most striking features of Sarajevo’s dynamic landscape. From the south, it frames a long and narrow valley inside of which the city is situated. Its spiky silhouette rises up to 1629 m behind its historic core with such force that it led medieval historians to assign the mentality of Sarajevo’s citizens to its influence.¹⁸ Other human geographic sources, well known to Neidhardt, complemented these theorisations of functional dependence between the character and landscape, by turning their focus to less accessible mountain tops and hill sides. Jovan Cvijić categorised highlands that defined the Basin of Sarajevo as a realm of the Balkan-wide “patriarchal regime:” the pure, arcane, elementary culture that he suggested would “ethnically rejuvenate” the South Slavs.¹⁹ His implicitly nationalist logic counterpoised this ethnic vitalism to the supposed stasis of the Old Byzantine and Oriental civilisations.

The house type that Cvijić assigned to this regime, the “Dinaric cottage,”²⁰ was presented in the opening chapter of *Architecture of Bosnia and the Way to Modernity* as one of the ethnographic objects characterising the historical-geographic region of the Middle Bosnia. Its defining formal feature, a high steep roof covered with shingles, was represented by Neidhardt in sketches to suggest the presence of the cottage in high altitudes. In Neidhardt’s layered valley elevation (Figure I-27), these roofs appeared on top of all other tiers of recurring architectural forms, right above the realm of the Bosnian oriental houses. These roofs, likewise, figured in the panoramic “Sketch for Orientation in the book,” arranged in clusters in the highest portion of the Trebević’s northern hillside (Figure I-43). This presence, however, although registered in documentary materials, was ignored in design endeavours.

If *Architecture of Bosnia’s* research was indeed geographically and ethnographically scientific, and if the book’s pretension to set directives for design was to be taken seriously, then this inconsistency, starkly obvious in the case of the Ski House on the Trebević Hill, is a matter deserving some attention. What Grabrijan and Neidhardt suggested through both *Architecture of Bosnia’s* composition and its written discourse, was that the Bosnian

oriental vernacular was an outcome of dialectical social processes which involved cycles of migrations of local population between the valleys (where cities eventually sprung) and the highlands (that became their peripheries), all the while determined by waves of violent conquests.²¹ Perceived as a result of the socio-technological evolution, the Bosnian oriental house seemed to be a result of the resolution of the centre-periphery tension. To construct a modern interpretation of this house in the periphery seemed to seal this process through positive dialectics. Indeed, the wooden cladding that the Ski House featured gave its decisively modern and Bosnian oriental appearance a tinge of a log cabin image.

What made this strategy contradictory, however, was not the “impurity” of its hybrid representation, but its geography. Neidhardt’s Ski House was one of the first material undertakings on the part of Sarajevo’s socialist administration in line with its determination to turn the Trebević into the city’s prime recreational area. Already during his tenure in the Ministry of Construction of Bosnia and Herzegovina, between 1945 and 1947, Neidhardt contributed to this goal by producing the conceptual urbanistic sketch titled: “Physical Training Ribbon - Recreational Zone from the Trebević to Ilidža.”²² This work connected and gave continuity to several of Neidhardt’s pre-war interests, including his infrastructural thinking of green areas in his competition entry for the “regulatory bases” for Zagreb in 1930 (Figure II-22)²³ and regulation of mineral springs in the historical Sarajevo suburb of Ilidža in 1938.²⁴ Although it has not been preserved, the basic features of the “recreational ribbon” scheme may be reconstructed on the basis of these and other projects through which Neidhardt established his conception of greenery as an infrastructural element (discussed in the second chapter of the present dissertation). The notion of the “ribbon” was only one of the metaphors Neidhardt used to convey narrow, long, continuous green areas as elements of systematic solutions to urban issues (others being “strings,” “penetrations” and “wedges”). The “recreational ribbon” could have, therefore, only referred to a set of services for outdoor recreation and leisure, arranged inside one such green area. The Trebević-Ilidža designation defined the course of the “ribbon,” stretching from the eastern end of the Sarajevo Basin to its opening into the Sarajevo Field, a part of which was formed by Ilidža. It also defined its merging with the non-urban hinterland, at both ends of the “ribbon.” This conception of Neidhardt’s

therefore, drew the Trebević into the planned system of urban recreational services, long before he contributed to its realisation by designing the Ski House. While the delicate design strategy of the project sought to connect to the geography of the Bosnian region, its very situation at the hillside of the Trebević made it a part of the “recreational ribbon” as a form of urban infrastructure.

Neidhardt’s proposal certainly contributed to bringing the Trebević Hill into the purview of the city administration. The ski jump that flanked the location of the Ski House was built on the hill already in 1946. But it was not before early 1947 that the Executive Committee of the City People’s Committee of Sarajevo (*Izvršni odbor Gradskog narodnog odbora*, abbreviated EC CPCS in the remainder of the text), the most potent political authority at the city level in the post-revolutionary period, really focused on the Trebević as an area of intervention. The Ski House was immediately discussed as a priority project.²⁵ In September of 1947, the construction was under way: masonry works were finalised and carpentry works were in progress.²⁶ Meanwhile, the EC CPCS continued resolving other issues that complicated the overall vision of the Trebević’s transformation. In that same month, their Department of Communal Farming concluded that a question should be posed to the Presidency of the Government of Bosnia and Herzegovina about the possibility of removing the native population from the hill to turn it into a park-forest.²⁷ Two months later, a conference was held at the Ministry of Agriculture of the Republic to discuss the topic. Representatives of the inhabitants of the Trebević villages were present and declared that they “do not accept any compromise, nor are they willing to move.” The EC, nevertheless, acted for the sake of the “public good” by deciding to conduct “the expropriation of private ownership in these villages and their removal in an agreement with the Ministry of Agriculture.”²⁸ The issue was discussed again in March next year. By that time, it was planned for the Trebević to become a “National Park” and “be regulated” as such. The EC concluded that it was necessary to establish a commission within the Department of Communal Farming, whose task would be to define the borderlines of this park in order to start with the removal of the native population from the area soon afterwards.²⁹ In late April, official “decisions on expropriation” were issued, except for the village of Dovalići, which was under jurisdiction of the County Commission for

Expropriation.³⁰ Meanwhile, the Provincial Architectural Design Office (*Zemaljski projektantski zavod*) worked on the “sketch” of the national park, which was to be sent to the Presidency of the Republic’s government to make the new status of the hill official. Except for the Ski House, a number of projects dedicated to recreation were also considered to be situated in the Trebević, such as hotels, restaurants and sport clubs for purposes of different governmental and other institutions.

The substitution of the Trebević’s largely agricultural native community for occasionally visiting and recreation-seeking urbanites was not a controversial exception, but rather a result of the general attitude of the local government, focused on reconfiguring the urban space and its surroundings, in accordance with a new set of modern regulations and norms. Although opening of the Trebević to recreation had already started between the two world wars, when the first societies of mountaineers formed in Sarajevo, discussions of the immediate post-war officials prepared the grounds for the involvement of experts capable of assessing the overall natural and social balance of the hill. As one of them shared with a local magazine in 1959, the task of expertise was to “establish a biological and technical harmony” in the Trebević and thus repair what was damaged through woodcutting, hikers’ negligence and natural disasters.³¹

This harmonization of the Trebević as an infrastructural extension seemed to differ greatly from the conception of harmony implicit in Neidhardt’s pursuit for a perfect unison between architecture and landscape, embodied in the Ski House. This pursuit relied on the hypothesised natural harmony of the geographic region, a part of which was formed by the Trebević. Yet, this hypothesis was dependent on generalizations as much as the techno-scientific outlook of the planners. Indeed, the positive dialectics of the centre-periphery relations, on which the logic of *Architecture of Bosnia* depended, were not immune to the pressures of the politics behind the infrastructure plan, which were systematic and far-reaching, just like the infrastructure itself.

The Trebević was only one of the locations from which native population was removed in order to make way for urban recreation. Another one was the second determinant of Neidhardt’s “physical training ribbon,” Ilidža. In January of 1948, the EC CPCS ordered “the dislocation of village houses from the area around hotels,”³² constructed at the turn of the

19th century as a part of the historic spa complex. In April, it ordered a rapid dislocation of specific 28 families from the village of Lužani in Ilidža. The Housing Commission of the EC was asked to arrange for adequate “rooms” for these families to be moved into.³³ However, by August, some of the dislocated peasants returned to their native homes, only to be moved away from Ilidža again - presumably by force.³⁴ As a part of this campaign, derelict houses in Lužani were ordered for demolition, while others were used to house “officers” – possibly the CPCS employees in charge of managing the tourist capacities attached to the spa.³⁵

Meanwhile the EC intervened in the agricultural production of the area. The peasants who were entitled to remain in and near Ilidža, were governed by similarly resolute determination to bring welfare to the city at any price: in September they were, for example, asked to discontinue cultivation of crops and start growing vegetables, necessary for consumption of the Sarajevo population.³⁶ Some of the peasants seemingly contested this decision, so the EC concluded, in November, that any one of those “busting the plan” would be castigated.³⁷

This hardline approach towards the peasantry was an outcome of general governance trends that the early-Yugoslav regime established in respect to the countryside. A range of institutions, policies, resolutions and decisions caused a dramatic change in the village life already in the second half of the 1940s.³⁸ The new Socialist conception of agrarian reform through the collectivization of land, established the basic set-up of the transformation. Other related policies were colonization to parts of the country in need of agricultural workforce, compulsory purchase of agricultural products at government-fixed prices and progressive taxation.³⁹ Neither one was popular with the peasantry. Communist officials involved with the design and implementation of the measures later testified that these resulted in the “painful, devastating experiences” for the peasants.⁴⁰ By 1950, the mood in the countryside was so bleak that the inhabitants of the agricultural lands in Bosnia near the border with Croatia, organised the only Yugoslav peasant rebellion in 1950. It was suppressed by the regime with violence and in blood.⁴¹ Still, the village question remained one of the most problematic and sensitive for the Communist leadership.⁴² After all, the peasants formed a vast majority of the overall population of the early Socialist Yugoslavia.

In 1948, their share in the total economically active population amounted to as much as 72.7 per cent.⁴³ Josip Broz Tito, the leader of the Yugoslav Communist Party reminisced in 1958 that the forced inclusion of peasants into socialist cooperative collectives resulted in “less agricultural products and more political problems in the countryside.”⁴⁴

The disregard of not only the social, but also geographic particularities relevant to these infrastructural reforms, resulted in their poor outcomes: a majority of Yugoslav farmers operated fragmented, small land-holdings, scattered throughout the mountainous relief that were difficult to collectivize. Colonization, in turn, uprooted peasants from their land, taking them to new environments to which they often found it hard to adapt. A striking and illustrative example is an official complaint issued in 1954 by Mr. Mitrinović Jovo, a land-owning peasant from the County of Stolac in Herzegovina (landscape characterized by karst mountains) who moved to Vojvodina (a distinctly plain landscape), through a government-promoted colonization scheme, in 1945. Three years later he asked to return to his native land in Herzegovina, explaining that he was forced to do so because “none of my family could stand the climate, so they all got ill.” His request was rejected.⁴⁵

While the developments in the countryside were not the only reason for socio-economic reforms of the 1950s, they were amongst the primary ones.⁴⁶ As one of the high ranking Communist officials involved in the agrarian reform implementation, declared: “in short, we have experienced both economic and political debacle with the collectivization of the village.”⁴⁷ This debacle combined with foreign policy issues, overtly ambitious goals of industrialization and, above all, geography, to enforce a fundamental reckoning - as foreign commentators observed, referring to the state and its experts: “it seems that the importance and the influence of local physical conditions, of the environment, had been born in upon them.”⁴⁸

The “environment,” however, was more than hills, valleys, creeks and marshes. It comprised a totality of national space and beyond, including cities, infrastructure and their mutual relations, influenced by policies and markets - a milieu. Another official involved in the mandatory purchase of foodstuffs at government-determined (usually ridiculously low) prices, compared the developments in the countryside to an “illusion being shattered against ruthless reality”, also adding: “There was no other solution. We had to take the

wheat. Had we not, the cities would have remained without bread.” These difficult choices took a toll on both the peasantry and their productivity. Pressured by harsh policies (often “forced to give away that which they themselves lacked”⁴⁹), with traditional culture of work and existing ownership structure undergoing a total overhaul, the livelihoods of the early Socialist Yugoslav peasants were the urban development externality.

Observed on the background of these processes, the Ski House indeed seems less organic, at least if the “organism” referred to comprised that delicate balance between the Dinaric cottages, its inhabitants, mountain hillsides, cattle, pastures and fragmented arable fields cultivated by small farmers. Neidhardt insisted on uniting the representation of his key project with the representation of this pastoral setting by means of techniques of the layout design, both in the double spread described above and in the dust jacket he designed for the book (Figure I-09). Yet, Neidhardt’s “recreational ribbon” promoted the spatial concept which presupposed its marginalisation and his “modern Bosnian house,” as shown in the second chapter of the present dissertation, was cast as a machine for transformation of peasants into workers. Indeed, the beautiful, organically designed Ski House was also an extension of the regime established by the “recreational ribbon.” The ways in which *Architecture of Bosnia* dealt with this tension between architecture and infrastructure were manifold: from the subliminal message of the dust-jacket montage, to the representation of history as an evolutionary, continuous, progressive historical process, the unity of which was assured by geography.

While the village life represented on the dust jacket was a metaphor of harmony to which such historicity was denied, Neidhardt must have been at least partially aware of the early Socialist Yugoslav rationalizations of the countryside. In confrontation with such contradictions, the principle strategy that assured the consistency of *Architecture of Bosnia*’s regionalist message, therefore, had to be much more substantial. It relied on the book’s neat separation between the realms of design and planning. Indeed, just as the book never described the Ski House in relation to the Recreational Ribbon, it represented other Neidhardt’s architectural and infrastructural conceptions strictly separately. The exceptions were singular attempts when Neidhardt sought to combine design and planning, blur the distinction between architecture and infrastructure and merge his interpretation

of the historical-natural milieu with systematic solutions required by the socio-technical regime of the state-led development.

4.2 The C1a and the Industry Boulevard in Zenica



Figure IV-3 - A double spread representing regulation plan for Zenica, by Juraj Neidhardt, 1949-1954 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 458-459).

undisturbed view, respecting the proximity, town as amphitheatre etc.

But the urbanist, in his corresponding activities, is not completely free. This has been especially true in the period after the second World War, when the reconstruction of Zenica has been planned. Then our possibilities have been very restrained: the priority should be given to the Industry, even to the detriment of building the lodgings.

In spite of all possible efforts of the urbanists to displace the dwelling obstruct area successively towards the South of the town, on Billmishe, viz. in a space without industry, these aims couldn't be realized because of practical considerations; the preference has been given to the coal exploitation.

Such the problem has been raised on the basis of a compromise: the centre of the town should remain at its place with all its administration buildings and duty settlements of Iron-Works, while the dwelling areas should be extended from the centre in form of various branches towards the most sound territories on the surrounding declivities.

Likewise the fingers grow up from the palm of the hand, the

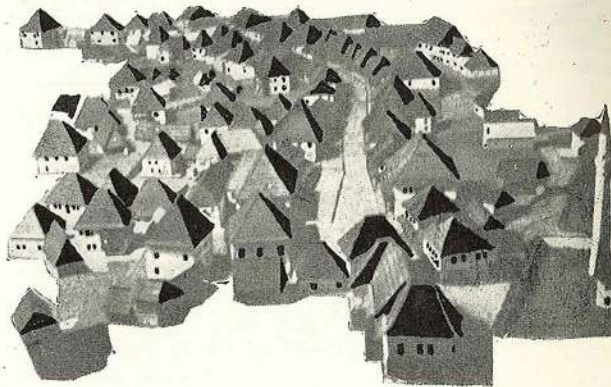
whole area of the town has been divided into the centre in a restricted sense and dwelling settlements built-up on the principles of a garden town in the directions towards Pehare, Babina Rijeka, Perin Han, Travnichka cesta and Tetovo. The urban solution has taken care to foresee a large protective zone of wood between the industry compartment and the town itself.

Further, a demolition of all unsuitable chimnies infecting the air, as well as modern electronic purifying system to be installed on all new chimnies, are planned.

The green surfaces shouldn't be limited to the dwelling settlements, but should penetrate also in the industry areas. Such we could get a town-amphitheatre, penetrated from all sides by green areas — a typical characteristic of all our old settlements where the surrounding declivities unite the valley of the town in a harmonious whole.

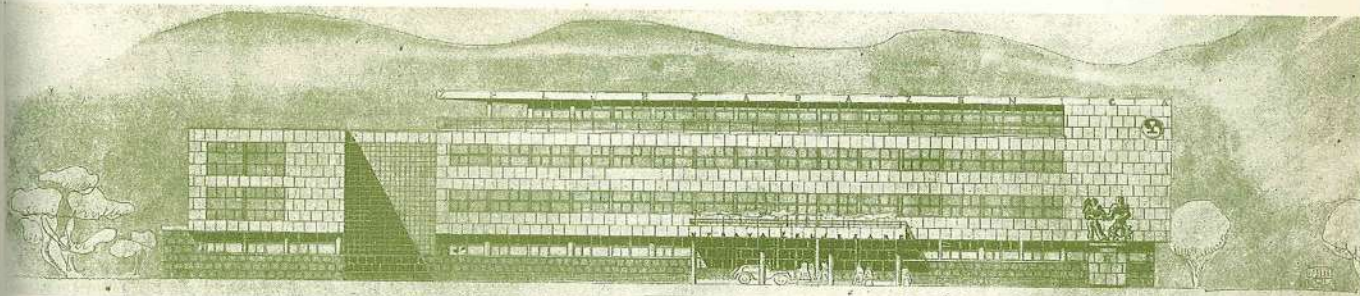
Like in the repartition of the town in microdistricts — "mahale" — with their city — "charshiya" — in the valley we are approaching by proceeding so to the traditional building system originated by the double principle: "charshiya serving for business, Mahala for dwelling."

Maketa stare čaršije Zenice nekada i sada (rad: Mesud Sarić, maketar).
Dummy of the old Charshiya of Zenica once and now (made by Mesud Saric).



Upravna zgrada željezare treba da postane u osovini industrijskog bulevara centralna građevina. Urbanističku i arhitektonsku postavku dao J. N., projekt arh. Lavrenčić.

Administration building of Iron-Works should results as a central building located on the axle of industry avenue. The urban and architectural disposition given by J. N., the project designed by arch. Lavrenchich.



Salter dvorana
Ticket window Hall

Stubište
Staircase

Glavni ulaz
Main entrance

Spomenik rudaru
i metalurgu
Monument of Miner
and Metallurgist

A panoramic view of the riverfront is seen through windows of a moving train (Figure IV-03). In the midst of the animated, distracted crowd, one man (probably a photograph of Juraj Neidhardt from the back) contemplates the white city in the river valley: its generous recreational zone and green spaces engulfing monumental buildings endowed with Bosnian “architectural elements.” On the opposite page, a photograph cutout shows a cluster of vernacular Bosnian houses. These are the Zenica of the future and the Zenica of the past. Representation of the “future” is coloured in a greenish hue, to attach the notions of nature and progress to this projection. The train and its passengers, possibly suspended in the present, are on the way to New Zenica. The third element of the double spread - the elevation of the Directorate of the Ironworks building - associates the city’s industries with this “way to modernity.” Yet, their fast-paced growth after the war linked the prospects of this way to the housing construction, as much as to the literal (rail)way, putting architecture and infrastructure on a par as the instruments of the state-led development.

The first “modern Bosnian houses” were built in Zenica according to Neidhardt’s projects, even before the war. The houses were designed for the miners and iron-smelting workers of the Middle Bosnian Basin. They were a part of the company housing programme of the Kingdom of Yugoslavia’s Jugočelik and Independent State of Croatia’s HRUTAD, respectively. After the war, however, they were bound to become a part of the Socialist Yugoslavia’s housing policy.

The government endorsed the project nominally at the Conference convened in Belgrade in January 1947, by the General Directorate of Ferrous Metallurgy.⁵⁰ The issue of “investments” was discussed between the Federal and Republican governmental organisations, with housing being at the top of the agenda. As development of heavy industry was prioritised by the government, and Bosnia was envisaged as the new center of metallurgy, preparing the grounds for the housing question to be resolved in Zenica, Vareš and Ljubija was given due attention. Having architectural and urbanistic projects (“urban regulations”) dedicated to housing checked, updated and completed, was considered one of the most important preconditions.

Neidhardt’s “house with six apartments” (“sextuplet,” as he liked to call it) (Figure IV-04) seemed to have received decidedly positive reviews at the conference. Several months later,

the Ljubija mine sent its Sextuplet project documentation to the Majdan Pek mine in Serbia for reference (complete with cost estimate and technical files), despite its regionalist Bosnian character being at odds with the East Serbian landscape, into which it was supposed to be transplanted.⁵¹ The Director of the Mines and Ironworks Vareš described the project as bringing “truly favorable solutions, in respect to comfort and rational use of space and regional architecture.”⁵² The Director of the mine in Ljubija, where ten houses were constructed in the course of 1947 and 1948, prepared a mini-report on Neidhardt’s architecture for the Federal Bureau for Advancement of Construction, worth quoting extensively:

“The typical houses are modern Bosnian houses, combining oriental and Parisian architecture, which are, in their exterior architecture, very pleasant and cheerful with their lively and multicolored verandas and facades, or intimate Bosnian style wooden verandas. The interior arrangement of the ground floor and first floor is very comfortable and practical. Out of six apartments, four consist of two rooms - kitchen - storage room - bathroom and toilet and two apartments have one room - kitchen - storage room - bathroom and toilet. (...) The Sextuplet is one of the very rational and economical types under construction today - it satisfies with its exterior architecture and interior disposition. (...) The author of this project is the urbanist engineer Juraj Neidhardt from Sarajevo.”⁵³

Despite these favorable reports based on the most immediate experience of Neidhardt’s architecture, the Federal Ministry of Construction ordered that any further usage of the “Sextuplet” project be discontinued in 1949, both in Vareš and in Ljubija.⁵⁴ The Federal Commission for the Revision of Projects (*Savezna komisija za proveru projekata*, abbreviated FCRP in the remainder of the text), authorised to vet the project documentation sent by investors from all Yugoslav republics in terms of technical quality and cost-effectiveness, stated that the Sextuplet fulfilled the existing technical norms in construction. The reason to reject it, however, was a resulting discrepancy between the cost estimate and “built areas,” as well as the uneconomical use of construction materials.⁵⁵ On another occasion, the Commission explained that “the conception of the project, both in terms of

the applied materials and construction, does not comply with the obligatory directives regulating the savings for this year. The built area of the building has exceeded the permitted norms by 15 per cent.”⁵⁶ The Ljubija Mine was, therefore, advised to use projects which were already verified and used in practice by the organisations associated with the Ministry of Mining.⁵⁷

The governmental structures, therefore, clearly prioritised cost-effectiveness over “regional qualities,” “cheerfulness” and other unquantifiable categories. They disregarded the prospective savings that would be achieved by the Vareš variety of the Sextuplet by using slag, the recovered industrial by-product of an iron blast furnace, as the construction material.⁵⁸ In spite of this demonstration of inventiveness, they disqualified the project due to its use of timber that exceeded the maximum quantities stipulated by the plan. Both the “already verified projects” and “maximum quantities” were quoted in order to keep the housing construction within the optimal range of expenses and comfort. The Commission’s position on Neidhatrdt’s “Sextuplet” was that instead of further optimisation, it should best be replaced with a “typical plan.”

In Yugoslavia, as elsewhere in Europe, the immediate post-war years were marked by a pronounced scarcity of construction materials. The need for new construction was acute, as the reconstruction went in parallel with the rural-urban migration related to the new industrial developments. In its conference focused on construction industry, held in January of 1947, the Federal Planning Commission (FPC) promoted extreme rationalization of materials and workforce - both through standardization and strict vetting of design solutions. While prefabrication remained “rudimentary” in the Yugoslav construction until the late 1950s,⁵⁹ already in the late 1940s there existed a clear official position that “standardization and typification of either construction parts or entire buildings” could “speed up the work invested in design and increase its quality.”⁶⁰ The FPC advocated, through the Federal Ministry of Construction, the use of typical plans in order to lower the cost of design (which included the process of project vetting). This logic reduced design to “production of projects,” the cost of which, just like that of industry, was determined by the production speed. The FCRP of the Ministry would recommend an investor to replace the nominated project with a typical one, if the modifications it proposed demanded a

substantial redesign of the original proposal. Typical plans were defined by the Ministry of Construction in 1948,⁶¹ one of the most referenced ones being the “MG FNRJ M-336.” The M-336 featured two identical, mirrored apartments per floor. Each had two rooms (one doubling as a dining room, with a balcony), a kitchen (with a storage room and balcony) and a bathroom with toilet - all accessible from a single entrance hall. (Figure IV-05) Most importantly, the variety of spans was reduced to two (3.40 m and 2.13 m) per apartment, the same as the dimensions of doors and windows, while the installations (including kitchen, bathroom and toilet) were concentrated in one “block.” All of these aspects facilitated a simpler, faster and cheaper construction. Furthermore, the plan was considered particularly “rational” because of its size (53 sq. m) which was tailored to an average nuclear family with two children, resulting in a standard of 13 sq. m per resident. The preferred housing type for unmarried workers was, at that time, the so-called “bachelor house,” which consisted of private rooms and shared kitchens, bathrooms and other facilities.

Therefore, the M-336 was a tool to govern population, workforce, use of material, construction technique and design and was, hence, particularly strongly implicated in the housing construction of those enterprises considered to be of “federal importance.” In Zenica, where the Mine and Ironworks carried such label, the plan was used as a basis for the residential building that went by the code name “C1a.” Initially designed by the local architect Karlo Kužatko, the project was rejected by the FCRP in May 1948, because it was “irrational in terms of size and use of apartments, and particularly in terms of installations.”⁶² Indeed, Kužatko’s proposal featured a typical plan of four apartments per floor: two mirrored studios of 21,0 sq. m and two mirrored one-room apartments of 50 sq. m. The interior organisation was such that installations were scattered forming four separate blocks of two bathrooms (with toilet) and two kitchens (Figure IV-06). The studios were included in the proposal as an answer to the specific needs of the Zenica workforce, with 1200 unmarried workers living in substandard conditions at the time.⁶³ The FCRP, however, discouraged the mixing of two different types of population and deemed the studio and one-room apartment plan “irrationally sized,” possibly because the Zenica enterprises, in parallel, pursued an approval for a “bachelor” type of project, i.e. the

housing going by the name of “Kasina.” As a result, the FCRP recommended to the Ironworks and its architect to abandon the initial proposal for one of the “typical plans” that would be published by the Ministry of Construction in the following months.⁶⁴

This recommendation was accepted and a new project of C1a, based on M-336, was sent to the FCRP in August. Although the organisation of its floor plan was identical to the “typical plan,” the project was rejected, yet again, because of the slight modifications of the original dimensions, which resulted in “five different spans, instead of two in the basic project M-336.”⁶⁵ (Figure IV-07) Already in mid-September the Zenica Ironworks sent a corrected and completed version of C1a (as well as the Kasina project) to the General Directorate of Black Metallurgy,⁶⁶ asking for help in getting an “urgent approval” of the proposed projects, as the housing situation in Zenica was “in horror (sic!).”⁶⁷ Indeed, not only the Ironworks, but also the construction workers lacked a proper housing, which resulted in the stalling, even of the housing construction which was already approved and in progress.

In spite of this seemingly desperate plea, the approval of the C1a dragged well into 1949. The change of the position of “New Zenica” from the location in the Kaznioničko polje to the field flanking the Ironworks premises (agreed in November of 1948 because of the coal reserves discovered at the initial location)⁶⁸ conditioned a further prolongation.⁶⁹ It was not before February of 1949, when Juraj Neidhardt took over the C1a, that the things started moving forward. As an urbanist charged with the regulation of Zenica in late 1948, Neidhardt got involved in its housing issue and was asked to urgently produce a regulation plan for one residential street, in order for the Ironworks to be able to start with the construction of its housing units ahead of the endorsement of the regulatory plan for the entire city. This street, soon to be named Fra Grge Martića Street,⁷⁰ was to begin at the front of the new Railway Station of Zenica and stretch south-west, until its connection with the regional road⁷¹ flanking the historic core of the city.

Lined with the C1a buildings and linked to the “gates to the city,” which is how Neidhardt thought of railway stations, the Fra Grge Martića Street was a kernel of Neidhardt’s five-year-long urbanistic venture in the post-war Zenica. It was also a starting point for his design concept of the “Residential Quarter around the Train Station,” through which the

urbanist was forced to reckon with difficulties of establishing an organic synthesis envisioned by his design methodology on an urban scale.

The Quarter was roughly defined already in February 1949, along with Neidhardt's first and basic "Conceptual Sketch of the Regulation of Zenica" (Figure IV-08). The sketch showed the position of the main existing features of the city: the Ironworks, the Mine, the Old Town, but also of the proposed elements of the plan: two residential neighbourhoods on the right bank of the river Bosna, the recreational area with the public baths "wrapped" by the river meander, the promenade along the left river bank, the park in the city and the national park on the hillside. The train station quarter however, was one of the few areas in which the plan was detailed enough to include buildings. Its basic feature was the central position of the train station, from the front of which two streets stretched like two "wings" and symmetrical to one another (relative to the symmetry axis of the station building). The south-west "wing" was the Fra Grge Martića Street, defined by the composition of buildings similar to segments of the exploded Le Corubiser's *redent* blocks (Figure IV-09). The north-west one connected the train station with the pedestrian entrance to the Ironworks premises and will be later appropriately named by Neidhardt – The Boulevard of Industry. Undoubtedly, the name also referred to the range of public buildings that lined the Boulevard, all dedicated to the great industrial enterprise of Zenica: the City Hotel (facing the station), with the fan-like congress hall behind the main building, the Ironworks Exhibition Hall, the School of Industry and the Ironworks Directorate.

Neidhardt worked on the urban design of the quarter during the next four years (from January 1949 to January 1953), which coincided with the partial construction of the residential buildings in the Fra Grge Martića Street, with the overall planning of Zenica and the conception of the book *Architecture of Bosnia and the Way to Modernity*. These four separate, but tightly related activities, encompassed a reflection on three different scales and formulation of general methodology of regionalist Bosnian architecture and urbanism (through the book). Both on the scale of the city and that of the building, Neidhardt's regionalist planning and design strategies were curbed by the efficiency and security seeking regime of the state-led development. While his conception of "interpenetration" between the city and nature was determined by the need to keep workers in the vicinity of

the Ironworks (in order to reduce the travel time between the place of residence and place of work)⁷² in spite of its detrimental environmental effects, his design of the C1a proceeded under the merciless vetting geared towards the greatest possible rationalisation of all aspects of design, construction and use. On the scale of the quarter, however, Neidhardt encountered some leeway that permitted exploration of his regionalist methodology. It was this scale where he attempted going beyond the infrastructural, to control the “plasticity” of the composition and achieve a particular user experience.

The importance that the design of the Boulevard of Industry held for Neidhardt’s overall work in Zenica is evident in his monumental, 4.5 m long perspectival panorama that he produced in August and September of 1952 (Figure IV-10). The panorama showed the train station square and four public buildings on the south-western side of the Boulevard. Above the main drawing, he arranged a situation plan, wider plan of Zenica and perspectival representations of those vistas he considered crucial in this urbanistic composition. A small but informative diagram defined “the basic urbanistic leading thought” as “visibility of three main frontal buildings” identified as “A = City Hotel, B = Hotel of the Ironworks, C = The Ironworks Directorate.”⁷³ The experience of the Directorate was particularly suggestively represented, by showing the building from three distinct angles (two of them from the Boulevard promenade) (Figure IV-11).

The other “leading thought” that Neidhardt seemingly considered self-evident, was that the design of all the buildings should follow the regionalist “unwritten laws” (which were, at that time, discussed and defined through his cooperation with Grabrijan). On a purely formal level, the horizontal tendency of spatial composition, dualism between the cubic and dome-like architectural masses, portions of rustic stone walls and abundant greenery evoked the regionalist rootedness of the scheme. In organisational terms, the principle of “meander” was followed consistently: the plan avoided the continuity of street fronts by withdrawing the selected built volumes away from the street and behind spacious lawns. The model of “a spatial street” (attributed to Le Corbusier) was propagated by Grabrijan and Neidhardt since the inter-war period. Yet, in combination with the regionalist “elements of Bosnian architecture”, it was meant to evoke the dynamic experience of the harmonious spatial irregularity, typical of the vernacular residential neighbourhoods. This

appearance of unity established by the repetition of elements, was promoted by Neidhardt as a basic condition of organic integration on an urban scale and was, indeed, the principle goal of the *Architecture of Bosnia* project. For this reason, his elaborate drawing of the “Boulevard of Industry” was not a mere suggestion, but a total urban design vision which included binding architectural concepts. All of the street elevations produced as a part of the Train Station Quarter project, included the same written remark: “In order to achieve an architectural-urbanistic solution which is as unified as possible, the designers of (...) the buildings need to coordinate their architectures according to the demands of the Urbanistic Institute of Bosnia and Herzegovina (for this reason the designers need to connect with the engineer Neidhardt).”⁷⁴ This unity, however, was thoroughly autonomous, relative to Neidhardt’s overall plan for Zenica. The Boulevard’s abundant green mass was not evoked as a green ribbon or wedge. Instead, its four lanes, separated in the middle by the quadruple tree line and a promenade, were somewhat reminiscent of the longitudinal Zrinjevac park and square in Zagreb, that served as a constant reference in Neidhardt’s work. Yet, the reassurance offered by the 19th century urbanistic operation which united hygienic and aesthetic concerns (of which Zrinjevac was emblematic), was jeopardised by the pervasiveness of Zenica’s hygienic hazard: the character and intensity of the air pollution were such that neither the park nor the green wedge were adequate remedies. The Boulevard was not primarily an infrastructural, but an architecturally designed object, plunged into a pool of bad air. Just like in the case of the Ski House, the regionalist organic integrity was maintained as long as the distance between the design and the plan was preserved. While Neidhardt mostly took care of preserving that distance, his timid explorations of the boundary between the architectural and the infrastructural are amongst the most significant achievements of his work in Zenica.

One such occasion happened in May 1952, when Neidhardt asked the Electric Company Zenica to issue an official assurance that the position of its coal repository would not result in the coal dust falling towards the, still unbuilt, Ironworks Directorate. This unwitting intersection between aesthetic concerns of the designer and environmental circumstances endorsed by the planner, jeopardised both the aesthetic unity and the organicist logic of regional integration promoted by Neidhardt. If in this instance he sought to protect the

architectural form from the consequences produced by infrastructural rationalisations on an urban scale, in his work on the C1a building, he attempted to introduce some formal elements into this thoroughly rationalised scheme, with the aim of integrating them into the quoted “unity” of the overall urban design of the Quarter.

Neidhardt’s contribution to the efforts of the Zenica Ironworks to define its typical residential building unfolded between January and June of 1949, when the project was finally endorsed by the FCRP. The final version, designed by Neidhardt, differed to some extent, from Karlo Kužatko’s M-336-based plan. In this new scheme, the stair landing now leaned on the front facade, where the two rooms were oriented (one enlarged at the expense of the entrance hall), the kitchen maintained its size, while the bathroom, toilet and storage were now all aligned along the back facade wall and had a direct ventilation (Figure IV-12). The main element that Neidhardt worked with to compose the facade was the balcony. In Kužatko’s version of the C1a, as well as in Neidhardt’s first version of the project, it was attached to the lateral room (Figure IV-13), but Neidhardt eventually moved it to the centre to achieve a vertical, “plastic” composition of elements (balcony slabs and rails, staircase ventilation holes and vertical partitions) (Figure IV-14), which he likened to a tree. In his letter sent to Grabrijan in June 1950, Neidhardt described this detail, in word and sketch, as “meandering of the facade” (Figure IV-15). “I have managed,” he shared with an uncurbed enthusiasm, “to skillfully connect” the elements with “a medusa in the form of branching.”⁷⁵ “Imagine,” he urged Grabrijan, “each such trunk in a different colour.”⁷⁶

Indeed, the comparison between the perspectival drawings of the two versions - the first in Zenica (Figure IV-16) and the second in Vareš (where it was to be reproduced after the Commission’s approval) (Figure IV-17), conveys the plastic effect that was pursued by introducing the purported “tree” into the C1a project. Neidhardt explicitly designated this act of composition as a remedy to the consequences that “great savings” imparted on the architectural form. The uniformity and dullness that characterised “our profane architecture - coffins”⁷⁷ where felt everywhere, as the M-336 was reproduced by architects in a variety of Yugoslav contexts, from continental Zenica, over Mediterranean Split⁷⁸ to Alpine Jesenice.

This criticism and the plastic “tree” that Neidhardt was striving to produce on the facade showed that designs, such as C1a, did not fit his idea of the regionalist architectural integration. It was only in 1953, while his Zenica design was under construction, that he was permitted an attempt to, relatively freely, apply his regionalist design methodology in the realm of collective residential architecture, in his project for two buildings in Đure Đakovića Street in Sarajevo. Neidhardt positioned the volumes perpendicularly relative to the street front and the topographic contour lines of the steep terrain (which produced difference of three floors between the front and the back facade) (Figure IV-18). Akin to his Ski House design, the result was an impression of an intimate coherence between architecture, topography and greenery (Figure IV-19). The controlled irregularity of the southern facade (which followed a gentle zig-zag line) contributed to the same effect. The unconventionality of the situation plan was further developed by elevating the building entrances by a few meters relative to the street level. The pebble paving of the access ramp, cantilevered cubic volume of the building, broken stone cladding on the facade, combination of flat and vaulted roofs and interpenetration of built volumes with greenery - all evoked the principles propagated by the book *Architecture of Bosnia*. The interior design included terrazzo flooring customised with larger pieces of broken granite, cylindrical free-standing columns and decorations in the form of arcane mosaics and reliefs, built into walls (most probably works of the Bosnian painter Radenko Mišević) (Figure IV-20).

The specificity and alterity which Neidhardt pursued in Zenica by humble means of his tree-like articulation of the facade, were realised in Sarajevo in this richly textured, meticulous work, which garnered the disciplinary acclaim. This architectural specificity, however, depended not only on Neidhardt’s regionalist design skills, but also on the specificity of the client that commissioned the project: the Yugoslav Army. While the “optimal” apartments of the C1a were built in the Fra Grge Martića Street in Zenica, the revisionary commission asked Neidhardt to enlarge the apartment size in his two residential buildings in Sarajevo.⁷⁹ This resulted in the two-room and three-room apartments, which significantly surpassed the optimal needs of the worker’s nuclear family, defined by state commissions. While the inequalities between workers and army officers incarnated by means of Neidhardt’s architectural production, established elitism which

was, proportionally, a minor social occurrence, his architectural-urban design and planning in Zenica were entangled with the question concerning a much larger scope of regional inequality.

By the mid-1960s, the Bosnian “industrial basin rich in resources,” that Neidhardt referred to in *Architecture of Bosnia*, had been affected by substantial levels of environmental pollution. Different sources from the era focusing on Sarajevo, Zenica, Kakanj, Maglaj⁸⁰ and the course of the river Bosna assemble a representation of the Middle Bosnian Mining Basin as severely affected by the deteriorating condition of air and water. This disadvantage combined with a persistent economic disparity that existed between the six Yugoslav republics since the inter-war period.⁸¹ By 1945, the Yugoslav economic geography faithfully reflected the global polarisation between the developed North and underdeveloped South. The division of labour inherent to such polarisation - the Developed, as producers of finished goods and services and the Underdeveloped, as producers of raw materials and other primary produce - created circumstances for perpetuation and deepening of inequalities. For more than a decade, this problem remained the focus of the Communist leadership’s persistent redistributive policies that sought to mitigate the disparity and facilitate regional (or republican) economic convergence.⁸² The influx of a part of developed republics’ revenues into the economies of the underdeveloped ones was to make up for their lag, attributable to this kind of organisation of national economy.

By the mid-1950s, however, the implicit concern for economic justice that underlined these policies started to be complicated by processes and occurrences in rapidly industrialised regions, which could be best understood within the contemporary research framework of environmental justice.⁸³ Particularly the city of Zenica had become emblematic of the drawbacks of industrialisation on the national scale.⁸⁴ Its Ironworks, its mine and thermoelectric plant epitomised both the primary economy of the underdeveloped South and its serious environmental cost. Despite not having been structurally defined and properly theorised yet, these issues of environmental justice were raised, *avant la lettre*, in relation to the city’s prospective development during the difficult endorsement of Neidhardt’s regulation plan in 1954 (discussed in the second chapter of the present dissertation). In these discussions, the federal importance of Zenica’s industry and the

sacrifice (for its sake) of its workers' most vital physiological interests, was explicitly linked to the investment in its social standard, as a form of redemption.⁸⁵ In Neidhardt's own words: "The main goal of the designer was (...), in the given circumstances, to give to our working man, for the contribution that he gives to his homeland, an optimal counter value also in the residential culture of an organised settlement."⁸⁶ This kind of reasoning prefigured the definition of regional organicism of the first Yugoslav methodology of regional planning, which linked regional organic order to equal availability of services across the territory (discussed in the third chapter of the present dissertation). Branko Petrović, who will co-author the methodology several years later, was one of the most prominent voices that established this transactional logic in the discussion of Neidhardt's regulation plan. Arguing for a generous investment in the construction of Zenica, he warned that "if the giant was built to serve the [Yugoslav] community, then it must not deprive the man who lives and works inside this caldron of what belongs to him."⁸⁷

Indeed, the history of Neidhardt's planning of Zenica indicates that his carefully designed urbanistic compositions of the Train Station Quarter and the entire "social centre" of the city had to be perceived on the backdrop of this desire to balance biological losses and cultural gains. In 1952, the initial programme for detailed regulation of the area around the station was extended to encompass the belt between the Fra Grge Martića Street and the course of the river Bosna, along which Neidhardt imagined a Riverfront Boulevard that was meant to connect to the Boulevard of Industry via the Train Station boulevard and Train Station Square. The urban design of this extension coincided with the intense and comprehensive campaign of data collection focused on Zenica and its surroundings, that Karlo Kužatko undertook (on behalf of the Ironworks) for Neidhardt and the Urbanistic Office of the Republic of Bosnia-Herzegovina. In March of 1952, Neidhardt prepared a detailed "Programme of Works" that was used as the basis of this campaign and included questions concerning the limits of the industrial zone of the Ironworks, its planned railway and road network (particularly the connections to other "basins"), electrical infrastructure and sewage, the "zones of pollution" and "the perspective plan of works on the elevation of social standard of the Ironworks workers and clerks."⁸⁸

In the following nine months, Neidhardt worked in parallel, on the analysis of the collected information, its meaningful coordination with the Regulation Plan of Zenica and on the urban design of the three boulevards and Fra Grge Martića Street. In September and October, he produced detailed “design concepts for the treatment of facades” for the entire composition and the perspectival panorama of the Industry Boulevard (discussed above). His elevation of the Train Station Boulevard (Figure IV-21) contained a written demand that the future designers of the buildings “present all of the architectural and urbanistic details to the engineer Neidhardt for approval.”⁸⁹

In January of 1953, he produced a detailed axonometric representation of the extended Train Station Quarter (Figure IV-22). The added belt between the Fra Grge Martića Street and the river consisted of loosely composed blocks, partially determined by accepting the structures already existing in the site, as well as the “principle of meander,” implemented in a variety of different ways. Just like the Boulevard of Industry, the Riverfront Boulevard was imagined as an impressive array of free-standing monumental buildings. However, while the former was, in coherence with its name, fully dedicated to the Ironworks enterprise, the latter was dedicated to the comprehensive (both biological and cultural) welfare of Zenica’s citizens. Starting from the existing residential block at the corner with the Train Station Boulevard, Neidhardt positioned the Institute of Hygiene of Zenica and the Workers’ Communal Health Center (Figure IV-22). From there to Old Zenica in the south-west, other, mostly culture-dedicated buildings lined the river: the Theatre with the Concert Hall, the City Hotel, the People’s University and the Trade Union House, the Technical Museum and the covered City Market. Again, much like the Boulevard of Industry, this monumental “city-facade” was represented from a visitor-traveller’s perspective: in March, Neidhardt produced a suggestive, “ambient,” movie-like representation of Zenica, as seen from the train (Figure IV-23).

The pressures, created by the contrast between this vision of workers’ welfare and the crude reality of the polluted air and water into which it was to be submerged, might have contributed, at least partially, to Neidhardt’s own health issues, which he confided to Grabrijan in the fall of 1952.⁹⁰ Beyond these psychological effects, however, what aggravated Neidhardt’s pulmonary problems without any doubt, were his frequent visits

and long stays in Zenica. After his five-year-long urbanistic venture there ended with the endorsement of his regulation plan in 1954, Neidhardt was diagnosed, in 1955, with pulmonary cavitation which manifested in intense cough and bloody sputum.⁹¹ Nevertheless, prospects of these (and worse) diseases did not discourage the forum of urbanistic experts and officials in Zenica to endorse Neidhardt's regulation plan, on a pretext of malleable hygienic norms and a social contract-turn-barter in which "residential culture" was traded for biological sacrifice.

Neidhardt pursued the organic wholeness of this residential culture adamantly, by striving to adhere (and make others adhere) to the regionalist "unwritten laws." Still, what gave this act of "social redemption" a sense of true transaction, was the flow of financial support from the developed to the underdeveloped regions. The restructuring and gradual elimination of regional economic solidarity in Yugoslavia in the late 1950s, certainly at least partially influenced the considerable reduction of the cultural and welfare programme that the Train Station Quarter and the Riverfront Boulevard contained in Neidhardt's proposal. The Programme for the General Urban Plan of Zenica, which replaced Neidhardt's Regulation Plan in 1962, reduced the cultural content⁹² and accepted the pollution as an inherent feature of the "industrial town."⁹³ Zenica, as the programme stipulated, "will never be neither an 'ideal' nor 'garden' city."⁹⁴ This passive acceptance of a man-made hazard cohered to the similarly passive acceptance of the inequalities produced by the liberated market forces. Through the reforms introduced into the economic policy of the Socialist Yugoslavia in 1957, "the doctrine of workers' self-management was extended to posit the criterion of profitability as the essential determinant of wage levels and investment decisions." This change marked the end of support for underdeveloped regions, which was subordinated to the goal of achieving the maximum growth for the economy as a whole.⁹⁵

The unity between design and planning, demanded by Neidhardt's work in Zenica, complicated the process of regional integration of architecture and urbanism, postulated in *Architecture of Bosnia*. The extreme rationalisation promoted by the state in the realm of housing construction, reduced residential buildings (such as C1a) to the infrastructure that facilitated labour organisation. Meanwhile, the urban plan of Zenica was subsumed under the infrastructural demands of the economic enterprise. In these circumstances, Neidhardt

sought to develop the organic regional integration through his design on the intermediate scale of the urban quarter. This entailed a conceptual transformation of the boulevard, from green infrastructure (what Neidhardt referred to as “green penetrations”) into a site which figured a unity between the “unwritten law” of the historical-geographic region and “transactions” of the socio-economic planning. These transactions, invested in issues of economic and environmental justice, offered a basis for a regional planning which was to ensure an organic harmony in the even distribution of welfare and services on a territorial scale. Although thoroughly independent, these two aspects of regional organic integration came together in the conception of the Boulevard in Zenica. The kernel of the network formed by the Industry, Train Station and the Riverfront Boulevard were no longer merely a hygienic infrastructure modeled on the early 20th century green wedge technique. Supported by the prospects of unique regional planning system (reliant on the regional economic policy of the Socialist Yugoslavia), the green meanders, rustic surfaces, dynamic compositions of cubical and vaulted elements of the Zenica boulevards approached the idea of an infrastructure of a “good life.”⁹⁶

However, such alternative systemic solutions were disabled and discouraged by the socio-economic reforms, which, in the period from 1957 to 1965, marked an end of one phase in the dynamic development of the “Yugoslav experiment.” While Neidhardt’s ambition to establish the system of regionalist architectural and urbanistic production failed, his individual contributions undoubtedly succeeded. Beyond the unrealised system and observed on their own terms, Neidhardt’s modern Bosnian houses and his residential buildings in Đure Đakovića Street in Sarajevo, produced the architectural value that continues to ennoble the lives of those few fortunate individuals who call them home.

4.3 Tourist Highway across the Middle Bosnian Basin

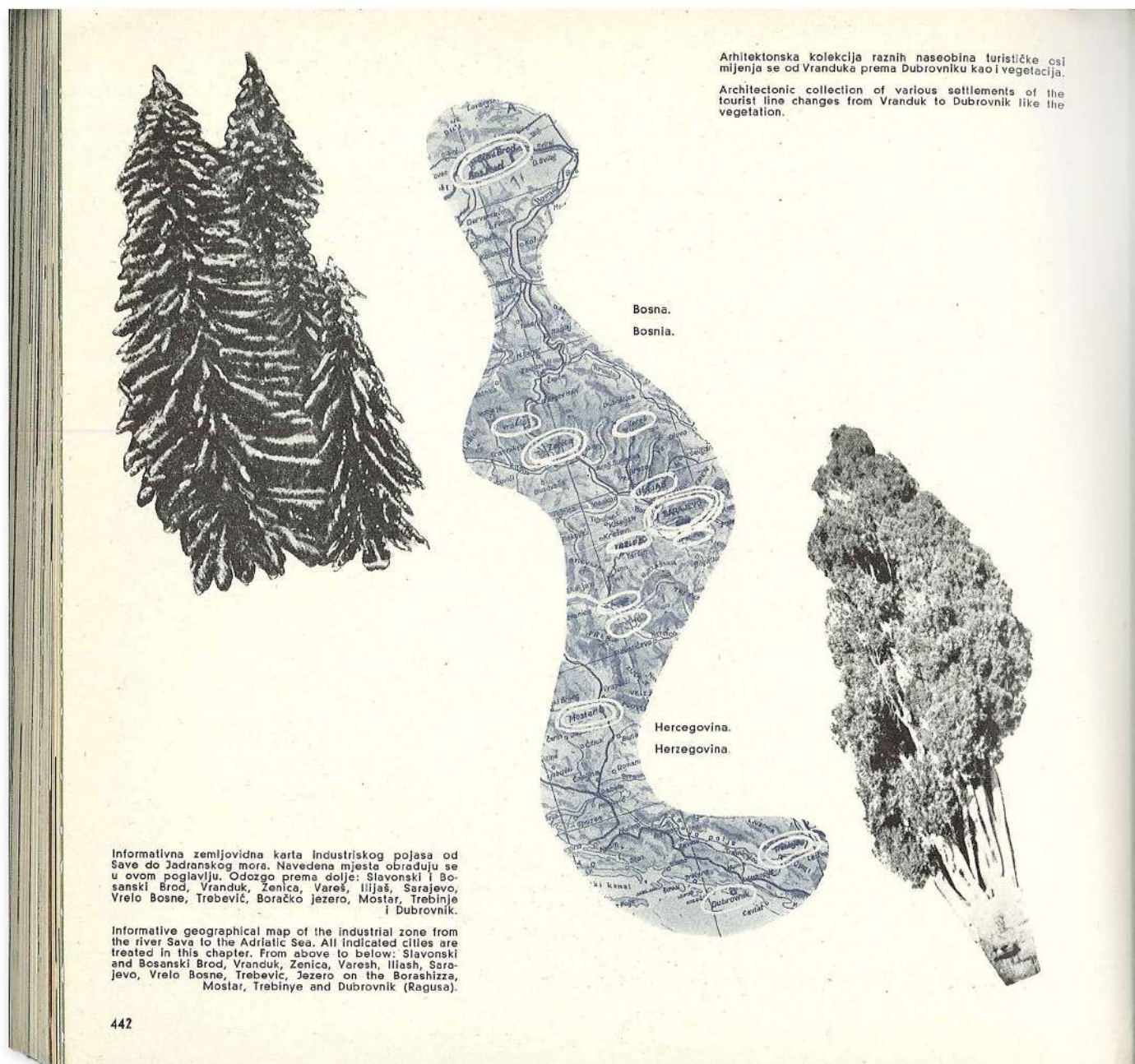


Figure IV-24 - A double spread representing the concept for the "Touristic Axis Vranduk-Dubrovnik," by Juraj Neidhardt, 1957 [source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 442-443].

Kako bosanski dječaci vide Bosnu i Hercegovinu (Škola za primjenjenu umjetnost u Sarajevu, M. T.)
How the Bosnian boys see Bosnia and Herzegovina (School of applicable art in Sarajevo, M. T.)



Pejsaž Bosne.
Landscape-painting of Bosnia.



Pejsaž Hercegovine.
Landscape painting of Herzegovina.

A map and two trees are arranged on an otherwise blank page (Figure IV-24). The trees are precise and neat cut-outs from photographs. The map is an amoeboid provisional cut-out of an itinerary, recognisable not only in the fragment's elongated shape and the winding course of a road along the river, but also in a range of white circles marking the names of cities, towns and sites: Brod, Vranduk, Zenica, Vareš, Sarajevo and many more. This is the page in the book *Architecture of Bosnia*, which opens the presentation of the "Tourist Axis Vranduk-Dubrovnik," a project on a territorial scale that Neidhardt initiated in the early 1950s and kept working on throughout the following decades. The project defined a route, from the medieval fort and town of Vranduk (near Zenica) to the Mediterranean fortified town of Dubrovnik on the Adriatic coast, with a range of stops at other historic cities and sites along the way. Neidhardt used trees to represent the specificities of two geographic regions: Bosnia and Herzegovina. While the tree was used as an organisational metaphoric diagram throughout the book (as discussed in the first chapter of the present dissertation), here it was seen as a biological entity, the species inherent to the specific soil and climate. The tree's factual rootedness into this specificity was used to communicate similar rootedness, although not readily observable, characterising the vernacular architecture of these areas. One of the captions stated: "The architectural collection of various settlements of the tourist axis changes from Vranduk to Dubrovnik, like the vegetation."⁹⁷ The other caption, however, introduced a very different criterion of unity. It designated the map as a representation of the "industrial belt, from the Sava to the Adriatic Sea"⁹⁸ and identified all the marked settlements as being the subject of the chapter that the complex composition of the page was meant to open. The next page, in turn, balanced this complexity with a more contemplative content: two children's drawings presented the characteristic landscapes of the two geographic regions, Bosnia and Herzegovina.

By arranging the representations of vernacular and natural landscapes around the map of the industrial belt, the composition of the opening double-spread implied a synthesis between the geographic-historical milieu and economy. A few pages further on, another text promoted the unification of urban plans of the industrial belt into a chain of operations through "regionalism."⁹⁹ This brief, but indispensable reference to regional planning,

pointed out the need to consider, in parallel with the problematic issues of industry, the question of heritage preservation and development of tourism. The text referred specifically to monuments, yet the conception of the “Tourist Axis” achieved much more than just connecting the markings of monumental locations on a traveller’s map. Instead, it envisioned incorporation of the entirety of the historical-natural milieu, including landscapes, architecture, crafts, costumes and other traditions, into the fast-growing economic branch of tourism.

Neidhardt had first considered vernacular architecture as a function of the territorial scale in relation to his work in Sarajevo. In July of 1948, a commission of the People’s Committee of the City visited its historic core in order to examine it. The medieval oriental center of Baščaršija, consisting of public buildings, mosques and a number of small, wooden shops, has, ever since the 19th century, been the reason for visitors to appreciate Sarajevo as an instance of “unadulterated oriental romanticism.”¹⁰⁰ Yet, the Commission, which included representatives of the Urbanistic Office of the Republic of Bosnia and Herzegovina, concluded that “there are seven buildings representing cultural monuments that should be preserved, while for the remaining part of Baščaršija, representing antiquity, a model will be produced, and after that, it will be possible to begin with the demolition.”¹⁰¹ A member of the Commission, Juraj Neidhardt, used this opportunity to promote his proposal as a solution for the historic central district. In August, he described his vision to Grabrijan: “I proposed to transform Čaršija into a cultural hotspot of Sarajevo and to place an open stone amphitheatre there for summer performances. (...) to build pavilions in Čaršija (...) for crafts, books, music, exhibitions etc. As the Moščanica [stream] once flew through Čaršija, it should be established again and all of those elements should be connected with greenery between them.”¹⁰²

Neidhardt had already contemplated the transformation of Čaršija before the war, and presented a similar proposal in Grabrijan’s and his 1942 publication *Sarajevo and its Satellites*. His perspective-panorama showed the southern side of the district as a spacious park in which, “the crystals of old magnificent architectural conceptions” were situated (Figure IV-25).¹⁰³ The fine-grained structures (mostly ground-floor, kiosk-like shops) originally connecting the monumental public buildings into a dense urbanistic

composition, were replaced by a park, perceived as a binding “plastic element.”¹⁰⁴ The northern side of Baščaršija was almost thoroughly removed to make way for a low-lying, meandering structure, envisaged as a modern covered bazaar. Grabrijan’s description of the proposal concluded with a discussion about the “transaction,” referring to possible financial schemes that could be used to implement the project through planning, reparcelling and cooperation of the city administration and the Islamic foundation called Vakuf.¹⁰⁵

Neidhardt’s post-war proposal for what he later called New Čaršija, leaned heavily on this initial vision. Reignited by his participation in the commission for its demolition, his interest in the regulation of Baščaršija led to analyses, reflections and projections which preoccupied him throughout the 1950s. Both the inter-war and the post-war proposal followed the hardline modernist approach to historic cities, most famously established by Le Corbusier’s Plan Voisin of 1925. As Grabrijan wrote in 1942 and Neidhardt paraphrased in the 1950s: “Destroy all that is worn out and unhealthy and replace it with new and healthy, but in the sense of conservation and preservation of historical monuments.”¹⁰⁶ Just like in his pre-war scheme, the commercial kiosks (Figure IV-26) were mostly designated for demolition, while the mosques, madrasas (Islamic schools) and covered bazaars were preserved and mostly repurposed (Figure IV-27). What was new and different was Neidhardt’s consideration of Čaršija on a completely new scale - that of the Republic of Bosnia and Herzegovina and the Yugoslav Federation.

In a text describing the project in great detail, Neidhardt carefully distinguished between the city cultural hotspot and republican cultural hotspot. He explained that Čaršija, as a place of culture, would have federal and republican significance, whereas the cultural center relevant on a narrower scale, i.e. that of the city, would be situated in the new part of Sarajevo. This redefinition and enlargement of Baščaršija’s sphere of importance and influence implied the need to redefine the programme, which now consisted of far more than just shops meant to commercialise the surviving of traditional crafts. Neidhardt imagined a vibrant cultural district in which the production and presentation of culture would merge in an important historical site. Yet, the promotion of this site through culture

differed radically from the *genius loci*-centred conceptions that would come to dominate the architectural approach to historic cities in the coming decades.¹⁰⁷

Although it also focused on the specificity of place, the New Čaršija partially relied on the same rationality that underpinned the foundation of the Habsburg institution of the *Landesmuseum* more than half a century before. Indeed, Neidhardt cast the project as an open-air museum: he defined the borders of the district by installing vaulted porches supported by colonnades and marked entrances with monumental gates (Figure IV-28). By removing the shops, he achieved the optimal visibility of “exhibits,” in the form of monumental historic buildings. The exhibition of the New Čaršija was envisaged as a representation of the historical evolution, from the Illyrian, over the Bogomil and Ottoman, to the Socialist era. Nevertheless, in his text about the project, included in the book *Architecture of Bosnia*, Neidhardt distinguished between “history in the museum sense” and “history in the sense of the continuity of life development and development of historic agglomerations.”¹⁰⁸ Opting for the latter kind of exhibition was influenced by the perceived value of geographic tangibility of the “agglomeration.” Neidhardt carefully controlled the way in which the district was experienced as a sequence in relation to the surrounding hills. An emphasis was put on the possibility for visitors from the inside of Bosnia and Herzegovina and abroad to dwell in the New Čaršija. Finally the tower of the Academy of Sciences and Arts of Bosnia and Herzegovina, the modernist centerpiece of the project, was promoted as an outlook, providing scientists and artists with an opportunity to contemplate the Čaršija together with its wide surroundings.¹⁰⁹ However, this link was not merely contemplative. Neidhardt proposed to situate inside the tower, the Balkanological and Orientalist institutes that once formed a part of the *Landesmuseum* and its research establishment dedicated to scientific examination of the geographic and historical specificity of the region.

The New Čaršija’s unification of scientific-artistic production, exhibition and tourism was an old formula, tightly bounded to what researchers designated as an “exhibitionary complex,” a “soft” form of state power established in the 19th century, through cooperation between new knowledge disciplines (such as art history and anthropology) and museums.¹¹⁰ The *Landesmuseum* in Sarajevo had been, since 1888, tightly integrated into

such complex, increasingly unfolding on the scale of Europe. The Austrian administration in Bosnia used the exhibitions to present, through the artifacts and information collected by the Museum's research departments, both the specificity of the Bosnian natural-historical milieu and nobility of its "civilising mission in the East."¹¹¹ Between 1891 and 1900, the administration funded, organised and curated Bosnian participation in a range of European exhibitions, including the 1896 Millennial Exhibition in Budapest, 1897 International Exposition in Brussels and 1900 *Exposition Universelle* in Paris. On most of these occasions, the Bosnian exhibits included a complete representation of *Landesmuseum's* research achievements, often in tendentiously spectacular ways. The basis of the material was a collection of traditional folk costumes, displayed by means of mannequins modelled through a careful examination of "anthropological types" from different parts of Bosnia and Herzegovina. These would be arranged inside a replica of an oriental Bosnian house, furnished with original furniture and utensils, while images of landscapes would be displayed on the walls.¹¹² Ćiro Truhelka, the Croatian art historian who was the director of the *Landesmuseum* and a *de facto* curator of these exhibitions, stated that they had had two important (and linked) beneficial outcomes: first, they had changed the international perception of Bosnia as a "Balkan country, with no civilisation, comfort or any appeal for foreigners, a black stain on the map of the European continent" into a more truthful one, the perception of Bosnia as a "fragment of oriental romanticism, full of natural beauty, interesting products of domestic and artistic crafts, full of natural resources and historical monuments."¹¹³ This change stimulated the second, more tangible gain in the form of revenues generated by the increased influx of tourists. Truhelka testified how they "poured into Bosnia to observe, with their own eyes, the self-grown nature and culture of the land waking up from a century of lethargy, which, in the sense of tourism, would soon become a competitor of Switzerland and Italy."¹¹⁴ Tourists, in Truhelka's words, "came in with money," which they spent on crafted artifacts, as well as on accommodation, food and leisure.

While the exhibitions instrumentalised the knowledge on the specificity of the Bosnian milieu generated by the *Landesmuseum*, the question of "routes" tied the development of tourism to organisation of the territory. Already in 1892, a comprehensive illustrated guide

Travel Routes in Bosnia and Herzegovina was published in German, with the support of the Habsburg administration in Sarajevo.¹¹⁵ The Guide offered essential information on travel along nine routes defined either by the existing railway or roads maintained and safeguarded by the government.¹¹⁶ It included inspiring and detailed descriptions of landscapes, monuments and cityscapes. The introduction to the Guide clarified that in Bosnia and Herzegovina there were other routes equipped with good roads, for which the administration was to be complimented, the routes that were extremely “interesting and worth seeing,” but were, however, underequipped in terms of comfortable accommodation, and therefore, excluded from the Guide. The selected routes were described in word and image, including photographs of landscapes (often with infrastructure) (Figure IV-29) and historic towns (Figure IV-30).

This stretching of the notion of infrastructure to include not only roads and railways, but also accommodation and other utilities of travel was taken further in the inter-war period. In 1922 the Sarajevo Section of the Association of the Yugoslav Engineers and Architects published a book to mark the third assembly of the Association held in Sarajevo. Titled simply *Bosnia and Herzegovina*, the book was a thorough representation of the territory from the technical and economic standpoint. The introduction invited not only “technicians, builders, architects and engineers” but also laymen who cared about the “material wellbeing” of their people to get to know the “values surrounding them.”¹¹⁷ These “values” were elaborated in the book in a comprehensive manner, in the chapter titled “Economy and technics: from agriculture and mining, over industry and crafts, to communication networks and vernacular architecture”. In the sub-chapter titled “The Bosnian building”, the oriental vernacular was presented as a valuable reference for modernist architectural and urban design. Its economic value was, however, not clearly articulated in this text and was only implied by including photographs of historic cities in a separate chapter, titled “Tourism and Balneology” (Figure IV-31). Similarly to the Habsburg-era travel guide, this chapter described several travel routes through the Bosnian territory. Presentation of each route included descriptions of infrastructure, natural beauties, monuments and mineral springs.

What was new, however, was the technical framework, along with economic optics and comprehensive character of this new approach to the territory, of which travel routes were only one element. For example, the tourist brochure, published in Sarajevo in 1939 under the title “Our Orient and the Foreigners”¹¹⁸ (Figure IV-32), was now not merely supported by the city administration, but connected to the knowledge system about the environment, with which it played a particular role in the state’s economic project. What mediated between the reality of the territory and the project’s implementation was the Association of state’s technicians, architects and engineers. The scenes from *Baschtscharschija*, (as the spelling of the historic district’s name was reformulated to make it more phonetically familiar to German speakers) represented in the brochure, were those of authentic pre-modern local life: squatting merchants and a colorful crowd in folk costumes.

The Bašćaršija of Neidhardt’s historic core, however, was the New Čaršija. His representation of the Tourist Axis in *Architecture of Bosnia* started with a cluster of panoramic representations of historic cities belonging to the Axis, amongst which the Sarajevo’s historic district was most obviously transformed (Figure IV-33). The text, however, revealed that the Axis project entailed a range of other measures, less visible but comparably significant: the unification of private gardens along the Neretva river into a park in Mostar (only possible through nationalization of private residential plots),¹¹⁹ “tourism policy of mass-accommodation” in Trebinje (through repurposing of all of the houses in the historic core),¹²⁰ transformation of Počitelj into an open-air theatre¹²¹ and Vranduk into a tourist complex.¹²² Later versions of the project mapped and curated all of the colorful cultural forms, including costumes, rituals and traditions that could be encountered along the Axis.¹²³ To represent this exhibition of *genres de vie*, Neidhardt combined the drawing of the itinerary’s course with a photograph of a young native girl’s face. (Figure IV-34) These “soft operations” were imagined in combination with the necessary “surgical operations,” as the inter-war studies of Grabrijan and Neidhardt addressed demolition and rebuilding, in Corbusian lingo. The magnificent Old Bridge in Mostar and the surrounding towers and houses were, in Neidhardt’s interpretation, an agglomeration and crystallisation of built forms in which the “modern era was bound to leave its mark.”¹²⁴ In Počitelj, he argued, a “myth” needed to be “built in stone” through a

creative architectural act, with “water, woods, hill and sky” as the background of the entire enterprise.¹²⁵

These operations were comprehensive and coordinated. Where the inter-war travel routes merely implied the possibilities of transformation by becoming a subject matter of technics, the post-war territorial imagination led to employment of a panoply of techniques integrated into the very substance of the historical and natural milieu. This imagination, shaped by the planned continuity of the “industrial belt” and the given unity of the *genres de vie*, yielded a new conception of the route, which gradually seized to be a path of discovery and became a planned object. Indeed, what gave Axis’ disparate elements a particular significance and value was their functioning in unison. Neidhardt argued that the diversity assembled by the Axis was a special endowment of Bosnia and a “first class tourist attraction.”¹²⁶

In later versions of the project, Neidhardt sought to particularly emphasise this diversity by drawing a range of connected valley sections. His original valley elevation (I-27, III-11) presented a unity of the geographic region, to which he occasionally referred to as a “nest.”¹²⁷ The unity of the Axis, in turn, was often represented as a cluster of sketched panoramas of historic cities included in the project (Figure IV-35). The “multiple valley section” (Figure IV-36) was, however, a much more effective way to convey both the concreteness of the connecting infrastructure and the movement it facilitated. It is, therefore, not surprising that Neidhardt’s uninterrupted research, throughout the years, into the geography of the Middle Bosnian Basin, resulted in the transformation of the “axis” into a road: in 1972, he published an elaborate version of the project in the architectural journal *Arhitektura*, under the title “The Bosnian-Herzegovinian Tourist Highway”.¹²⁸

In spite of not having been explicitly quoted, however, the materiality of the route, in the form of a road, was already clearly indicated on the map included in the book *Architecture of Bosnia*, and referred to in the text. “Why should a tourist in passing, particularly when travelling by car,” as Neidhardt wrote, “not have breakfast in the reconstructed Vranduk (...) then have lunch (...) in Čaršija, that future cultural hotspot of Sarajevo, a coffee in Mostar, a snack in Počitelj, dinner in Trebinje and the next day continue his trip to Dubrovnik?”¹²⁹ Neidhardt’s colorful, consumeristic and seemingly provisional description was, actually, an

astonishingly insightful designation of the most promising prospects of Bosnian-Herzegovinian tourism - its relative proximity to the Adriatic coast.

Dubrovnik was the most popular tourist destination of the inter-war Yugoslavia.¹³⁰ After the war, in particular after Yugoslavia's exit from the Soviet Block, the entirety of the Yugoslav Adriatic coast became a potential competitor of the French and Italian Riviera.¹³¹ As the car ownership and holiday-travel by car were on the rise, in both Western and Northern Europe, the construction of quality roads became a key condition for tourism development.¹³² However, the influx of foreign tourists was far from being the only way in which international relations were implicated in the Yugoslav state's efforts to develop its primitive infrastructure. A great portion of the substantial international funds made available to Yugoslavia (mostly in the form of loans) during the 1950s and 1960s, was already designated for investment in roads and electricity networks.¹³³

Researchers have suggested that both Western powers and Yugoslav government used its infrastructures as strategic tools in enacting political goals, inflected by the Cold War international relations.¹³⁴ The United Nations, for example, considered investment in Yugoslav roads as construction of a veritable bridge across the rift marked by the Iron Curtain,¹³⁵ while the plentiful American aid was, at times, designated for infrastructures as "dual-use technologies", i.e. meant to be used for both military and civilian purposes.¹³⁶

Even as the decentralization of the Yugoslav government was progressing, the construction of major national roads remained a matter of federal control. Neidhardt's infrastructural-tourist proposal, therefore, had to be understood relative to both interior development policy and the complex set of international relations and their instrumentalization of infrastructure in techno-political ways. The urgency of heavy-paced industrial development (and the concomitant freight transport), security concerns (particularly due to the Soviet threat) and tourism (increasingly reliant on motorised visitors), influenced the basic scheme of transportation networks defined in the early Socialist Yugoslavia. The logic behind the scheme was clearly represented by two prioritised projects, both scheduled for urgent implementation already in 1947: the Šamac-Sarajevo railway and the Belgrade-Zagreb highway. The two lines, the former stretching in the north-south and the latter in the east-west direction, were defined with very different primary objectives.

The Railway, already finished by December of 1947, was important because it linked up “the main industrial and mining centres, facilitating a better exploitation of [the coal mines of] Zenica, Kakanj and Breza.”¹³⁷ It was meant to connect the natural and industrial resources of the Middle Bosnian Mining Basin, particularly the Ironworks of Zenica, with the “chief communication network of the state in the direction of the frontiers.”¹³⁸ The backbone of this “chief communication network” was the Belgrade-Zagreb highway, finished in July of 1950 and extended to Ljubljana in 1958, in order to connect “all the main cities in the country.”¹³⁹ The planned long-term extension of this network included a “Bosnian highway,”¹⁴⁰ largely parallel to the Šamac-Sarajevo Railway and Neidhardt’s envisioned Tourist Axis (Figure IV-37). However, by the end of the 1950s, its construction was barely initiated. With Bosnian economy reduced to the primary sector (sufficiently supported by freight transportation), extraordinarily difficult and expensive construction of roads through the Dinaric mountains¹⁴¹ and relative strategic military value of the impenetrable interior of the country,¹⁴² the “Bosnian highway,” contrary to Neidhardt’s expectations, was excluded from the planned tourist network of Yugoslavia.

Neidhardt’s project of the Tourist Axis Vranduk-Dubrovnik, presented in *Architecture of Bosnia*, entailed a larger geographic imagination at the continental scale, where Yugoslav tourism was seen as a part of “two recreational areas of Europe: the Alpine and Mediterranean zone.”¹⁴³ The project, however, did not take into account the fact that, in addition to geography, geopolitics also influenced the techno-political practice of infrastructure construction. The Adriatic Highway, the crucial Yugoslav “tourist trunk line,” was constructed in the 1950s with the American aid and under a designation of a dual, military-civilian technology.¹⁴⁴ Not only the American government, but also the World Bank, provided loans to Yugoslavia to build roads.¹⁴⁵ The political agenda behind these technical and economic involvements of American and European powers was clear - to tie the country to the Western Block by means of concrete, material links. A negative consequence of this Western initiative was a daunting foreign debt, accumulated by Yugoslavia already by the mid-1950s. In fact, the infamous Yugoslav negative balance of payments was best “cured” by foreign currency, with tourists being its reliable source. The efforts to ease the debt, therefore, through tourism development, led to further

construction of roads and further loans.¹⁴⁶ As a member of the Expert Group on Economic Development in Southern Europe, established by The United Nations Economic Commission for Europe in 1955, Yugoslavia participated in the project of a “Circular Highway,”¹⁴⁷ a tourist route that would run, on land and sea, through territories of four countries (Figure IV-38). Its Yugoslav portion coincided with the Brotherhood and Unity Highway (of which the Ljubljana-Zagreb-Belgrade highway formed a part). The cooperation, material links and tourist circulation all served to integrate the malleable and unpredictable political field of the Balkans with Western geopolitical interests.

The loans that Yugoslav participation in such techno-political schemes entailed, contributed to its bankruptcy and severe economic crisis of the 1980s.¹⁴⁸ The crisis played out in the internal political and economic field with disastrous consequences. This field, that had been, since the late 1950s, under the structuring influence of the free market forces, became, by the 1980s, marked by the creditor-debtor relations between the Developed and the Underdeveloped.¹⁴⁹ The separatist tendencies amongst the developed republics were spurred by the economic non-viability of increasing inequalities. The inability of Yugoslavia to establish economic convergence (in combination with international economic pressures and domestic ethno-politics) led to its bloody dissolution in the early 1990s.

The faith of Neidhardt’s “Tourist Highway” project shows that this inability was tightly bounded to infrastructure. By the early 1960s, a significant difference in the quality of the road network still existed between the developed North and the underdeveloped South of Yugoslavia. While partially inherited, this disparity was only perpetuated (and arguably increased) by the geopolitically informed and economically adventurous, infrastructural schemes supported by the West. With the Brotherhood and Unity and Adriatic Highways mostly completed in the 1960s and the Bosnian Highway still in the planning phase, both foreign and domestic tourists continued visiting Sarajevo by making an excursion from Dubrovnik and other coastal towns¹⁵⁰ and not, as Neidhardt had envisioned, by driving down the Middle Bosnian Basin from the north, on their way to the coast.

In the light of these closed prospects of development and vast historical events, the inconsistencies of *Architecture of Bosnia and the Way to Modernity* seem far more

important than its coherent architectural regionalist thesis. This coherence depended on a systematic separation of design and planning, which echoed the disciplinary rift facilitated by the institutionalisation of Yugoslav urbanism in the 1950s. Neidhardt's practice, however, occasionally explored the possibilities of introducing the geographic and historical knowledge into planning. Such experiments resulted in blurring the distinction between architecture and infrastructure. The projects such as Zenica's Boulevards and the Tourist Highway of the Middle Bosnian Basin linked the "unwritten laws" with the infrastructural schemes. Dedicated to provision of workers' welfare and development of Bosnian tourism respectively, these architecturalised infrastructures could be envisaged as a part of the regional planning ideas, advanced by the first Yugoslav regional planners. Merged with infrastructure, the "unwritten laws" became more than means of communal identification and architectural humanisation. Incorporated into processes of regional planning, they would contribute to the systemic emancipatory solution that would work towards the harmony of the functional geographic region.

Neither one of the two schemes has, however, been carried out. With the progressive liberalization the kind of regional planning imagined in Yugoslavia of the 1950s was never truly implemented.¹⁵¹ After the great disappointment, in 1962, related to the endorsement of the Sarajevo General Urban Plan (that, in his opinion, completely ignored the city's regional specificity), Neidhardt abandoned the realm of planning. Significantly, in that same year, he initiated a new book project.¹⁵² Although it has never been published, its working title suggests the continuity of *Architecture of Bosnia's* explorations: *Geography of Architecture*. The draft of the book's cover design, however, defined a profound change in both outlook and commitment. The tension between the resolute geographic specificity of Neidhardt's valley elevation (III-11) and the scientific schematicism of the multiple valley section (Figure IV-36) gave way to a terrestrial synopticism of architectural forms (Figure IV-39). A drawing of an earth-diagram presented a geographic and historical unity of architectural culture on a world scale. At its centre, a pictogrammatic body with a head reduced to an eye holds an open book, on the top of which two pyramids (one turned upside down) and a Modulor are arranged. The Earth is covered with architectural

landmarks, from the Egyptian pyramids and Parthenon, to the Sydney Opera and Geodesic dome.

This shift of Juraj Neidhardt's research course from alignment with human to cultural geography, was a manifestation of a larger development tied to consolidation of the techno-social milieu. Unable to contribute to defining the terms of systematic mediation between the society and environment, geographically-minded architects eventually turned to culturalist discourses and scientific explorations on the links between the environment and social behaviour.¹⁵³ Yet, their contributions were partial and fragmented. As the interferences of the global geopolitical economy with the "Yugoslav experiment" have shown, what was necessary to succeed in implementing a radical social reform was a unified governance on a much larger, possibly global scale. If harmonisation of the society and environment was to be a goal of one such reform, pursued by one such government, then human geographic knowledge, mediated by architects into regional planning, would be one way to start.

- ¹ Correspondence from Juraj Neidhardt to Dušan Grabrijan, July 1950, Box 7, 1950/7 37 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ² 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): 38.
- ³ Dijana Alić, "Transformations of the Oriental in the Architectural Work of Juraj Neidhardt and Dušan Grabrijan" (PhD diss., University of New South Wales, 2010), 149-171.
- ⁴ Indeed, it is possible to hypothesize that the nationalist tension between Bosniaks, Croats and Serbs, which has become infamous as one of the crucial factors in the bloody dissolution of Yugoslavia, has never been thoroughly pacified and that it has played an implicit role in *Architecture of Bosnia's* history.
- ⁵ Dušan Smiljanić, Jahiel Finci and Ivan Štraus were the most determinant critics of Neidhardt's approach to design. Smiljanić contested the book's relevance on a range of points, for which Neidhardt prepared a veritable defense strategy in written form. See: Resume of Smiljanić's criticism and their rebuttal, unmarked, Juraj Neidhardt's Private Archive, Archive of the Academy of Sciences and Arts of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina. Finci's antagonism was subtler: when the book was nominated for the 4th of April award (the important recognition for contributions to the culture of Sarajevo), Finci, who was in the jury, turned down the its nomination on the pretext that "the book has no special quality for the award." See: Correspondence from Ljudmila Neidhardt to Nada Grabrijan, December 1959, Box 27, 27/10 Ec, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia. Ivan Štraus mounted a true campaign against Neidhardt's regionalist thesis in Sarajevo, through his many critical texts about contemporary architecture. See: Jelica Karlić Kapetanović, *Juraj Neidhardt: život i djelo* (Sarajevo: Veselin Masleša, 1990), 183.
- ⁶ An example of expensive construction given in the article was Milivoj Petričić's residential building in Dalmatinska street, the same one that Neidhardt endorsed in the book. See: M. Jančić, "Residential construction in Sarajevo: Spring Perspectives," *Oslobodjenje* (December 25, 1955).
- ⁷ See, for example: Neven Šegvić, "Stvaralačke komponente arhitekture FNRI," *Urbanizam i arhitektura* 4, no.5-6 (1950): 21. Dušan Grabrijan, "Dediščina narodov Federativne Ljudske Republike Jugoslavije u arhitekturi," in *Likovni svet* (Ljubljana: Državna založba Slovenije, 1951): 86.
- ⁸ Ugljen quoted this project as a decisive influence on his own work, designating it as his "school of architecture and source of inspiration," see: Kapetanović, *Juraj Neidhardt*, 138.
- ⁹ Aleksandar Trumić shared this memory in a conversation with the author of this dissertation in a meeting in Laussane, in July 2017.
- ¹⁰ Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 340.
- ¹¹ This testimony from Neidhardt's wife is quoted in Kapetanović, *Juraj Neidhardt*, 135.
- ¹² Grabrijan and Neidhardt, *Arhitektura Bosne*, 4-5.
- ¹³ Grabrijan and Neidhardt, *Arhitektura Bosne*, 416.
- ¹⁴ Grabrijan and Neidhardt, *Arhitektura Bosne*, 400-403.
- ¹⁵ Ugljen, quoted in Kapetanović, *Juraj Neidhardt*, 138.
- ¹⁶ Ljudmila Neidhardt quoted in Kapetanović, *Juraj Neidhardt*, 135.
- ¹⁷ Correspondence from Ljudmila Neidhardt to Dušan Grabrijan, August 1948, Box 5-1, 1948/2 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁸ Vladislav Skarić reported on the Ottoman-era chronicler Bašeskija's analysis of Sarajevo's citizens mentality, where he attributed their lack of talent and inertia to the closing of visual perspectives performed by the Trebević hill. See: Vladislav Skarić, *Sarajevo i njegova okolina od najstarijih vremena do austrougarske okupacije* (Sarajevo: Veselin Masleša, 1985), 162.

- ¹⁹ Jovan Cvijić, *Balkansko poluostrvo i južnoslovenske zemlje: osnovi antropogeografije, knjiga I* (Beograd: Državna štamparija Kraljevine Srba, Hrvata i Slovenaca, 1922), 154-155.
- ²⁰ Cvijić, *Balkansko poluostrvo*, 354.
- ²¹ Grabrijan and Neidhardt, *Arhitektura Bosne*, 10.
- ²² Kapetanović, *Juraj Neidhardt*, 337.
- ²³ Juraj Neidhardt, "Problem regulacije Zagreba," *Gradjevinski vijesnik* 6, no.1 (January 1937):6.
- ²⁴ Dušan Grabrijan, "Regulacija banje Ilidža od arh. Juraja Neidhardta," *Gradjevinski vijesnik* 7, no.8 (August 1938): 113-119.
- ²⁵ Assembly of the Executive Council of the People's Council of the City of Sarajevo, February 07, 1947, Folder: Zapisnici sjednica izvršnog odbora, Box: 1947, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ²⁶ Assembly of the Executive Council of the People's Council of the City of Sarajevo, November 07, 1947, Folder: Zapisnici sjednica izvršnog odbora, Box: 1947, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ²⁷ Assembly of the Executive Council of the People's Council of the City of Sarajevo, September 05, 1947, Folder: Zapisnici sjednica izvršnog odbora, Box: 1947, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ²⁸ Assembly of the Executive Council of the People's Council of the City of Sarajevo, November 21, 1947, Folder: Zapisnici sjednica izvršnog odbora, Box: 1947, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ²⁹ Assembly of the Executive Council of the People's Council of the City of Sarajevo, March 12, 1948, Folder: Zapisnici sjednica izvršnog odbora, Box: 1948, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ³⁰ Assembly of the Executive Council of the People's Council of the City of Sarajevo, April 30, 1948, Folder: Zapisnici sjednica izvršnog odbora, Box: 1948, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ³¹ Svijet, "Pluća Sarajeva na ispitu," in *Svijet* (March 17, 1959).
- ³² Assembly of the Executive Council of the People's Council of the City of Sarajevo, January 30, 1948, Folder: Zapisnici sjednica izvršnog odbora, Box: 1948, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ³³ Assembly of the Executive Council of the People's Council of the City of Sarajevo, April 30, 1948, Folder: Zapisnici sjednica izvršnog odbora, Box: 1948, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ³⁴ Assembly of the Executive Council of the People's Council of the City of Sarajevo, August 20, 1948, Folder: Zapisnici sjednica izvršnog odbora, Box: 1948, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ³⁵ Ibid.
- ³⁶ Assembly of the Executive Council of the People's Council of the City of Sarajevo, September 3, 1948, Folder: Zapisnici sjednica izvršnog odbora, Box: 1948, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ³⁷ Assembly of the Executive Council of the People's Council of the City of Sarajevo, November 19, 1948, Folder: Zapisnici sjednica izvršnog odbora, Box: 1948, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.

³⁸ For an excellent review of these changes see Srdjan P. Milošević, "Agrarna politika u Jugoslaviji 1945-1953" (PhD diss., Faculty of Philosophy - University of Belgrade, 2015).

³⁹ Srdjan Milošević, "From the stagnation to the revolution," in *Yugoslavia from a Historical Perspective*, eds. Latinka Perović et al. (Belgrade: Helsinki Committee for Human Rights in Serbia, 2017), 360.

⁴⁰ Milošević, "Agrarna politika u Jugoslaviji," 694. Milošević brings a striking collection of testimony of officials involved in design and implementation of the reform measures - these notes show the communist leadership's deep awareness about the tragic consequences that the reform imparted upon the peasantry. Milošević, "Agrarna politika u Jugoslaviji," 689-696.

⁴¹ Vera Kržišnik-Bukić, *Cazinska buna 1950*, (Sarajevo: Svjetlost, 1991).

⁴² Milošević brings a striking collection of testimony of officials involved in design and implementation of the reform measures - these notes show the communist leadership's deep awareness about the problems in the countryside, as well as its possible political consequences. Milošević, "Agrarna politika u Jugoslaviji," 689-696.

⁴³ Milošević, "From the stagnation to the revolution," 359.

⁴⁴ Milošević, "Agrarna politika u Jugoslaviji," 689. Indeed, the crisis at the countryside greatly contributed to the economic hardships of the early 1950s, as well as to the concomitant social-economic reforms, which included a radical turn to self-management. The production of foodstuffs was crucial for Yugoslavia, both in terms of feeding its own population and in terms of meeting the conditions of many trade contracts that it was forced to sign with the Western countries due to an abrupt halt of supplies from the East, a consequence of its exit from the Cominform in 1948. Being dominantly a producer of primary goods before the war, Yugoslavia continued to run an economy reliant overwhelmingly on the export of minerals, timber and farm produce, well into the post-war period. The state, however, aimed to industrialize at an ambitious pace: the first Yugoslav Five Year Plan, endorsed in 1947, foresaw close to a reversal of the portions of the economy which pertained to agriculture and industry to take place by 1951. A consequence of this was that agriculture remained severely neglected: it was to receive merely seven per cent of total investment fixed by the plan. Furthermore, the distribution of these meager sources took after the Soviet model and its mass-collectivization and disregarded particularities of state's geography. See: Alfred A. L. Caesar, "Yugoslavia: Geography and Post-War Planning," *Institute of British Geographers - Transactions and Papers*, no. 30 (1962): 33-43.

⁴⁵ Archival holdings of the Executive Council of the Government of the Socialist Republic Bosnia-Herzegovina contain numerous official complaints sent to the Council by individual peasants pleading for reconsideration and correction of the decisions which affected their possessions and livelihoods, as a part of the agrarian reforms. See: Documents, Number: 5622-6956, Box: unmarked, Executive Council of the Government of the Socialist Republic Bosnia-Herzegovina, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.

⁴⁶ As a result of these difficulties, the change envisioned by the plan came slow in terms of increased industrial output, while farm output decreased rapidly. When a severe drought hit Yugoslavia in 1950 and provoked an extremely low yield of crops, the country found itself undersupplied, both in terms of foodstuffs and industrial products necessary to compensate for this shortage through trade. The crisis resulted in further loans (in particular from US and Britain), change of economic paradigm (introduction of self-management) and rolling back of a number of agrarian reform policies (with a final abandonment of the controversial collectivization in 1953) Caesar, "Yugoslavia," 40.

⁴⁷ Jakov Blažević, quoted in Milošević, "Agrarna politika u Jugoslaviji," 693.

⁴⁸ Caesar, "Yugoslavia," 41.

⁴⁹ Milošević, "Agrarna politika u Jugoslaviji," 694.

⁵⁰ Correspondence from the Ironworks of Vareš to the General Directorate of Black Metallurgy, March 25, 1947, Box: 45, Fund: 106, Generalna direkcija crne metalurgije, Archive of Yugoslavia, Belgrade, Serbia.

- ⁵¹ Correspondence from the Ljubija Mine to the General Directorate of Black Metallurgy, May 8, 1947, Box: 45, Fund: 106, Generalna direkcija crne metalurgije, Archive of Yugoslavia, Belgrade, Serbia.
- ⁵² Correspondence from the Ironworks of Vareš to the General Directorate of Black Metallurgy, March 25, 1947, Box: 45, Fund: 106, Generalna direkcija crne metalurgije, Archive of Yugoslavia, Belgrade, Serbia.
- ⁵³ Correspondence from the Ljubija Mine to the Ministry of Construction of the Federal People's Republic of Yugoslavia, August 15, 1949, Box: 45, Fund: 106, Generalna direkcija crne metalurgije, Archive of Yugoslavia, Belgrade, Serbia.
- ⁵⁴ Resolution of the Federal Commission for the Revision of Projects - Residential house with six apartments, July 15, 1948, Projects, Ministry of Construction funds, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ⁵⁵ Ibid.
- ⁵⁶ Resolution of the Federal Commission for the Revision of Projects - Residential house with six apartments, May 26, 1949, Projects, Ministry of Construction funds, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ⁵⁷ Ibid.
- ⁵⁸ Technical file of the Residential house with six apartments - Mine and Ironworks of Vareš, July 1948, Projects, Ministry of Construction funds, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ⁵⁹ Luka Skansi, "Unity in Heterogeneity - Building with a Taste for Structure," in *Toward a Concrete Utopia: Architecture in Yugoslavia 1948-1980*, eds. Martino Stierli and Vladimir Kulić (New York: MoMA, 2018), 65.
- ⁶⁰ Minutes of the meeting about construction, held on 30. and 31. of January, 1947 in Belgrade, Box: 3, Fund: 41, Savezna planska komisija, Archive of Yugoslavia, Belgrade, Serbia.
- ⁶¹ *Pregled osnova stanova za 1948* (Beograd: Izdavačko preduzeće Ministarstva građevina FNRJ, 1948)
- ⁶² Residential building Type C in Zenica, 1948, Projects, Ministry of Construction funds, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ⁶³ Correspondence from the Ironworks of Zenica to the General Directorate of Black Metallurgy - Building Type C and Kasina, September 27, 1948, Box: 43, Fund: 106, Generalna direkcija crne metalurgije, Archive of Yugoslavia, Belgrade, Serbia.
- ⁶⁴ Resolution of the Federal Commission for the Revision of Projects - Residential building of the Ironworks of Zenica, May 6, 1948, Projects, Ministry of Construction funds, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ⁶⁵ Another, more formal reason, quoted was that the submitted project did not include "section, basement plan, attic plan and remaining elevations, because of which the proposed project cannot be considered a conceptual one." See: Conceptual sketch for the residential building in Zenica, Karlo Kužatko, Projects, Ministry of Construction, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.
- ⁶⁶ A governmental body to which the enterprises from the realm of black metallurgy pertained and which was charged with mediation between its enterprises and other federal organs.
- ⁶⁷ Correspondence from the Ironworks of Zenica to the General Directorate of Black Metallurgy - Building Type C and Kasina, September 17, 1948, Box: 43, Fund: 106, Generalna direkcija crne metalurgije, Archive of Yugoslavia, Belgrade, Serbia.
- ⁶⁸ This process and its consequences for the regulation plan of Zenica are described in the second chapter of the present dissertation.

⁶⁹ Correspondence from the Ironworks of Zenica to the General Directorate of Black Metallurgy - Revision of the project for the type C building, January 21, 1949, Box: 43, Fund: 106, Generalna direkcija crne metalurgije, Archive of Yugoslavia, Belgrade, Serbia.

⁷⁰ Today: Street of Dr. Abdulaziz Asko Borić.

⁷¹ Today: Street Branilaca Bosne, the R 445 road.

⁷² The negotiations are described in the second chapter of the present dissertation.

⁷³ Boulevard of Industry, unmarked, Juraj Neidhardt's archive, Archive of the Academy of Sciences and Arts of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.

⁷⁴ Elevation of the Boulevard of Industry, January 15, 1953, unmarked, Archive of the Ironworks of Zenica, destroyed in 2018.

⁷⁵ Correspondence from Juraj Neidhardt to Dušan Grabrijan, 13 June 1950, Box 10, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

⁷⁶ Ibid

⁷⁷ Ibid

⁷⁸ Sanja Matijević Barčot, "Splitska stanogradnja u neposrednom poslijeratnom razdoblju (1945.-1951.)," *Prostor* 57, no.27 (2019): 69.

⁷⁹ According to Neidhardt's own written testimony, prepared as argumentation for a discussion with Dušan Smiljanić. See: Resume of Smiljanić's criticism and their rebuttal, unmarked, Juraj Neidhardt's Private Archive, Archive of the Academy of Sciences and Arts of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina.

⁸⁰ See, for example: M. Ajanović, "U kojoj mjeri smog pijeti Sarajevu II - Premašeni svjetski rekordi," *Oslobodjenje* (January 06,1965)., Joel M. Halpern. "Yugoslavia: Modernization in an Ethnically Diverse State," in *Contemporary Yugoslavia - Twenty Years of Socialist Experiment*, ed. Wayne S. Vuchinich (January, 1969), 316-350.

⁸¹ These were differences in resource base, level of per capita income, and development of the tertiary sector of the economy. See: Lang, "The Dialectics of Decentralization," 313.

⁸² Already in 1945 the introduction of the Soviet-style social-economic planning, included a pronounced concern for inter-regional economic solidarity (discussed in the third chapter of the present paper). But even after the Tito-Stalin split in 1948 the Communist Party propagated the position "that the idea of an integrated socialist economy was incompatible with economic inequality among the republics." The redistribution of national income and different forms of market control were to neutralize the possible detrimental effects of the economic-political structure of the state.

⁸³ See, for example: Dayna Nadine Scott, "Environmental Justice," *The SAGE Encyclopedia of Action Research*, eds. David Coghlan and Mary Brydon-Miller (2014), 300-302.

⁸⁴ For example: Selvedin Avdić, *Moja fabrika* (Zeniva: Vrijeme, 2018).

⁸⁵ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 6.and 7. 8.1954., 22, 25, 27, 28, 31, 32, unmarked, Archive of the Cantonal Institute for Urbanism and Spatial Regulation of Zenica, Zenica, Bosnia and Herzegovina.

⁸⁶ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 13.

⁸⁷ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 22.

⁸⁸ Minutes of the Meeting of Experts Regarding the Regulation Plan of the City of Zenica, 60-62.

⁸⁹ Elevation of the Train Station Boulevard, October 30, 1952, unmarked, Archive of the Ironworks of Zenica, destroyed in 2018.

- ⁹⁰ Correspondence from Juraj Neidhardt to Dušan Grabrijan, November 14, 1952, Box 4-1, 1952/2, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁹¹ Correspondence from Ljudmila Neidhardt to Nada Grabrijan, February 4, 1955, Box 27, 27/10 Bj, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ⁹² Narodni odbor opštine Zenica, "Zenica Program za Generalni urbanistički plan - skracena verzija (Sarajevo, 1962), 43.
- ⁹³ Narodni odbor opštine Zenica, "Zenica Program," 33.
- ⁹⁴ Ibid.
- ⁹⁵ Lang, "The Dialectics of Decentralization," 320-22.
- ⁹⁶ The first official definition of "regional planning" for the Encyclopedia Britannica, written by Lewis Mumford and Benton McKaye in 1929, identified it with a pursuit for "the good life": "Regional planning, a term used by community planners, engineers and geographers to describe a comprehensive ordering of the natural resources of a community, its material equipment and its population for the purpose of laying a sound physical basis for the 'good life.' (...) Regional planning involves the development of cities and countrysides, of industries and natural resources, as part of a regional whole." Quoted in Garrett Dash Nelson. "Regional planning as cultural criticism: reclaiming the radical wholes of interwar regional thinkers," *Regional Studies* (2020): 3.
- ⁹⁷ Grabrijan and Neidhardt, *Arhitektura Bosne*, 442.
- ⁹⁸ Ibid.
- ⁹⁹ Grabrijan and Neidhardt, *Arhitektura Bosne*, 452.
- ¹⁰⁰ Ćiro Truhelka, *Uspomene jednog pionira* (Zenica: Vrijeme, 2012), 29.
- ¹⁰¹ Assembly of the Executive Council of the People's Council of the City of Sarajevo, July 13, 1948, Folder: Zapisnici sjednica izvršnog odbora, Box: 1947, Archive of the City of Sarajevo, Sarajevo, Bosnia and Herzegovina.
- ¹⁰² Correspondence from Juraj Neidhardt to Dušan Grabrijan, 25 August 1948, 5-1, 1948/2, Box 5-1, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.
- ¹⁰³ Dušan Grabrijan and Juraj Neidhardt, "Sarajevo i njegovi trabanti," in *Tehnički vijesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942): 257.
- ¹⁰⁴ Ibid.
- ¹⁰⁵ Dušan Grabrijan and Juraj Neidhardt, "Sarajevo i njegovi trabanti," in *Tehnički vijesnik - Glasilo hrvatskog društva inženjera*, 59, no.7-9 (1942): 258.
- ¹⁰⁶ Grabrijan and Neidhardt, *Arhitektura Bosne*, 110.
- ¹⁰⁷ See, for example: Aldo Rossi, *Architecture of the City* (Cambridge: The MIT Press, 1984) (original edition 1966) and Christian Norberg-Schulz, *Existence Space and Architecture (New Concepts of Architecture)*, (Worthing: Littlehampton Book Services Ltd., 1971).
- ¹⁰⁸ Grabrijan and Neidhardt, *Arhitektura Bosne*, 111.
- ¹⁰⁹ Grabrijan and Neidhardt, *Arhitektura Bosne*, 111-112.

¹¹⁰ Diana Reynolds Cordileone used the concept “exhibitionary complex” (formulated by the historian Tony Bennett) as a theoretical frame for explaining the way in which the official rhetoric of the Bosnian internal-colonial Administration flowed into Austria. Bennett has defined the “exhibitionary complex” as a “soft” form of state power “that combined new institutions such as the public museum with new disciplines of knowledge—such as art history and anthropology” in order to use “organized knowledge for the purpose of ‘winning the hearts and minds’ of citizens, educating the masses, and communicating state ideologies.” See: Dayana Reynolds Cordileone, “Displaying Bosnia: Imperialism, Orientalism, and Exhibitionary Cultures in Vienna and Beyond:1878–1914,” *Austrian History Yearbook*, No. 46 (2015): 30.

¹¹¹ Reynolds Cordileone quotes an illustrative exclamation of Benjamin von Kállay (1844–1902), the chief Habsburg administrator in Bosnia after 1882 and the Joint Minister of Finance: “We like Europe to know what we have done [in Bosnia] ... and to say, ‘That is Austria!’” See: Reynolds Cordileone, “Displaying Bosnia,” 48.

¹¹² Truhelka, *Uspomene*, 84-87.

¹¹³ Truhelka, *Uspomene*, 86.

¹¹⁴ Ibid.

¹¹⁵ Amand Schweiger Lerchenfeld, *Reiserouten in Bosnian und der Herzegovina - Illustrierter Führer*, (Wien Pest Leipzig: A. Hartleben’s Verlag, 1892).

¹¹⁶ Lerchenfeld, *Reiserouten*, 1.

¹¹⁷ Sarajevska sekcija udruženja jugoslavenskih inženjera i arhitekata, *Bosna i Hercegovina* (Sarajevo: Zemaljska štamparija, 1922).

¹¹⁸ Jovan Palavestra, Sarajevo 1939 (Sarajevo: Gradska štamparija, 1939).

¹¹⁹ Grabrijan and Neidhardt, *Arhitektura Bosne*, 464.

¹²⁰ Grabrijan and Neidhardt, *Arhitektura Bosne*, 474.

¹²¹ Grabrijan and Neidhardt, *Arhitektura Bosne*, 447.

¹²² Grabrijan and Neidhardt, *Arhitektura Bosne*, 444.

¹²³ Juraj Neidhardt, “Turistička Bosansko Hercegovacka magistrala,” *Arhitektura* 26, no.113-114 (1972): 17-80.

¹²⁴ Grabrijan and Neidhardt, *Arhitektura Bosne*, 463.

¹²⁵ Grabrijan and Neidhardt, *Arhitektura Bosne*, 447-448.

¹²⁶ Grabrijan and Neidhardt, *Arhitektura Bosne*, 444.

¹²⁷ Correspondence from Juraj Neidhardt to Dušan Grabrijan, September 18, 1950, Box 7, 1950/7 5 2E, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia.

¹²⁸ Neidhardt, “Turistička Bosansko Hercegovacka magistrala,” 17-80.

¹²⁹ Grabrijan and Neidhardt, *Arhitektura Bosne*, 445.

¹³⁰ Robert J. Donia, Sarajevo: biografija grada (Sarajevo: Institut za istoriju, 2006), 190, 269.

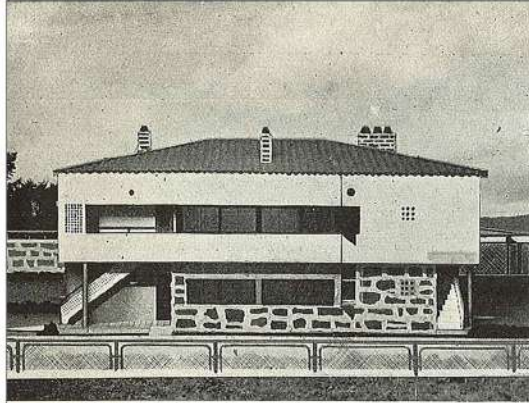
¹³¹ Already in 1949, the Yugoslav tourism propaganda used the phrase: “Come and see the truth,” calling for dissociation of Cold War era stereotypes from Yugoslavia through actual visit to the country. Hannes Grandits and Karin Taylor eds., *Yugoslavia’s Sunny Side: A History of Tourism in Socialism (1950s-1980s)* (Budapest-New York: Central European University Press, 2010), 5.

¹³² Hannes Grandits and Karin Taylor eds, *Yugoslavia’s Sunny Side: A History of Tourism in Socialism (1950s-1980s)*, Budapest-New York: Central European University Press, 2010

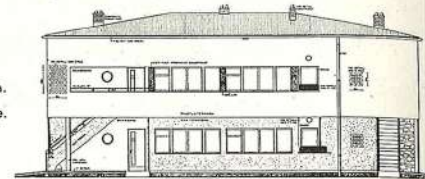
- ¹³³ Vincent Langendijk and Frank Schipper, "East, West, Home's Best - The Material Links of Cold War Yugoslavia, 1948-1980," *Icon* 22 (2016): 30.
- ¹³⁴ Langendijk and Schipper, "East, West, Home's Best," 31.
- ¹³⁵ Ibid.
- ¹³⁶ Langendijk and Schipper, "East, West, Home's Best," 33.
- ¹³⁷ CIA - Central Intelligence Agency, *Yugoslavia - Railway and Highway Systems*, 08 August 1949, Accessed July 9, 2018. <https://www.cia.gov/library/readingroom/docs/CIA-RDP82-00457R003000490009-0.pdf>, 3.
- ¹³⁸ Ibid.
- ¹³⁹ CIA - Central Intelligence Agency, *Yugoslavia - Railway and Highway Systems*, 5.
- ¹⁴⁰ CIA - Central Intelligence Agency, *Geographic Intelligence Report - The Roads of Yugoslavia*, December 1960, Accessed July 9, 2018. <https://www.cia.gov/library/readingroom/docs/CIA-RDP79T01018A000300040001-7.pdf>
- ¹⁴¹ The rugged terrain of the Dinaric mountains was a characteristic of the lands south of the course of river Sava, including Bosnia and Herzegovina. The numerous switchbacks necessary to construct the serpentine roads winding up and down the steep slopes and limestone bedrock through which these needed to be cut made the cost of building and maintenance of the road network in the uplands so great that it largely discouraged any comprehensive construction program there. CIA, *The Roads of Yugoslavia*, 7-8.
- ¹⁴² CIA, *The Roads of Yugoslavia*, 2.
- ¹⁴³ Neidhardt noted that these zones were designated by the "international forums (CIAM)." Grabrijan and Neidhardt, *Arhitektura Bosne*, 464.
- ¹⁴⁴ CIA, *The Roads of Yugoslavia*, 13.
- ¹⁴⁵ Frank Schipper "Was the road to Europe paved with good intentions? Building highways in the Balkans," TIE working documents series, 18, *Transnational Infrastructures of Europe* (2007):12.
- ¹⁴⁶ Langendijk and Schipper, "East, West, Home's Best," 38.
- ¹⁴⁷ Schipper "Was the road to Europe paved with good intentions?," 10.
- ¹⁴⁸ Vladimir Gligorov, "Yugoslavia and Development - Benefits and Costs," in *Yugoslavia from a Historical Perspective*, eds. Latinka Perović et al. (Belgrade: Helsinki Committee for Human Rights in Serbia, 2017), 432.
- ¹⁴⁹ Gligorov, "Yugoslavia and Development," 435-436.
- ¹⁵⁰ Donia, *Sarajevo*, 269.
- ¹⁵¹ Nikola Bojić, "Social and Physical Planning: Two Approaches to Territorial Production in Socialist Yugoslavia between 1955 and 1963," *Architectural Histories*, 6, no.1, 25 (2018): 11.
- ¹⁵² This was a collaboration with the Croatian architect Tomislav Premerl.
- ¹⁵³ One of the few international scholarly references to *Architecture of Bosnia* in Amos Rapoport's book *House form and Culture*, illustrates the turn of this strain of modernist architectural research to cultural geography, while this author's later work employs this cultural reading of the environment in behavioral studies. See: Amos Rapoport, *House Form and Culture* (N.J.' Prentice-Hall INC, 1969), 5.



Figure IV-02 - Views of the Ski House on the Trebević hill near Sarajevo, built in 1949 (source: private archive of Juraj Neidhardt, unknown photographer).

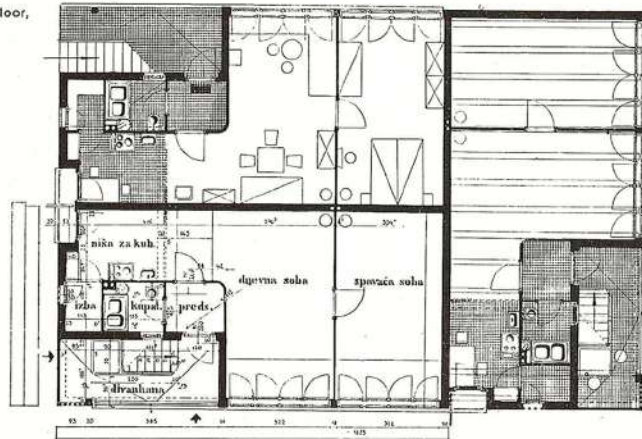


Upliv arhitektonskog naslijeđa na savremenu bosansku arhitekturu.
Influence of the architectural heritage on modern Bosnian architecture.



Kuća sa šest dvosobnih stanova — tri u prizemlju, a tri na katu — fasada.
Six-family house — three two-room apartments on the first floor, three on the second floor — façade.

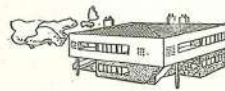
Kuća sa šest dvosobnih stanova — tri u prizemlju, a tri na katu — fasada.
Six-family house — three two-room apartments on the first floor, three on the second floor — façade.



Tlocrt I sprata.
Plan of the second floor.

- C. Porodični dom u Zenici (izgrađeno 1940 godine). Karakteristike:
1. 6 stana pod jednim krovom (3 u prizemlju i 3 na I spratu) u vidu vile
 2. smještaj divhana sa jednokrakim stepeništem na uglu kuće gdje ne zasjenjuje stambene prostorije
 3. svaka porodica ima svoj zaseban ulaz i na taj način iako kolektivna kuća, obezbjeđena je porodična sloboda
 4. korištenje tradicionalnih elemenata u savremenom vidu i t. d.

- C. Family house at Zenitsa (constructed in 1940). Characteristic features:
1. six apartments under the same roof (three on the first and three on the second floor)
 2. the divhana with the single-flight stairs is placed at the corner of the house where it does not throw shadow on the living spaces
 3. each family has its own private entrance
 4. utilization of traditional elements



Model.
Model.

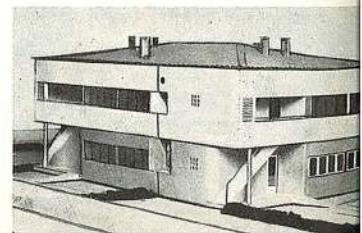
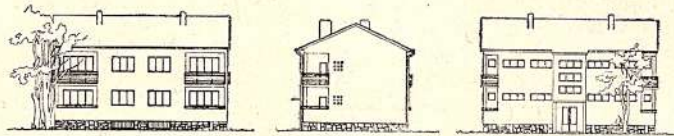
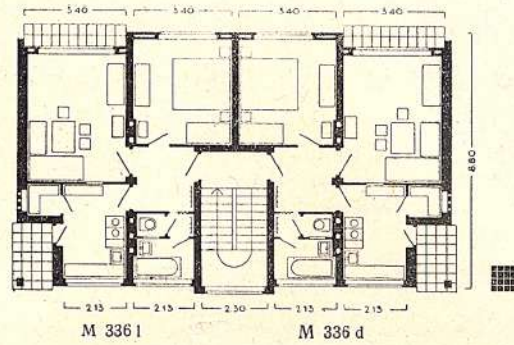


Figure IV-4 - Representation of the "Sextuplet" housing unit with six two-room apartments, by Juraj Neidhardt, 1938-1940 [source: Dušan Grabrijan and Juraj Neidhardt, Arhitektura Bosne i put u savremeno (Ljubljana: Državna založba Slovenije, 1957), 244].

M336

Osnova sprata
Razmera 1 : 200
(1 cm = 2 m)



Fasade

Osnova sprata
Alternativa
Razmera 1 : 200
(1 cm = 2 m)

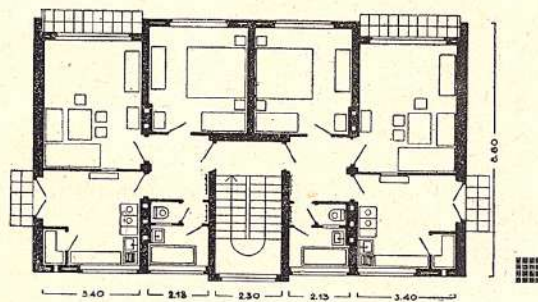


Figure IV-5 - Representation of the typical plan "MG FNRJ M-336"(source: *Pregled osnova stanova za 1948*, (Beograd: Izdavačko preduzeće Ministarstva građevina FNRJ, 1948)).

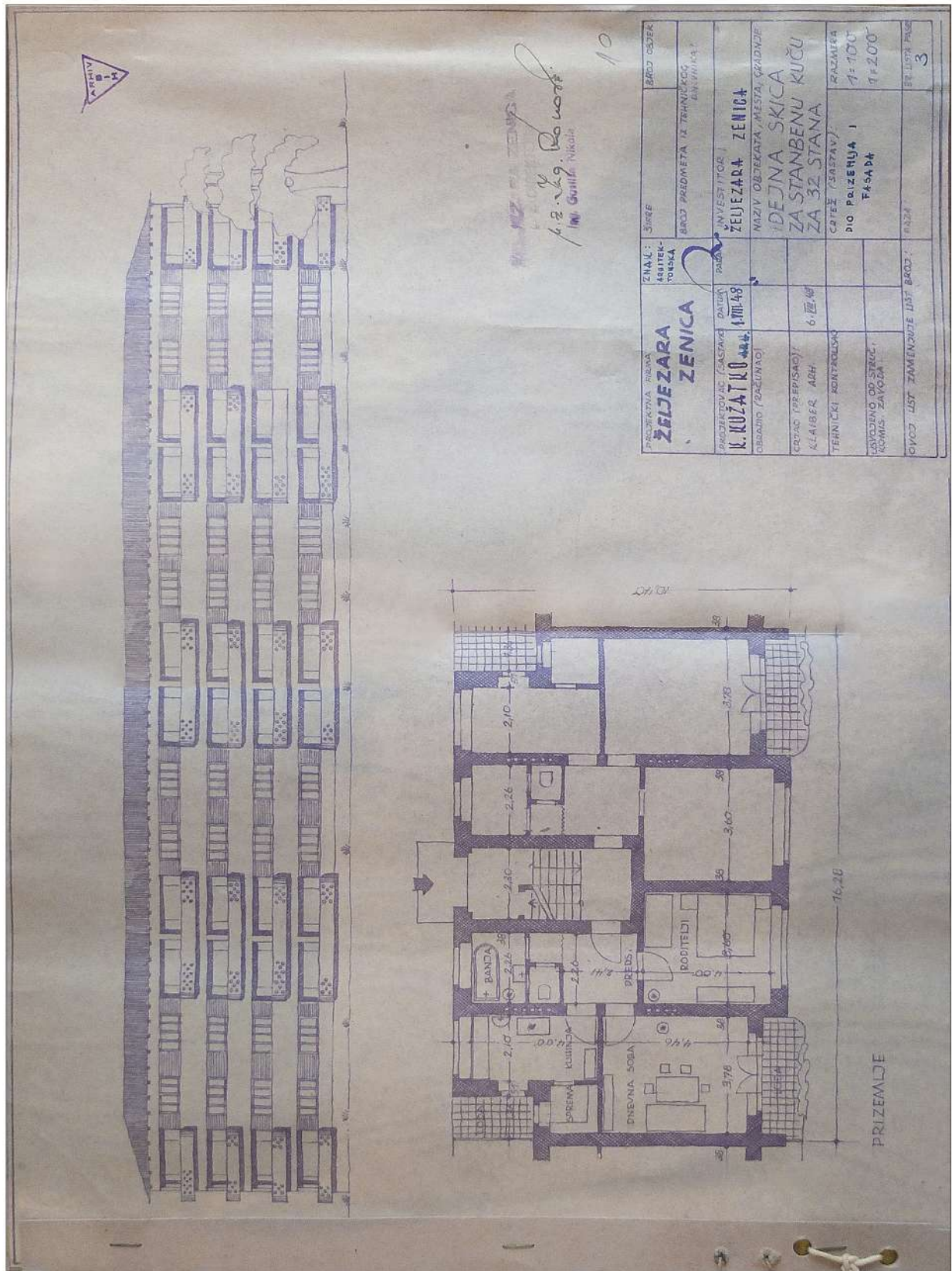


Figure IV-07 - Conceptual design for the residential building in Zenica for the Zenica Ironworks, designed by Karlo Kužatko, 1948 (source: Projects, Ministry of Construction funds, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina).

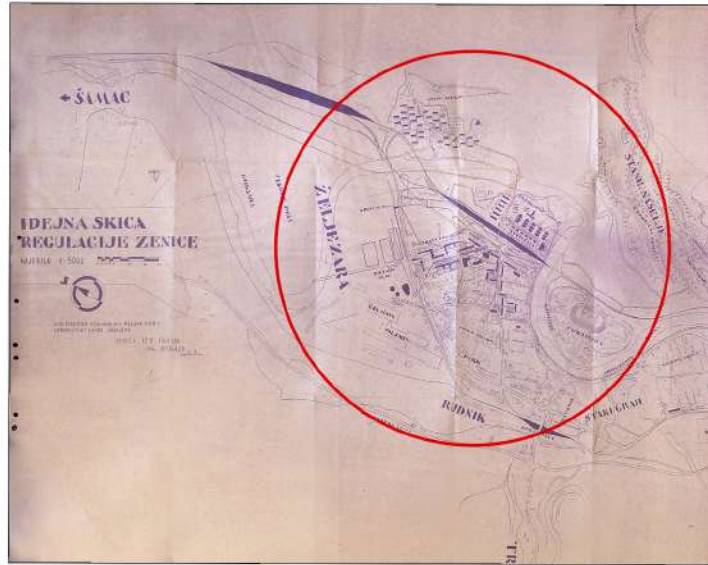


Figure IV-08 - Conceptual sketch for the regulation of Zenica, by Juraj Neidhardt, 1949 (source: Projects, Ministry of Construction funds, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina).

LIST BR. 27

URBANISTIČKI ZAVOD NRBIH

ORIJENTACIONI



IDEJNI PROJEKT STAMBENE ČETVRTI
KOD ŽELJEZNIČKE STANICE ZENICA NOVA
U ZENICI






MJ. 1:5000

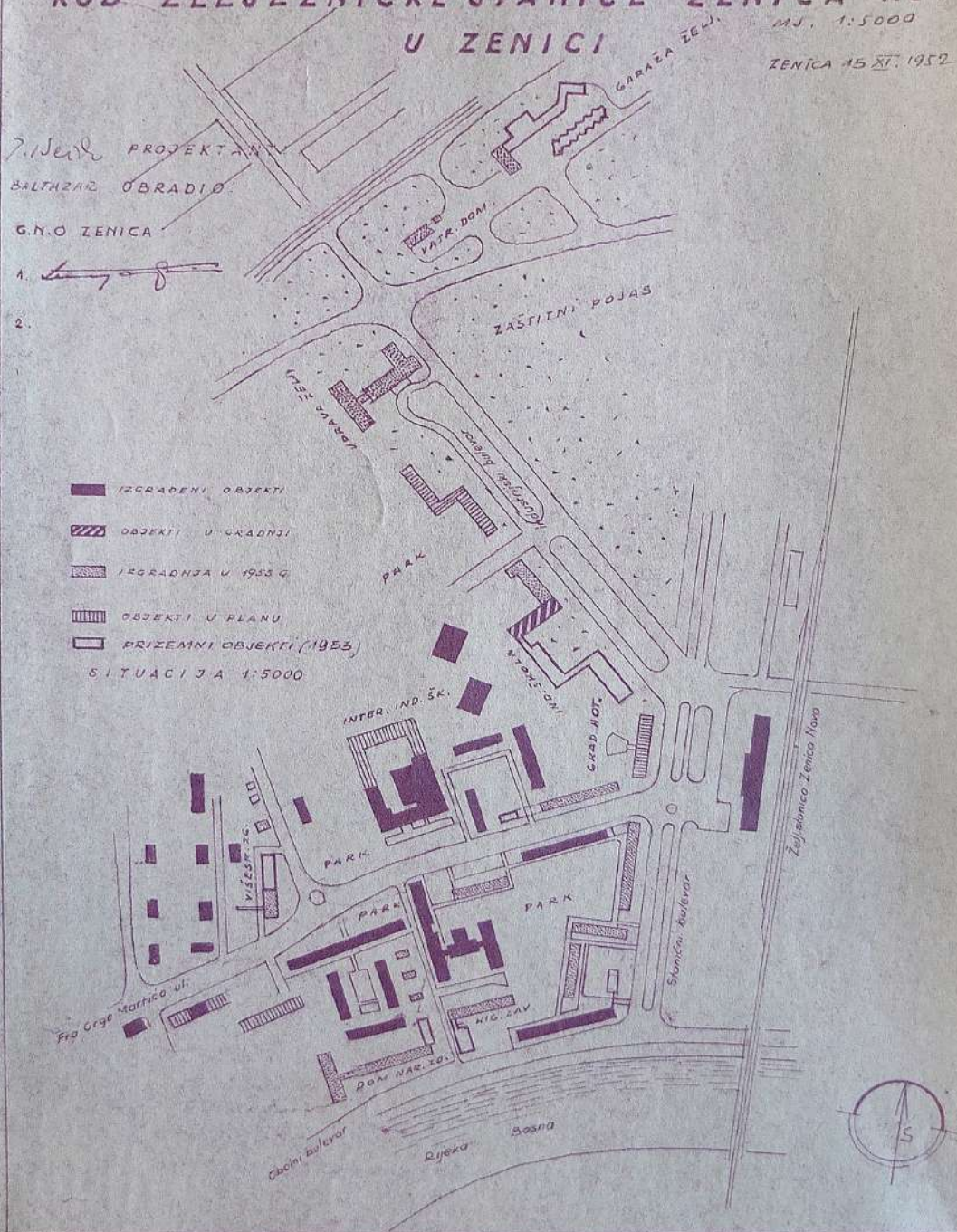
ZENICA 15. XI. 1952.

Z. Ševc PROJEKTANT
BALTAZAR OBRADIO

G.N.O. ZENICA

1. 
2. 

-  IZGRADENI OBJEKTI
 -  OBJEKTI U GRADNJI
 -  IZGRADNJA U 1953 G.
 -  OBJEKTI U PLANU
 -  PRIZEMNI OBJEKTI (1953)
- SITUACIJA 1:5000



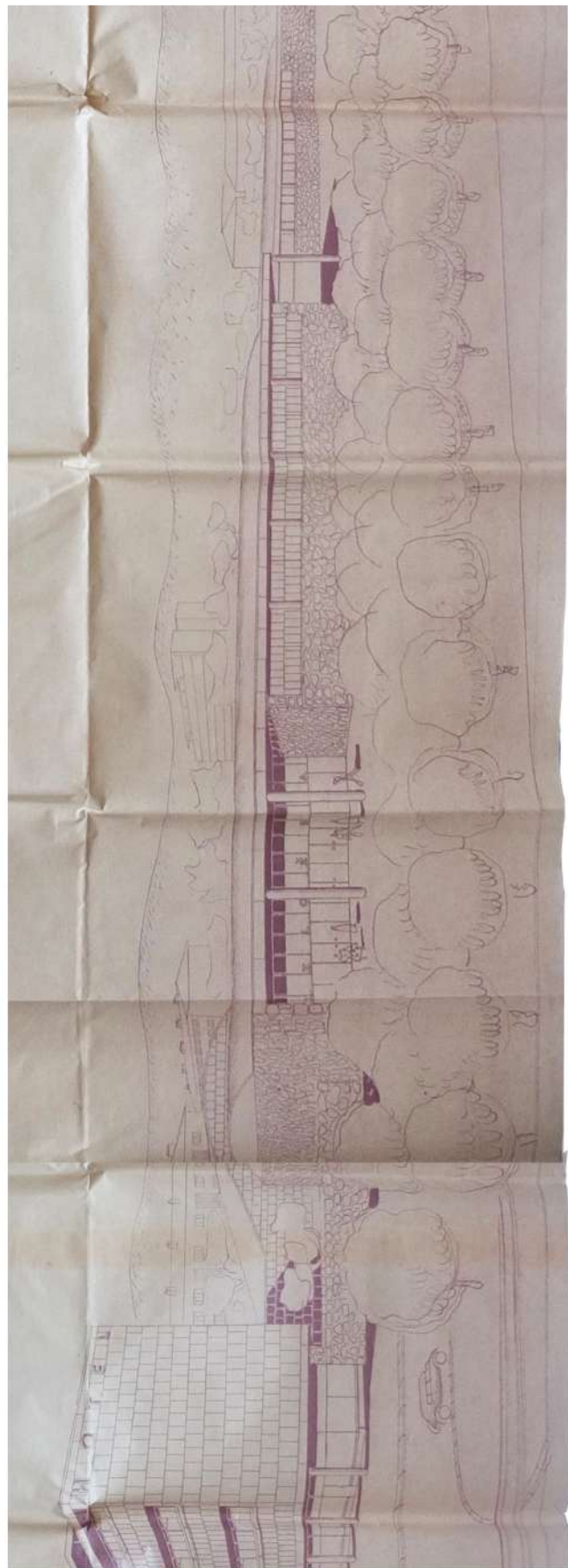
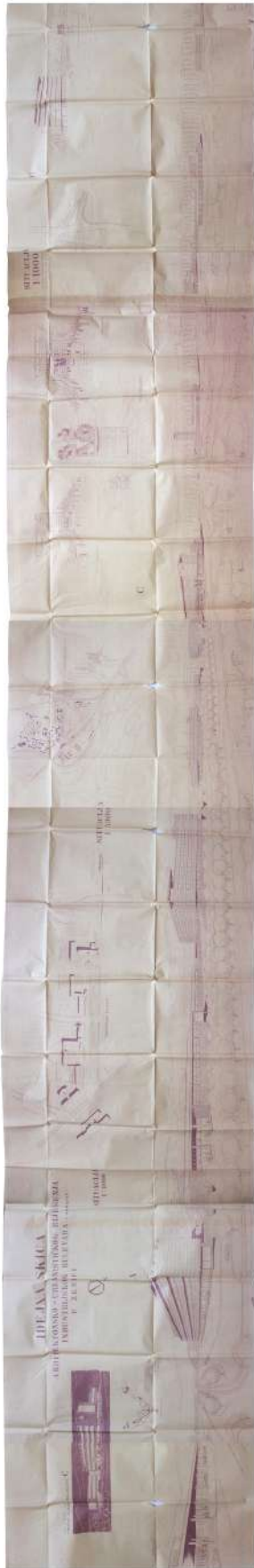


Figure IV-10 - Conceptual sketch of the architectural-urbanistic design for the Boulevard of Industry in Zenica, by Juraj Neidhardt, 1952 (source: Juraj Neidhardt's private archive).



Figure IV-11 - Views from the Boulevard of Industry - details of the architectural-urbanistic design for the Boulevard of Industry in Zenica by Juraj Neidhardt, 1952 (source: Juraj Neidhardt's private archive).

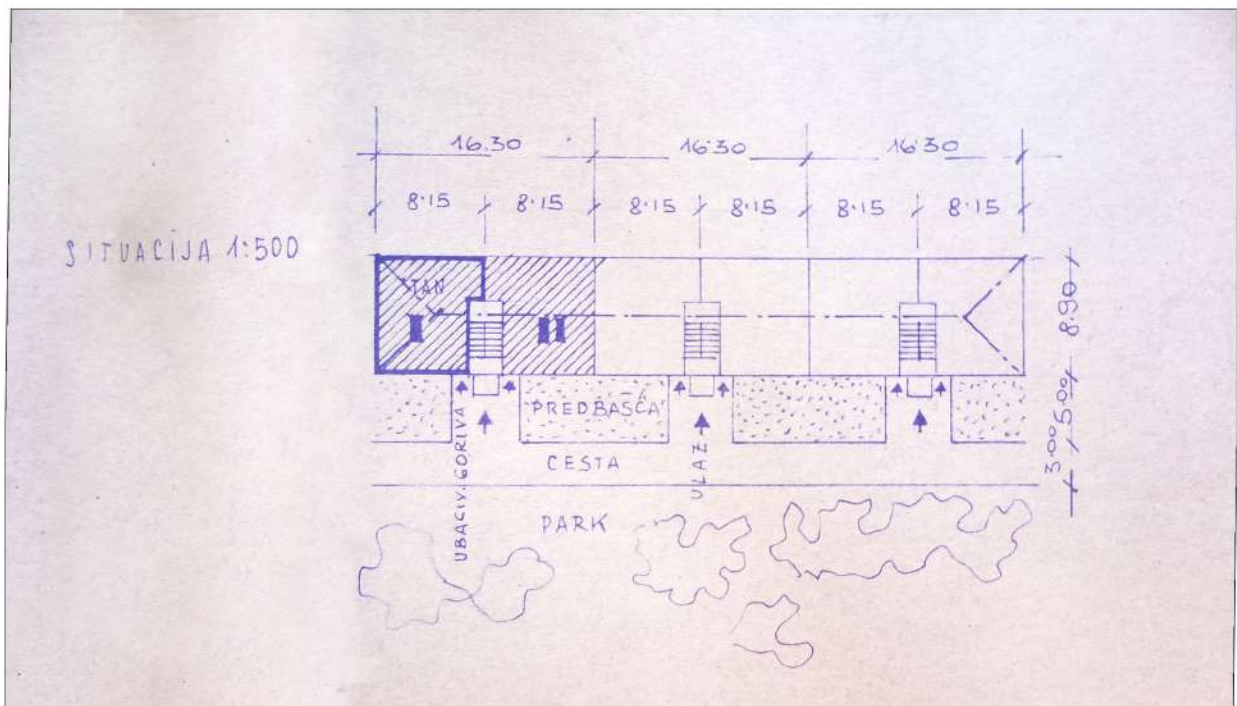
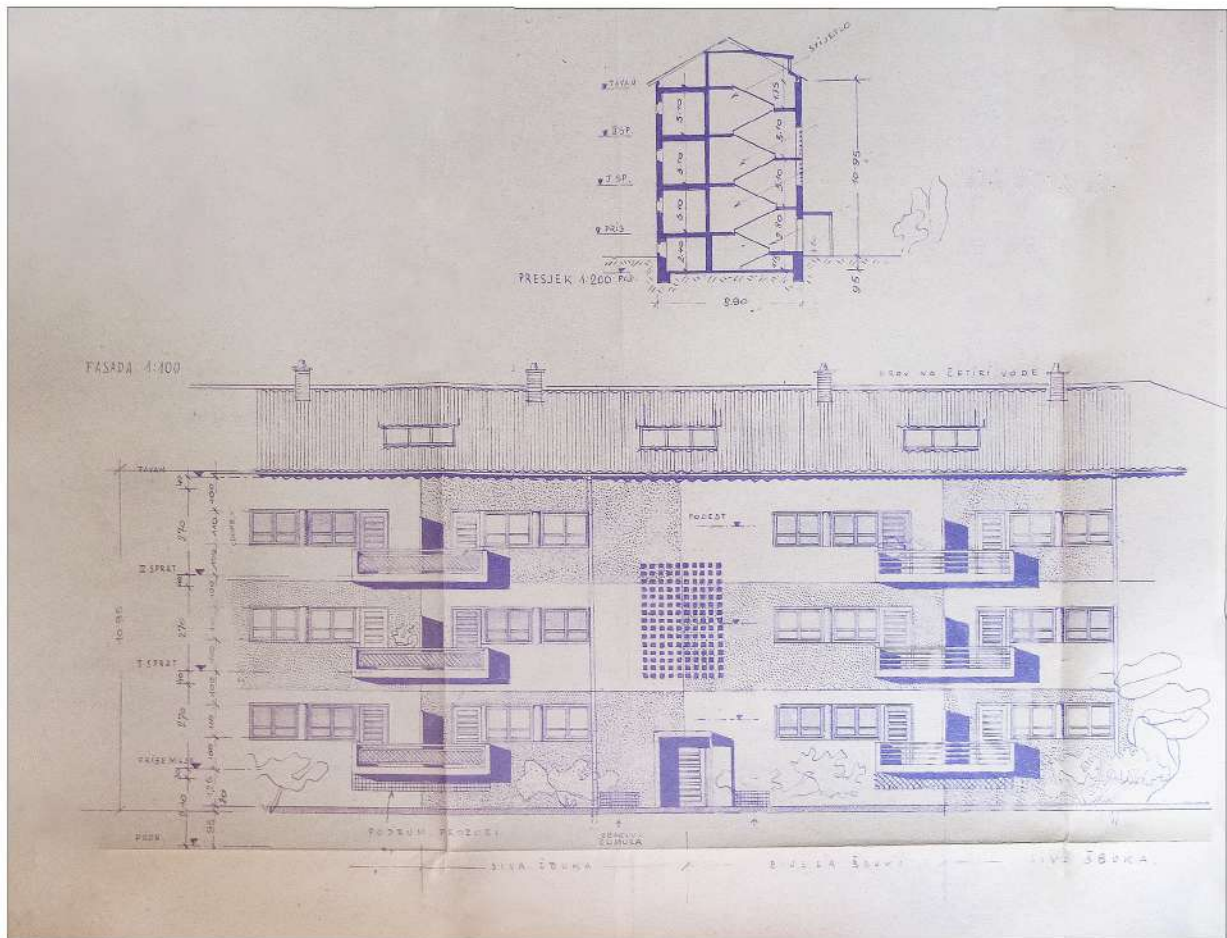


Figure IV-13 - Facade of the type "C1a" residential building, 1949 (source: Archive of the Ironworks of Zenica, Zenica, Bosnia and Herzegovina).

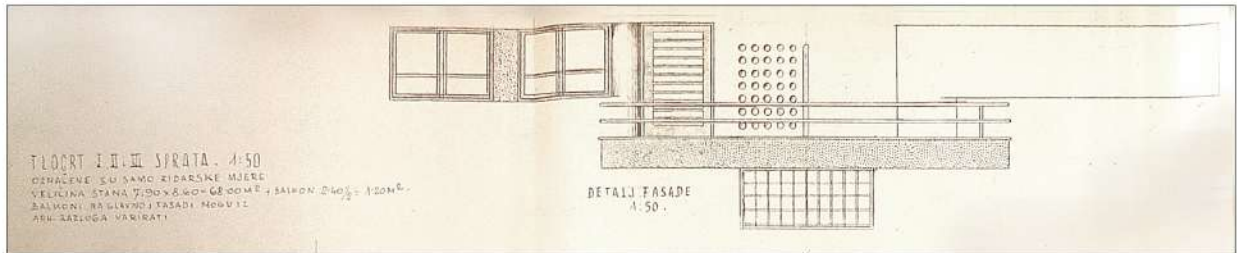


Figure IV-14 - Facade detail of the type "C1a" residential building, 1949 (source: Projects, Ministry of Construction funds, Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina).

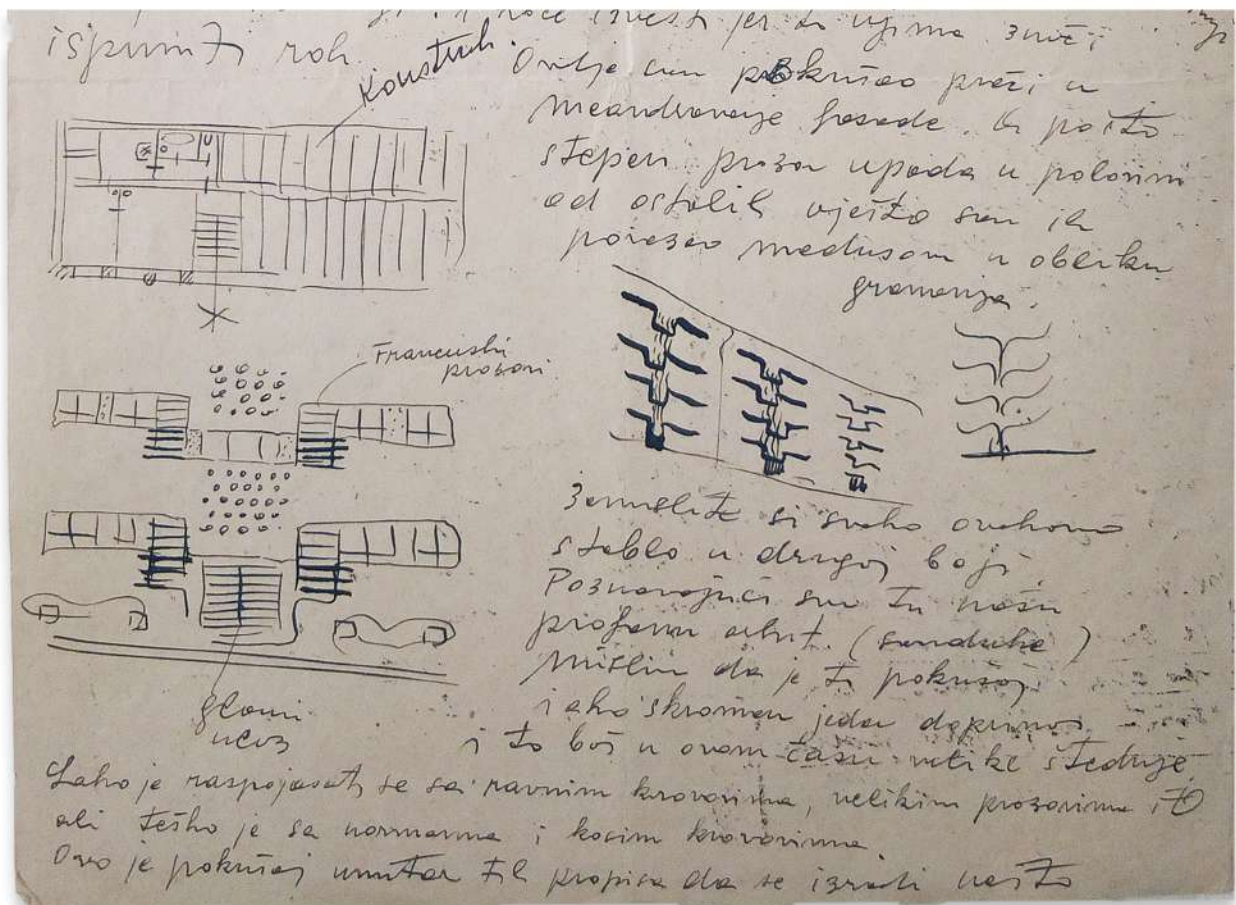


Figure IV-15 - Sketch of the facade detail of the type "C1a" residential building (source: Correspondence from Juraj Neidhardt to Dušan Grabrijan, 13 June 1950, Box 10, Legacy of Dušan Grabrijan, Muzej za arhitekturo in oblikovanje, Ljubljana, Slovenia).

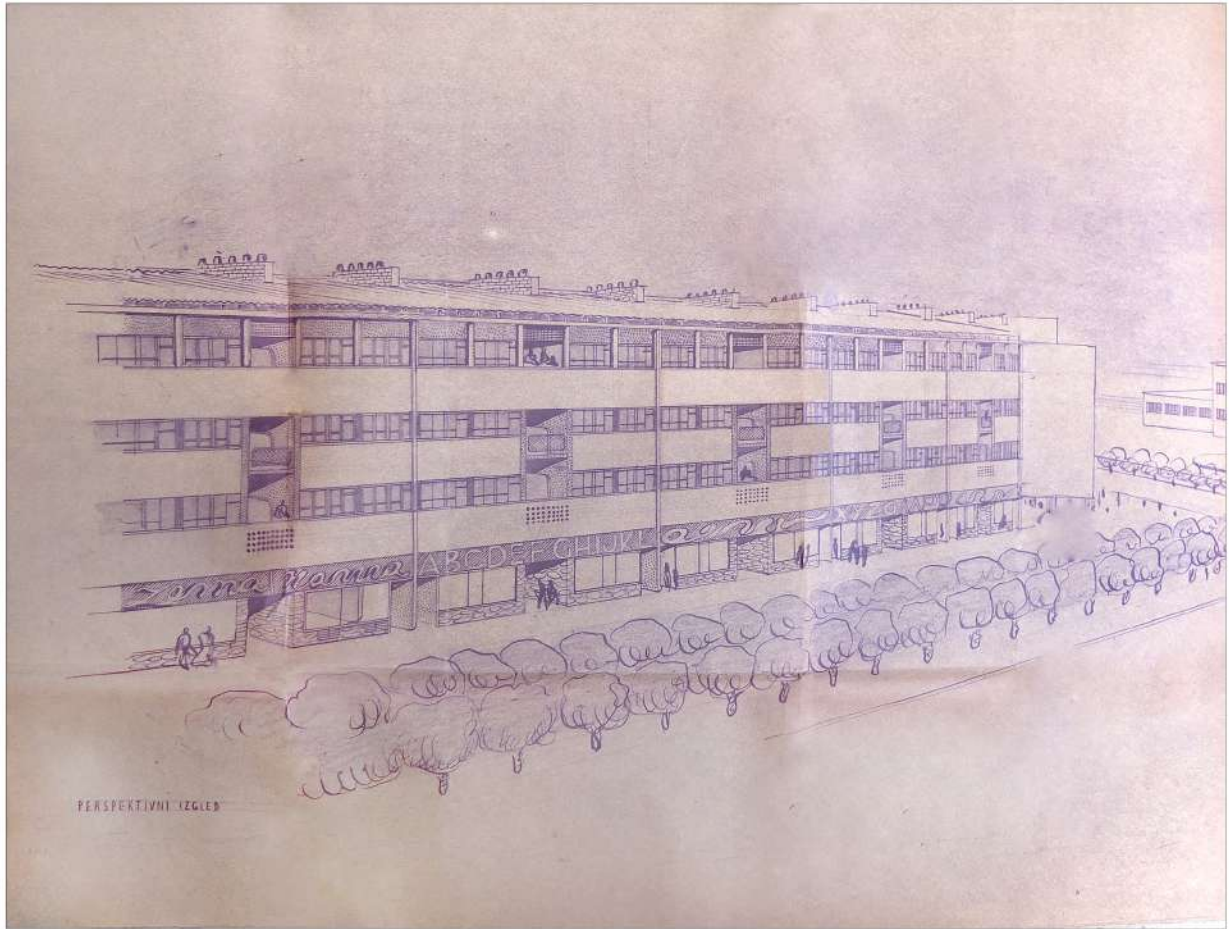


Figure IV-16 - Perspectival view of the type "C1a" residential building in Fra Grge Martića street (source: Archive of the Ironworks of Zenica, Zenica, Bosnia and Herzegovina).

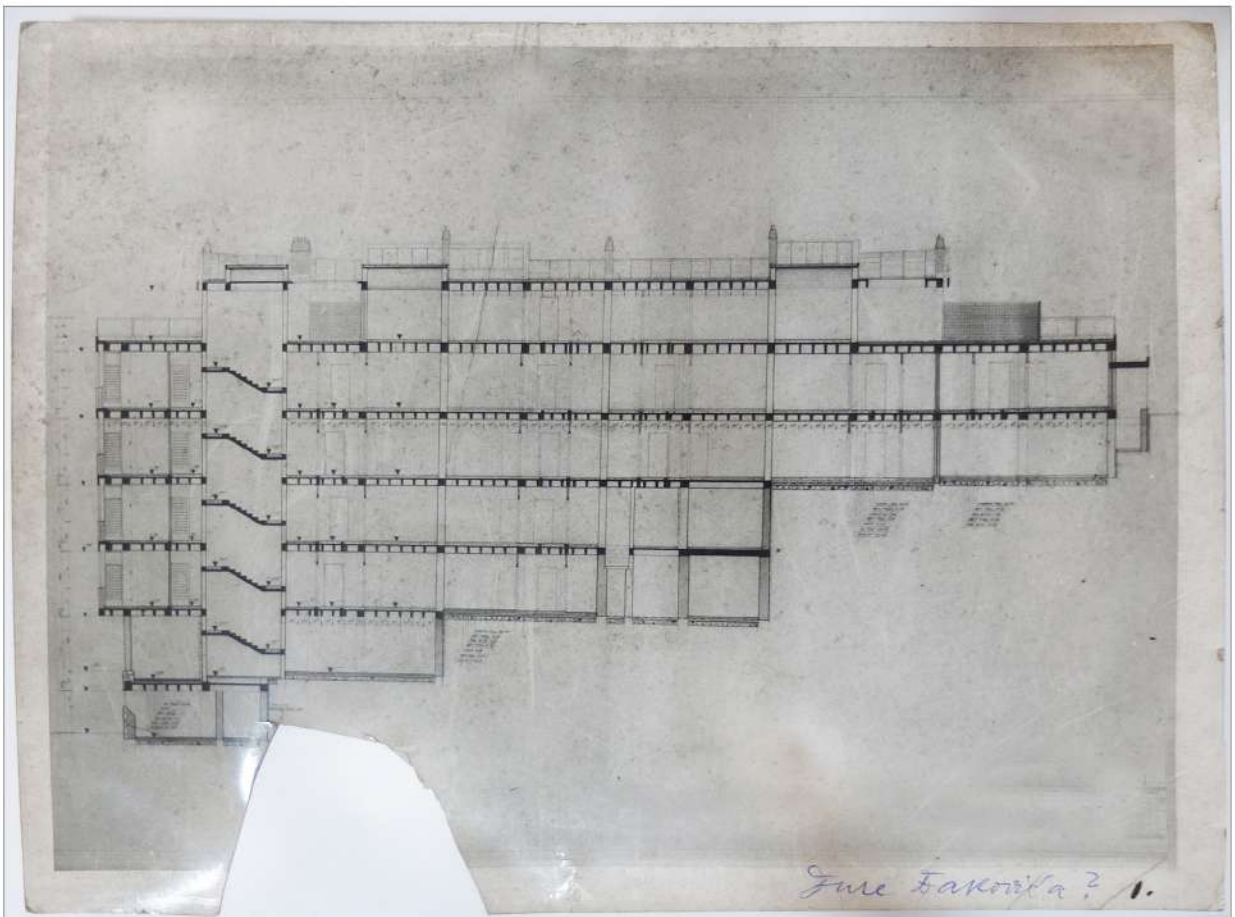
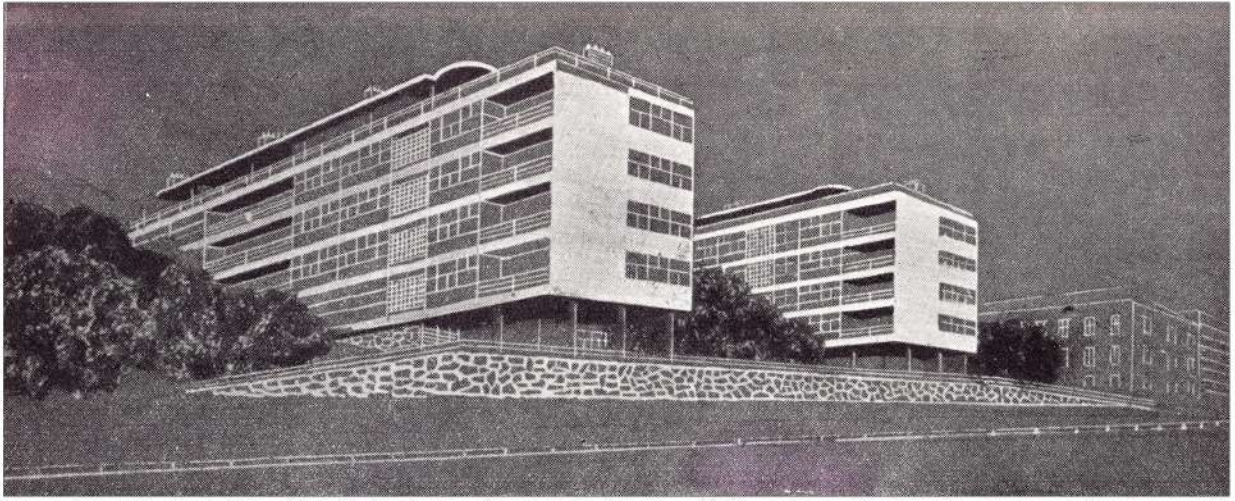


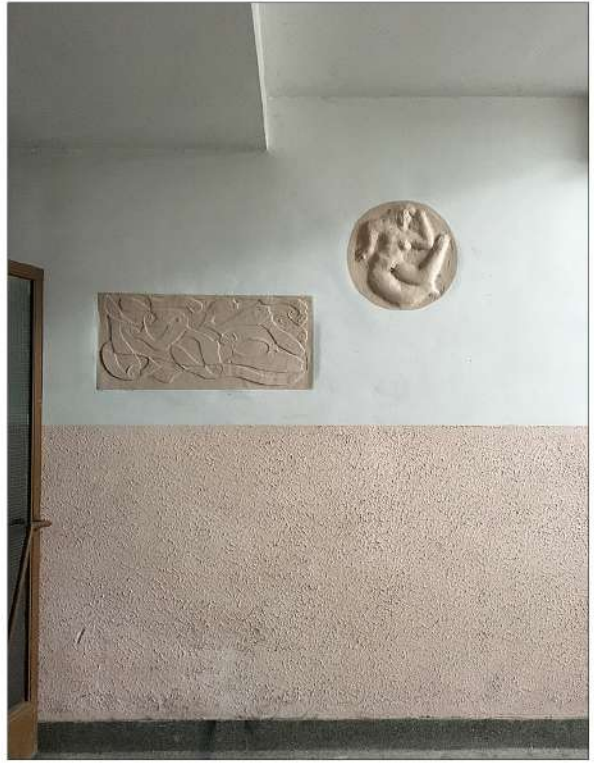
Figure IV-18 - Perspectival view of the residential buildings in Đure Đakovića street, designed in 1953 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957): 368), top; Section of the residential building in Đure Đakovića street, designed in 1953 (source: Juraj Neidhardt's private archive), bottom.



Figure IV-19 - Views of the residential buildings in Đure Đakovića street, designed by Juraj Neidhardt in 1953, constructed between 1953 and 1955 (source: Juraj Neidhardt's private archive).



Figure IV-20 - Details of the interior and exterior design of one of the two buildings in Đure Đakovića street, designed by Juraj Neidhardt in 1953, constructed between 1953 and 1955 - this and next page (source: photo by Mejrema Zatrić, 2018).



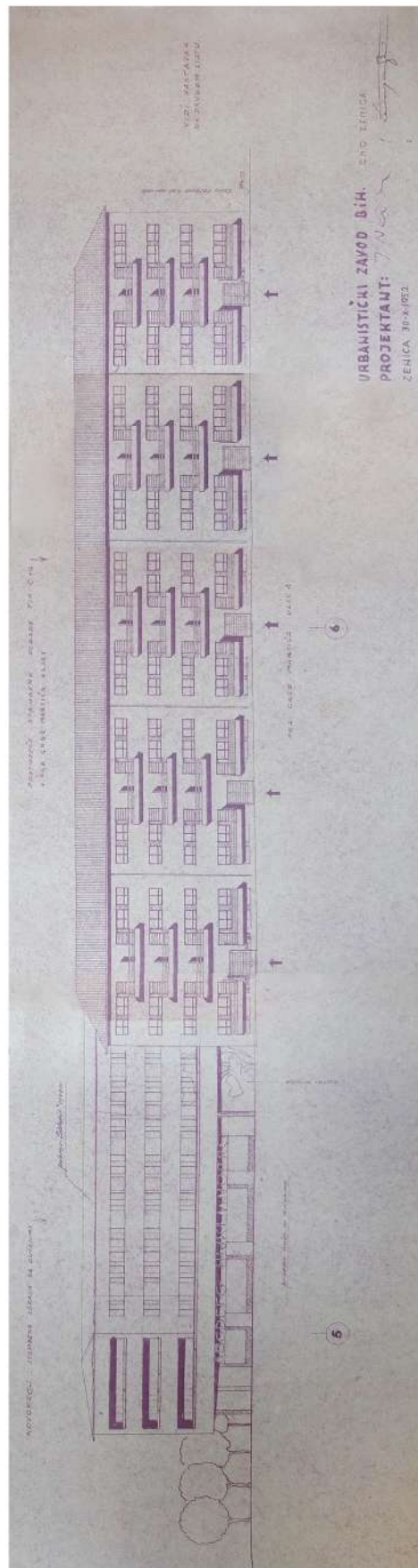
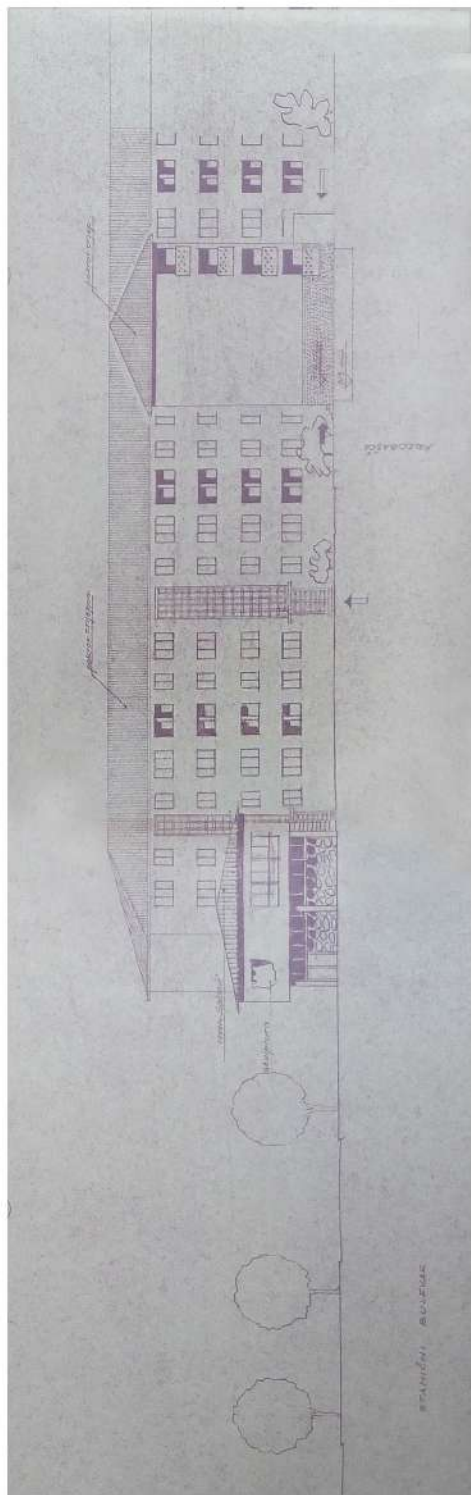


Figure IV-21 - Conceptual sketch for construction of the residential buildings at the Train Station Boulevard, by Juraj Neidhardt, 1952 (source: Archive of the Ironworks of Zenica, Zenica, Bosnia and Herzegovina).



Figure IV-22 - Conceptual sketch for the regulation of the residential quarter around the new Train Station, axonometric view, by Juraj Neidhardt, 1953 (source: Archive of the Ironworks of Zenica, Zenica, Bosnia and Herzegovina).



Figure IV-23 - Representation of the view of New Zenica from a train, by Juraj Neidhardt (source: Ladislav Slavko Maksimović private archive).

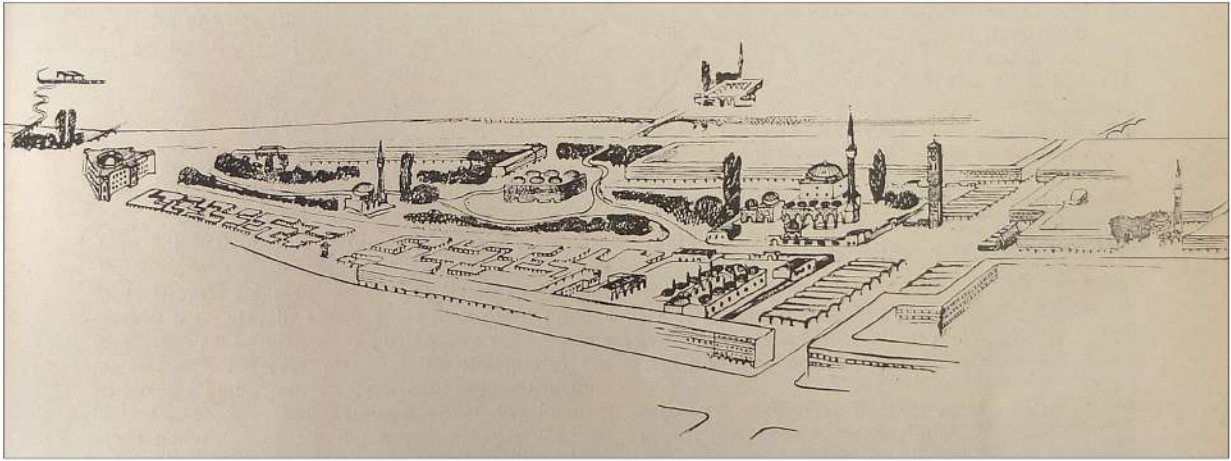


Figure IV-25 - Idea for the regulation of the historic core of Sarajevo, by Juraj Neidhardt, 1942 (source: Dušan Grabrijan and Juraj Neidhardt, Sarajevo i njegovi trabanti, *Tehnički vijesnik - glasilo hrvatskog društva inženjera* 59, no. 7-9 (Zagreb, 1942): 259).



Figure IV-26 - Commercial kiosk shops (*trgovke*) at Baščaršija, Sarajevo's historic commercial district, 1957 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 442-443).

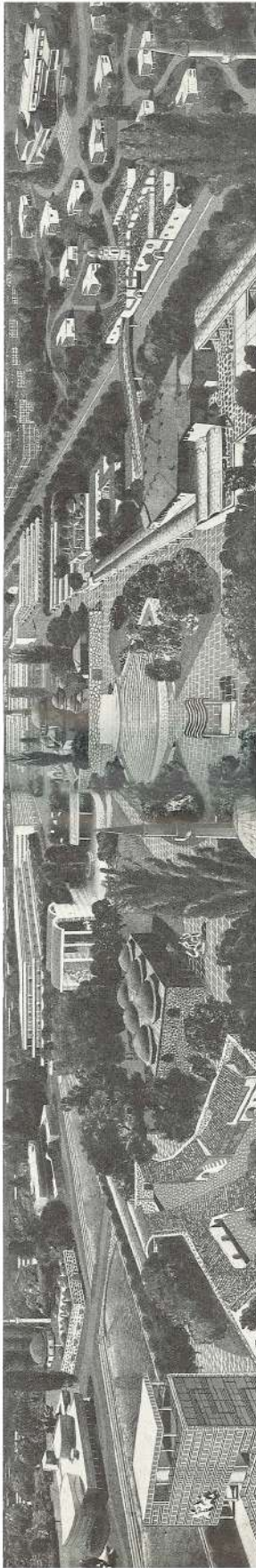
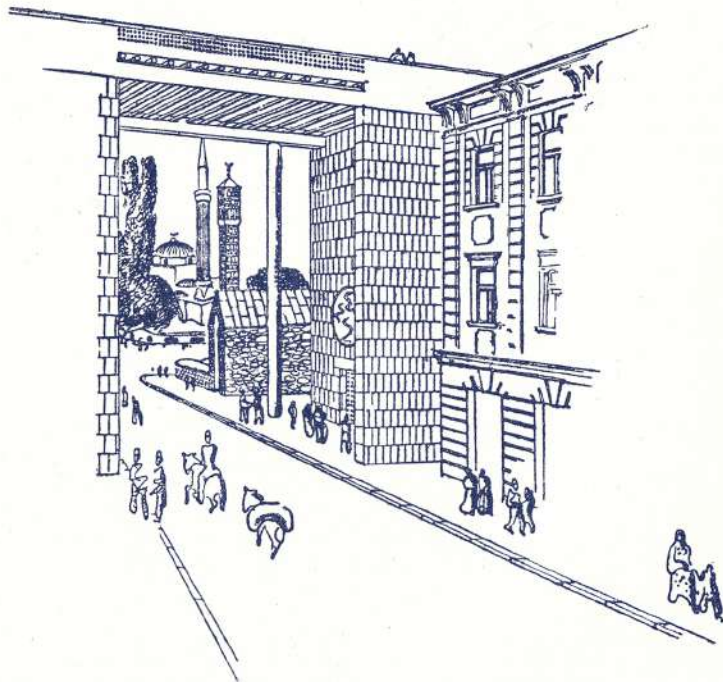


Figure IV-27 - Panorama of New Čaršija, project for the regulation of Baščaršija, Sarajevo's historic commercial district, Juraj Neidhardt, 1957 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 120-121).

NOVA ČARŠIJA

THE NEW CHARSHIYA



Projekirana kapija na ulazu u Novu čaršiju. Kapija se predviđa kao natkriveni prolaz ugrađen između novoprojektiranih hotela. Kroz kapiju se vidi adaptirani Gazi Husrevbegov beziston, sahat kula i Begova džamija.

Project of the portal at the entrance to the new business area. The portal is conceived as an archway connecting the two hotels to be built. The vista through the portal will include the reconstructed Gazi Husrev Bey's Beziston (covered market-hall), the Clocktower and the Bey's Mosque.

Figure IV-28 - A gate to New Čaršija, project for the regulation of Baščaršija, Sarajevo's historic commercial district, Juraj Neidhardt, 1957 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 109).

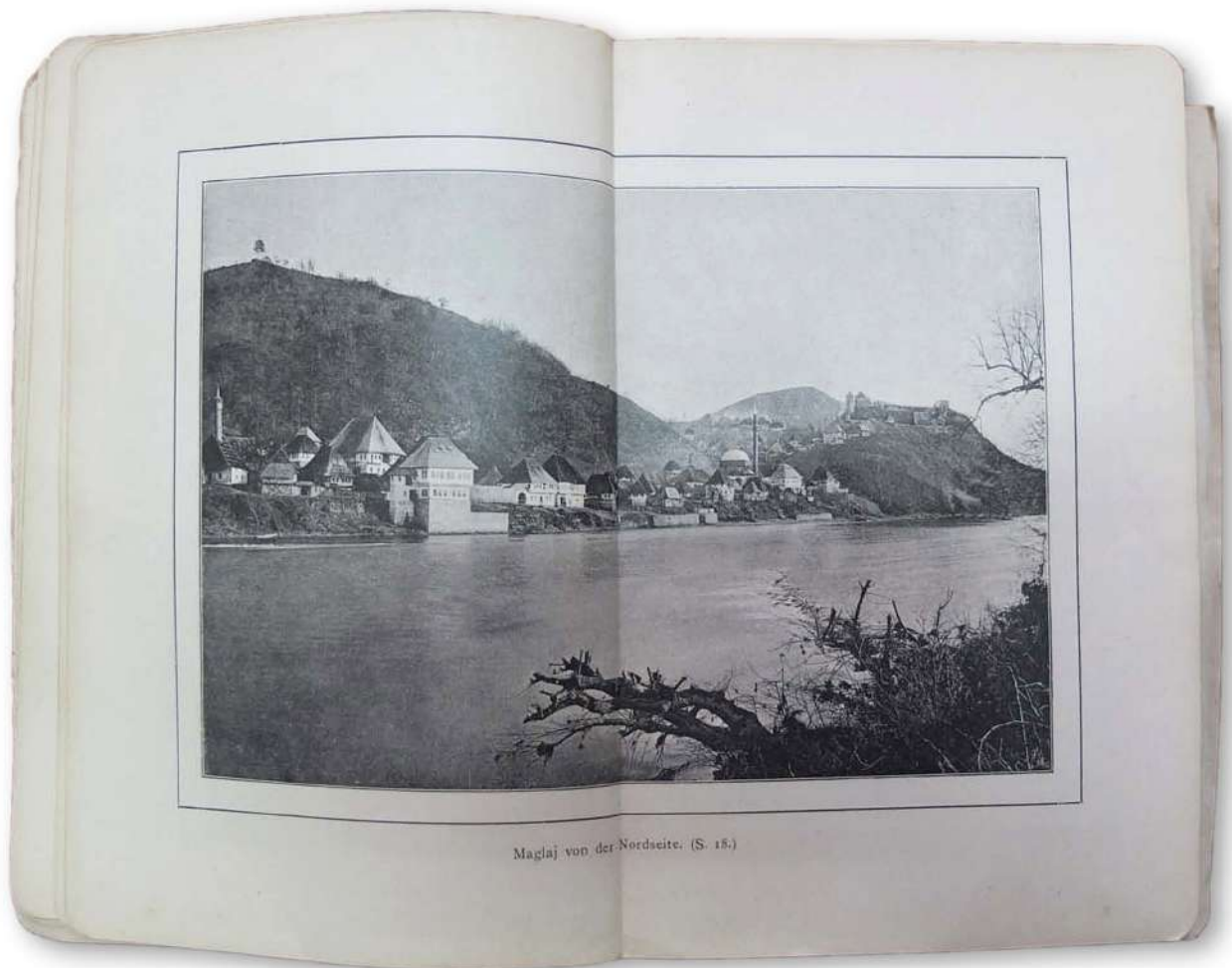
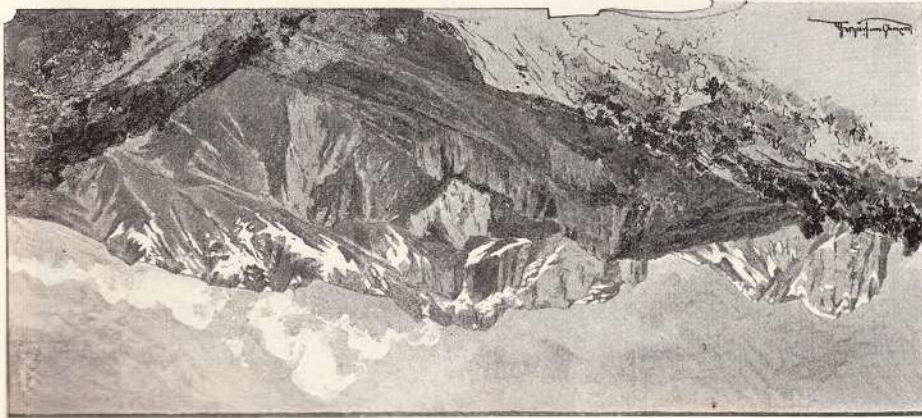


Figure IV-29- "Maglaj from the north side," a double spread from the travel guide for Bosnia and Herzegovina published during the Habsburg rule (Amand Schweiger Lerchenfeld, *Reiserouten in Bosnian und der Herzegovina - Illustrirter Führer* (Wien Pest Leipzig: A. Hartleben's Verlag, 1892),18-19).



Figure IV-30 - "Prenj near Jablanica," a double spread from the travel guide for Bosnia and Herzegovina published during the Habsburg rule (Amand Schweiger Lerchenfeld, *Reiserouten in Bosnian und der Herzegovina - Illustrierter Führer* (Wien Pest Leipzig: A. Hartleben's Verlag, 1892), 48-49).

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TRESKAVICA.

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BAŠČARŠIJA.

Figure IV-31 - Baščaršija (bottom) and Treskavica mountain (top), a double spread from *Bosnia and Herzegovina*, a publication by the Sarajevo section of the Association of Yugoslav Engineers and Architects (source: Sarajevska sekcija udruženja jugoslavenskih inženjera i arhitekata, *Bosna i Hercegovina* (Sarajevo: Zemaljska štamparija, 1922), 58-59).

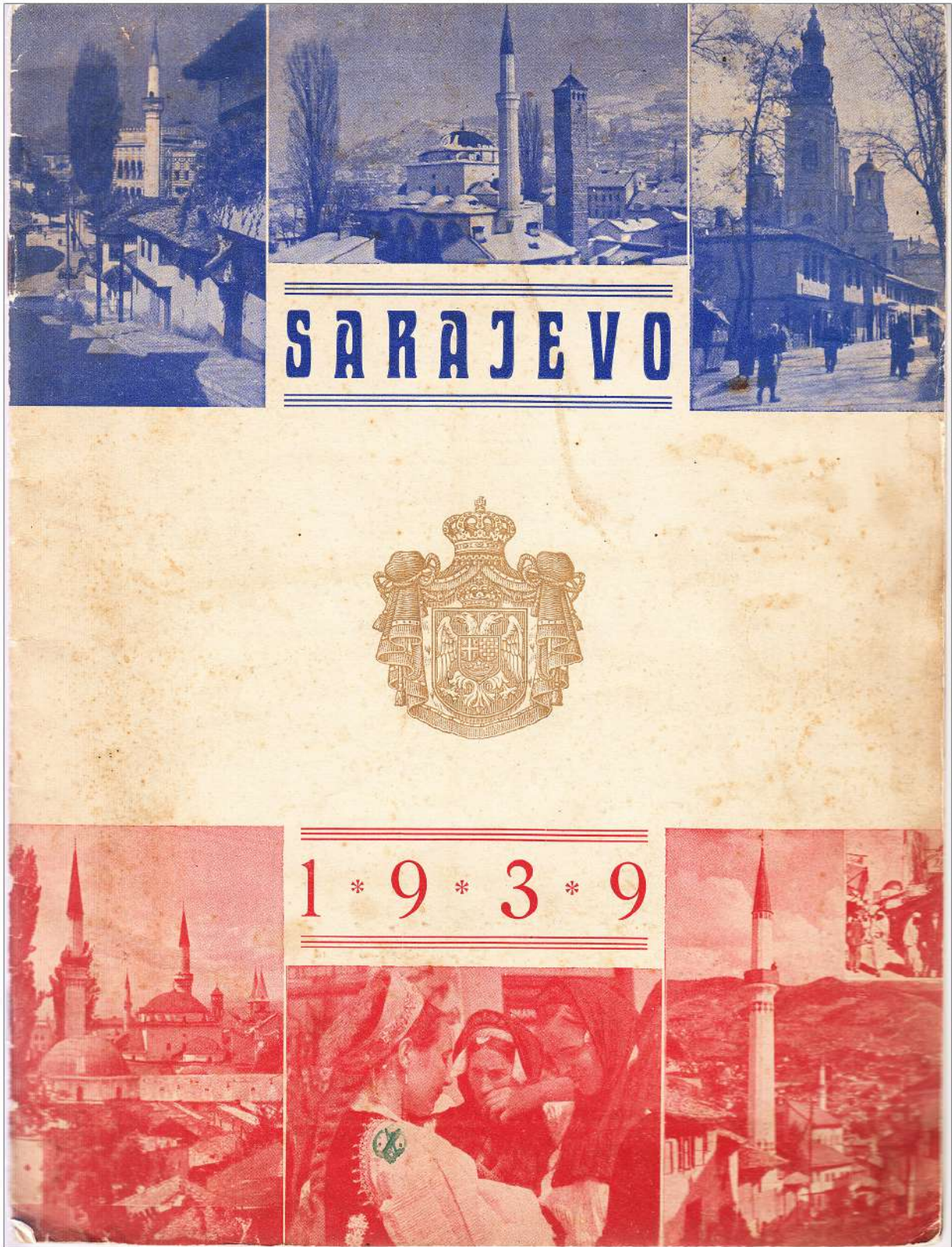


Figure IV-32 - Cover of the tourist brochure *Sarajevo 1939* (Jovan Palavestra, *Sarajevo 1939*, (Sarajevo: Gradska štamparija, 1939)).

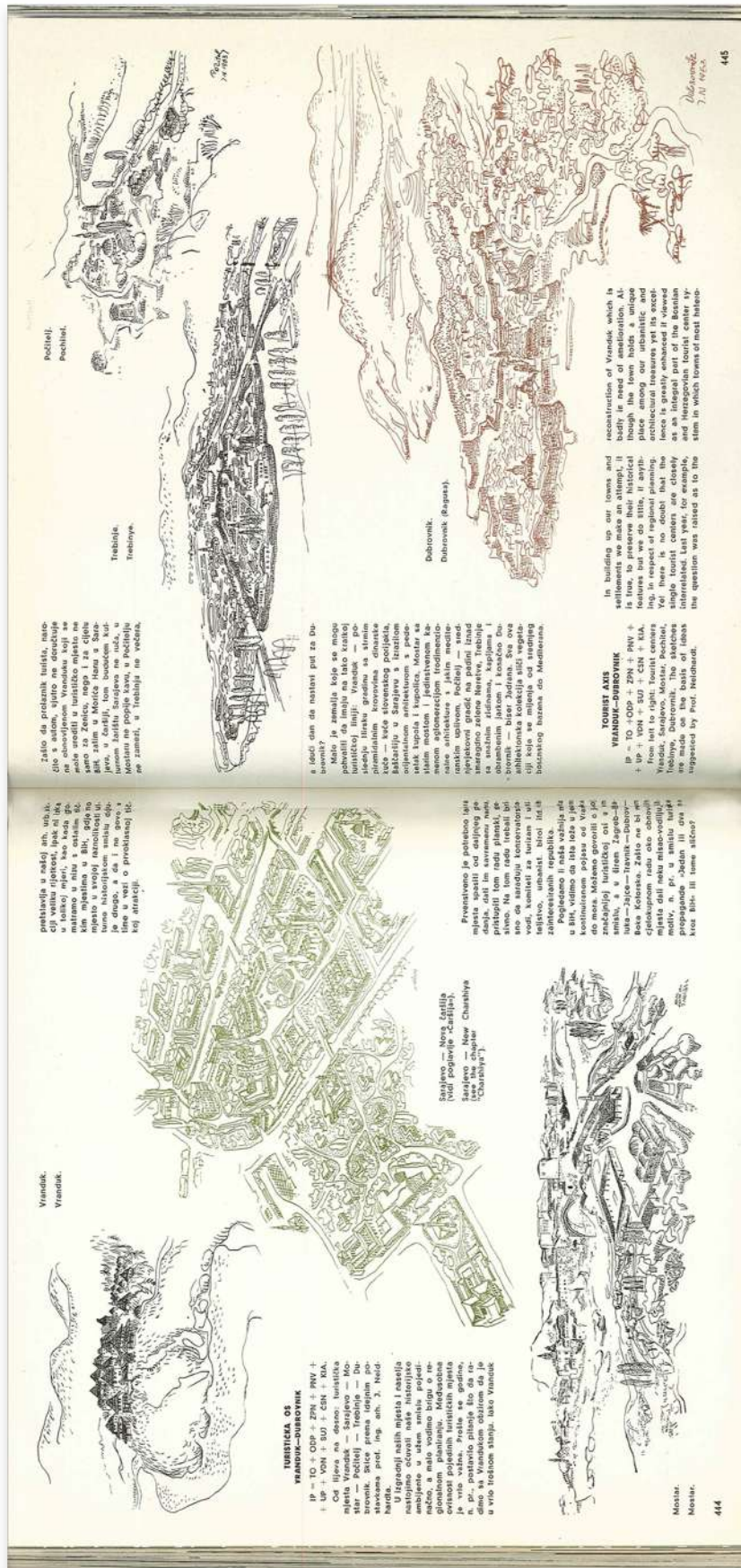


Figure IV-33 - A double spread from *Architecture of Bosnia* with illustrations of the “Touristic Axis Vranduk-Dubrovnik,” by Juraj Neidhardt, 1957 (source: Dušan Grabrijan and Juraj Neidhardt, *Arhitektura Bosne i put u savremeno* (Ljubljana: Državna založba Slovenije, 1957), 444-445).

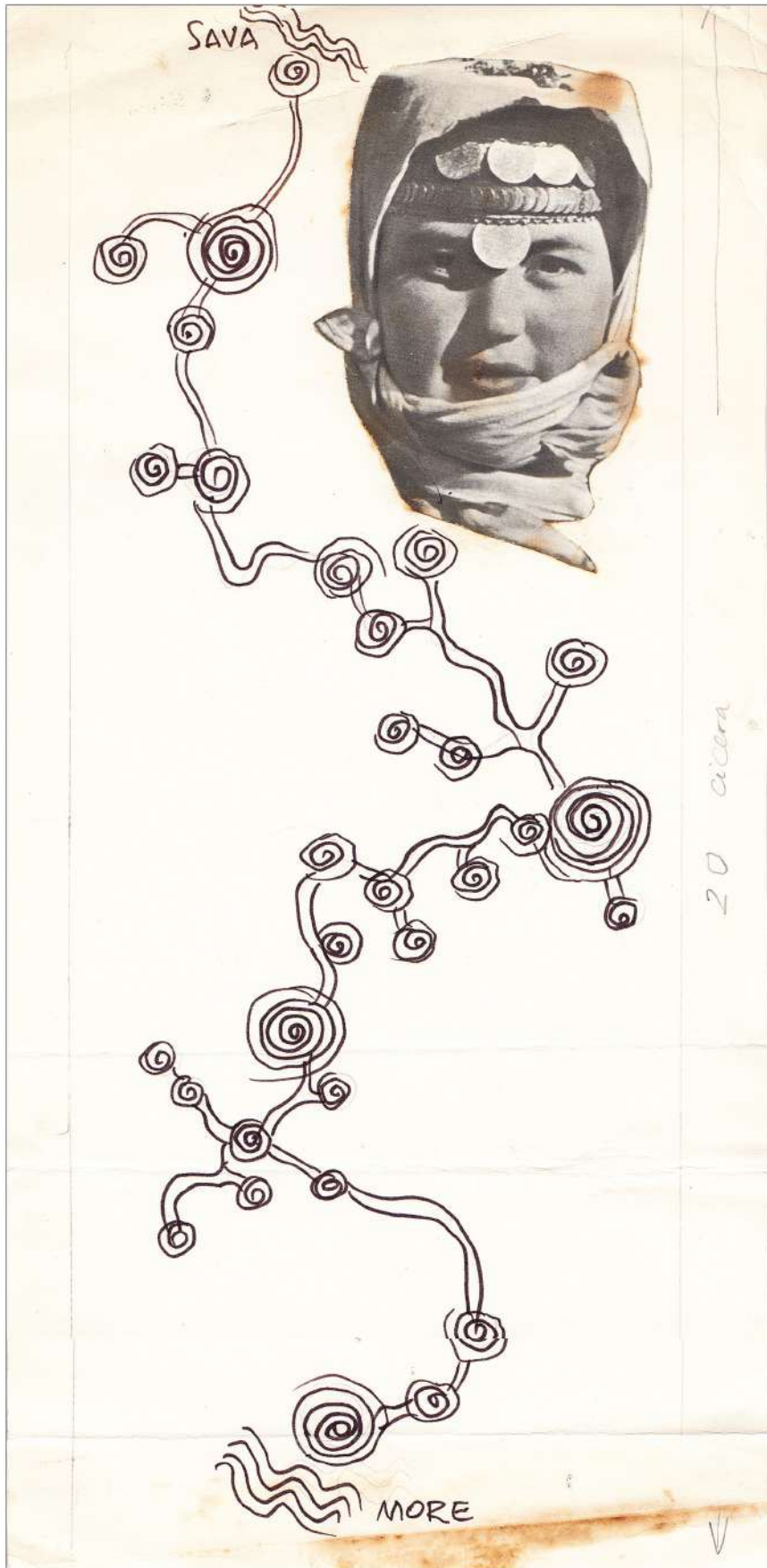


Figure IV-34 - A representation of the concept for "Touristic Axis Vranduk-Dubrovnik," by Juraj Neidhardt, around 1953 (source: Juraj Neidhardt's private archive).



Figure IV-35 - A representation of the concept for "Touristic Axis Vranduk-Dubrovnik," by Juraj Neidhardt, around 1953 (source: Juraj Neidhardt's private archive).

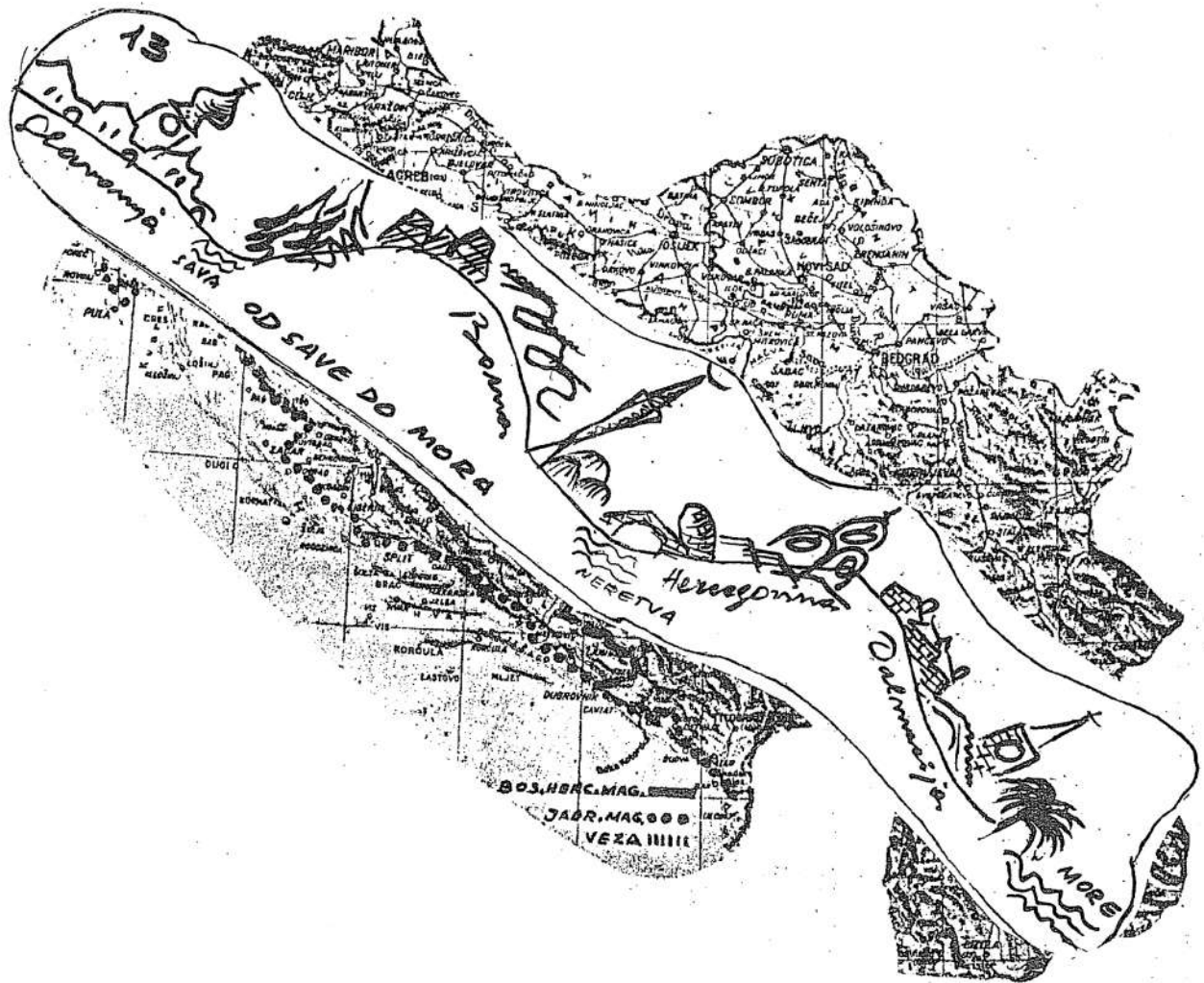


Figure IV-36 - A representation of the concept for "Touristic Axis Vranduk-Dubrovnik," by Juraj Neidhardt, around 1953 (source: Jelica Karlić Kapetanović, *Juraj Neidhardt: život i djelo* (Sarajevo: Veselin Masleša, 1990), 270).

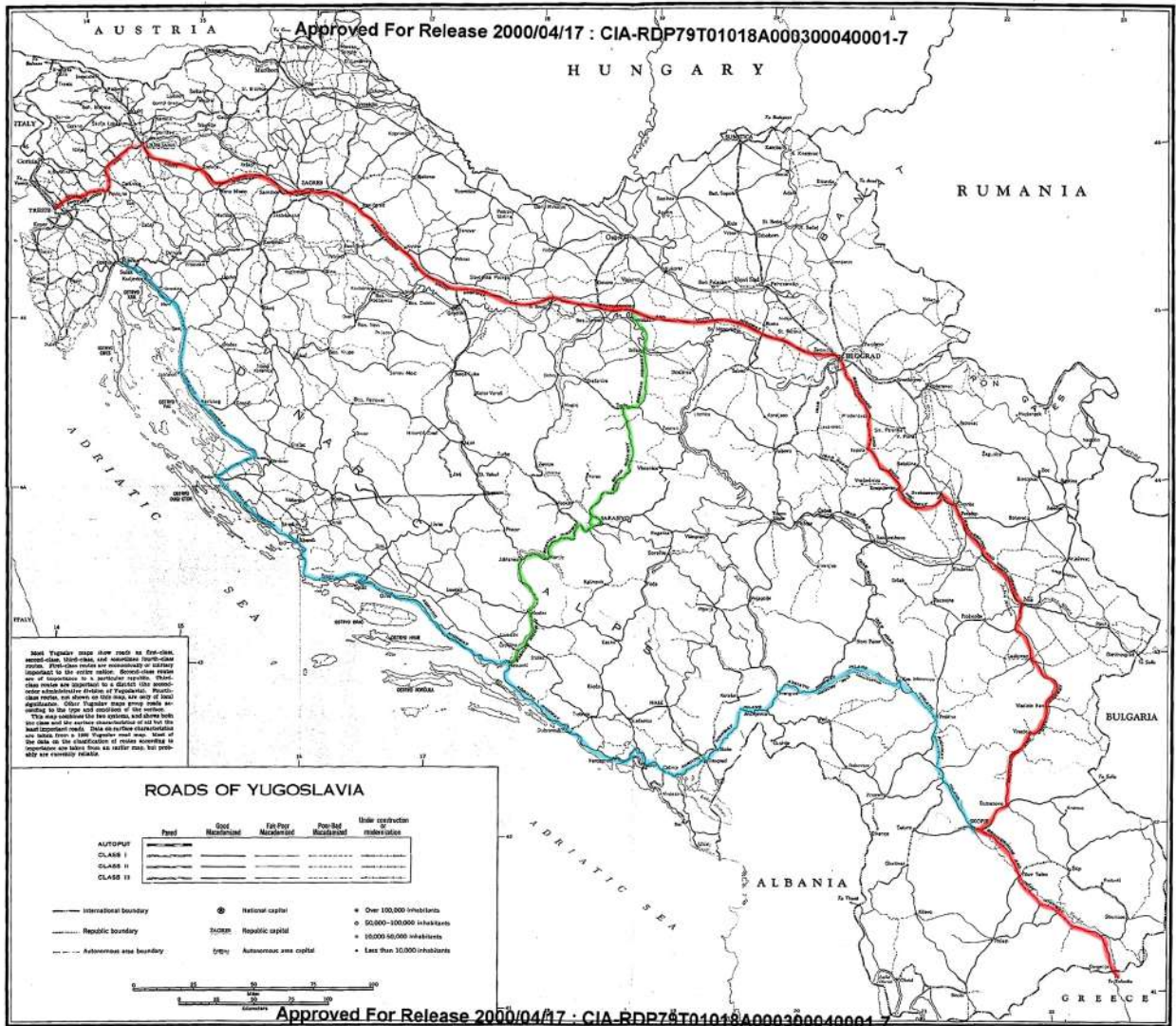


Figure IV-37 - The map representing the planned road network of Yugoslavia, probably early 1950s; Bosnian highway is marked in green, Brotherhood and Unity Highway is marked in red, Adriatic Highway is marked in blue (source: CIA - Central Intelligence Agency, The Roads of Yugoslavia - Geographic Intelligence Report Number 15-67, December 1960, Accessed December 20, 2017. <https://www.cia.gov/library/readingroom/docs/CIA-RDP79T01018A000300040001-7.pdf>).

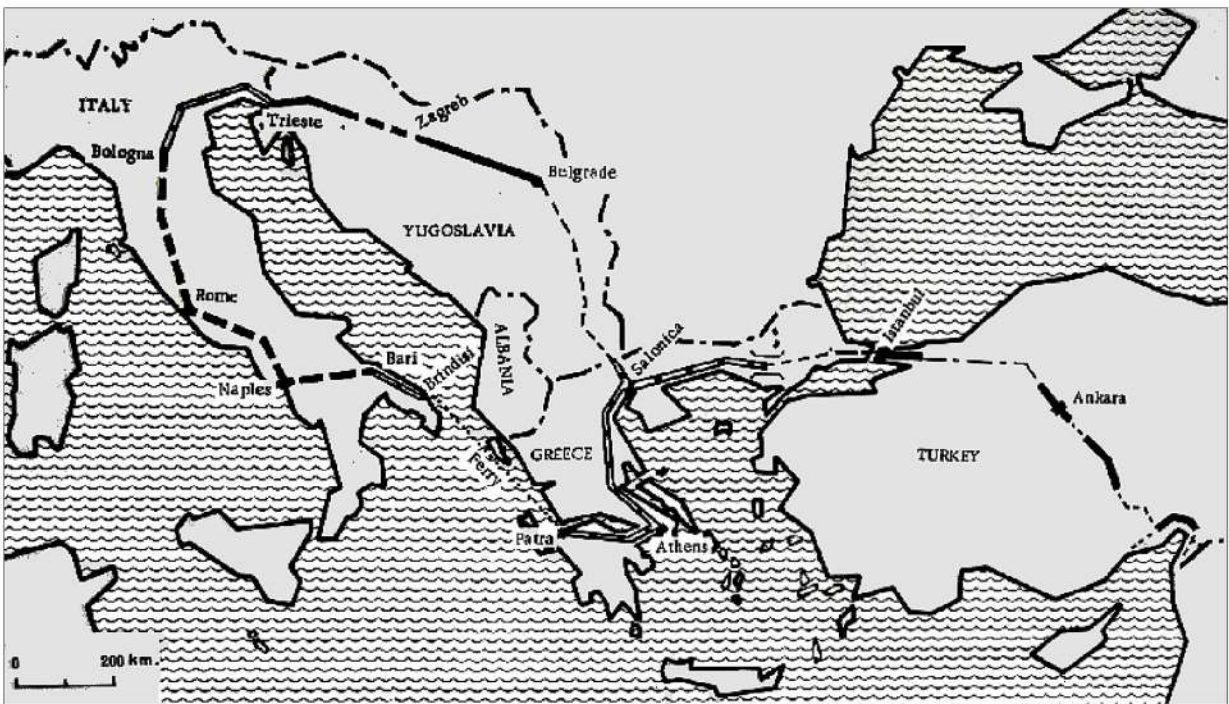


Figure IV-38 - A scheme of the Circular Highway (source: F. Schipper "Was the road to Europe paved with good intentions? building highways in the Balkans," TIE working documents series , 18, Transnational Infrastructures of Europe (2007): 10).

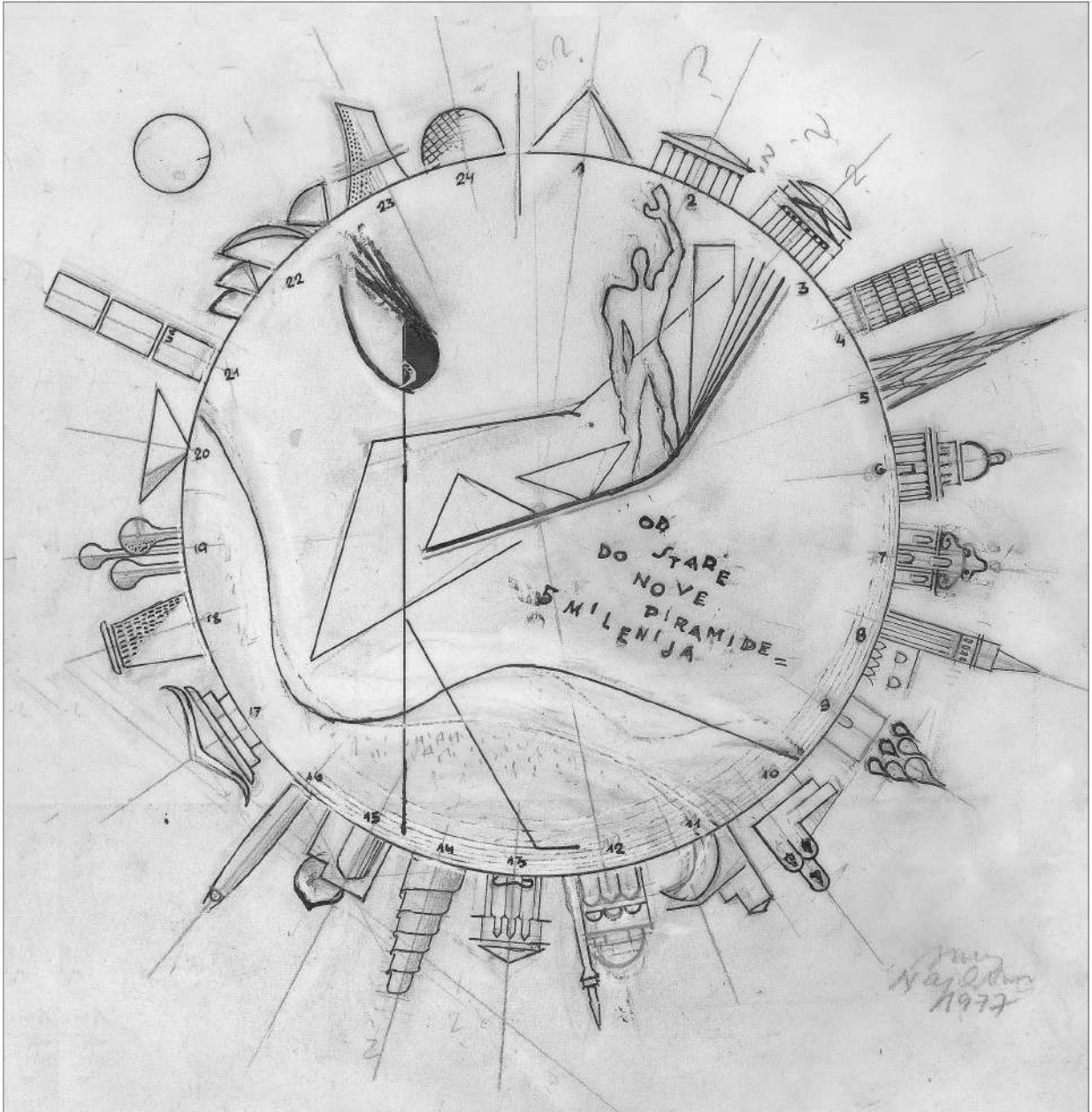


Figure IV-39 - A representation of the concept for the book *Geography of Architecture*, by Juraj Neidhardt, around 1962 (source: Juraj Neidhardt's private archive).

Sources

Archives

Archive of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina

Archive of *Muzej za arhitekturo in oblikovanje* - MAO, Ljubljana, Slovenia

Archive of the city of Novi Sad, Novi Sad, Serbia

Archive of the city of Sarajevo, Sarajevo, Bosnia and Herzegovina

Archives of the Republic of Slovenia, Ljubljana, Slovenia

Archive of the Zenica Ironworks, destroyed in 2018

Archive of Yugoslavia, Belgrade, Serbia

Cantonal Institute for Urbanism and Spatial Regulation of Zenica, Zenica, Bosnia and Herzegovina

Foundation Le Corbusier, Paris, France

Institute for Development Planning of the Canton of Sarajevo, Sarajevo, Bosnia and Herzegovina

Juraj Neidhardt's Archive at the Archive of Academy of Sciences and Arts of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina

State Archive in Split, Croatia

Study Archive of the Faculty of Architecture of the University of Zagreb, Zagreb, Croatia

Primary Sources

Ajanović, M. "U kojoj mjeri smog pijeti Sarajevu II - Premašeni svjetski rekordi." *Oslobodjenje*, January 06, 1965.

Ancel, Jacques. *Peuples et nations des Balkans*. Paris: Armand Colin, 1930.

Antolić, Vlado. "O problemima urbanizma i arhitekture Makedonije." *Arhitektura* 3, no. 25-27 (1949): 19-23.

Avdić, Selvedin. *Moja fabrika*. Zenica: Vrijeme, 2018.

Belica, H. "Arhitektura Bosne i put u savremeno: povodom knjige arhitekata Grabrijana i Neidhardta." *Oslobodjenje*, January 15, 1958.

Brunhes, Jean. "Du caractère propre et du caractère complexe des faits de géographie humaine." *Annales de Géographie* 22, no. 121 (1913): 1-40.

_____. and E.S. Bates. "The specific characteristics and complex character of the subject-matter of human geography." *Scottish Geographical Magazine* 29, no. 6 (1913): 304-322.

Čelić, Džemal. ed. *Grabrijan i Sarajevo*. Sarajevo: Muzej grada Sarajeva, 1950.

CIA - Central Intelligence Agency. "The Yugoslav Experiment - National Intelligence Estimate Number 15-67, 13 April 1967." Accessed July 7, 2018. <https://www.cia.gov/library/readingroom/document/0000272967>

_____. "Yugoslavia - Railway and Highway Systems, 08 August 1949." Accessed July 9, 2018. <https://www.cia.gov/library/readingroom/docs/CIA-RDP82-00457R003000490009-0.pdf>

_____. "Geographic Intelligence Report - The Roads of Yugoslavia, December 1960." Accessed July 9, 2018. <https://www.cia.gov/library/readingroom/docs/CIA-RDP79T01018A000300040001-7.pdf>

Le Corbusier. *Sur les 4 routes*. Paris: Gallimard, 1941.

_____. *The Radiant City*. New York: The Orion Press, 1964.

_____. and ASCORAL. *Les trois établissements humains*. Paris: Denoel, 1945.

Ćurčić, Vejsil. "Starinsko oružje u Bosni i Hercegovini." *Glasnik hrvatskog državnog muzeja u Sarajevu*, vol. LV (1943).

Cvijić, Jovan. "Aneksija Bosne i Hercegovine i srpsko pitanje." In *Jovan Cvijić Sabrana dela, Knjiga 3 (Tom I): Govori i članci*, edited by Radomir Lukić. Beograd: Srpska akademija nauka i umetnosti, 1989.

_____. *La Péninsule Balkanique - Géographie humaine*. Paris: Libraire Armand Colin, 1918.

_____. *Balkansko poluostrvo i južnoslovenske zemlje: osnovi antropogeografije, knjiga I*. Beograd: Državna štamparija Kraljevine Srba, Hrvata i Slovenaca, 1922.

Dobrović, Nikola. *Urbanizam kroz vekove I - Jugoslavija*. Beograd: Naučna knjiga, 1950.

_____. "Osnovi potencijalnog prostornog planiranja." In *Regionalno prostorno planiranje*, edited by Organizacioni odbor za pripremu šestog savetovanja i Prvog redovnog kongresa Saveza društava urbanista Jugoslavije, 19-53. Beograd: Izdanje urbanista Srbije, 1957.

Državna založba Slovenije. "Ad for the book Bosanska Orientalna arhitektura v Sarajevu s posebnim ozirom na sodobno." *Arhitekt - revija za arhitekturo, urbanizem in oblikovanje izdelkov*, no.8 (1953).

- Gamulin, Grgo. "Prostori u regijama." *Život umjetnosti*, no. 1 (1966): 38-53.
- _____. "Integracija u strukturi." *Život umjetnosti*, no.10 (1969): 81-100.
- Gašparović, Franjo, Branko Petrović, and Stanko Žuljić. "Regionalno prostorno planiranje." In *Regionalno prostorno planiranje*, edited by Organizacioni odbor za pripremu šestog savetovanja i Prvog redovnog kongresa Saveza društava urbanista Jugoslavije, 87-131. Beograd: Izdanje urbanista Srbije, 1957.
- Von Goldbeck, Maximilian, and Erich Kotzer. "Die Stadt von Morgen: ein film vom städtebau." *Wasmuths Monatshefte Baukunst & Städtebau* 25, no. 5 (May 1930):237-240.
- Grabrijan, Dušan. "Regulacija banje Ilidža od arh. Juraja Neidhardta." *Gradjevinski vijesnik* 7, no. 8 (August 1938): 113-119.
- _____. and Juraj Neidhardt. "Sarajevo i njegovi trabanti." *Tehnički vijesnik - Glasilo hrvatskog društva inženjera* 59, no. 7-9 (1942): 198-317.
- _____. "Orientalska hiša v Sarajevu s posebnim ozirom na sodobno." *Arhitektura*, no. 23-24 (1949): 44-61.
- _____. "Dediščina narodov Federativne Ljudske Republike Jugoslavije u arhitekturi." *Likovni svet*. Ljubljana: Državna založba Slovenije, 1951.
- _____. and Juraj Neidhardt. *Arhitektura Bosne i put u savremeno*. Ljubljana: Državna založba Slovenije, 1957.
- _____. *Kako je nastajala naša sodobna hiša*. Ljubljana: Mladinska knjiga, 1959.
- _____. *Plečnik in njegova šola*. Maribor: Založba obzorja, 1968.
- _____. "Naše orijentalne i savremena kuća." In *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*, edited by Branislav Krstić, 425-435. Beograd: Branislav Krstić, 2014.
- Gravier, Gaston. "L'Albanie et ses limites." *Revue de Paris* (15 January 1913): 200-224, 433-448.
- Grimme, Karl Maria. *Peter Behrens and his Academic Master School in Vienna*. Wien Berlin Leipzig: Adolf Luser Verlag, 1930.
- Hangi, Antun. *Život i običaji Muslimana u Bosni i Hercegovini*. Sarajevo: Naklada Danijela A. Kajona, 1906.
- Hilberseimer, Ludwig. *The New Regional Pattern - Industries and Gardens Workshops and Farms*. Chicago: Paul Theobald, 1949.
- Jančić, M. "Residential construction in Sarajevo: Spring Perspectives." *Oslobodjenje*, December 25, 1955.
- Kadić, Muhamed. "Žurna potreba izrade regulacione osnove Sarajeva." *Novi list*, December 7, 1941.
- Kardelj, Edvard. "Zadaci naše lokalne privrede i komunalnog gazdinstva." In *O Komuni*, edited by Edvard Kardelj, 55-94. Beograd: Radnička štampa, 1981.
- Katzer, Friedrich. *Geologischer Führer durch Bosnien und die Hercegovina*. Sarajevo: Landesdruckerei, 1903.
- Kojić, Branislav. "Arhitektura ruskog sela." *Arhitektura* 1-2, no. 4-6 (1947): 12-13.
- _____. *Stara gradska i seoska arhitektura u Srbiji*. Beograd: Prosveta, 1949.

- Krunić, Jovan. "Arhitektonsko nasljeđe i proces stvaranja arhitektonskog izraza." In *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*, edited by Branislav Krstić, 156-162. Beograd: Branislav Krstić, 2014.
- Kurski, Aleksandr. *Socijalističko planiranje narodne privrede SSSR*. Beograd: Izdanje Savezne planske komisije, 1947.
- Migge, Leberecht. "Wetstadt Grün: Ein aufruf zur rentablen parkpolitik." *Wasmuths Monatshefte Baukunst & Städtebau* 25, no. 5 (May 1930):241-248.
- Minić, Oliver. "Veličina i pouka stare zanemarene arhitekture." *Književne novine IX*, no. 59-60 (January 10, 1958): 8.
- Mutnjaković, Andrija. "D. Grabrijan i J. Neidhardt - Arhitektura Bosne i put u savremeno." *Arhitektura* 12, no. 1-6 (1958): 69-73.
- Narodni odbor opštine Zenica. *Zenica Program za Generalni urbanistički plan - skracena verzija*. Sarajevo, 1962.
- Neidhardt, Juraj. "Problemi regulacije Zgreba." *Gradjevinski vijesnik* 6, no.1 (1937): 6.
- _____. "Povodom akcije za izgradnju individualnih stanova: naša dosadašnja praksa, iskustva za budući rad." *Arhitekt - časopis za arhitekturu, urbanizam i primenjenu umetnost*, no.2 (1952).
- _____. "Zapažanja I - Humana arhitektura." ("Observations I - Humane Architecture") *Čovjek i prostor (Čip)*, no. 112 (July 1962): 8.
- _____. "Zapažanja II - Slike bez riječi." ("Observations II - Images without words") *Čovjek i prostor (Čip)*, no. 113 (August 1962): 8.
- _____. "Zapažanja III - Igra kupola." ("Observations III - Play of Domes") *Čovjek i prostor (Čip)*, no. 115 (October 1962): 8.
- _____. "Zapažanja IV - Prostor pod vedrim nebom." ("Observations IV - Space under the open sky") *Čovjek i prostor (Čip)*, no. 118 (January 1963): 8.
- _____. "Zapažanja V - Kamene spona." ("Observations V - Stone Bonds") *Čovjek i prostor (Čip)*, no. 127 (October 1963): 8.
- _____. "Le Corbusier i mi." *Čovjek i prostor (Čip)*, no. 127 (September 1965): 5-6.
- Petrović, Branko, and Stanko Žuljić. *Kotar Krapina - Regionalni prostorni plan*. Zagreb: Urbanistički institut NR Hrvatske, 1958.
- de Pierrefeu, François, and Le Corbusier. *Savremena kuća dostojna ljudi*. Beograd: Gradjevinska knjiga, 1956.
- _____. and Le Corbusier. *The Home of Man*. London: The Architectural Press, 1948.
- Pingusson, Georges Henri. "Project d'aéroport." *L'Architecture d'Aujourd'hui* 5, no.3 (March 1935): 79.
- Praštal, Živojin. "Naša industrija gvoždja." *Kalendar SPKD Prosvjeta*, January 1, 1941.
- Pregled osnova stanova za 1948*. Beograd: Izdavačko preduzeće Ministarstva građevina FNRJ, 1948.
- Rapoport, Amos. *House Form and Culture*. N.J. Prentice-Hall INC, 1969.
- Ravnikar, Edvard. "Kratek oris modernoga urbanizma u Sloveniji." In *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*, edited by Branislav Krstić, 325-346. Beograd: Branislav Krstić, 2014.
- Richter, Vjenceslav. *Sinturbanizam*. Zagreb: Mladost, 1964.

- Rossi, Aldo. *Architecture of the City*. Cambridge: The MIT Press, 1984.
- Sarajevska sekcija udruženja jugoslavenskih inženjera i arhitekata. *Bosna i Hercegovina*. Sarajevo: Zemaljska štamparija, 1922.
- Savez arhitekata Jugoslavije. *Prvi kongres* (Beograd: SAJ, 1958): 8.
- Schwartz, Harry. "Recent Activities of Soviet Economists." *The American Economic Review* 36, no. 4 (September 1946): 650-658.
- Schweiger Lerchenfeld, Amand. *Reiserouten in Bosnian und der Herzegovina - Illustrierter Führer*. Wien Pest Leipzig: A. Hartleben's Verlag, 1892.
- Sedlar, Saša. "Uvijeti za razvoj urbanizma u Jugoslaviji do osnivanja urbanističkih društava." In *Deset godina urbanističkog saveza Jugoslavije*, edited by Saša Sedlar, 5-10. Zagreb, Savez urbanističkih društava Jugoslavije, 1965.
- Šegvić, Neven. "Stvaralačke komponente arhitekture FNRJ." *Urbanizam i arhitektura* 4, no. 5-6 (1950): 5-40.
- Seissel, Josip. "Problemi izgradnje mediteranskih gradova i naselja." In *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*, edited by Branislav Krstić, 312-314. Beograd: Branislav Krstić, 2014.
- Sindicato nacional dos Arquitectos. *Arquitectura popular em Portugal*. Lisbon: Ordem dos Arquitectos, 2004.
- Solovjev, Aleksandar. "Nestanak Bogumilstva i islamizacija Bosne." *Godišnjak istorijskog društva Bosne i Hercegovina* 1, no.1. Sarajevo: Istorijsko društvo BiH, 1949.
- Stričić, Zdenko. "Lik arhitekta." In *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*, edited by Branislav Krstić, 315-319. Beograd: Branislav Krstić, 2014.
- Tepina, Marjan. "Ekonomске zakonitosti urbanizacije i regionalno planiranje." In *Regionalno prostorno planiranje*, edited by Organizacioni odbor za pripremu šestog savetovanja i Prvog redovnog kongresa Saveza društava urbanista Jugoslavije, 9-17. Beograd: Izdanje urbanista Srbije, 1957.
- Truhelka, Ćiro. *Uspomene jednog pionira*. Zenica: Vrijeme, 2012.
- "Veliki spomenik slovenskomu arhitektu Dušanu Grabrijanu: 'Arhitektura Bosne in pot v sodobno'" *Primorski dnevnik*, March 2, 1958.
- Vidal de la Blache, Paul. "La Géographie politique, à propos des écrits de M. Frédéric Ratzel." *Annales de Géographie* 7, no. 32 (1898): 97-111.
- Wagner, Martin. "Das Formproblem eines Weltstadtplatzes." *Das Neue Berlin*, no.1 (1929): 33-38.

Literature

- Alić, Dijana. "Transformations of the Oriental in the Architectural Work of Juraj Neidhard and Dušan Grabrijan." PhD diss., University of New South Wales, 2010.
- Anderson, Stanford. *Peter Behrens and New Architecture for the Twentieth Century*. Cambridge Mass. and London: The MIT Press, 2000.
- Aragez, Ricardo. *Algarve Building - Modernism, Regionalism and Architecture in the South of Portugal 1925-1965*. Oxon and New York: Routledge, 2016.
- Archer, Kevin. "Regions as Social Organisms: The Lamarckian Characteristics of Vidal de la Blache's Regional Geography." *Annals of the Association of American Geographers* 83, no. 3 (Sep. 1993): 498-514.
- Arrault, Jean-Baptiste. "Une Géographie inattendue: le système mondial vu par Paul Vidal de la Blache." *L'Espace géographique* 37, no. 1 (2008): 75-88.
- Barber, Daniel A. "Environmentalisation and Environmentality: Re-Conceiving the History of 20th Century Architecture." *Design Philosophy Papers - Crows Nest* 7, no. 3 (2009): 145-160.
- _____. "Architectural History in the Anthropocene." *The Journal of Architecture*, 21, no.8 (2016): 1165-1170.
- _____. Lee Stickells, Daniel J. Ryan, Maren Koehler, Andrew Leach, Philip Goad, Deborah van der Plaats, Cathy Keys, Farhan Karim, and William M. Taylor. "Architecture, Environment, History: Questions and Consequences." *Architectural Theory Review*, 22, no. 2 (2018): 249-286.
- Di Battista, Alenka, and Matevž Čelik. "New Cities in Slovenia 1945-1960." In *Unfinished Modernizations - Between Utopia and Pragmatism*, edited by Maroje Mrduljaš and Vladimir Kulić, 246-259. Zagreb: UHA/CCA, 2012.
- Bender, John, and Michael Marrinan. *The Culture of the Diagram*. Stanford: Stanford University Press, 2010.
- Benton, Tim. *The Rhetoric of Modernism: Le Corbusier as a Lecturer*. Berlin: Birkhäuser Architecture, 2009.
- Blagojević, Ljiljana. *Novi Beograd - osporeni modernizam*. Belgrade: Zavod za udžbenike, 2007.
- Blau, Eve. "Patterns of Fact: Photography and the Transformation of the Early Industrial City." In *Architecture and Its Image - Four Centuries of Architectural Representation - Works from the Collection of the Canadian Centre for Architecture*, edited by Eve Blau and Edward Kaufman, 36-57. Montreal: CCA, 1989.
- _____. *The Architecture of Red Vienna 1919-1934*. Cambridge Massachusetts-London England: The MIT Press, 1999.
- _____. "Supranational Principle as Urban Model: Otto Wagner's Grossstadt and City Making in Central Europe." In *Histoire de l'art du XIXe siècle (1848-1914), bilans et perspectives*, edited by Claire Barbillon, Catherine Chevillot and François-René Martin, 501-514. Paris: Musée d'Orsay, Ecole du Louvre, 2012.
- _____. *Baku: Oil and Urbanism*. Zürich: Park Books, 2019.

- Bojić, Nikola. "Social and Physical Planning: Two Approaches to Territorial Production in Socialist Yugoslavia between 1955 and 1963." *Architectural Histories*, 6, no. 1, 25 (2018), 1–14. <https://doi.org/10.5334/ah.309>.
- Borsi, Katharina. "Drawing the region: Hermann Jansen's vision of Greater Berlin in 1910." *The Journal of Architecture* 20, no.1 (2015): 47-72. DOI:10.1080/13602365.2015.1004619.
- Bozdogan, Sibel. *Modernism and Nation Building - Turkish Architectural Culture in the Early Republic*. Washington: The University of Washington Press, 2001.
- Caesar, Alfred A. L. "Yugoslavia: Geography and Post-War Planning." *Institute of British Geographers - Transactions and Papers*, no. 30 (1962): 33-43.
- Calandra di Roccolino, Giacomo. "Il progetti di Peter Behrens per Alexanderplatz 1928-1932." *Engramma*. Accessed June 17, 2016. http://www.engramma.it/eOS/index.php?id_articolo=506.
- Canguilhem, Georges, and John Savage. "The Living and Its Milieu." *Grey Room*, no. 3 (Spring, 2001): 6-31.
- Çelik, Zeynep. "Le Corbusier, Orientalism, Colonialism." *Assemblage*, no. 17 (1992): 59-77.
- _____. "The Ordinary and the Third World at CIAM IX." In *Team 10 1953-81 in Search of Utopia of the Present*, edited by Dirk van den Heuvel and Max Risselada, 276-279. Rotterdam: NAI Publishers, 2006.
- Chataigneau, Yves. "Le bassin de Sarajevo." *Annales de Géographie* 37, no. 208 (1928): 306-327.
- Crampton, Jeremy W. "The cartographic calculation of space: race mapping and the Balkans at the Paris Peace Conference of 1919." *Social & Cultural Geography* 7, no. 5 (2006): 731-752. DOI: 10.1080/14649360600974733.
- Cupers, Kenny. "Géographie Volontaire and the Territorial Logic of Architecture." *Architectural Histories* 4, no.1, 3 (2016): 1–13. <http://dx.doi.org/10.5334/ah.209>.
- Dautbegović, Almaz. *Spomenica stogodišnjice rada Zemaljskog muzeja Bosne i Hercegovine 1888-1988*. Sarajevo: Zemaljski muzej BiH, 1988.
- Dobrivojević, Ivana. "Od ruralnog ka urbanom. Modernizacija RBiH u FNRJ 1945-1955." *Identitet BiH kroz historiju - Zbornik radova 2*, (Sarajevo: Institut za istoriju u Sarajevu, 2011): 16-17.
- Donia, Robert J. "The Proximate Colony: Bosnia-Herzegovina under Austro-Hungarian Rule." *Godišnjak/Jahrbuch ANUBiH* 42 (2013):197-202.
- _____. *Sarajevo: Biografija grada*. Sarajevo: Institut za historiju Sarajevo.
- Duančić, Vedran. "Nationalist geographies in interwar Yugoslavia: manoeuvring between national and transnational spaces." *European Review of History: Revue européenne d'histoire* 25, no. 3-4 (2018): 588-611. DOI: 10.1080/13507486.2018.1441266.
- Van Eck, Caroline. *Organicism in Nineteenth-Century Architecture - An Inquiry into Its Theoretical and Philosophical Background*. Amsterdam: Architectura & Natura Press, 1994.
- Eckardt, Frank. "Bauhaus and the "New Frankfurt"; Limited opportunities, limited concepts." In *Bauhaus and the City: A Contested Heritage for a Challenging Future*, edited by Laura Colini and Frank Eckardt, 18-30. Königshausen & Neumann, 2011.
- Elden, Stuart. "How Should We Do the History of the Territory." *Territory, Politics, Governance* 1 (2012): 5-20.

- Evans, Robin. "Architectural Projection." In *Architecture and Its Image - Four Centuries of Architectural Representation - Works from the Collection of the Canadian Centre for Architecture*, edited by Eve Blau and Edward Kaufman, 19-35. Montreal: CCA, 1989.
- Ferretti, Federico. "Situated Knowledge and Visual Education: Patrick Geddes and Reclus's Geography (1886–1932)." *Journal of Geography* 116, no.1 (2017): 3-19.
- Foucault, Michel. *Security, Territory, Population - Lectures at the College de France, 1977-78*. New York, NY: Palgrave Macmillan, 2009.
- Frampton, Kenneth. "Prospects for a Critical Regionalism." *Perspecta* 20 (1983): 147-162.
- Geertse, Michel. "Cross-Border Country Planning Dialogue in Interwar Europe." *SAGE Open*, (July-September 2015): 1–12.
- Gissen, David. "Architecture's Geographic Turns." *Log*, no. 12 (Spring/Summer 2008): 59-67.
- _____. "Territory: Architecture beyond Environment." In *Architectural Design Special Issue Territory: Architecture Beyond Environment*, edited by David Gissen, 8-13. Academy Press, 2010.
- Gligorov, Vladimir. "Yugoslavia and Development - Benefits and Costs." In *Yugoslavia from a Historical Perspective*, edited by Latinka Perović et al., 409-441. Belgrade: Helsinki Committee for Human Rights in Serbia, 2017.
- Gontier, Nathalie. "Depicting the Tree of Life: the Philosophical and Historical Roots of Evolutionary Tree Diagrams." *Evolution, Education and Outreach* 4, 3 (2011): 515-538.
- Grandits, Hannes, and Karin Taylor eds. *Yugoslavia's Sunny Side: A History of Tourism in Socialism (1950s-1980s)*. Budapest-New York: Central European University Press, 2010.
- Hall, Peter. *Urban and Regional Planning*. London and New York: Routledge, 2002.
- Halpern, Joel M. "Yugoslavia: Modernisation in an Ethnically Diverse State." In *Contemporary Yugoslavia - Twenty Years of Socialist Experiment*, edited by Wayne S. Vuchinich, 316-350. University of California Press, 1969.
- Henderson, Susan R. "Römerstadt: the modern garden city." *Planning Perspectives* 25, no.3 (2010): 323-346. DOI: 10.1080/02665433.2010.481182 334.
- Hessler, Martina. "The Frankfurt Kitchen: The Model of Modernity and the 'Madness' of Traditional Users, 1926–1933." In *Cold War Kitchen: Americanization, Technology, and European Users*, edited by Ruth Oldenziel and Karin Zachmann, 163–184. Cambridge: MIT Press, 2009.
- Hochhaeusl, Sophie. "From Vienna to Frankfurt Inside Core-House Type 7: A History of Scarcity through the Modern Kitchen." *Architectural Histories* 1, no.1, art. 24 (2013). DOI: <http://doi.org/10.5334/ah.aq>.
- Hochhäusl, Sophie, Torsten Lange, Ross Exo Adams, Daniel A. Barber, Aleksandr Bierig, Kenny Cupers, Isabelle Doucet et al. "Architecture and the Environment." *Architectural Histories*, 6, no.1, 20 (2018): 1–13. <https://doi.org/10.5334/ah.259>.
- Von Hodenberg, Christina. "Square-eyed Farmers and Gloomy Ethnographers: The Advent of Television in the West German Village." *Journal of Contemporary History* 51, no. 4 (2016): 839-865. <https://doi.org/10.1177/0022009415585892>.
- Horn, Eva. "Air as Medium." *Grey Room*, no. 73 (Fall 2018): 6–25.
- Hrasnica, Mehmed. *Arhitekt Josip Pospišil - Život i djelo*. Sarajevo: Acta architectonica et urbanistica, 2003.

- Hrelja, Kemal. "Razvoj industrije u Bosni i Hercegovini do Drugog svjetskog rata." *Acta historico-oeconomica Iugoslaviae* 1 (Zagreb, 1984): 17-35.
- Huseinović, Ismet, and Džemaludin Babić. *Svjetlost Evrope u Bosni i Hercegovini*. Sarajevo: Buybook, 2004.
- Jović, Dejan. "Communist Yugoslavia and its 'Others.'" In *Ideologies and National Identities: The Case of Twentieth-Century Southeastern Europe*, edited by John Lampe and Mark Mazower, 277-302. Budapest: Central European University Press, 2004.
- Kähler, Gert. *Wohnung und Stadt, Hamburg, Frankfurt, Wien. Modelle sozialen-Wohnens in den zwanziger Jahren*. Braunschweig, Vieweg & Sohn Verlagsgesellschaft, 1985.
- Karlić Kapetanović, Jelica. *Juraj Neidhardt: život i djelo*. Sarajevo: Veselin Masleša, 1990.
- Kiening, Christian, and Martina Strecken. *Medialität - Historische Konstellationen*. Zürich: Chronos, 2019.
- Krstić, Branislav. *Atinska povelja i misao arhitekata i urbanista FNRJ 1950-ih*. Beograd: Branislav Krstić, 2014.
- Kržišnik-Bukić, Vera. *Cazinska buna 1950*. Sarajevo: Svjetlost, 1991.
- Kukić, Leonard. "Economic Growth, Regional Development, and Nation Formation under Socialism - Evidence from Yugoslavia." PhD diss., Department of Economic History of the London School of Economics, 2017.
- 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, 27-40. New York: MoMA, 2018.
- _____. and Maroje Mrduljaš. *Modernism in-between - Mediator Architectures of Socialist Yugoslavia*. Berlin: Jovis, 2012.
- Lang, Nicholas R. "The Dialectics of Decentralization: Economic Reform and Regional Inequality in Yugoslavia." *World Politics* 27, no. 3 (Apr. 1975): 309-335.
- Langendijk, Vincent, and Frank Schipper. "East, West, Home's Best - The Material Links of Cold War Yugoslavia, 1948-1980." *Icon* 22 (2016): 28-54.
- Malcom, Noel. *Bosnia: a Short History*. Oxford: Pan Books, 1994.
- Martin, Geoffrey J. *American Geography and Geographers: Toward Geographical Science*. Oxford: Oxford University Press, 2015.
- Matijević Barčot, Sanja. "Splitska stanogradnja u neposrednom poslijeratnom razdoblju (1945.-1951.)." *Prostor* 57, no.27 (2019): 64-77. [https://doi.org/10.31522/p.27.1\(57\).5](https://doi.org/10.31522/p.27.1(57).5).
- Mattes, Johannes. "Coming from Abroad: The Discourse on Scientific Centralism and Cvijić's Studies in Vienna." In *150th Anniversary of Jovan Cvijić's Birth. Proceedings of the International Conference held at the Serbian Academy of Sciences and Arts*, edited by Vidojko Jović and Ana M. Petrović, 13-28. Belgrade, 2015.
- Mckean, John. "Sir Banister Fletcher: pillar to post-colonial readings," *The Journal of Architecture* 11, no.2 (2006):187-204. DOI: 10.1080/13602360600786126
- McLeod, Mary C. "Urbanism and Utopia - Le Corbusier from Regional Syndicalism to Vichy." PhD diss., Princeton University, 1985.

- Milošević, Srdjan. "Agrarna politika u Jugoslaviji 1945-1953." PhD diss., Faculty of Philosophy - University of Belgrade, 2015.
- _____. "From the stagnation to the revolution." In *Yugoslavia from a Historical Perspective*, edited by Latinka Perović et al., 349-390. Belgrade: Helsinki Committee for Human Rights in Serbia, 2017.
- Morton Patricia A. "The uses and abuses of human geography," *The Journal of Architecture* 16, no. 6 (2011):805-820., DOI: 10.1080/13602365.2011.636982
- Moskovkin, N.I., and N.I. Zaprudskii, eds. *Страницы памяти. О планах, планировании и плановиках.* Moscow: Profizdat, 1987.
- Mullin, John Robert. "Ideology, planning theory and the German city in the inter-war years." *Town Planning Review* 53, no. 2 (April 1982): 115-130.
- Nelson, Garrett Dash. "Regional planning as cultural criticism: reclaiming the radical wholes of interwar regional thinkers." *Regional Studies* (2020). <https://doi.org/10.1080/00343404.2020.1737664>.
- Norberg-Schulz, Christian. *Existence Space and Architecture (New Concepts of Architecture)*. Worthing: Littlehampton Book Services Ltd., 1971.
- Le Normand, Bridgite. *Designing Tito's Capital: Urban Planning, Modernism, and Socialism in Belgrade*. University of Pittsburgh Press, 2014.
- Obadic, Ivan. "A troubled relationship: Yugoslavia and the European Economic Community in détente." *European Review of History: Revue europeenne d'histoire*, 21, no. 2 (2014): 329-34.
- Obradović, Mirjana R. "Ramzin Dr Sergije Konstantinovič," *Zbornik radova Instituta za savremenu istoriju*, no.10 (2007):187-196.
- Passanti, Francesco. "The Vernacular, Modernism, and Le Corbusier." *Journal of the Society of Architectural Historians* 56, no. 4 (Dec. 1997): 438-451.
- Patricia, Mary May Sekler. "Le Corbusier, Ruskin, the Tree and the Open Hand." In *The Open Hand - Essays on Le Corbusier*, edited by Russel Walden, 42-95. Cambridge Mass. and London: The MIT Press, 1977.
- Petranović, Branko, and Momčilo Zečević. "Nova ekonomska politika Milana Stojadinovića." *Jugoslavija 1918-1988 tematska zbirka dokumenata* (Beograd: RAD, 1988): 363.
- von Petz, Ursula. "Robert Schmidt and the public park policy in the Ruhr district, 1900-1930." *Planning Perspectives* 14, no. 2 (1999): 163-182. DOI: 10.1080/026654399364283.
- Picon, Antoine. "What Has Happened to Territory?." *Architectural Design* 80, no. 3 - Special Issue: Territory: Architecture Beyond Environment (May/June 2010): 94-99.
- Ponte, Alessandra. "Archivierung des Planeten Erde: Architektur und Anthropogeografie," *Daidalos*, no. 66 (1997): 120-125.
- _____. *The House of Light and Entropy*. London: AA Publications (2014).
- Prelovšek, Damjan. *Jože Plečnik 1872-1957: Architectura Perennis*. New Haven and London: Yale University Press, 1997.
- Prijatelj Pavičić, Ivana. "Reflections on the History of Dalmatian Culture and Art in the Immediate Post-War Period." *Il capitale culturale*, no. 14 (2016): 895-911. DOI: <http://dx.doi.org/10.13138/2039-2362/1461897>

- Rabinow, Paul. *French Modern - Norms and Forms of the Social Environment*. Chicago: University of Chicago Press, 1989.
- Ramet, Sabrina P. "In Tito's Time." In *Gender Politics in the Western Balkans*, edited by Sabrina P. Ramet. Pennsylvania: The Pennsylvania State University Press, 1999.
- Reeves, Joy B. "Social Change in Yugoslavia and its Impact on Women." *International Journal of Sociology of the Family* 20, no. 2 (Autumn 1990): 125-138.
- Reynolds Cordileone, Dayana. "Displaying Bosnia: Imperialism, Orientalism, and Exhibitionary Cultures in Vienna and Beyond: 1878-1914." *Austrian History Yearbook*, no. 46 (2015): 29-50. DOI: 10.1017/S0067237814000083.
- Ribeiro, Guilherme. "La géographie vidalienne et la géopolitique," *Géographie et cultures*, 75 (2010): 247-262.
- Rusinow, Dennison I. *Yugoslav Experiment 1948-1974*. University of California Press, 1978.
- Sanguin, André-Louis. "Vidal de la Blache et la géographie politique." *Bulletin de l'Association de géographes français* 65, no. 4 (September 1988): 321-331.
- Sarkis, Hashim. "Le Corbusier's 'Geo-Architecture' and the Emergence of Territorial Aesthetic." In *Re-scaling the Environment - New Landscapes of Design (East West Central: Re-building Europe, 1950-1990)*, edited by Akos Moravanszky and Karl R. Kegler, 115-134. Birkhauser Architecture, 2016.
- Schipper, Frank. "Was the road to Europe paved with good intentions? Building highways in the Balkans." *TIE working documents series 18, Transnational Infrastructures of Europe* (2007): 1-13.
- Schmidt, Royal J. *Versailles and the Ruhr: Seedbed of World War I*. Springer Netherlands, 1968.
- Scott, James C. *Seeing Like a State: How Certain Schemes to Improve the Human Condition have Failed*. New Haven: Yale University Press, 1998.
- Scott, Dayna Nadine. "Environmental Justice." In *The SAGE Encyclopedia of Action Research*, edited by David Coghlan and Mary Brydon-Miller, 300-302. SAGE Publications Ltd, 2014. DOI: <https://dx.doi.org/10.4135/9781446294406.n125>.
- Sivignon, Michael. "Le politique dans la géographie des Balkans: Reclus et ses successeurs, d'une géographie universelle à l'autre." *Hérodote*, no. 117 (2005):153-182.
- Skansi, Luka. "Unity in Heterogeniety - Building with a Taste for Structure." In *Toward a Concrete Utopia: Architecture in Yugoslavia 1948-1980*, edited by Martino Stierli and Vladimir Kulić, 65-71. New York: MoMA, 2018.
- Skarić, Vladislav. "Iz prošlosti Bosne i Hercegovine XIX vijeka." in *Godišnjak istorijskog društva Bosne i Hercegovina* 1, no.1. Sarajevo: Istorijsko društvo BiH, 1949.
- _____. *Sarajevo i njegova okolina od najstarijih vremena do austrougarske okupacije*. Sarajevo: Veselin Masleša, 1985.
- De Smet, Catherine. *Vers une architecture du Livre. Le Corbusier: édition et mise en pages 1912- 1965*. Zürich: Lars Müller Publishers, 2007.
- Spitzer, Leo. "Milieu and Ambiance - An Essay in Historical Semantics (Part II)." *Philosophy and Phenomenological Research* 3, no. 2 (Dec. 1942): 169-218.
- Stalder, Laurent. "Air, Light, Air Conditioning." *Grey Room*, no. 40 (Summer 2010): 84-99.

- _____. "On 'Sachlichkeit': Some Additional Remarks on an Anglo-German Encounter." In *Forty Ways To Think About Architecture: Architectural history and theory today*, edited by Iain Borden, Murray Fraser and Barbara Penner, 174-179. John Wiley & Sons Ltd, 2014.
- Stierli, Martino. *Las Vegas in the Rearview Mirror - The City in Theory, Photography and Film*. Los Angeles: The Getty Research Institute, 2013.
- _____. and Vladimir Kulić, eds. *Toward a Concrete Utopia: Architecture in Yugoslavia 1948-1980*. New York: MoMA, 2018.
- Stojčić, Marijana. "Proleter i svih zemalja – Ko vam pere čarape? Feministički pokret u Jugoslaviji 1978–198." In *Društvo u pokretu - Novi društveni pokreti u Jugoslaviji od 1968. do danas*, edited by Đorđe Tomić and Petar Atanacković, 113. Novi Sad: Cenzura, 2009.
- Szeman, Imre. "On the Politics of Region." E-flux architecture. Accessed May 19, 2018. <https://www.e-flux.com/architecture/dimensions-of-citizenship/178284/on-the-politics-of-region/>.
- Tavares, André. *The Anatomy of the Architectural Book*. Montreal/Zürich: Canadian Centre for Architecture / Lars Müller Publishers, 2016.
- Todorova, Marija. "The Ottoman menace in Post-Habsburg Historiography." In *Scaling the Balkans - Essays on Eastern European Entanglements*, edited by Marija Todorova, 474-482. Boston: Brill, 2019.
- Turnock, David. *The Economy of East Central Europe 1815-1989 - Stages of Transformation in a Peripheral Region*. London and New York: Routledge, 2006.
- Tzonis, Alexandar, and Liane Lefaivre. *Critical Regionalism - Architecture and Identity in a Globalised World*. Prestel, 2003.
- Vigano, Paola. "The Modern Project: A Research Hypothesis." *Urban Planning* 4, no.3 (2019): 83-89.