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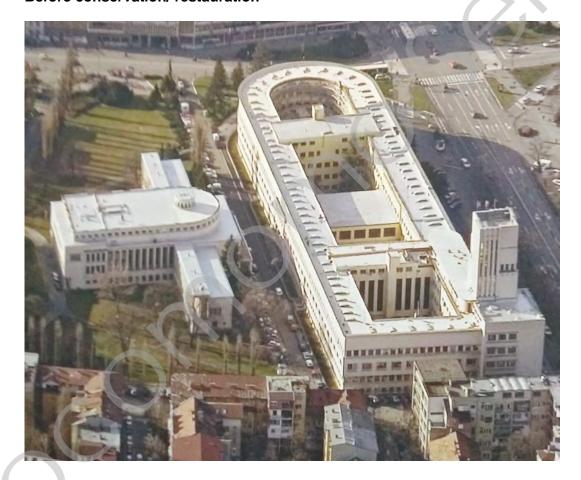
International committee for documentation and conservation of buildings, sites and neighbourhoods of the modern movement

# GOOD CONSERVATION AND RESTAURATION PRACTICE FICHE

Composed by working party of: Docomomo Serbia

0. Name of building/ group of buildings/ urban scheme/ landscape/ garden & picture of before and after

Before conservation/ restauration



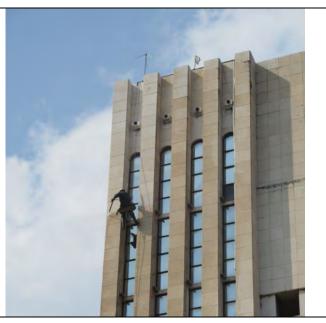












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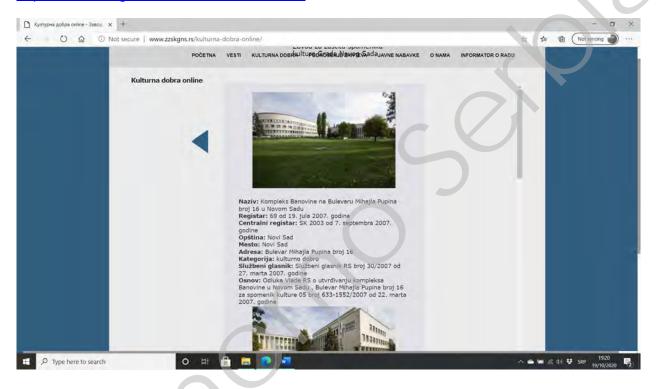
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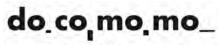
Depicted item: The Banovina (The administrative building of the Autonomous Province of Vojvodina)

#### Sources:

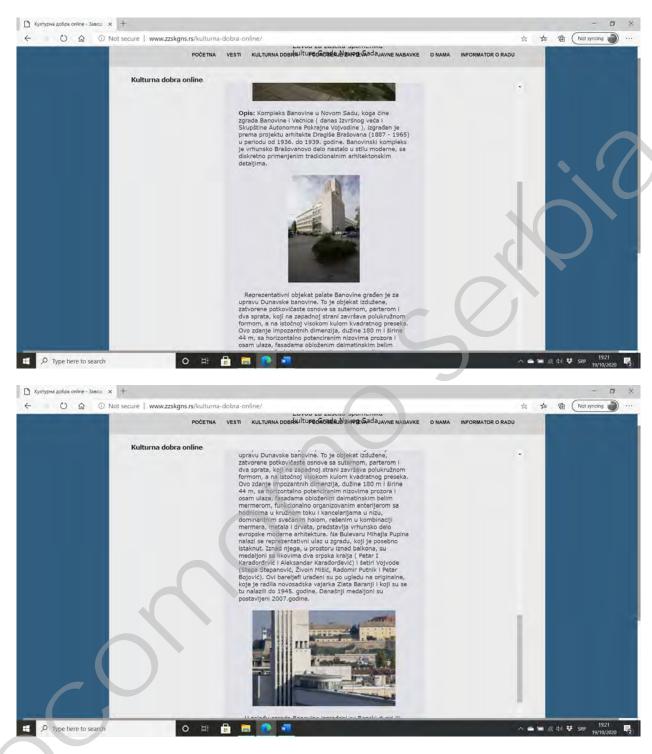
http://www.vojvodina.gov.rs/sr/%D0%B1%D0%B0%D0%BD%D0%BE%D0%B2%D0%B8% D0%BD%D0%B0

http://www.zzskgns.rs/kulturna-dobra-online/





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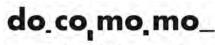


Dates: 1936-1939, restauration 2019

#### Other images or documents

attachment to the document – PowerPoint presentation, presented by Tatjana Zagoričnik, architect, at the Annual assembly of the architects-conservators, (Serbia, Niš, January 2020)

• Data for identification



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current name: Banovina

former/original/variant name: The Danube Banovina

address/ number(s) and name(s) of street(s): Bul. Mihajla Pupina 16

town: Novi Sad

province/ state: Autonomous Province of Vojvodina

post code: 21000

country: Republic of Serbia

geographic GPS coordinates: N: 5011733 E: 409717 current typology: ADM - Administrative building former/original/variant typology: Administrative building

comments on typology: /

### Status of protection

protected by: state

grade: monument of great significance

date: 2007. valid for: building

remarks: /

# Accessibility

opening hours/ viewing arrangements: only when there are happenings or events open to the public

# 1. History of building(s)

#### Chronology

Commission/ competition date: 7<sup>th</sup> April 1930. Beginning of the competition design period (s): 1936 redesign of the chosen design because of the changed circumstances (required increased capacities of the building) start of site work: 1936. (1934 decision about area and the lot for buildings)

completion/inauguration: 25th September 1939.

#### Summary of important changes after completion

type of change: (restoration/conversion/renovation/etc): cleaning of the surface of the facades made of the marble stone

date(s): 2019.

circumstances/reasons for change: high level of deterioration of the stone surface, dirt, changed color (from pure white into grey)

effect of changes: preordered detailed scientific research, non-destructive methods used, clear surface of the stone marble without destruction

persons/organizations involved: Institute for the Protection Cultural Monuments of Novi Sad (Tatjana Zagoričnik, architect conservator, Miodrag Mišljenović, engineer conservator), Faculty of Technology Novi Sad - Laboratory for materials' testing in cultural heritage (Prof. PhD Jonjaua Ranogajec, PhD Snežana Vučetić, PhD Bojan Miljević, MsC ing. John Milan van der Bergh), "Alp-inženjering" Belgrade

### 2. Summary of restauration

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#### Summary of important changes after restoration

type of change: cleaning and consolidation of stone facades

date(s): 2017-2019

circumstances/reasons for change: The study for protection of stone facades determining the cleaning and consolidation technology had been result of several months of research in the field and in the Laboratory during 2017.

effect of changes: The total area of the cleaned facade is 10,600 m2, and the length of the repaired joints is about 1500m1.

persons/organisations involved: Institute for the protection cultural monument of Novi Sad (Tatjana Zagoričnik, architect conservator, Miodrag Mišljenović, engineer conservator), Faculty of Technology Novi Sad - Laboratory for materials in cultural heritage (Prof. PhD Jonjaua Ranogajec, PhD Snežana Vučetić, PhD Bojan Miljević, MsC ing. John Milan van der Bergh), "Alp-inženjering" Belgrade

#### Current use

of whole building/site: The administrative building of the Autonomous Province of Vojvodina of principal components (if applicable): Main building is used for administration and as head office of the Prime minister (of the Autonomous Province of Vojvodina), and the other building is the Assembly

comments: /

#### 3. Evaluation of restoration/conservation

Give the scientific reasons for selection for Docomomo documentation.

#### Intrinsic value

#### Technical evaluation:

Previous research has led to the final method, technology and selection of materials for cleaning, renovation, consolidation and protection of all stone facades.

The research involved examination of the structures and composition of the original facade materials and condition diagnostics (composition of impurities), followed by a series of comparative analysis of methods and cleaning products, consolidation and protection, with laboratory and field tests. Modern scientific testing methods and modern mobile and laboratory equipment were used: stereo-optical microscopy, infrared spectrometry with Fourier transform (FTIR), X-ray fluorescence spectrometry (KSRF), colorimetry with spectrophotometry, Microgen analysis by solution thermography, as well as drilling resistance for the measure the effectiveness of consolidating agents.

As part of the field diagnostics, over 130 zones were examined and recorded, of which 70 were presented in the Study.

Cleaning the facade was the most demanding task. It was necessary to remove various types of contaminants (sulfates, chlorides, nitrates, alkyds, acrylates, etc.) without destroying the patina formed on the surface of the stone and which protects it from the penetration of algae and bacteria into the interior of the structure. The study as well as the Project predicted that the largest part of the facade should be cleaned with a steam cleaner, alkalized water vapor with a pH of about 8, a water vapor temperature of 1480 C and a pressure of about 4.5 bar. On the horizontal prominent parts (window sills, window frames and bank) where there were black contaminants, and especially on the north side of the facade facing the heavy traffic of the Bulevar Mihajla Pupina,

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additional use of Arte Mundit (rubber-shaped agent) had been planned. Removal of graffiti and facade paint was provided by Easy-of according to the instructions of the manufacturer Urban Hygiene, England or similar.

During the cleaning, it turned out that in some places these planned funds were not efficient enough, so the others were added, which were first tested on a smaller area by a mobile laboratory of the Faculty of Technology and only then approved for further use. On some surfaces, it was necessary to physically remove parts of previous inadequate repairs, patch cracks and then seal these as well as other crater damage observed on the facade and then consolidate with the prescribed means of the manufacturer Remers, Germany. The inspection established that the existing joints between the stone slabs were in very good condition and only partially had to be cleaned and refilled with Ceresit CE mass, which was tinted according to the tone of the existing joints.

Parts of the façade that were more clogged and thus cleaned in more detail, as well as the entire ground floor area of the building, were coated with Funcosil FC, which performs additional hydrophobization and at the same time has an anti-graphite function.

In some zones, especially in the ground floor around the entrance steps, the stone slabs were more damaged due to atmospheric water and salt, and larger works on consolidation of almost whole slabs were needed, as well as color treatment with Remers materials with the addition of earth pigments and acrylic binder.

Special attention has been paid to the cleaning, restoration, and protection of the medallions above the terrace of the main entrance, which were done by an expert team of conservators.

During the work, it turned out that the pillars under the terrace of the main entrance were saturated with moisture and salt, and their elimination was not possible in a short time and cold weather, so they have been treated as much as possible, but with the idea of detailed extension work in 2020. In the end, the complete facade was coated with NANOFAS, manufactured by HGP Novi Sad, for long-term and efficient self-cleaning of the facade.

The total area of the cleaned facade is 10,600 m2, and the length of the repaired joints is about 1500m1.

The works were completed within the agreed deadline, in November 2019.

Schedule of the Administration for Joint Affairs of Provincial Bodies for 2020 predicts that the same works could be performed on the building of the Assembly of the Autonomous Province of Vojvodina in Novi Sad and they are now in progress.

### Social evaluation:

For more than 80 years the facades of the building have not been cleaned. There were minor and, unfortunately, occasional bad interventions such as removal of graffiti using the grinders which damaged the surface of the stone, and some minor sealings with cement. Over time, due to atmospheric water, air pollution (the facility is located on a very busy road Bulevar Mihajla Pupina), formed changes on the stone facades from slight contamination - in the color, through sulfation with and without black crusts, the presence of facade paint, graffiti, and on the north side lichens and mosses.

The idea for the cleaning the facades of the building of the Provincial Government and the Assembly of the APV firstly turn up about ten years ago. The Institute for the Protection of Cultural Monuments of the City of Novi Sad, in cooperation with colleagues from Croatia, who have much more experience working on Brač stone, had tried to make recommendations for materials and technology for cleaning, repair and protection of facades, but at the end, the main problem was the lack of funds.

In 2017, the Main office for Joint Affairs of the Provincial Bodies of the Autonomous Province of Vojvodina, as the investor, is re-launching the initiative for these works. Fully aware of the complexity of the task, the Institute for the Protection of Cultural Monuments of the City of Novi Sad insisted in involving the scientific institutions for research in materials and succeeded in

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making a deal with the Faculty of Technology in Novi Sad, Laboratory for testing materials in cultural heritage for production of the Study for determining technology for cleaning, consolidation and protection of stone facades.

#### Cultural and aesthetic evaluation:

The final result of the works on cleaning the stone facades on the Banovina building in Novi Sad, after the winter-summer-winter cycle, have so far proved extremely successful, which is why the work has been continued on Assembly building this year with the usage of the same metods.

#### 4. Documentation

- Archives/written records/correspondence etc: (state location/ address) Institute for the protection cultural monument of Novi Sad, Bulevar Mihajla Pupina 22, 21101 Novi Sad
- Principal publications (in chronological order):

http://www.docomomo-serbia.org/code/uploads/2017/10/1-ADM-RS-021-a-0001-Banovina-SR-w.pdf

Аноним, *Награђени планови за Банску палату у Новом Саду. Политика*, Београд, 29. јун 1930.

Аноним, Стручна комисија прегледала планове палате Дунавске бановине. Дан, Нови Сад, 13. септембар 1935.

Брашован, Софија, *Дело архитекте Драгише Брашована*. Семинарски рад, Универзитет у Београду, Филозофски факултет, 1984.

Добровић, Никола, *Стварање архитекте Драгише Брашована*. Архитектура – урбанизам, бр. 33 и 34. Београд, 1965, стр. 42–44.

Добровић, Никола, *Брашован*. ИТ новине, Београд, 1977, бр. 722–730, јануар, фебруар. Жупански, Станоје, Драгиша Брашован, пионир југословенске архитектуре. Рукопис,

Архив САНУ, Зрењанин, 1966.

Кадијевић, Александар, Живот и дело Драгише Брашована (1887- 1965). Годишњак града Београда XXXVII, 1990, стр. 141–175.

Кадијевић, Александар, Новосадски опус архитекте Драгише Брашована. Пројекат, ГСЛУ, бр. 1, Нови Сад, 1993, стр. 45–47.

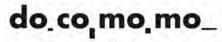
Маневић, Зоран, Дело архитекте Драгише Брашована. Зборник за ликовну уметност Матице српске, бр. 6, Нови Сад, 1970, стр. 187–208.

Маневић, Зоран, Појава модерне архитектуре у Београду, Докторска дисертација, Универзитет у Београду, Филозофски факултет, 1979.

Маневић, Зоран, Наши неимари. Изградња, бр. 8, Београд, 1980, стр. 49–55. Митровић, Михајло, Драма градитеља. Политика, Београд, 8. мај 1999.

Станчић, Донка, Лазовић, Мишко, Бановина, Прометеј, Нови Сад, 2004. Стојановић, Братислав, Архитекта Драгиша Брашован. Урбанизам Београда 51, 1979, стр. 17–31. Стојадиновић, Братислав, Интервју са Драгишом Брашованом. Вечерње новости 293, 27. септембар 1954, стр. 5.

 Visual material (state location/ address): Institute for the protection cultural monument of Novi Sad, Bulevar Mihajla Pupina 22, 21101 Novi Sad



# original visual records/drawings/photographs/others:













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Post restoration photographs and survey drawings:









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film/video/other sources: /

• List documents included in supplementary dossier

PPT presentation of the process, by Tatjana Zagoričnik

#### Fiche report

rapporteur: Katarina Maksimov, architect

date of report: September 2020.

# Examination by DOCOMOMO national/regional section

approval by working party co-ordinator/registers correspondent (name): Vladana Putnik Prica sign and date: 15.11.2020.

# examination by DOCOMOMO ISC/R

type of ISC Registers/Urbanism/Landscape/Gardens: name of ISC member in charge of the evaluation: comment(s):

ISC approval: Sign and date:

Working party/ID nº: date: NAi ref nº.:

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