



99FILES, OPERATIVE ATLAS_devices for the contemporary Balkan City

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Abstract

In the recent architectural debate, there has been a renewed interest on the topic of *brutalist architecture* as a sign for a search of a different point of view and a necessity of filling the void in the architectural historiography. Striving to go beyond the conventional opinions on *Brutalism*, the two researchers presented in this paper are collocated in this context: **99FILES** project, an open international call, promoted by the research Laboratory Landscape_inProgress, and **OPERATIVE ATLAS** of 15 case studies from Skopje. Both of the projects intend to become a device for re-thinking of *Brutalism* as well as to develop a reflection from which to learn how to deepen into the knowledge of the architectural production of the 60s and the 70s. This different vision becomes fundamental for Skopje, where the architectural and cultural heritage, built after the earthquake in 1963, has always been marginalized and is now in danger to be erased. By overcoming the ideological barriers, it is possible to re-read *other modernities* that have characterized the Balkan architecture, and reassign what is now perceived as an *unloved heritage* (Mrduljaš, M., Kulić, V. 2012), a familiarity in the urban physiognomy.

Keywords Brutalism · Architecture · Urbanism · Skopje · Balkan · Atlas

Introduction

In the last years, a renewed interest on the topic of *brutalist architecture* has emerged, becoming an important issue regarding the contemporary architectural debate and the theoretical disciplinary discourse. Numerous are the publications, events and exhibitions regarding the significance, preservation, and restoration of the endangered heritage, that are developing a new aesthetic value of *Brutalism*.

This paper is consistent with this resurgent of presenting largely unpopular architectural interventions from the Brutalist movement in Skopje dating from the late 60s to the mid 80s that today is in danger of extinction. Thus, it is essential to reconsider brutalism and give it its adequate credit and not reject it as an unpopular movement in the architectural history.

The two of the researches re-examine Brutalist projects in different ways with a same goal of a new understanding

of the *brutalist architecture* in Skopje into a contemporary debate. To do this, 99FILES explores the different potentials of this architecture through a multidisciplinary approach whilst the OPERATIVE ATLAS re-examines *brutalist architecture* in terms of its formal, structural and spatial qualities. Both of the projects strive to go beyond the major definition of *Brutalism* regarding the honesty of the materials such as *beton brut* or “raw concrete”, and tries to understand what may be the founding principles of these architectures that today can still be influential for the contemporary city. 99FILES project and the OPERATIVE ATLAS of 15 case studies from Skopje, develop a reflection to learn how to deepen into the knowledge of it and its genetic codes, furthermore, they introduce a different point of view of the architectural production of the 60s and the 70s.

Moreover, via thorough investigation on brutalist architectures in Skopje, the intention isn't only to fill a void in the architectural historiography and to affirm this heritage into international context but to deepen the knowledge of the spatial qualities of these architectures in a relation to the vision of the city, before it is dissolved into its diffused and fragmented sum of forms.

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Reassessment brutalism

As noted before, in the last ten years, the numerous debates and events, promoted in several countries of Europe and the Balkan area, have opened a new perspective of research regarding *Brutalism*, recognizing it as a broad cultural and theoretical phenomenon, interweaved with different national contexts, whose architectural production has been stifled by a historiographical and political rhetoric that has bound these works with a negative perception and a widespread sense of contempt.

Among the first events that started with a reinterpretation of this historical phase is the symposium *Brutalism. Architecture of the Everyday. Culture, Poetry and Theory* organized by the Karlsruhe Institute of Technology and the Wustenrot Stiftung at the Akademie der Künste in Berlin in 2012. This even went beyond the historiographical approach of reconstructing the protagonists and their works starting a reflection on brutalist architectural production as an expression of a different modernity, capable of interpreting the changes of the West after the Second World War.

Almost at the same time in Slovenia *Unfinished modernizations, between utopia and pragmatism* at Maribor Art Gallery inaugurates a cycle of seminars developed within two years, in 2011 and 2012 accompanied by an exhibition, curated by Maroje Mrduljaš (HR) and Vladimir Kulić (SR/USA), representing another stage of this journey focusing the attention on the architecture of the former Yugoslavia countries starting from the communist acquisition in 1945 up to the collapse of the Federal Socialist Republic in 1991. The works coming from Croatia, Macedonia, Bosnia and Herzegovina, Montenegro, Serbia and Slovenia have been seen in a new light, free from the rhetoric one of “socialist progress” and they have been relocated within the consolidated world history of architecture. A similar operation also is carried out also by the most recent exhibition organized by MoMA museum in New York between 2018 and 2019 titled *Toward a Concrete Utopia: Architecture in Yugoslavia, 1948–1980*. Through more than 400 drawings, models, photographs and videos that locates the role of brutalist architectural production in Yugoslavia internationally and its exceptionality not only for its quality and quantity but also for the specific intersection between a common history and a collective identity in a multi-ethnic state, characterized by the coexistence of opposing needs and influences.

The “global” dimension of Brutalism emerges visually on *#SOSBrutalism* platform which originates from the exhibition *SOS Brutalism. Save the Concrete Monsters!*, promoted by the German Architecture Museum in Frankfurt (Dam) and the Wustenrot Foundation in Ludwigsburg, which today represents the largest digital archive of *brutalist* buildings. A growing database, currently containing more than 1600 architectures with the intention not only to show the quantity but also to put

the spotlight on the issue of the conservation of a huge heritage now at risk of demolition and in conditions of a severe degradation. There is a real emergency as it is evidenced by the recent demolition of the *Robin Hood Gardens* (1972), the single residential complex designed by Alison and Peter Smithson, masters of the British Brutalism, which, like many other similar buildings, are being targeted by english *developers* looking for new areas to be built, relying on the widespread negative perception of the *beton brut* works from the common people.

This has been an alarm at which the Victoria & Albert Museum in London responds by exposing a fragment of the *Robin Hood Gardens* facade at the *16th International Architecture Exhibition* in Venice, denouncing the need and urgency to recognize the value of this significant architectural heritage.

Parallel to these moments of debate, *social media* are witnessing a growing phenomenon of the dissemination of photos and images of *brutalist architecture*, of which the new communication devices are able to enhance its unexplored aesthetic and formal values. The proliferation of *facebook*, *blog* and *hashtag* pages—around 481,000 posts on Instagram with the hashtag *#brutalism*, in addition to the thousands of other versions—is a tangible sign of a renewed attention and different perception of these works as it has been demonstrated by Virginia McLeod in the publication *Atlas of Brutalist Architecture*, in which she comes to claim that Instagram will save the brutalist heritage.

A clear sign of this change in perception is represented by the collection of maps created and published by *Blue Crow Media* dedicated to the brutalist architecture of cities such as London, Paris, Berlin, Moscow, Belgrade, Tokyo, Sydney, New York, Boston and Washington through a “Cement endecalogy”. All these works outline new routes for an innovative experience of tourist enjoyment.

All these events, publications, exhibitions, the *social media* and the advanced technology bring in evidence through a new contemporary language the qualities of *Brutalism*, like the formal legibility plan, clear expression of a building’s structure and the honest use of materials in their “as-found” condition, once defined by Banham, Alison and Peter Smithson. Brad Dunning argues on the topic of the new appreciation for Brutalism saying that *Brutalist buildings are expensive to maintain and difficult to destroy. They can’t be easily remodeled or changed, so they tend to stay the way the architect intended. Maybe the movement has come roaring back into style because permanence is particularly attractive in our chaotic and crumbling world.*

Therefore, this paper attempts to contribute to the reexamination of Brutalism, taking Skopje as case study through two multidisciplinary projects it elaborates architectures in a search of a new understanding of this movement into the contemporary architectural debate that might also lead to development of new approaches.



Skopje city of brutalism

Skopje, the capital of Republic of Macedonia, has a *complex and contradictory* urban tissue as a result of writings and cancelations of the traces that reflect its eventful history. The city represents a coexistence of diverse concepts of urban development, a stratification of different signs, like the ones from the medieval Byzantine, the Ottoman influence, the traditional Balkan city as well as the traces of the post-earthquake reconstruction that lead to the production of significant massive, raw concrete structures that produced the *béton brut* cityscape (<https://yomadic.com/communist-architecture-skopje-kenzo-tange/>). Within this conglomeration of different influences the architectural production of the 60s warrants a particular place in the local as well as the global architectural discourse taking in consideration not only its quantity but also its quality.

This condition is due to the devastating earthquake that destroyed the city of Skopje in 1963, that was only partially reconstructed according to the visionary masterplan of **KenzoTange**, conceived as a singular moment of architectural experimentation projected into a utopian imagination.

In 1964, the Japanese architect was invited by the United Nations to participate on restricted competition for a master plan of an approximately 2 kilometer square of the Skopje city center. Four teams from Yugoslavia and other four foreign teams were invited. In 1965, the international jury coordinated by Weissmann decided to give 60% of the first prize to the project of KenzoTange and 40% to the Yugoslav team Radovan Mishevic and Fedor Wenzler.

The project of the Japanese architect transformed the rubble landscape in a laboratory for formal and technological experimentation and as Ines Tolic explains, it goes beyond the modernist formula, *form follows function*, exploring the idea of a city based on relations and stratified connections, the idea of a city exploded on different levels.

Tange's project flourished during 1960s with its ambitious investigation in big-scale interventions and the re-foundation of the city based on *tabula rasa* approach, act of not taking in consideration the traces of the ruined city, neither the existing morphology, except the Old Bazar that became an *objet trouvé* among the new inserted metabolic organisms. He introduced a new measure to the city, interweaving the architectural with the urban scale. Therefore, actually the masterplan represents application of the town ideas developed in 60s for the Tokyo Bay plan.

The plan for Skopje was based on two structural elements, the **City Wall**, and the **City Gate**, elements that as symbols recall the notions of *wall* and *gate* from the medieval city with tendency to bring closer the radicalism of the project to the local conditions.

The **City Wall** was imagined as a framework that has been materialized in a residential system that surrounds the city center and makes it capable to absorb the future rise of the population in the following development of the capital. This kind of a system, linear stripe that folds in a form of a horseshoe and delineate the urban center allows the housing function to be incorporated into it. Segments of vertical cylinders where the services were situated were connected with corridors as an access for the in-between modular linear blocks constructed the city wall.

The **City Gate** was imagined as an entrance to the city, an infrastructural and commercial node where all existing traffic systems converge on different levels. A *megastructure* that establishes a link with the urban center through a sequence of modular interventions concentrated around strongly emphasized vertical elements.

According to the strategy of Tange the City Wall and the City Gate were conceived as *metabolic megastructures* that would significantly increase the city density.

Although the plan wasn't completely realized as Tange has imagined it, his influence on the local architectural production of the macedonian architects like Georgi Konstantinovski, Janko Konstantinov, Olga Papeshe, Krsto Todorovski ect. is obvious in many buildings erected in this period. It is evident their effort to bring the brutalism closer to the local architecture by incorporating concepts, elements and motifs coming from the traditional Macedonian architecture.

Nowadays, this architecture in Skopje, presents a significant sign of the city history, becoming a form of urban archive, conceived as an incubator for a new vision that currently is threatened with the current interventions.

Skopje and its changing context today

Currently, the fundamental parts of the city are under transformative interventions envisaged in the "Urban Renovation Plan" SK2014 that is canceling a significant part of the *modernist* and *brutalist* heritage. The controversial project, that is political in its nature, was officially announced in 2010. It was promoted and financed by the then macedonian government and has drastically transformed the image of the central area of Skopje. The project, consists mainly of construction of 40 new buildings and bridges, remodeling of more than 10 existing structures, 77 monuments, sculptures and fountains as well as five public spaces. In all of these interventions, there is no strategy nor reason for their existence, therefore, it can't be said that it is not planning but what stands behind the scenery is an idea of deconstructing one part of the past that is strongly related and identified with the architectural achievements from the socialist period. Methods such as covering of existing urban artifacts with new eclectic style facades that don't show the same nor higher level of innovation as the old ones.



Therefore, in this direction, the paper gives a contribution to this debate through introduction of two research experiences, 99FILES and Operative Atlas, that have the same intention of constructing a methodology and becoming a device for re-thinking of brutalist architecture in Skopje.

Innovative approaches toward the research of the brutalist architecture in skopje

[99FILES] multidisciplinary research based on international call

The **99FILES** project is conceived as an interdisciplinary think tank, a complex and innovative research that develops different points of observation of brutalist heritage in the Balkan area, releasing it from the entailed negative connotation from the ideological legacies, and stimulating different interpretative directions of an important string in the architectural thought.

By overcoming the ideological barriers, it is possible to re-read *other modernities* that have characterized the architecture and the city of these countries, and to reassign to what is now perceived as *the unloved heritage*, a familiarity in the urban physiognomy before being canceled.

The first edition of this project regards the city of Skopje, where the signs of this process are the most evident. The city is configured as an emblematic case for the contemporary architecture and the dynamics that cross the Balkan countries.

This heritage today is under planned actions that destabilize the concept of modernity in favor of an architecture that doesn't present the same levels of innovation and quality.

Introducing another point of view by overcoming the negative perception of brutalist architecture in Skopje the multidisciplinary research **99FILES** brings together the work of 107 international architects, artists, photographers, film makers selected through an international call. The 250 artworks including 97 drawings, 138 photos, 11 texts and 4 videos, represent an interpretation of the forgotten brutalist heritage, through the contemporary skills capable to recognize its qualities.

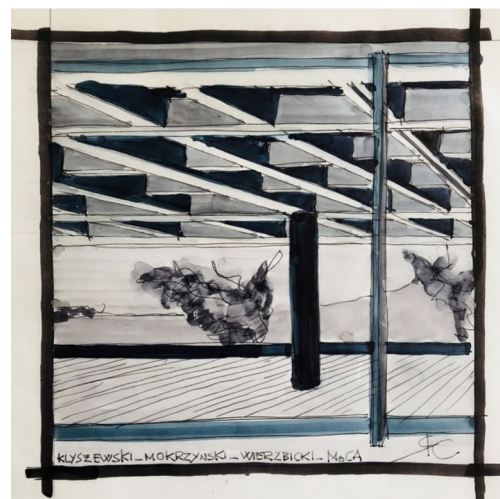
All of the works have been classified in 12 different categories like: *Balkan, beton brut, brutalism, fragment, graft, earthquake, Kenzo Tange, mega structure, other cities, sk2014, Skopje, translocation and utopia.*

The materials have been exposed in an international exhibition at the Museum of Contemporary Art in Skopje in June 2018, supported by the Italian Embassy, the Faculty of Architecture of Skopje, the Municipality of the center of Skopje and the *ABITARE magazine* as media partner.

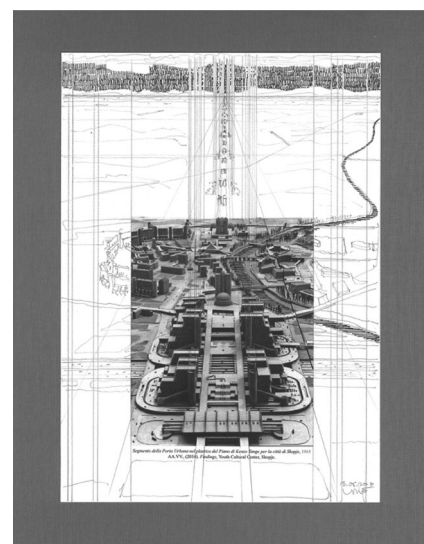
The collected materials have been organized by keywords and categories and have built a Digital Archive which can be consulted at the following link <http://landscapeinprogress.unirc.it/99files-archive/>.



Img01 **Passato Presente**
Amaro Ottavio

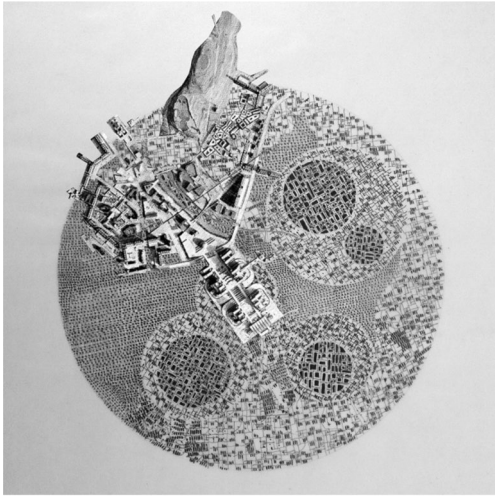


Img02 **Brutalismo tettonico**
Capozzi Renato



Img03 **Skopje2099**
Degli Esposti Lorenzo

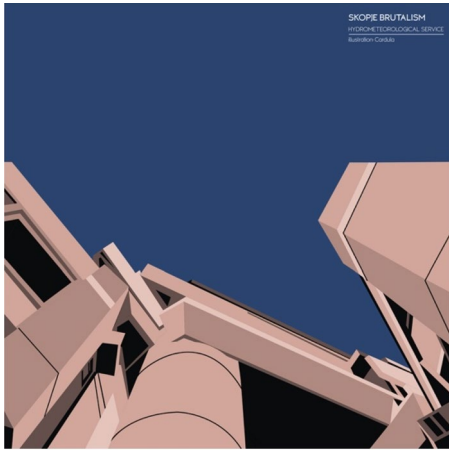




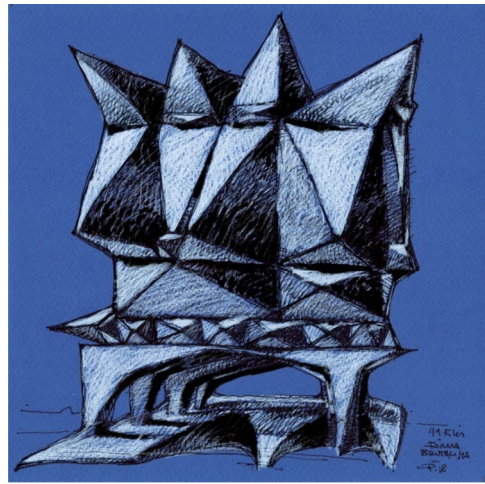
Img04 **Dis-continuity**
Fusco Fabio Alessandro



Img07 **Brutalistclouds**
Neri Gianfranco



Img05 **Skopje Brutalism**
Kardula Zoran



Img08 **Forma Brutalista**
Prati Carlo

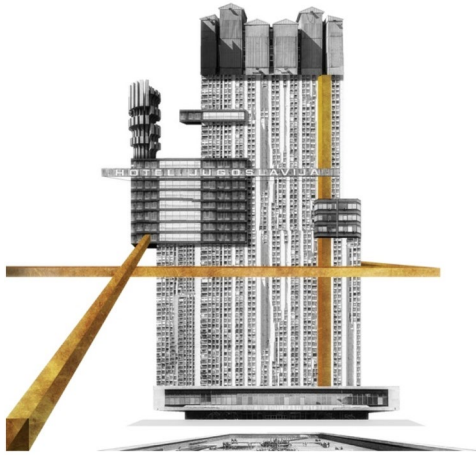


Img06 **MUP Mapped Urbane Personalities – Skopje**
Misiti Marina

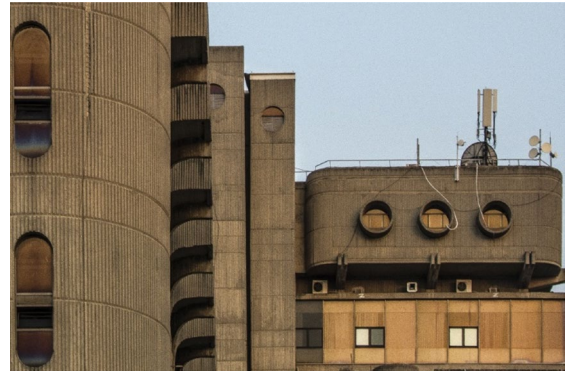


Img09 **Skopje 2014 – Unknown magnitude**
Marinelli Mattia

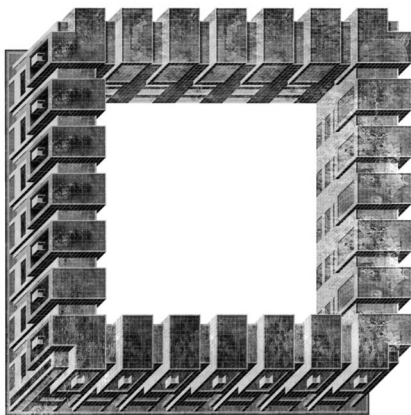




Img10_Hotel Jugoslavija
Casini Enrico



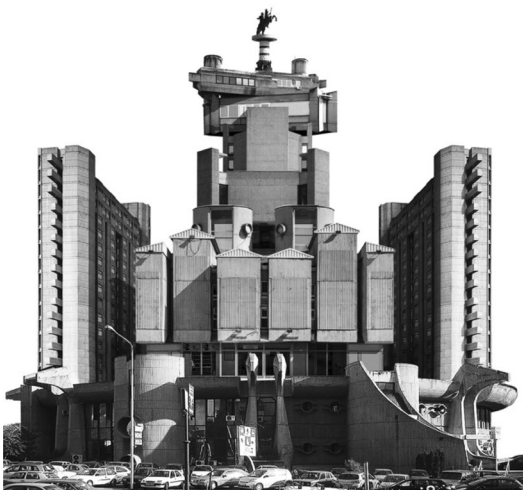
Img13_Sunset
Campeotto Susanna



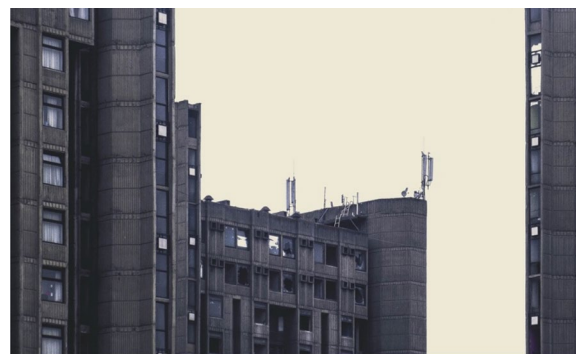
Img11_Game of Form
Debowska Monika



Img14_Brutalizam in function of UKIM
Milosavljevska Vesna



Img12_BRUTALIST (COLL)AGES_Skopje
Minotti Luca



Img15_Skopje that I know
Pesevska Bojana



[OPERATIVE ATLAS] a graphic biography of 15 brutalist architectures

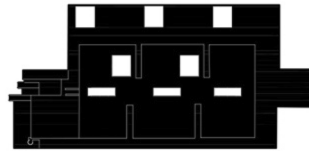
The research investigates 15 brutalist architectures in Skopje, dating from the post-earthquake reconstruction of the city, cataloged as case studies, interpreted as emblematic as well as paradigmatic *operative* entities. The work is based on a long exploration on the original non systematized materials from different local and private archives. It collects the most significant testimonies starting from the ideational phase of the architectural project and up to the executive drawings, proposing itself as a device of knowledge and theoretical reflection.

The significance and the meaning of the collected materials from the archives is to show the existence of an idea of a city rather to describe its historical evolution. The original projects have been organized, digitalized and re-drawn becoming a basic materials for an analytical study conceived as an operative atlas. This atlas becomes a tool that reduces the archive materials to information, *information are reduced to invention, and invention to interpretation* (Graf D., 1986*Diagrams in Perspecta*, Vol. 22, Paradigms of Architecture., pp. 42–71).





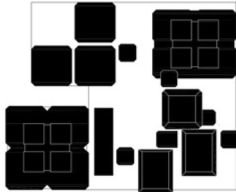
[CA] City Archive



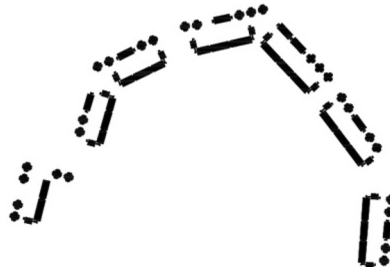
[CSC] City Shopping Center



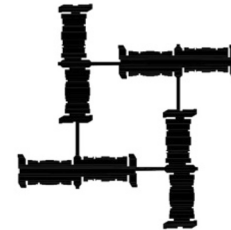
[HSB] Hydrometeorological Service Building



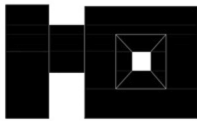
[NB] National Bank



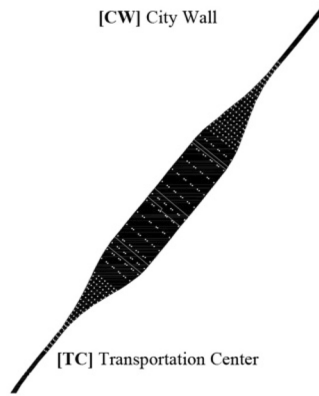
[CW] City Wall



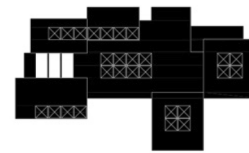
[SDGD] Student Dormitory Goce Delchev



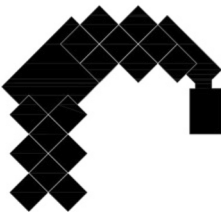
[MOCA] Museum of Contemporary Art Skopje



[TC] Transportation Center



[NUL] National and University Library



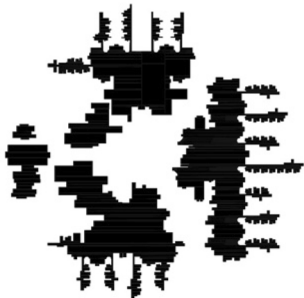
[MM] Museum of Macedonia



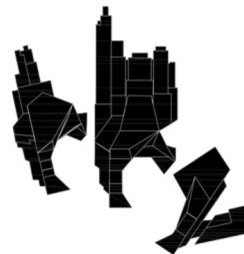
[MASA] Macedonian Academy of Sciences and Arts



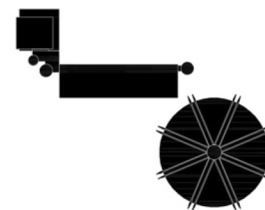
[RDC] Republic Dispatch Center



[UssCM] University SS Cyril and Methodius



[MOB] Macedonian Opera and Ballet



[TC] Telecommunication Center

Img16_Taxonomy of 15 Brutalist Architectures in Skopje



This work reveals relations, principles, concepts and methods embodied in this *biodiversity of architectures*³ and aims to offer their new different interpretation. The elaboration of the architectures is based on a search for a relations, relation with the **History** seen from a discourse regarding the link between innovation/tradition, relation with the **Technology** or its influence on the architectural composition as well as relation with the **Nature**, therefore, the predisposition of the building to establish necessary relations with the open space and the landscape. Consequently, the spatial configurations of these case studies have been explored through a lexicon of 25 spatial verbs that have subsequently been distilled into four different categories: *group form*, *compact*, *continuous and composite*.

The category of *group form* is defined by composition consisted of several independent volumes that arise as autonomous forms with variable heights and mixed program.

A prime example of this category is the original project for the **Cultural center** which included the *Macedonian Opera And Ballet* (the solely constructed building), *Philharmonic Hall*, *Cinema and the building of the Music and Ballet schools*. In 1968 the Slovenian architectural studio Biro 71 (Roman Cizej, Oton Gashpari, Shtefan Kacin, Peter Kershovan, Jurij Princes, Bogdan Spindler, Marijan Urshic and Peter Zidanic) won the competition for the design solution of a cultural center. In Tange's masterplan the same was envisioned as one of the segments that constituted the new east–west axis which incorporated also the transport center, the administrative and business center as well as the government and the shopping centers. The composition is conceived as a *tectonic metamorphose* of the ground creating a *new topography* of artificial soil that shapes the architectural intervention and the open public space as a link, on one side with the natural segment of the city, the river Vardar and on the other side the solid city.

The University Campus SS. Cyril And Methodius University is also systematized in this section. In 1967, the Slovenian architect Marko Music (with Meta Hocevar, Jernej Krajger, and the collaborators Borut Bucar, Marjan Music and Katja Repic) won the urban-architectural competition for a project for the University Campus in Skopje. The composition is consisted of the Rector's administrative building and the main spatial and content core contained of the three faculties (Faculty of Philosophy, Faculty of Economics and Faculty of Law) as low rise, large-scale assemblage that gradually dissolves with their extrusions into the local landscape. The same can be described as a *fragmented megastucture* composed of four shapes that are **extruded** and concentrated towards a central public square that gives the special character of the entire complex.

The **Telecommunication Center** is a lifetime achievement of Janko Konstantinov, situated on a strategic position in the city central area, keeps the memory of the old city since it is

built on the same location where the old post office used to be, and follows the guidelines of Tange's masterplan. The final design followed after three different variants, Janko started the first proposal in 1968 and in a period of 4 years has developed other three concepts for the telecommunication complex. In all of the proposals the complex was consisted of three buildings, the telecommunication center, the counter hall and the administrative building, all of them superimposed on a bold platform that link them and at the same time imagined as a new public space. In 1974, the counter hall and the administrative building were executed only and the composition significantly changed the morphology of the existent urban tissue. The same can be defined as **multilayered** complex of different building typologies reinterpreting the traditional courtyard in *brave futuristic visions on the edge of utopia (biografija na edno arhitektonsko delo: Telekomunikaciski centar Skopje)*.

Four brutalist buildings that appear as a single autonomous form where all the functions are concentrated in one structure are part of the compact category.

The Republic Dispatch Center from Zoran Shtaklev concludes the uncompleted composition of the Telecommunication Centre. Ten years later, after the construction of the Telecommunication Centre Shtaklev designs the building of MEPSO on the plot where Konstantinov imagined the main telecommunication building. The rational design of Shtaklev is inspired from the un-built design of the telecommunication building and inherits some of the architectural elements from the realized one to establish the link with the already realized complex. The composition can be described as a *stratified* structure of generic elements of the classical Greek temple reinterpreted in combination of raw concrete and glass.

Another representative of this category is the **Museum of Macedonia** from Mimoza Tomikj and Kiril Muratovski, designed in 1971, integrate the Historical, Ethnological and Archaeological Museum as well as Republic Institute for the Protection of Cultural Monuments. The Museum, located next to Kurshumli An, an Ottoman caravanserai, is incorporated in the middle of the complex and fragmented tissue of the Old Bazaar. The specific urban tissue of the Old City was also an inspiration for the compositional expression of the building that actually in parts changed the main guidelines set in the general masterplan of Radovan Mischevic and Fedor Wenzler. (Interview with Mimoza Tomikj in August 2018). The museum with its bold geometries with emphasized diagonal in its composition goes beyond the pure functional disposition, creates a *gridded monolith* inserted in the fragmented morphology of the Old Bazaar.

The other building listed in this category is the **Macedonian Academy of Sciences and Arts**. In 1970s, Boris Cipan won the first prize of the competition for the design of the Academy. The building is located in the central area



of the city on the left side of the river Vardar. Starting from the cube as primary pure form, through an action of *sliding volumes* the author manage to establish a dynamic asymmetric composition that as an autonomous form enters in the sequences of freestanding buildings that constitute the river front. *Çardak* is the element from the traditional Macedonian architecture that Cipan reinterprets in modern language and incorporates in the volumetric composition of the building.

The *National and University Library St. Clement of Ohrid* design of Petar Mulichkovski that in 1967 was third on the ranking in the competition on level of the Ex Yugoslavian countries. The building, located close to the University Campus and the Macedonian Opera and Ballet appears as *interlocking volumes* in a vast green area. The architectural composition of the building through footprint of traditional Macedonian motifs on its fence strives to bring this kind of interventions closer to the traditional architecture, as Boris Cipan do with the design of the Macedonian Academy of Sciences and Arts.

The category of continuous includes compositions consisting of different structures with an intricate relation of uninterrupted circulation.

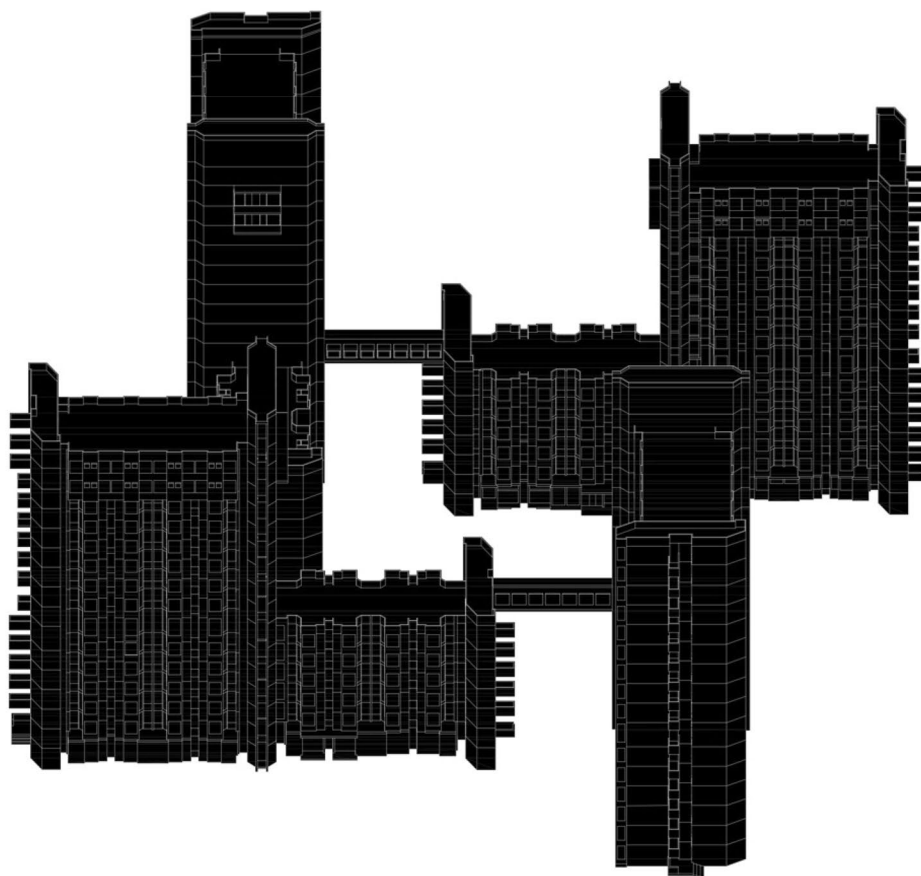
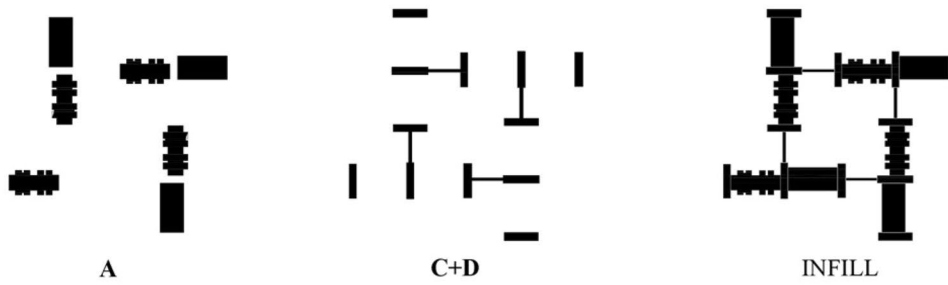
The interventions of the Japanese architect Kenzo Tange, the *City Wall* and the *Transportation Center*, take place in this section. Both of the interventions leave strong footprint

on the city and its development, they blur the border between the architecture and the urbanism, intertwine the public space with the private one and become the new symbols of the city. The first one, the City Wall with its strong and bold volumetric and architectural composition, as a *linear threshold* underline and separates the city center from the rest of the city. Meanwhile, the second intervention, the Transportation Center emphasize the city entrance and in the same time as a *continuous megastructure* constructs new artificial ground elevated on pillars.

Moreover, this category is reinforced with the interventions of the local architects Georgi Konstantinovski and Zivko Popovski. Konstantinovski in 1969 with his design proposal won a competition for the *Student Dormitory Goce Delchev*. The project represents a symbiosis on one hand of his experience as a student in the class of Paul Rudolph at the Yale University and on the other one the influence of Tange's masterplan for Skopje. Four sculptural towers, oriented towards a central court yard, rise as a *vertical megastructure* creating anew urban image with a continuity of the court yard as a public space inside the structure, configuring, as the author says, "squares in the air". Consequently, as noted by Mirjana Lozanovska the Student Dormitory building "exemplifies Banham's emphasis on image as conceptual architecture".



STUDENT DORMITORY



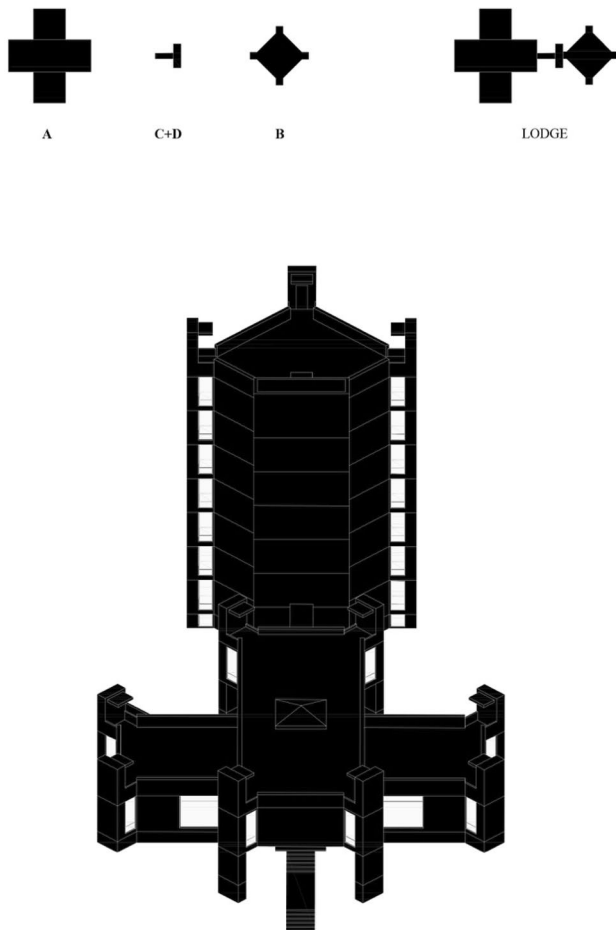
Img17_ Geometric diagram: Student Dormitory “Goce Delchev”

The same year, 1969, Zivko Popovski finished the project for the *City Shopping Center*, complex urban mega infrastructure that was envisioned as the final point of the new east–west axis introduced by Tange. Conceptually, the intervention represents modern and innovative reinterpretation of

the idea of the traditional Bazaar, of its basic components, the street and the shop, becoming an *urban platforms* that stratify the public space on different levels in the city.



CITY ARCHIVE



Img18_ Geometric diagram: City Archive

The final category titled composite, embraces hybrid assemblages that bring together unrelated building types merged in a unique layout.

In this category the *Skopje City Archive* from Georgi Konstantinovski with its formidable presence on the site is a remarkable example of a building which as a *compact monolith* marked by strong geometric shapes and bold material expression remains distinguished in the newly built chaotic surrounding. The *National Bank of Republic of Macedonia* as *archipelagos* consisted of a platform that coalesce disparate buildings into a single unit and the *Hidrometeorological Service Building* as a *collage* of various physiognomies superimposed on the existing topography in the outskirts of Skopje.

This matrix of these four categories defined through the lexicon of spatial verbs configure an atlas that is not a catalog of buildings but present a new re-interpretative tool on these architectures. The atlas doesn't describe the historical evolution of the city but proposes an update of the disciplinary dictionary as an indispensable tool for the current

transformations of the contemporary Balkan city and its architecture.

Conclusion

The Brutalist legacy in Skopje, as well as the metabolic unbuilt utopia of Kenzo Tange for its re-foundation are still silent regarding the global architectural scene and in danger to be removed from the architectural scene and history of the city before to be properly archived as well as elaborated from the architectural critique. The relationship with the history remains necessary and inescapable but what emerges and *99files* as well as the operative atlas strives to do is yet through a wise critical reading of the brutalist heritage, of its principles of order to carry them forward in an incessant process of innovation, translation and reinterpretation.

Walter Benjamin claimed that to apprehend any form of paradigm shift is essential to re-elaborate the history. This is what both of the researches attempts to do, to awaken a historical period that shares certain conditions with the present. Therefore, as important as the explore of the anatomical articulation of the buildings and the expressive possibilities of the used material becomes the search of new ways of re-reading and reinterpretation of these architecture in the contemporary city.

In this direction, on one hand the *99files* as multidisciplinary project that includes architects, photographers, artists, poets etc. constructs a taxonomy of 99 participatory autobiographical ideas regarding the topic of the brutalist legacy in Skopje that have been translated in texts, photos, videos and drawings that a part of their autonomy they construct different narratives with spontaneous parallels that might be drawn from one work to another. In this way, the works create virtual relationships between them that go beyond the literal appearance of the architectural entities.

On other hand, the *operative atlas*, as heterogeneous practice that see the legacy as a testament to an era when architects pushed the limits of material, spatial and volumetric expression, constructs a catalog of possibilities that are produced by operations as design actions generated from a close reading of the buildings. In this way, the atlas gives a meaning of the composition that goes much further than a simple geometric shaping process, the composition gains clarity and sharpness in accordance with a process of multiple actions that contribute to the total idea of the final complex composition.

Thus, *99files* and operative atlas strives to translate the existence of these heritage into a type of knowledge that has the capacity to construct a device for re-thinking of Brutalist architecture in Skopje and moreover to develop a methodology that can be also deployed in different architectural contexts.





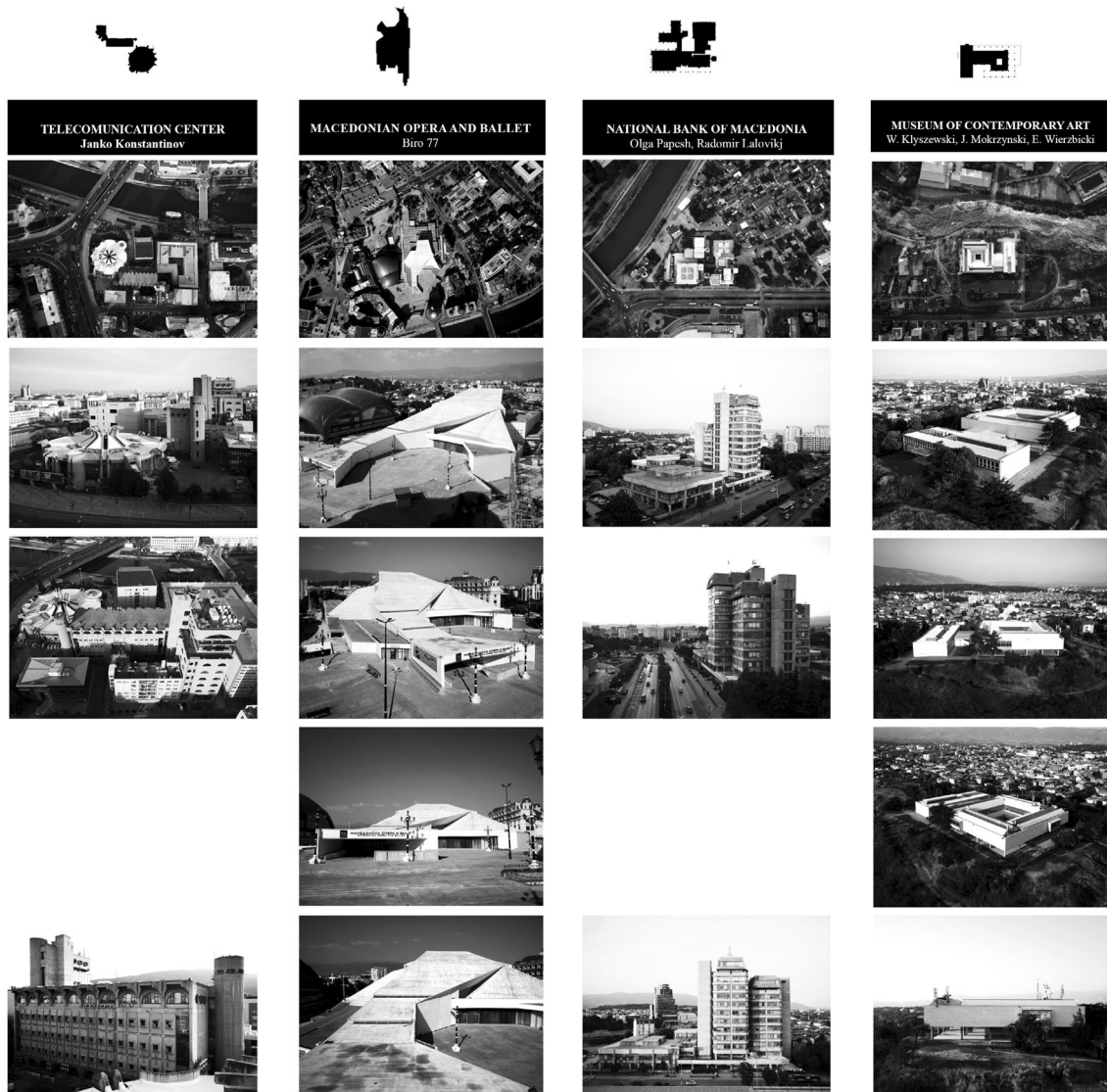
Img19_Taxonomy of brutalist buildings_Skopje





Img20_Taxonomy of brutalist buildings_Skopje





Img21_Taxonomy of brutalist buildings_Skopje

References

- Арсовски, Т., Г. Гврилски, and Т. Стојков. 1981. *Градски Трговски Центар*. Љубљана: Младинска Книга.
- Арсовски, Т., V. Brezovski, S. Janevski, V. Malinska, R. Markovski, and B. Naumovski. 1976. *Скопје 30 години слободен развој*. Љубљана: Младинска Книга.
- Elser, O., P. Kurz, and P.C. Schmal. 2017. *SOS Brutalism, Global Survey*. Zurich: Deutsches Architekturmuseum.
- Henley, S. 2017. *Redefining Brutalism*. London: RIBA Publishing.

- Ivanovski, J., A. Ivanovska Deskova, V. Deskov, B. Karanakov, O. Marina, G. Mickovski, and A. Radevski. 2014. *Findings*. Skopje: Youth Cultural Center.
- Ivanovski, J., A. Ivanovska Deskova, and V. Deskov. 2016. *Биографија на Едно Архитектонско Дело: Телекомуникациски Центар Скопје*. Скопје: Музеј на Град Скопје.
- Kulic, V., M. Mrduljas, and W. Thaler. 2012. *Modernism In-Between, The Mediatory Architectures of Socialist Yugoslavia*. Berlin: Jovis Verlag GmbH.
- Поповски, Ј. 1976. *Скопје 1963*. Загреб: Агенција за фотодокументација.
- Serafimovski, D., and N. Prlja. 2016. *Heroes for One Day*. Skopje: SIA Gallery.



- Straus, I. 1991. *Arhitektura Jugoslavije 1945-1990*. Sarajevo: Svjetlost.
- Stierli, M., and V. Kulic. 2018. *Toward a Concrete Utopia: Architecture in Yugoslavia 1948-1980*. New York: Museum of Modern Art.
- Stiller, A. 2017. *SKOPJE Architekturimazedonischen Context Macedonian Architecture in Context*. Vienna: Mury Salzman Verlag.
- Токарев, М. 2006. *100 Години Амодерна Архитектура, Придонесот на Македонија и Југославија (1918-1990)*. Скопје: Музеј на Град Скопје.
- United Nations Development Programme. 1970. *Skopje Resurgent, The Story of a United Nations Special Fund*. New York: Town Planing Project.

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