

# TRAJAN'S BRIDGE AT DROBETA-TURNU SEVERIN BUILT BY THE ARCHITECT APOLLODORUS\*

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**Keywords:** Trajan's Bridge Ruins, Drobeta-Turnu Severin, Apollodorus, Danube, Romania.

**Abstract:** In 1998, the Ministry of Culture commissioned the Design Centre for the National Cultural Heritage (CPPCN) with the project entitled *“Restoration and enhancement of the ruins of Trajan's Bridge in Drobeta Turnu-Severin”*. Within the project, 12 potential variants were drawn up, of which the optimal one for that moment was chosen. The project was abandoned in 2003, due to the dissolution of the Design Centre for the National Cultural Heritage. With all those actions, taken with good intentions, the Ruin of Trajan's Bridge didn't gain much: a published volume containing the complex and multi-disciplinary research, official visits, a perimeteric drain channel and a pump to evacuate meteoric water from the basin in which the ruin is embedded. The railway (which is a single track rail and an important international railway) noisily crosses the ancient enclosure even today, although there have been oportune moments to move it. From time to time it is damaged and becomes impracticable because of the landslides downstream from Turnu-Severin, but, with all those impediments it remains immovable. The people that were morally involved in the project included the archaeologist Prof. Dr. Petre Alexandrescu and the architect Aurel Teodorescu.

**Rezumat:** În 1998, Ministerul Culturii încredința Centrului de Proiectare Pentru Patrimoniul Cultural Național, proiectul de *„Restaurare și punere în valoare a ruinelor Podului lui Traian de la Drobeta-Turnu Severin”*. În cadrul proiectului s-au redactat 12 variante posibile din care s-a ales cea optimă pentru acel moment. Proiectul a fost abandonat în 2003, odată cu desființarea Centrului de Proiectare Pentru Patrimoniul Cultural Național. Din toate aceste demersuri, realizate cu bună intenție, Ruina Podului lui Traian nu s-a ales cu mare lucru: un volum cuprinzând cercetarea complexă și multidisciplinară, vizite alese, un dren perimetral și o pompă de evacuare a apelor meteorice pentru apa din bazinul în care ruina este încastrată. Călea ferată (o unică linie dus-întors, importantă linie internațională) traversează zgomotos și azi incinta antică, deși au existat momente oportune de mutare a ei. Din când în când se avariază și este de nefolosit din cauza alunecărilor de teren din aval de Turnu Severin și cu toate aceste impedimente rămâne de neclintit. Printre cei implicați moral în proiect au fost profesor dr. arheolog Petre Alexandrescu și arhitectul Aurel Teodorescu.

The history of the integration of the Ruins of Trajan's Bridge and of the Roman camp of Drobeta in the modern urban structure of the town of Turnu Severin.<sup>1</sup>

After the 1828-1829 Russo-Turkish War and the Peace Treaty of Edirne (1829), navigation on the Danube is delivered from Ottoman authority and benefits from an unprecedented development. On the former estate of Severin,<sup>2</sup> in 1833, the Russian General Pavel Kiseleff approves the regulating plan of the new town of Severin, which was drawn up by the engineer Moritz von Ott. The entire authority of Walachia's prince Alexandru Dimitrie Ghica and of his brother Mihalache Ghica was needed for the new town plan to be implemented to the west of the Roman camp, with special insistence on protecting the piers of Trajan's bridge.

\* The present contribution is based on the paper *Zece ani de la proiectul „Podul lui Traian de la Drobeta-Turnu Severin”* [Ten years from the project *“Trajan's Bridge at Drobeta-Turnu Severin”*] given at the Symposium *“Architecture. Restoration. Archaeology”* in April 2010 (ARA/11).

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<sup>1</sup> The 1998 Symposium of the Regional Museum of Porțile de Fier (Iron Gates) gave hope that the integration and enhancement of the ruins would succeed. After 5 years during which research was conducted and documentations were drawn up within the Design Centre for the National Cultural Heritage (CPPCN), with funding from the Ministry of Culture and Religious Affairs (MCC), there still was hope in succeeding to integrate the ruins of Trajan's bridge in the tourist and urban circuit. During the following Symposium of the Regional Museum of Porțile de Fier, in 2003, the same obstacles that determine the resuming of the project were discussed.

<sup>2</sup> P. Trăiloiu, N. Marian, *Geneza orașului modern Severin*, <http://www.informatiadeseverin.ro/ids/reportaj/geneza-ora-ului-modern-severin.html> (retrieved January 2011). Turnu-Severin appears as a settlement “On the grounds of the April 22, 1833 decree, and also of the order issued by the Ministry of Home Affairs on April 27, 1833. On May 19, 1833 most of the estate of Severin (90 hectares), i.e. its part belonging to the nobles, was bought from the nobles Ion Severineanu and Bălașa Fratoșițeanu, in exchange for the sum of 90,000 lei, which was paid by Walachia's Treasury, and entrusted to the Magistrate of the Town of Cerneți.”



Fig. 1. Abutment pier on the Romanian Bank. Al. Antoniu, 1904.

As a consequence, in 1835, a new Regulating Plan is prepared by the French-Catalan architect Xavier Villacrosse. Its ground plan is a rectangle crossed by a rectangular network of streets arranged on a plateau that is slightly inclined from north to south and which will take into account the wish to protect the old, ancient Roman and medieval vestiges that remained on the Danube's left bank, i.e. the Roman camp with the ruins of Trajan's Bridge and the Fortress of Severin. In those areas that remained free of buildings, the Museum of Porțile de Fier (Iron Gates) and the Public Garden of the town of Turnu-Severin were subsequently created.

In 1837, the first archaeological excavations are initiated in Severin, due to Prince Alexandru Dimitrie Ghica. The leadership of the works was entrusted to the Romanian erudite Cezar Bolliac. Wishing that the archaeological items discovered in the Roman camp of Drobeta and in the Fortress of Severin be kept, in 1853 the prefect N. A. Niculescu decreed that the larger archaeological pieces should be displayed in the town's Public Garden. For a long time, those items remained in the Public Garden, under the open sky, exposed to deterioration.

Beginning with 1870, the ancient structures in Severin suffered because of the construction (until its completion in 1878) of the railway line, since its route followed the course of the Danube for economic reasons, not taking into account the inconveniences caused to the town. Its placing on the Danube's bank will affect the town until today, preventing the aesthetic arrangement of the embankment along the river. Complaints were made as early as that time, but they were not answered: *"As the route of the railway passed along the Danube's bank, the communal Council applied to the Ministry of Public Works, on May 19, 1870, requesting the movement of the rail to the north of the town, for the commercial activities and the town's aspect not to be affected, all the more that a part of the Public Garden was to be destroyed."*<sup>3</sup>

In 1896-1899, the need to build a museum of antiquities is felt, which is motivated both by those interventions to modernize the town, and by the research and the items found in the ruins, which are increasingly important, through the excavations made by the erudites like Cezar Bolliac and, mainly, by Grigore Tocilescu.

<sup>3</sup> The archive of the Town Hall in Turnu Severin, file 5 / 1870, pp. 35-36.

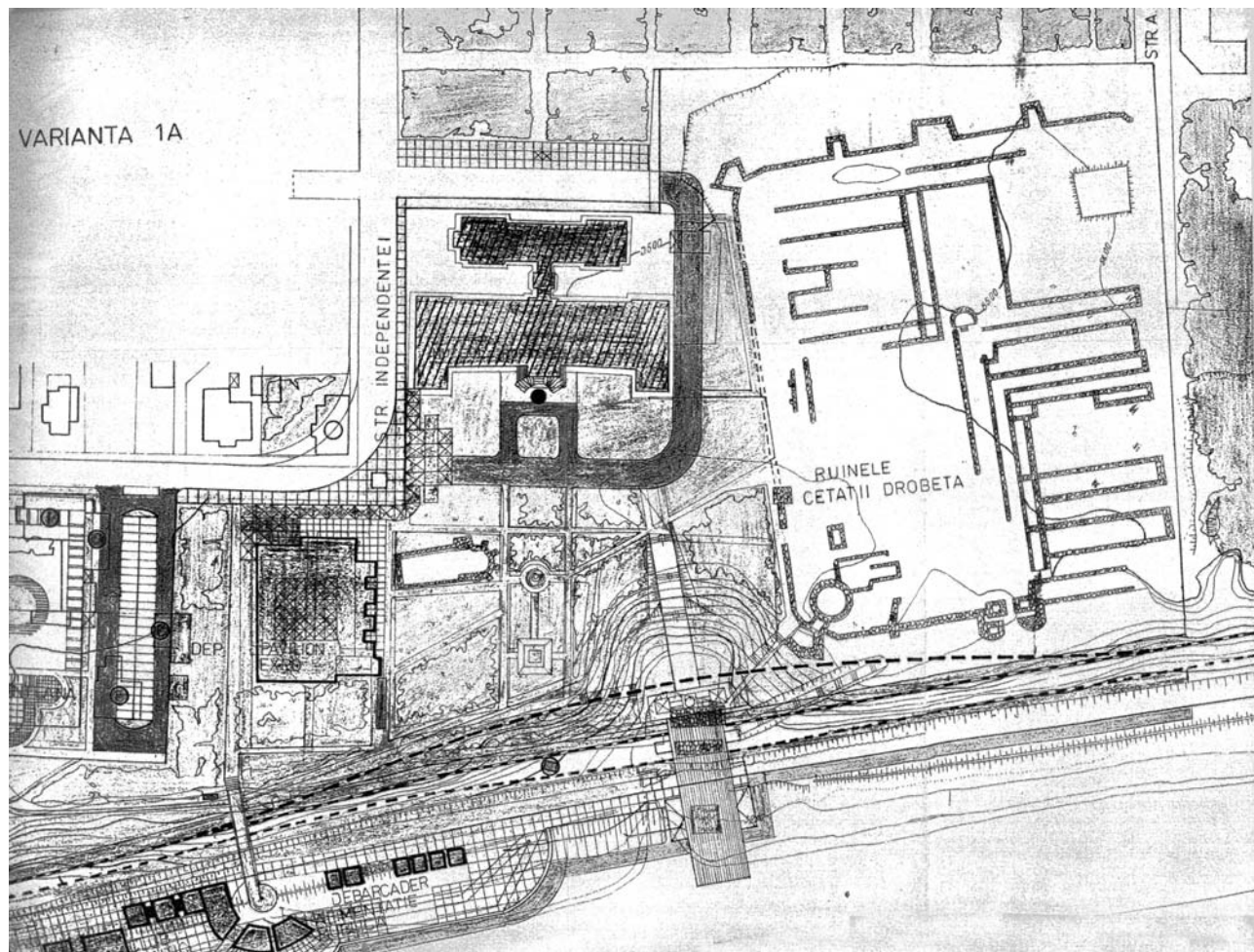


Fig. 2. Waterfront Arrangement Proposal Plan by Trajan's Bridge Ruins (1981).

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“The Historical Museum of the Porțile de Fier Region”. On May 13, 1912, Professor Alexandru Bărcăcilă<sup>4</sup> establishes “The Historical Museum of the Porțile de Fier Region” that first functioned in the building of Trajan High School, and, for the preservation of the archaeological site,<sup>5</sup> in 1924, the construction of the high school's boarding establishment (the current building of the museum) was to begin, according to the project of architect Statie Ciortan, a native of Mehedinți County. The collections were moved there

<sup>4</sup> Alexandru Bărcăcilă (1876-1970) was a teacher of classical languages and, for a period, director of Trajan High School in Drobeta Turnu-Severin. A passionate and competent archaeologist, he was the author of notable studies and papers in the field and founded, in 1912, the Museum of the Porțile de Fier Region in Drobeta Turnu-Severin. In 1919, Alexandru Bărcăcilă, along with a group of intellectuals led by Theodor Costescu, establishes the Cultural Society “Casa Lumini” (“House of Light”) which, in 1947, will play an important role in the spiritual life of the Mehedinți County. Casa Lumini started a renowned series of public conferences, which were held by great figures of that time in all domains, such as: I.G. Duca, Nicolae Iorga, Ion Pillat, Liviu Rebreanu, Mihail Sadoveanu, Sextil Pușcariu, Simion Mehedinți, Constantin Rădulescu-Motru, Vasile Goldiș, Alexandru Lapedatu, Ion Jianu, Constantin Șerban-Făgețel, Dumitru Tomescu, Ion Simionescu, I. Al. Brătescu-Voinești, Gheorghe Țițeica, Petre Sergescu, Constantin D. Ionescu, Mihail Gușită and others.

<sup>5</sup> The agreement of the Minister of Education and Religious Affairs for a new building was contained in Communication no. 30753 / 20.11.1911. To that end, the Minister delegated Vasile Pârvan – the director of the National Museum of Antiquities – for the construction of a specially arranged area to host the museum, in the new boarding establishment of the high school.



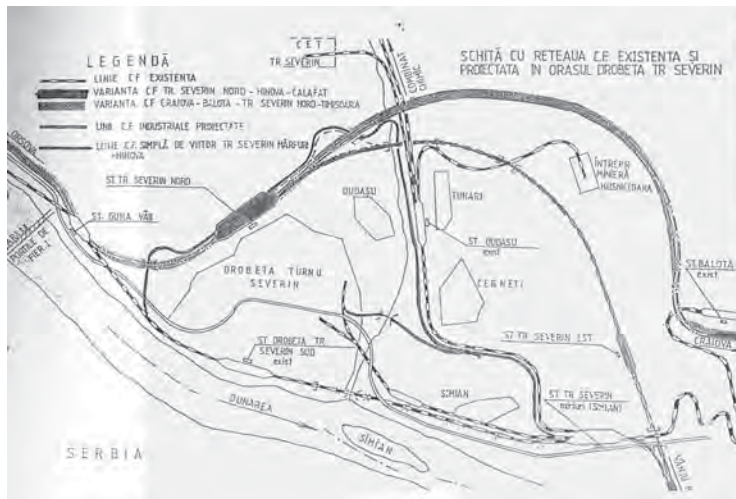


Fig. 3. Existing and Proposed Railway Network 1998.

in 1926. A law<sup>6</sup> was issued on the expropriation of the entire plot of 6 hectares around and within the Roman camp, for the preservation of the historic monuments and in the interest of Trajan High School's boarding establishment. Once the museum was moved to the high school's boarding establishment, Professor Al. Bărcăcilă extends archaeological excavations and discovers the Roman baths to the west of the camp.

Systematic archaeological research starts shortly before World War I and proceeds in the interwar period, under the coordination of Professor Alexandru Bărcăcilă, who also becomes the director of the local museum, and of archaeologist Grigore Florescu.<sup>7</sup> Turnu-Severin becomes a recognized archaeological centre. Between the two world wars, the Professor will continually ask for financial support for the protection and preservation of the vestiges in the park of the museum, both from the Commission for Historic Monuments and from the Communal Council. Over that period, the attention was mainly devoted to the camp and baths, the ruins of the pillar of Trajan's Bridge being only rarely mentioned and only for the execution of simple enclosures. As they were crossed by the railway, they were of little interest, because of the difficulty of further research.

The first intention of preservation-restoration of the ruins of Trajan's Bridge appears as late as 1944, in a memo<sup>8</sup> that was sent to the Commission for Historic Monuments, through which Professor Al. Bărcăcilă asks for funds for "*Works of consolidation and protection from the action of the weather and of other destructive agents, at the ruins of Trajan's Bridge and of Drobeta Roman camp*".

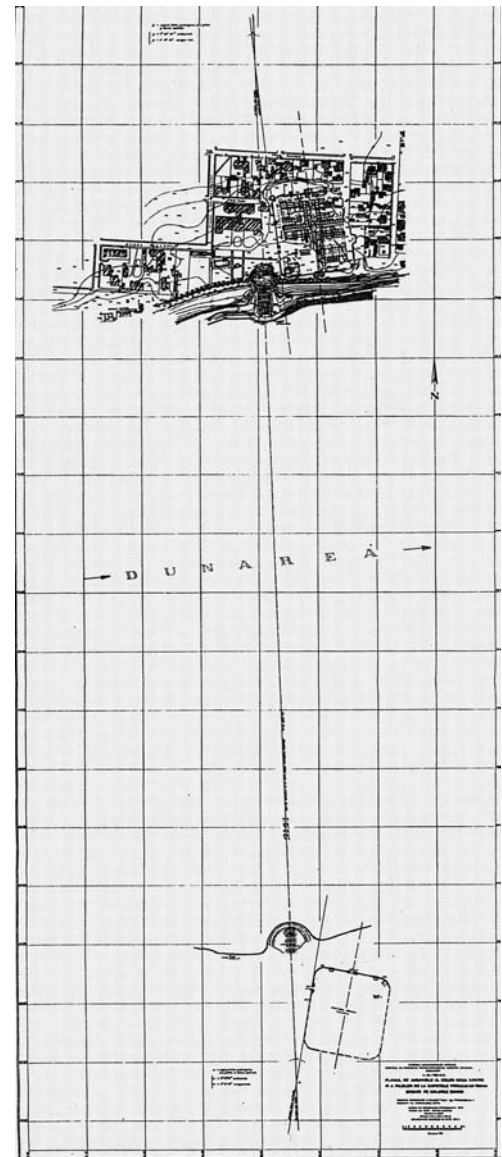


Fig. 4. Layout of the two military camps and of the bridge head piers on the two banks of the Danube.

<sup>6</sup> Law no. 1148/20.03.1926 (O.J. no. 67/1926, pp. 3906-3909). The expropriation plan covered approximately 6 hectares; BCMI 18, 1912, pp. 87, 88.

<sup>7</sup> The Archive of the National Institute of Heritage, the CMI (*The Commission for Historic Monuments*) Archival Collection.

<sup>8</sup> The Archive of the National Institute of Heritage, the CMI Archival Collection, File no., communication no. 40/1944.

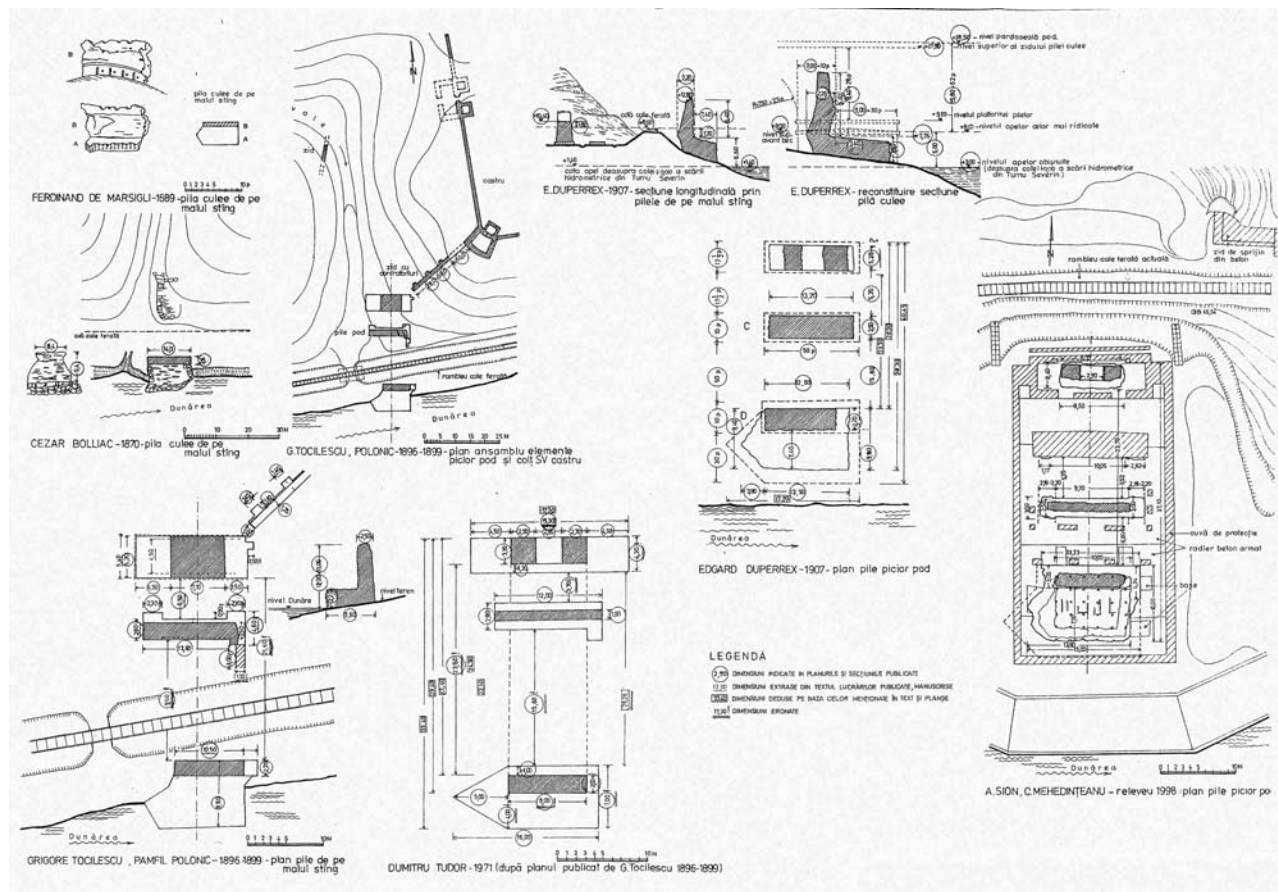


Fig. 5. Bridge pier plan (survey) appearing in various publications.

The files from the end of World War II that are in the INP Archive, the CMI Archival Collection,<sup>9</sup> contain a lot of memos from Professor Al. Bărcăcilă, who indignantly and systematically denounces, to the Commission for Historic Monuments, the damages caused in the archaeological site by the German, Romanian and Soviet armies successively (excavations of trenches, ammunition stores, commandeering of museum rooms, using the ruins of the Roman camp as cattle pen, military manoeuvres area, etc). Considered a border area, the Danube's river banks at Turnu-Severin became a strategic position, all the time seized by the occupying troops, either German, or Russian, becoming a place that was difficult to visit by the people who wished to see the archaeological vestiges.

However, towards 1954, the political situation eases a little. In 1955 the entire archaeological site, including the ruins of the bridge, are declared historic monuments by law<sup>10</sup> and systematic archaeological research starts over again with Grigore Florescu, followed by Radu Florescu and Mișu Davidescu consecutively in charge.

<sup>9</sup> INP: The National Institute of Heritage; CMI: The Commission for Historic Monuments.

<sup>10</sup> The Council of Ministers' Decision no. 1160 / 1955 stipulates the classification of the site as a historic monument.

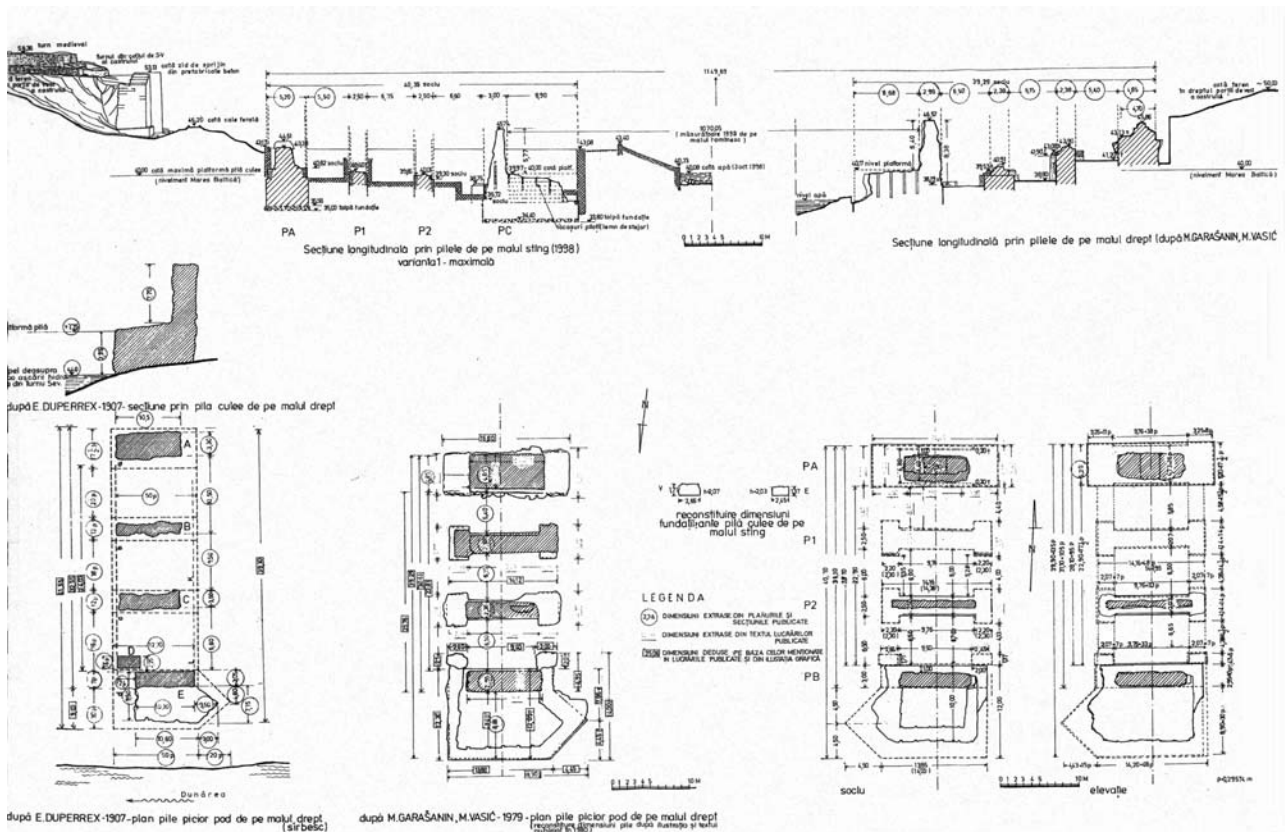


Fig. 6. Pontes bridge pier plan – longitudinal section through the bridge piers on the two banks; reconstitution version for the bridge piers on the Romanian bank.

On July 27, 1959,<sup>11</sup> the regional prefecture drew the attention<sup>12</sup> of the Directorate for Historic Monuments<sup>13</sup> that: “*The pier of Trajan’s Bridge is in a very advanced state of ruin, its height threatening to reduce increasingly. Consolidation and protection covering are necessary*”.

In 1960, the same prefecture proposed a plan of measures with the following actions: “*The bridge pier that remains between the railway and the Danube is going to be restored and screened with a transparent plastic cover and enclosed with an adequate one metre high parapet. In the southern fence that delimits the perimeter of the Roman camp a gate will be made to give access to this bridge pier near the Danube*”. Today, the preservation solution seems funny. Modest times, modest restoration solutions!

At the same time, the archaeologist Radu Florescu’s February 1962 “*Activity report on the visit*”<sup>14</sup> was drawn up. He also emphasized that “*The state of the bridge piers is very critical. They weren’t at all consolidated – or only extremely little – and the provisional props have disappeared. This winter’s high humidity contributed to the disintegration of the brickwork, which crumbles continuously. The abutment is continually shaken by the jolts of the railway and if the Danube rises, it will threaten to destroy it. Postponing the consolidation of this monument not for*

<sup>11</sup> The INP Archive, the DMI (*The Direction for Historic Monuments*) Archival Collection, File CSCAS-DMI “Correspondence”, the period between 1954 and 1965, contains an exchange of communications between the Museum, the County Council of the Craiova Region, the Architecture and Systematization Directorate (SSA) of the local council and the DMI with a view to taking steps, for the first time, to restore the ruins of the bridge.

<sup>12</sup> Through communication no. 20026 / 1971 (INP Archive, DMI Archival Collection, file 9565).

<sup>13</sup> Its name over that period was the Directorate for Architecture Monuments.

<sup>14</sup> The INP Archive, the DMI Archival Collection, file “Activity report on the visit” of 28.02.1962, of the archaeologist Radu Florescu.



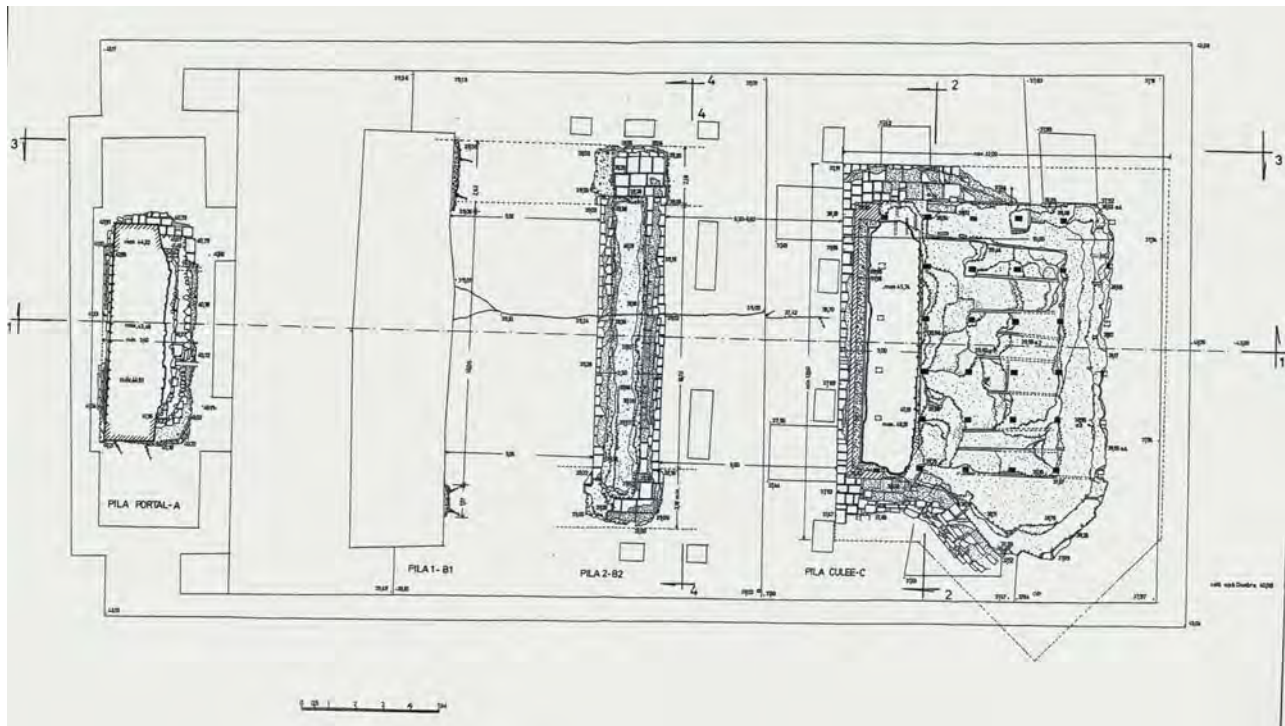


Fig. 7. Bridge pier plan – bridge pier dimensions reconstruction.

*a year but only for a couple of months may have very serious consequences. Moreover, the clearing up of the abutment created the danger that the railway embankment collapse. In this domain it is necessary to take measures.”*

In 1963 the architect Rodica Mănculescu, a specialist within the Directorate for Historic Monuments, proposed fillings in the brickwork of the bridge ruins, for their consolidation.<sup>15</sup>

In 1966 the authorities take up again the issue of repairing the central pier, by refilling the “*brickwork areas with antique bricks*”. The project is drawn up by the Systematisation and Architecture Service of the Town of Turnu-Severin.<sup>16</sup>

In 1972 the building of the former boarding establishment of Trajan High School is totally renovated and reorganized, being reopened only as a museum. Once Romania signed the Convention concerning the Protection of the World Cultural and Natural Heritage, the monuments proposed for the UNESCO list include “*The reconstruction(?) of the Emperor Trajan’s bridge edge at Drobeta Turnu-Severin*”. The proposal had no supporters and was forgotten.

In 1976, on the occasion of the approval by Nicolae Ceaușescu of the draft to systematize the town of Drobeta Turnu-Severin, the issue of the situation of the monuments along the Danube’s embankment is taken up again at town level, because, by constructing the new hydropower station Porțile de Fier II, the Danube’s waters rose approximately 4 metres, above the Danube’s height at that time. On that occasion the issue of the Piers of Trajan’s Bridge is also taken up, as they would have been flooded by the water of the future artificial lake.

Through the Presidential Decree no. 188 of May 13, 1978, work at the project “*The Reconstruction of Trajan’s Bridge Head*” starts, according to the hypothetical replica built by the engineer Edgard Duperrex in

<sup>15</sup> From “Building-Site Directive” of 5.07.1963 – issued by the head of project over that period, the architect R. Mănculescu.

<sup>16</sup> INP Archive. It is in that period that the intervention on the northern side of the abutment pier probably took place.

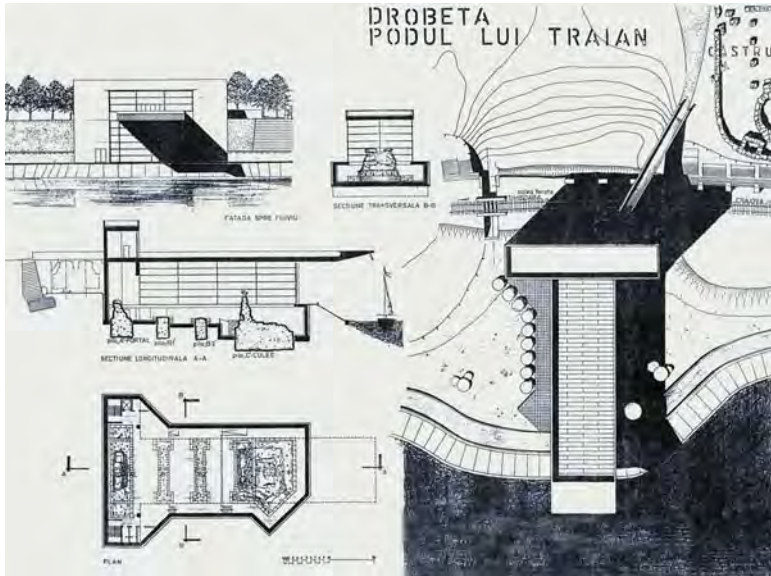


Fig. 8. Version A3 – Tank covered and closed by a modern reinforced concrete structure, suggesting the dimensions of a modern bridge.

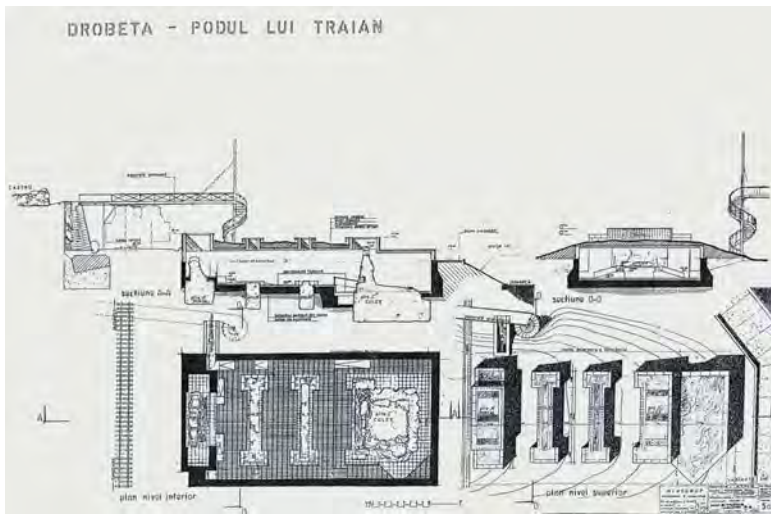


Fig. 9. Version A4- Tank covered and closed by a reinforced concrete structure, on top of which the bridge piers bases will be built.

project and of the works are presented in the report drawn up by Architect Prof. Aurelian Teodorescu, the head of project of the “Bridge Head” attached to this chapter.<sup>18</sup>

The group of architects first worked in cooperation with the Faculty of Roads and Bridges. The architects imagined various variants of moving the piers. Initially to lift them with special presses and transport them on tracks to non-floodable ground, then to try and cut them and transfer them from the floodable area and reassemble them on firm ground. These two projects were executed but partially, as the difficulty of the

1906, on the occasion of the General Exhibition in the Carol I Park, in Bucharest, 1,800 years after the Roman conquest of Dacia.<sup>17</sup>

Over the period between 1982 and 1986, because of the threat of the filling of the Porțile de Fier II artificial lake and of the approximately 4 metres rise, gigantic works to move the railway line from between the piers of the bridge uphill from them, as well as the construction of a reinforced concrete tank and of an earth dam placed towards the lake, for the protection of the ruins of the bridge, were necessary. Unfortunately, saving the ruins didn't mean their preservation and enhancement; the railway again played an unfavourable role in the “restoration” of the ancient ruins. However, this radical operation led to the discovery of the middle pier, modifying engineer Duperrex' hypothetical replica of the bridge with asymmetrical edges. The idea to move the railway to the north of the town and free the embankment was advanced this time as well; but with the same tenacity and financial motivation, the railway was moved approximately 20 metres uphill from the ruins of the bridge, between the Roman camp and the ruins.

As at that time the Directorate for Historic Monuments was dissolved, a Research and Restoration Workshop was set up especially for this work, within the “N. Grigorescu” Plastic Arts Institute. Details on the start of the

<sup>17</sup> “Trajan's bridge”, a creation of the architect Apollodorus of Damascus that was built by order of the Roman Emperor Trajan, was constructed in record time, between 103 and 105 AD.

<sup>18</sup> Appendix, Architect Aurel Teodorescu, September 1998, “On the project on «The reconstruction of Emperor Trajan's Bridge Edge» in Drobeta-Turnu Severin”.



operations led to their abandonment. The witnesses are the boards in the archive of the DMI – the Directorate for Historic Monuments – and the pieces cut from the foundation of the remaining piers, near the tub around the ruins.

The architects' cooperation with the ISPH – the Institute of Hydrotechnical Projects – followed, but, in the end, for urgency reasons, the shipyard was entrusted with the execution of the works, although the constructor of the railway was to reconstitute the ruins of the bridge. The construction of Porțile de Fier II hydropower station had been completed, the waters of the Danube had started to rise and to flood the embankment and the ruins were in danger of being covered by water.

Of the grandiose restoration proposed in those years, only a huge reinforced concrete tub was constructed at the last moment, which was built “in an engineer's manner” and which still exists today.<sup>19</sup>

Last but not least, the railway again played an unfavourable role in that “restoration” and, as a matter of fact, it continues to play the same role. The funds for the reconstruction were provided by that institution. As a consequence, the movement of the railway was achieved rapidly and efficiently, while the rhythm of the excavations around the piers and of the restoration works was different. Placing the railway along the Danube affected and continues to affect the

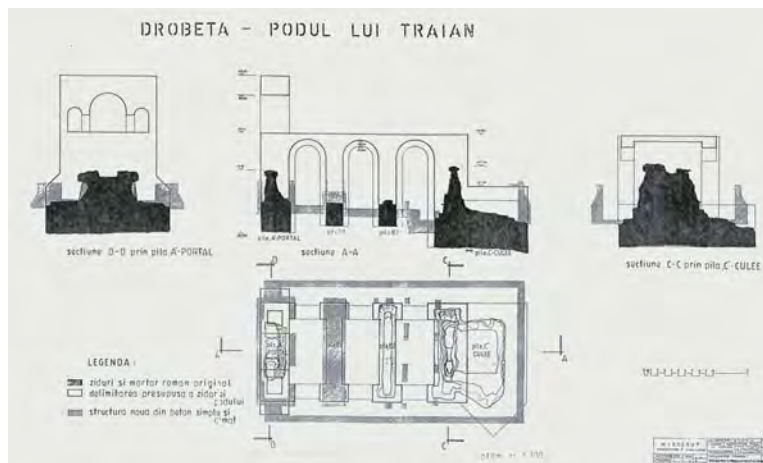


Fig. 10. Version A5 – Bridge head reconstitution over the four bridge piers (in the 1985 version)

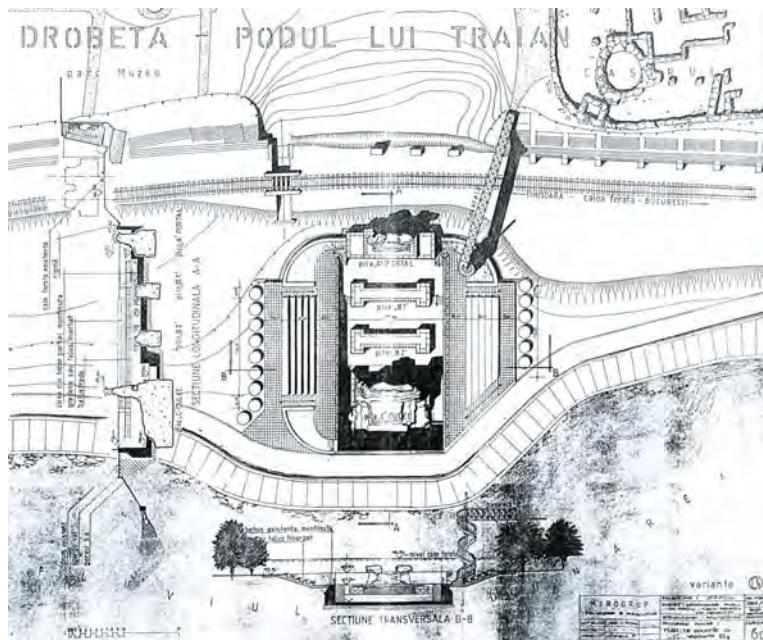


Fig. 11. Version B1 –Enlargement of the space inside the tank by dismantling the side walls (E and V) obtaining a larger enclosure under the shape of steps.

<sup>19</sup> The tank was constructed of reinforced concrete, with large thickness elements, 1.00 to 2.00 m. The interior dimensions of the tub are 19.00 x 35.45 m. The thickness of the walls is 1.00 m at the top and 1.90 m at the contact with the foundation plate. The foundation plate, with variable thickness on most of its surface, is 2.00 m thick and is cast on a 20 cm thick equalisation concrete, which, in its turn, is cast on the filling concrete that followed the base layer for foundation. The upper level of the tub at the top is + 43.00 m, while the superior quota of the foundation plate varies between + 40.50 and + 36.90 m, in four tiers, which leads to heights of 2.50 m to 6.10 m for the walls of the tub. The mark of the concrete in the tub is B 250, while that of the reinforcement is OB 37. The reinforced concrete of the tub is divided into plots with variable size, from 5.00 m to 8.80 m, with contraction grooves that are made watertight with special bands. In the lower part of the foundation plate, there are bases for the drainage of the precipitation and infiltration waters.

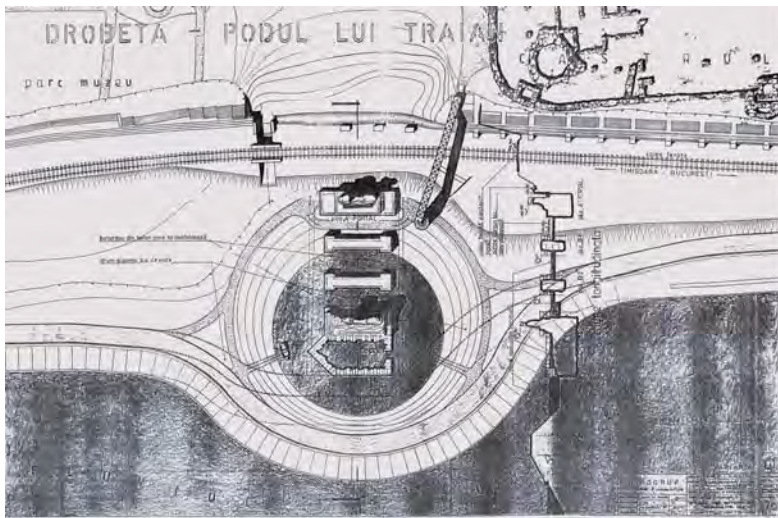


Fig. 12. Version C1 – Removal of tank walls towards the lake and the ruins.

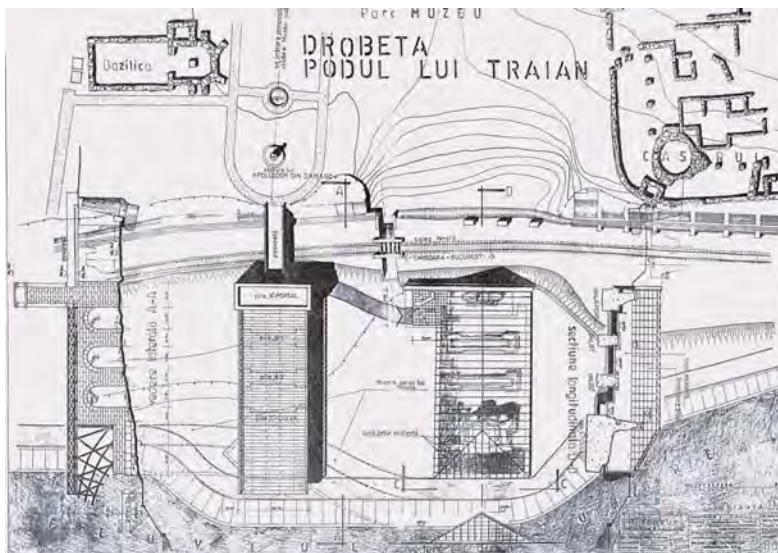


Fig. 13. Version D2 – Tank covering and closing with a metallic construction and light glass closures.

On the other hand, the water infiltrations that keep the ruins in permanent humidity (some of the infiltrations occur even through the piers, i.e. through the channels that resulted because the wooden beams that crossed the core of the piers rotted), and that permanently fill with water the concrete tub holding the ruins of the bridge, need constant and automatic pumping. Permanently cleaning the moss and algae off the ruins is another problem, as we have noticed, in the case of all the restoration attempts in the years of the 20<sup>th</sup> century.

town of Drobeta Turnu-Severin, depriving it of the Danube's sight and of the possibility to arrange the river bank, and at the same time preventing commercial and tourist activities.

In 1998, the Minister of Culture entrusts the Design Centre for the National Cultural Heritage – CPPCN,<sup>20</sup> which was an institution directly subordinated to it, with the project “*Restoration and enhancement of the ruins of Trajan's Bridge in Drobeta Turnu-Severin*”.

In 1998, the General Urban Plan of the town of Drobeta Turnu-Severin was completed and the issue to move the railway to the north of the town for the aforementioned reasons was raised again. All the more that the course of the railway had become an international route and that the speed of the traffic on it was low, since, because of not enough space, there was one single track. The railway was expected to be moved potentially towards 2010. The possibility to eliminate it is currently out-of-date due to the construction of a new train station on the location of the old one.

For that reason, all the proposals regarding the rehabilitation of the Roman site around the piers of Trajan's Bridge had to take into account this inconvenience. Vibrations, atmospheric and noise pollution, the tourist visit circuit being subject to a risk factor.

<sup>20</sup> Head of project for the complex – architect Ruxandra Nemțeanu, speciality head of project – architect Anișoara Sion, archaeologist Cristina Crăciun; speciality head of project for hydrotechnical engineering issues – the company MIRO GRUP, engineer Mircea Mironescu and architect Victor Popa; archaeologist dr. Gh. Cantacuzino from “Vasile Pârvan” Institute of Archaeology, Bucharest.



The Yugoslav solution for the protection of the ruins of the bridge piers on the Serbian bank, which was adopted in 1978, when the water of the Danube rose, was a much better choice. In the first place, it enables a natural exchange between the waters of the Danube and the water rising behind the dam built to protect the ruins.

Of the total of 28 piers that Trajan's Bridge had, only four are visible now on the Romanian bank and four on the Serbian bank. These are the portal piers, which, in the drawings, were labelled pier A, two middle piers labelled B1 and B2 and the abutment pier labelled pier C (see the boards).

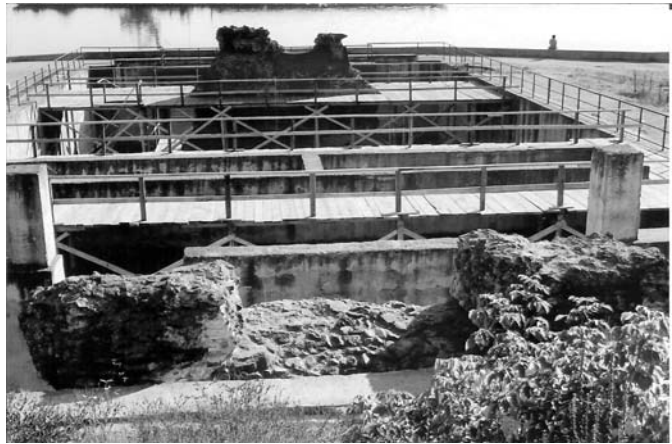


Fig. 14. Bridge pier (2000).

At the request of the Ministry of Culture and following the meetings in Drobeta-Turnu Severin with Professor G. Croci – a UNESCO expert, an international Romanian-Italian cooperation project to enhance the ruins was discussed. In the end, CPPCN developed several restoration variants, with the cost assessments corresponding to each variant, which became an elaborate documentation at the level of a pre-feasibility study. The proposed intervention solutions are divided into two categories:

The first category formed around a minimal solution that includes urgent intervention measures and the construction of a footbridge for access from the plateau to the ruins, across the railway. The construction of that footbridge over the railway created a minimal condition of enhancing and safely visiting that monument.

All the restoration variants in the second category included the previous solution. The difference was to enlarge the reinforced concrete tub in the shape of a funnel placed upside down. Initially, 12 variants were advanced, of which three remained to be further developed in the following study stage, with emphasis on the variant that was similar to the one on the Yugoslavian bank.

Another category is part of the families of solutions that keep the entire existing tub, either covered or not, opening it in the shape of tiers or of a circular basin filled with water. The project stipulated the closing and covering of the tub with a structure reminding of a modern metallic bridge. The project further stipulated a written notification by the structure expert, who concluded: *“if we do not have certain and reliable funding, only the urgent intervention proposal, i.e. the minimal solution, should be carried out.”*

In 2008, following massive rains accompanied by landslides on the Balota hill, the single track international rail between the towns of Craiova and Drobeta Turnu-Severin is closed for major repairs. As such, the train route follows other itineraries<sup>21</sup>. The newspaper Jurnalul Național publishes the article *“Gara Drobeta-Turnu Severin, o viitoare eurostație a României” (The Drobeta-Turnu Severin Railway Station, a Future Eurostation of Romania)*,<sup>22</sup> in which the Railway Company CFR boasted about the new train station in Turnu Severin, which had been built after the demolition of the old one. But: *“The train station should have been inaugurated a long time ago. Unfortunately, the money seems to have been wasted long ago, and its completion was blocked. As such, the town lacks both the old rail station, which was demolished in the meantime, and the new one. For over five years, Severin no longer has a train station. Travellers have to endure sultriness, frost and rain under the sky.”* “The rehabilitation of the Drobeta-Turnu Severin train station” was approved by the government in 2001. According to the project, the Eurostation comprised a new building for travellers, a footbridge towards the town and a platform along rail number 1. The building works started in 2004 and were to be completed

<sup>21</sup> A. Ghiciulescu, *Cine repară calea ferată la Balota?* (Who repairs the railway at Balota?), Jurnalul Național of 26.06.2008.

<sup>22</sup> Jurnalul Național of 26.06.2008.

in February 2006. The construction is currently abandoned. Because of the drastic decrease in the number of train travellers, this investment is useless. The money for this project should have been invested in another one, i.e. the project of moving the existing railway parallel to the future ring road of the town, and Turnu Severin would have regained the waterfront to the Danube. The new train station becomes an impediment as well to the recovery of the embankment. “... and everything for electoral reasons. It was a megalomaniac project” (Aurel Teodorescu).

There’s a saying: *unfortunate people*; we can add: *unfortunate monuments!*

## Appendix

Architect Aurel Teodorescu, September 1998, excerpt from the Report put forward by the former head of project (1978-1981) for the information of the head of project over that period (1998-2003), architect Ruxandra Nemțeanu, “*On the project on «The reconstruction of Emperor Trajan’s Bridge Edge» in Drobeta Turnu-Severin, the following are to be reminded:*

*A. – In the spring of 1978, the County Council of Mehedinți County commissions the “N. Grigorescu” Institute for Plastic Arts in Bucharest to draw up a study on the Reconstruction, Protection, Preservation of all the vestiges that were part of the enclosure of the “Porțile de Fier” Museum in Drobeta-Turnu Severin.*

*Based on that order, I went to Turnu Severin to settle, along with the institutions concerned, the programme theme of that project.*

*I was greeted by the Chairman of the County Council and First Secretary of the County section of the Romanian Communist Party Committee, comrade Ploștinaru, who presented not only the reasons of the order they had sent, but also the main elements that have to be the base of the project. Thus, I found out that the intention was to reconstruct an entire ensemble comprising the Roman camp, the baths, the bridge piers and a small amphitheatre that was to be built by taking advantage of the accentuated difference in level of the ground near the Danube. Moreover, for the Bridge Head, the reconstruction of the first bay and of half of the second one was demanded. Obviously, the topographical survey in the targeted area was made available to me.*

*They specified that this action was triggered by the construction of the “Porțile de Fier II” hydropower station, because of which the level of the artificial lake would rise, in the area of the vestiges of the Roman monuments, approximately 4,00m above the level that existed in that moment. Considering the amplitude of the project in its entirety, I requested from the administrative and political leadership of the county not only an appropriate ground to draw up the project, but also bibliographical information, etc.*

*They specified that, from the county, the first general councillor would be academician prof. dr. docent Dumitru Tudor, whom I was to contact and who would provide all the elements needed for the project in its entirety.*

*The presentation date was settled for November 1978.*

*B. At that time, the Plastic Arts Institute had neither the quality, nor the specialists, nor the organizational form within which that ambitious project could be drawn up legally.*

*Within the Institute, the establishment of a research and project-drafting workshop was decided that was directly subordinated to the Rectorate, which was under my leadership.*

*In early October 1978, the Education Ministry approved the Institute’s proposals and the operation scheme, which stipulated that the workshop would comprise only specialists in the architectural field. The other specialities that were necessary to the achievement of the projects were to be obtained through the Research and Project-Drafting Workshop’s cooperation with the Project-Drafting Department of the Ministry, whose premises were in Calea Victoriei.*

*The project in its entirety – as decided – was presented on the settled date. It had been drawn up based on the directives and data provided by academician prof. dr. docent Dumitru Tudor.*

*The approval took place at the premises of the County Council. The approval session also settled the priorities in the drawing up of the projects for the various buildings that composed the ensemble. The first to be achieved was the project for the Reconstruction, Protection and Preservation of the Bridge Head.*



*To that end, cooperation with the designer of the railway – the Ministry of Transports – had to be undertaken. From the latter institution, the head of project for moving and raising the location of the track of the railway line running past the ruins, was engineer Eckstein.*

*I thus found out what the elements imposed by the Railway Company for the works in the area were. I have to specify that the HCM (translator's note: Council of Ministers' Decision) on the construction of the Portile de Fier II Hydropower Station very clearly stipulated that all the funds that would be necessary to protect the historic monuments and their vestiges located in the Railway Company's area of operation had to be provided by the Ministry of Transports. Moreover, that ministry also had the actual responsibility in the achievement of the complex of works that were determined by the existence of the railway in the area and especially by the fact that it was an electric line, as was the case with the entire route from Bucharest to Timișoara.*

*C. The Project Institute of the Railway Company made available all the plans and construction details of the railway. The analysis of those data led to the conclusion that the old route had been established by destroying one of the piers of the three arches that had formed the abutment of the bridge edge; as such, all reconstruction attempts – drafts or projects – that had been drawn up before 1978, including the replica built by engineer Ed. Duperrex in 1907 – were erroneous. They comprised two vaults, a double one and a simple one. The excavations conducted revealed the foundation of the third pier – therefore, the abutment of the bridge edge had three arches instead of only two. As a matter of fact, on the Serbian bank of the Danube, the abutment of the Bridge had three vaults, as well, and there was no reason for the two abutments to be different. As such, the project for the reconstruction of the Bridge Edge contains three vaults for the abutment. Difficulties arose in enabling movement on the Railway – a double one; the size of the vaults, as well as the bridge's position on the ground didn't allow trains to pass through those vaults. (...)*

*Therefore, the project for the reconstruction of the Bridge Edge was drawn up based on the data imposed by the Railway Company and by observing the directives issued by academician prof. dr. docent Dumitru Tudor and academician prof. dr. docent Grigore Ionescu. During the drawing up of the project, the working group was joined by prof. Dinu Giurescu and prof. Răzvan Teodorescu. A number of details provided by the project drawn up by engineer Ed. Duperrex were also used.*

*In brief, for the portal, the project stipulated a building technique that was identical to the original one, i.e. a stone coat on the outside and brick on the inside and tufa filling between the two. For the deck, a metal structure coated in oak wood profiles was used, a structure that observed the initial arrangement of the components. Both the metal and the oak wood were protected by special dyes. That solution was resorted to, because, eventually, only the recreation of half a bay was proposed; the latter lay in the console, being anchored in the concrete structure of the abutment pier. The abutment pier was made of concrete diaphragms, coated in stone veneering. Those diaphragms closed a chamber where there was the existing ruin; one entered that chamber from the portal, the ruin being visible from a reinforced concrete footbridge. Two metal stairways enabled the public to descend to the level of the ruin.*

*The portal had a fresco that closed the access to the deck. On the upper part, in the chambers that were initially destined for the guards of the bridge, a small Museum of the Bridge and of the complex of Roman buildings was designed.*

*The project was approved in the spring of 1980 by a commission of the State Committee for Art and Culture chaired by Tamara Dobrin, the vice president of that institution. The commission comprised academician prof. dr. docent Dumitru Tudor, academician prof. dr. docent Grigore Ionescu, prof. dr. Dinu Giurescu, prof. dr. Răzvan Teodorescu and prof. dr. Vasile Drăguș, the rector of the Plastic Arts Institute. The project was approved without recommendations and was submitted to the Mehedinți County Council to obtain the execution authorization.*

*For the execution of the project a construction company in the town of Pitești was selected. The reason for this choice was the fact that, within that company, a number of specialists in works of restoration of historic monuments worked, who had previously worked within the construction company of the dissolved (in 1978) Directorate for Historic Monuments – DMI. The works were to take place under the direction of engineer Panco. They started in the summer of 1980. While the works were ongoing, a number of interruptions occurred, because of the lack of equipment that was appropriate for such construction works, a lack that the company in Pitești couldn't make up for even after repeated attempts at renting that equipment.*

*In 1980, after the approval of the project for Emperor Trajan's Bridge Edge, at the insurances of the Mehedinți County PCR Committee and at the personal insistence of its secretary, Ploștinaru, a visit to Cladovo, Yugoslavia took place – to contact the group for the Bridge Edge project on the Yugoslavian bank and to correlate all the construction works. That action was mainly determined by the start of the building works for the Bridge Edge on the Romanian bank and by the necessity to correlate the two longitudinal axes. The meeting took place in Cladovo; it was attended by the designer – the Architecture Projects Institute in Niș and, obviously, the constructor. We visited the building, where we noticed that the construction works had made considerable progress, by comparison with those on the Romanian bank. At the end of the session, during which the two delegations presented their projects and completion intentions, a protocol was concluded, which contained the methods of mutual information and cooperation, as well as the dates of the visits to the building sites. The Yugoslavian delegation's first visit took place in the autumn of 1980; the Yugoslavians returned in the spring of 1981. I have to emphasize that the drawing up of a project for the reconstruction of the Bridge Edge and the start of a building site to that end was a Yugoslavian initiative. The carrying out of studies for the Romanian side with regard to the complex of Roman ruins was a subsequent action. Moreover, one has to specify that, on the right bank of the Danube, the Romans only built the simple Bridge Edge – which was identical to the one on the left bank. The portal also hosted a small military body that was tasked with guarding the bridge. The complex of buildings that accompanied the bridge, i.e. the Roman camp and baths only existed on the left bank. It is logical, since the bridge was built around the year 101 AD, in the opinion of prof. T. Antonescu within the University in the town of Iași. It is certain that, before the outbreak of the second Dacian war, the bridge was completed, since, in the year 104 AD, according to Dio Cassius, Trajan, starting the war against the Dacians (the second war), ordered his army to cross the bridge.*

*The Pitești company proved an inefficient partner; the slow rhythm was mainly due to the lack of equipment that was appropriate for such specific works.*

*As such, the Railway Company terminated the contract with the Pitești company, being worried about the fact that the works for the Porțile de Fier II Hydropower Station made considerable progress and there was the danger that, due to the closing of the dam, the waters of the Danube might start to rise.*

*Without announcing the Plastic Arts Institute, the designer for the historic vestiges in the area or the Mehedinți County Council, the Railway Company addressed to the Institute of Hydro-technical Projects. The latter drew up another project, which stipulated a simple reinforced concrete tub that was to protect the ruins. The project was drawn up based on the information provided by the Railway Company and without consultation with the previous designer.*

*I note that this project was approved by none of the relevant institutions, nor by the County Council. The construction works were achieved by the Constructor of the railway. Although, when those works started the Mehedinți County Council protested, the Railway Company continued them motivating it by the fact that the tub protected the vestiges of the Bridge from the danger posed by the rise of the level in the waters of the Danube and enabled the subsequent continuation of potential reconstruction works.*

*In time, even the intercession of the State Committee for Art and Culture succeeded neither in determining the continuation of the reconstruction works – although the role of the monument in the historical evolution of the Romanian people was always emphasized, nor in imposing the minimum improvement in the works executed. And we could see, subsequently, that not even their adequate maintenance was of concern for anybody either.” Architect Aurel Teodorescu, September 1998.*