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Tropaeum Augusti (France) and Tropaeum Traiani (Romania): A Comparative Study

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Abstract

Two Roman trophies, Tropaeum Augusti (or Trophée des Alpes) and Tropaeum Traiani, survived the time in France and Romania. They are considered to be the birth certificates of the French and Romanian peoples. The edifices, preserved in different ways over time, are particularly attractive tourist attractions in both countries. The two monuments are not only an ancient edifice dedicated to the victories of the Romans over the defeated peoples, but it is also a summum of scientific thought, of the age applied in the art of construction. The analysis of the technique of accomplishment of the two monuments highlights the Romans' understanding in architecture. Moreover, the two monuments stand out for the same destiny. The two edifices outline the history of the two countries. The architects applied the principles set up by Vitruvius Pollio in *De architectura*. The restoration works of the trophies from La Turbie and Adamclisi are emblematic. The trophies dedicated to Augustus and Trajan signify the honors devoted to the two emperors; the Romans attributed them the feeling of the deity so that the fate of the emperors is assimilated as sons of God, promised to be divine. Both trophies record the deeds of their heroes.

Keywords: Roman triumphal monuments, restoration, construction, France, Romania.

1. Introduction

The noun *trophy* means the defeated armor can be defeated by an enemy sitting on a tree trunk, which can signal victory; a stone or marble monument carrying the weapons that can be used to celebrate holidays and buildings to celebrate a victory; sculpture or painting depicting a monument; prey of war taken from the enemy; victory, offering to a deity, proven from the prey of war; and the horns between the hunted deer.

The notions about the Latin *tropaeum* and the Greek *tropaion* mean a triumphal monument built in ancient Greece or the fulfillment of ancient Rome, inside or outside its territory, with the purpose of marking either consuls or military or naval victory and other defeated persons, to create posterity.

2. Tropaeum Augusti

Tropaeum Alpium (or *Tropaeum Augusti*) is a Roman construction located in the Maritime Alps, in the current locality of La Turbie, above the Principality of Monaco [1].

The building was built in honor of Emperor Augustus in 7/6 B.C. The emperor's motive for erecting the monument was constituted by the alpine military campaign from 15 B.C. in which Drusus and Tiberius conquered a total of 46 tribes, this significant event being recorded by Plinius the Elder as a historical source. The building was rebuilt by Jean-Camille Formigé at the beginning of the twentieth century so that at least the original Roman construction became recognizable [2–5] (**Figures 1 and 2**).

The construction, a *tropaion*, that is, a monument of victory, was designed according to the Vitruvian architectural model and consists of a rectangular base with sides of 38 m length, whose western facade has an inscription. The second floor was slightly behind the pedestal. On the podium 24 Doric columns were placed, arranged circularly, and decorated with a frieze with metopes¹ and triglyphs² throughout.

Between the columns were niches, in which the statues of the participating commanders were arranged, for example, of Drusus. The dome carried by columns narrowed up in the form of steps and was crowned by a colossal statue of Augustus.

In ancient times, the building as a whole had a height of almost 50 m. According to the records, the podium was in the shape of a square with a side of 32.5 m and height of 12 m, on which the inscription is in Latin, flanked by two victories (an aspect that makes it look more like the Mausoleum at Halicarnassus) [7].

The second level, accessible by stairs, consisted of a covered circular colonnade. Between the 24 columns, statues of different commanders could be seen. Its height was 35 m. On the tip of a cone, up to the height of 49 m from the ground level was the statue of Augustus. The golden components were visible from a great distance and would have been a beacon for the ships. By its greatness the monument was unique in the Roman Empire. The monument was made of local stone; the quarry, which is located approximately 600 m northwest of the monument, is still in use. Today the cone and statue are missing; the debris reaches only a height of 35 m.

In the Middle Ages, the triumphal monument was transformed into a fortification with a watchtower, the remains of which could still be seen in the upper part of the building until 1705 when under the order of King Louis XIV, it was mined and later used as much as a stone quarry, under the open sky, an aspect evidenced by the blocks and fragments reused at the construction of the Saint Michael church at that time, as well as at several residential constructions in the area [8].

At the reconstruction and the partial restoration, no more than four columns could be completely erected, and only the western facade with the inscription was completely restored; the rest of the fragments are kept in the local museum.

The inscribed block is framed by two large marble reliefs. On them is recognized a trophy, namely, the captured weapons, which are hung by a tree trunk. At the foot of the *tropaeum* kneels on each side a barbarian and a barbarian, both chained. Moreover, near the inscription on each side floats a small goddess of victory.

During all this time, 1858 can be noted as important for the monument, because the Royal House of Savoy made its decision to consolidate it, and in 1865, shortly after the Nice area became part of France, the building was classified Historical Monument.

¹ Metop: Space between the triplets of the Doric frieze, closed with a smooth stone plate or decorated with paintings or sculptures [6].

² Triglyph: Decorative element of the frieze of the Doric temples, in the form of a rectangular stone plate, decorated with three ridges in relief (which are repeated at equal intervals) [6].



Figure 1.
Tropaeum Augusti (trophy of the Alps), from La Turbie, Department of the Maritime Alps (France).



Figure 2.
Reproduction of the Romanian trophy in the La Turbie Museum.

The restoration works carried out at the Tropaeum Augusti monument, located in La Turbie, are representative through the procedure and technologies adopted. The restoration engineers in Sardinia proposed a strict consolidation in the existing composition, while Viollet-le-Duc and his followers adopted the procedure

of restoration by anastylosis. The complete change of the restoration doctrine is coupled with the change of the historical stage.

Indeed, the archeological monuments and sites of Nice are integrated before 1860 in the initiative of the Savoy dynasty, which has been committed since 1848 to build a unique Italy.

The problem of styles had a great political dimension in northern Italy, where the architects tried to transform historicism into a national architecture for the new Italy.

At the time of the first laws and institutions for the protection of the monumental heritage between 1830 and 1860, France and the Kingdom of Piedmont-Sardinia developed the heritage policy concurrently. The buildings and sites of Nice experienced two administrations of the cults and two services of the historical monuments due to the transfer of sovereignty in 1860. These political changes contributed to the illustration of two national histories, the one of Piedmont, later that of France after 1860, when *Giunta di Antichità e Belle Arti* has ordered the first systematic census of monument buildings [9].

At that time, four categories of buildings classified as monument were identified: the buildings of the old Cimiez amphitheater, the trophy of the Alps in La Turbie and two medieval buildings, the TENDA College and the Utelle parish church.

The prioritizing of the ancient remains of the Cimiez amphitheater and of the Augustus trophy in La Turbie in 1865 is the first application in the Nice area of the French system of protection of historical monuments (**Figure 3**).

The restoration work was resumed at the beginning of the twentieth century when the French Archeology Society gave Philippe Casimir, a teacher, the extensive responsibility for these sites (1905–1908).

The campaign continues under the leadership of Jean-Camille Formigé and Jules Formigé, chief architects appointed to restore the Historical Monuments, who are the authors of the reconstruction of a part of the building. Initially, the works were



Figure 3. Augustus trophy from La Turbie 1880/1915, Ministry of Culture in France-archive of historical monuments and heritage, photos taken from the Jean Gilletta collection [10, 11].

financed by the French state (1908–1909) and then by American owner Edward Tuck, who assumes most of the reconstruction (1929–1933) [12].

The two architects, Jean-Camille Formigé and Jules Formigé, are trying to restore the original appearance of the monument by reconstructing the western facade (towards the village) with old fragments, supplemented with contemporary materials.

According to the reconstruction, the building is provided with a double square base superimposed by a circular plan with Doric-Tuscan elements. On the high square basement, there is the famous inscription, flanked by victories and sculptures that present trophies of weapons to which the captives are chained. Several hundred ancient blocks are incorporated at this altitude, the missing parts being restored and the sculptures integrated as half-finished. On the circular plate, where several columns are erected, some fragments that probably belong to statues of general are hung on the wall, behind the colonnade. The metopes of the limestone frieze are adorned with various motifs: armor (heroic representations in Roman sculpture/armor), the bow of the ship, and the head of the cattle adorned with strips.

The facade has been partially reconstructed. Behind it, the monument remained open and reveals the original state. In this area there is a massive structure, composed of strong walls and a huge amount of mortar commonly used in Roman architecture. The central cylinder composed of radial pillars, which constitute the foundations of the columns of the circular plate, is clearly delimited. These materials are extracted from the trophy quarries. For decoration, sculptures, and inscription, the marble was imported from Carrara, in Liguria.

The reconstruction of the Trophy of the Alps was achieved by integrating the pieces, which led to completing the overall image, significantly altering the conical part and the roof, to support the statues of Augustus and the two captives positioned at his feet. The new reconstruction significantly modifies the conical part and the roof surmounted by a hexagonal floor with a circular base, to support the statues of Augustus and the two captives at his feet. Thus reconstructed, the monument in the locality of La Turbie shows a great resemblance of the outline architectural lines with the triumphal monument of Adamclisi. Even J. Formigé points out that in the reconstruction of the La Turbie monument, it was attracted by the architecture of the Adamclisi monument.

The Trophy of the Alps that has dominated over time and so far dominates the Principality of Monaco is an exceptional symbol dedicated to Augustus, which he honors as a god. His position, which seems to be derived from Greek mythology, from the life of Hercules, is the expression of the deity of the emperor as the son of God, promised to be deified. Augustus also goes after the great conquerors Domitius Ahenobarbus, Pompeii and Caesar, and even, before them, Hannibal.

Although located in a somewhat more difficult environment, this monument has always attracted the visiting public—Romans, barbarians, poets, and tourists. The commune La Turbie is proud to own one of the two Roman monuments, the one dedicated to the first Roman emperor, Augustus, located at the ends of Europe. The second, dedicated to Emperor Trajan, is in Romania [13].

This extremely impressive and important monument signifies for France also the monumental proof of the trace of the border between Gaul and Italy on the ridge of the Alps. Recovering its monumentality, the trophy becomes the signal monument of origin, which marks the border of the Alps at the same time as it affirms peace. The intention and success of the restoration of the monument and its inclusion in the French national heritage support the highlight of the interest of the states of Europe to encourage the writing of their national history. Archeology and monumental heritage are promoted as illustration or proof. The monument becomes the signal of national history in the landscape [14].

3. Tropaeum Traiani

At the beginning of the twentieth century, an archeological complex of great significance was discovered in Romania, one of the most valuable ancient Roman monuments on the Romanian territory [15].

They are the ruins of the triumphal monument [16–19] and of the fortress of Tropaeum Traiani, located in the present locality Adamclisi, Constanța county, in Dobrogea. Here, in the winter of 101/102 A.D., the battles took place between Romans and Dacians (allies with the Sarmatians) [20].

The triumphal monument from Adamclisi is part of the category of military construction works raised in gratitude for the Roman conquests led by Trajan. During this period, the conquest of Dacia represented the triumph of Emperor Trajan. The specialized literature records the fact that during the years 98–103 A.D., the Romans concentrated on the Danube specialists in engineering works that raised the bridge over the Danube, moved the Danube riverbed, and restored roads, and the triumph over the Dacians determined the erection of a monument as a sign of the victories gained, a monument paved with drawings on panels that were scenes during the battles [21].

The Adamclisi monument is located on the highest hill in the area, a specific location in the ancient world. This monument represents a combination of the architectural relationship with the structural composition accompanied by narrative and iconographic elements. It can be appreciated that, from an architectural point of view, the elements of the monument were made by the same architect, Apolodor from Damascus [21].

It is not known how long the triumphal monument has been unbroken. It seems that in the second and third centuries A.D., it suffered degradation caused by earthquakes or human activity. In 170 A.D. the citadel of Tropaeum Traiani was subjected to the attacks of the Goths.

Its state leads to the hypothesis that it was either attacked or destroyed by an earthquake until 316 A.D.

The impressive monument, circular in shape (**Figures 4 and 5**), was erected from the disposition of Roman Emperor Trajan in 109 A.D. The battle scenes were carved in bas-reliefs on large blocks of stone (metopes), which surrounded like a wide belt the monument. Around it, the monument had seven rows of stone steps, and above it stood a pedestal bearing the carved statue of a warrior dressed in armor. Only the central part, like a huge earthen mound, has been preserved from the monument. The ruins of the fortress Tropaeum Traiani, one of the largest Roman civil settlements in Dobrogea, stand on a nearby hill.

Thus, the Tropaeum Traiani is a Roman monument, built in honor of Trajan between 106 and 109 A.D. to celebrate the Roman victory over the Dacians in 102 A.D. He was rebuilt in 1974–1977, after one of the hypothetical models of the old monument in ruins. Parts of the original can be found in the museum housed inside it.

The first excavations were undertaken in 1882 by Grigore Tocilescu.

The monument, which was reconstructed by archeologists, consists of a cylindrical base, based on several rows of circular steps, and at the top a conical roof, with scales on concentric rows of stone, from which the hexagonal superstructure rises. At the top is the bifacial trophy, featuring an armor with four cylindrical shields. At the base of the trophy are two statuary groups.

The height of the monument together with the trophy is approximately equal to the diameter of the base, that is to say about 40 m. Around, the 54 metopes of the limestone of Deleni depict war scenes in bas-relief. The metopes were rectangular slabs with a height of 1.48–1.49 m. Of the 54 initial metopes, 48 are still preserved.



Figure 4.
Tropaeum Traiani, Adamclisi, Constanța county (Romania).



Figure 5.
Tropaeum Traiani reconstruction [21].

Above the metopes is a frieze with 26 battlements, of which only 23 were preserved, also carved in bas-relief, which make up the crown of the circular core.

The ensemble also contained a funerary altar, the walls of which were inscribed with the names of the approximately 3800 Roman soldiers probably fallen in the Adamclisi battle, and also a concentric wall with 3 concentric walls, where it appears that the commander (*praefectus castrorum*) was buried.

At 2 km west, the Roman fortress Tropaeum Traiani was founded by Trajan, which is mentioned in the inscriptions for the first time as a municipality in 170 A.D.

Under the ruins of the monument, the remains of martyrs in the name of Christianity have been hidden for millennia [17].

The only evidence regarding the configuration of the Adamclisi monument appears to be sketched on the Tomitan coins of Trajan's time. These numismatic documents can be another proof that the work was completed in the period 108–109 A.D. [22].

After a long period, in the nineteenth century, the monument appears destroyed about a third of the height and uncovered the entire architectural envelope. There is the hypothesis of its destruction in the first stage of earthquakes of the second and third centuries. The monument as a whole was composed of the triumphal monument, altar, and tumulus. It is known that in 170 A.D., the city of Tropaeum Traiani was subjected to the unleashed attacks of the migratory peoples (the Goths). It is possible that some of the damage also belongs to this period [21].

Since the fourth century, the Christian religion is officialized, which is why there are a number of offenses by people who still shared the pagan philosophy against the ancient cults represented by sculptures and images. The notes from the "Life of St. Honoratus" highlight the fact that there was an action initiated by him for the demolition of the statues on the top of the similar monument built in France, in La Turbie. Probably a similar attitude existed for the Adamclisi monument. Towards the end of the fifth century A.D., more precisely in the year 477, there was a great earthquake [23] which led to the inclination of the edifice, found by the topographic elevations carried out later [21].

The location of the monument is characterized by a loessoid terrain but also by a seismic sensitivity, considering the proximity to the Silistra-Varna region. The archeological studies carried out in the field have found fragments from the inscriptions of the triumphal monument and of the altar used as a building stone in the late Roman era [24].

Therefore it can be considered that the upper part of the monument from the cone trunk of the roof upwards was destroyed by a great earthquake, after which there was a period when the inhabitants of the city of Tropaeum took this monument stone, even some slabs with inscription to repair the enclosure wall but also to erect other buildings.

Thus, it can be appreciated that the scattering of fragments took place between the fifth century and the beginning of the nineteenth century. During this time, after establishing the capital of the Ottoman empire in Constantinople (today Istanbul) in 1453, the specialized literature records that in the Dobrogean area, a Turkish general arrives, who mentions in writing for the first time the presence of a special monument, extracting and sending to Constantinople a sculpted metope.

If these stones of the monument were partially found again, the specialized literature records that the stone scales that made up the monument's cover were no longer found during the archeological excavations carried out between 1882 and 1890.

In 1801, Lord William Bentinck, passing from Egypt to Constantinople, made a relief of the monument with a brief description, appreciating that it was made of brick plated with decorations from the battles fought. A similar description is made by the Prussian officer Karl von Vincke-Olbendorf [21, 25].

In 1855, engineer Jules Michel, a member of the French mission Lalanne, being appointed with the accomplishment of a road and railway in the Dobrogea area, visited the monument and made a brief description of the ruin. And he, like the other visitors, appreciated that the monument has a Roman character.

The first records in Romanian about the triumphal monument from Adamclisi appeared in the newspaper *Farul Constanta* on May 12, 1880, when the first Prefect of Constanta made reference to this objective, and in the same period in the archeological journal, the article of Mihail C. Șuțu is published who points out that the monument has been altered over time.

Research carried out between 1882 and 1890 revealed about 1680 stones removed from the ruins, including fragments of stone lions, pieces of friezes, pilasters, stone scales, and some inscribed tiles. In the structure of the foundation was identified a layer of 1.48-m-thick concrete on which the pedestal was placed [21].

The Adamclisi monument is not only a work dedicated to the battles but also a summit of the scientific thinking of the respective period applied in the art of construction. The Romans had knowledge about the quality of the foundation lands, about the loess, which explains the construction of the concrete pavement and at the same time that they knew the dosage and composition of the concrete. From the study of the elements of the construction, it appears that the ancient architects and engineers observed the existing principles synthesized by Vitruvius Pollio in *De architectura* [8].

The technique of building the triumphal monument, the dry masonry, and the very fine-processed stone blocks highlight the preparation and the level of knowledge of the colossal blocks at that time.

The wall of the Adamclisi monument is worked in the *opus quadratum* technique, without mortar, with Greek influence, only the *emplecton* denoting the Roman technique [8].

With reference to the architectural conception, the triumphal monument appears as a creation of the era of Trajan. It can be appreciated that the architect who made the initial plans was Apollodor of Damascus who in the same period also made the bridge over the Danube.

The development of the volumetric registers vertically, the construction of the base to support the weight of the top statue, required a design “in floors,” which led to a construction with a diameter of about 40 m and a height of 40 m.

It is noteworthy that A. Furtwangler [7, 21] considers the alternation of the different floors of the constructions from Tropaeum Traiani and from La Turbie. In support of these theories, he refers to the lighthouse in Alexandria, which was built between 300 and 280 B.C., kept in its original form until the eighth century A.D. and which consists of three floors. The Adamclisi monument can be considered a Roman art monument from the time of Trajan, as an expression of the Hellenistic tradition.

The first archeological excavations were carried out by a team led by G. Tocilescu (the first Romanian archeologist), who began to research the Adamclisi ruins in 1882, following four other campaigns in 1883, 1884, and 1890, the archeological research being carried out by the Romanian archeologist in collaboration with Otto Benndorf and George Niemann [26].

In 1895 appears the work *The monument of Adamklissi, Tropaeum Traiani* [22]. Impetuous discussions have appeared in Romanian historiography, if this monument is or is not built by Trajan. Tocilescu calls this monument the second column of Trajan, but even Nicolae Iorga doubted the idea that this colossal construction was built in the time of Trajan. However, the archeologist shows in a study that the trophy was raised by Trajan in 109 B.C. and the proof is in the inscription on which the name of victor Decebal was read.

The excavations highlighted fragments from the monument's inscriptions used as a building stone from the late Roman era. A specialized literature (William Bentinck's *Travel Journal*, published in *The Journey of an English Aristocrat Through Balkans*, in 1801) gives a brief description of the monument's ruin as it appeared then. In this work are presented some sketches of the monument.

In 1856 C.W. Wutzer, a surgeon, professor at the University of Bonn, makes a presentation of the monument, describing even some pieces of architecture that were scattered on the floor.

In 1864 Karl Ferdinand Peters, a professor at the University of Graz, who came to document the geology and mineralogy of Dobrogea, made a detailed sketch of the monument.

From all these descriptions, it turns out that at that time, the monument was a huge dome-shaped masonry surrounded by massive deposits of earth and debris, where shrubs had grown, among which were carved stones.

After 1878 the archeological research in Dobrogea began, in 1882, under the leadership of G. Tocilescu (at that time director of the National Museum of Antiquities in Bucharest), excavation works began, finding that there are deposits with the thickness of 3–4 m. In the following period, the ruin was completely revealed, recovering from the ruins a large number of architectural pieces and sculptural elements that had once formed the shell of the monument.

With the beginning of archeological research around 1890, this monument was still imposing and stood out. Then, in 1890, from all the monuments, the aftermath of a massive construction was only seen, 16 m high, built of limestone boulders linked with mortar and surrounded by nine rows of steps of which seven are visible. Research has shown that at the top was a prismatic construction of large shaped blocks, a tower with a quadrilateral section with slightly uneven sides. This tower with the quadrilateral section with slightly uneven sides is placed in the middle of the monolithic nucleus of the cylindrical body, and this is reported in the writings of Vincke and Moltke.

The first graphic reconstruction of the trophy was made by the Viennese architect George Niemann and designed by him as it was in his opinion during Trajan's time.

According to the aforementioned project, the trophy contained a lot of registers which, from bottom to top, were arranged as follows:

- The ladder is composed of nine rows of steps, the only element in the clothing exterior of the monument, which was preserved almost entirely on the original site, the small displacements being due to the settlement of the earth and the tectonic movements [7].
- The platform promenade consists of a 1.75-m-wide platform, consisting of sculpted elements (alternating piles of metopes).
- The socket from the base of the cylinder is represented by a row of blocks (height of 0.56 m) connected to each other by folded metal plates.
- The wall is represented by six rows of non-ornamental blocks, with a height of 0.59 m and a length varying between 0.95 and 1.20 m.
- The lower frieze is the first ornamented architectural element consisting of parallelepiped blocks.
- The upper frieze is formed by blocks of 0.67 m height.
- The cornice is based on a torus worked in the form of a spiral (*torsada*); the blocks are shorter than the two strips; the cornice is executed very simply, based on a torus.
- The crenelated parapets are made of rectangular slabs, and each captive is carved with a captive tied to a tree. Of the 26 battlements, almost 23 were kept in front. In front of the crenelated parapet were two carved lions placed from

the same limestone from which the water flows from the roof; the roof had, according to Niemann's calculations, a slope inclination of 30 degrees.

- The hexagonal construction was on two floors supporting the trophy itself. The correct reconstruction of this part of the trophy was performed by the Munich archeologist A. Furtwangler [7, 21].

This was the Adamclisi Trophy after the reconstruction of Niemann and Tocilescu. The quarries from which the stone for the construction was extracted are located on the Enigea valley, about 4 km away from Adamclisi, and the research carried out in the 1970s proved the truthfulness of Tocilescu's words.

The sculptures of the monument can be grouped into two categories [27]:

a. Ornate sculptures

b. Figurative sculptures

The upper frieze forms a pendant with the lower frieze. The blocks were 67 cm higher than those of the lower frieze. The ornament consists of braided spirals like some ropes, alternating with palmettes. The blocks were shorter than the two strips but wider. The crenelated parapet forms the decoration of the upper part of the cylindrical body.

The battlements were formed by the succession of rectangular slabs; on the outer surface of each crenel is carved a defeated one tied to a tree. Behind the crenelated parapet was the conical roof made of stone slabs, in the form of scales, arranged in 25 concentric rows; the scales were higher in the first rows gradually decreasing at the top.

On the inner tower in the center of the cylindrical body, constructed of molded blocks, a hexagonal construction was supported on two floors, which supported the trophy itself.

The metopes were rectangular slabs as high as the pilasters (1.48–1.49 m). Of the 54 metopes, 49 whole or fragmented pieces were recovered, today having a corroded relief so that the content of the scenes can hardly be distinguished.

A group of metopes represents Trajan. Another metope group represents the Roman soldiers in the march, standing still. Most of them depict battle scenes, by representing the bravery of the Roman army, and in many scenes wounded and dead are seen only between the Dacians and their allies. A special two-piece group reveals a Roman legionary who pierces a man with a spear, the woman stands with her arms outstretched, and a child runs around the chariot. The last group of metopes portrays the end of the battles, the victory of the Romans, and the taking of prisoners (in chains) of Dacian men and women.

The first variant on the positioning of the metopes belongs to Tocilescu-Benndorf, recorded in the monograph published in 1895. According to these records, the arrangement of the metopes could have been according to those carved on Trajan's Column, which sought to reconstruct the narration of the two Dacian-Roman wars, divided into two equal segments for each war and for half of the number of metopes, respectively 27 [28].

In addition to the carved metopes can be found other carved elements such as battlements with captives, where in each battlement there is carving of a prisoner tied to a tree.

A very important factor in the construction of these metopes also had the fact that they were carved by groups of different master craftsmen (five groups) according to the degree of professional mastery (some made human sculptures in a clumsy way, but others were very knowledgeable of the proportions of the human body).

The analysis of the architectural composition shows that the architect who elaborated the project of the triumphal monument from the Tropaeum Traiani was aware of all the monuments of the time: Eastern, Greek, and Roman from the Mediterranean. G. Tocilescu calls the cylindrical body with the truncated roof “tumulus.” In this context, he considered the resemblance of this monument to the funeral monuments in Italy. Therefore, the presence of the cylindrical body with grooved edge and conical roof is of Italian inspiration. The type of monument with a cylindrical drum and the circular base on which a statuary group is placed resembles that of La Turbie from this point of view. It can be appreciated that in the case of the Adamclisi monument, the architect was inspired by the cylindrical body of the Italian funeral monument drum.

The hexagonal base existing above the structure, composed of two floors, also has components from the monuments of Italy, but the monuments created in the Hellenistic era, which had trophies on a polygonal plane, are not excluded.

The last architectural part of the Adamclisi monument is the *tropaion* that surmounted the upper hexagonal base, otherwise a very widespread element in the Roman Empire, which can be seen as a “ready-made” takeover, and is therefore original in the variant of the Adamclisi monument.

The research carried out during the period 1960–1963, in the area of the steps and the foundations, revealed the existence of a modular frame of the triumphal monument. It is worth noting that the height of both monuments is 6 Roman feet, respectively, $6 \times 17,742$ m (the latter represented the standard in the Roman army for a Roman legionary soldier).

After the 1960 research, the diameter of the construction was recorded as 40.21 m, which represented 136 feet and 22 modules, and what exceeds this dimension belongs to the foundations and sidewalks. The perimeter corresponding to the base step is 126.26 m or 427 feet, so 71 modules in 1/6 ratio. From the center of the monument to the fourth step is 18.63 m, respectively, the sum between the radius of the wall 15.26 m and the upper 3.37 m [21].

The modular network of the monument is preserved 1.7742 (6 feet = one module) and forms the basis of the constructive system.

The diameter of the foundation is 42.58 m, respectively, 144 feet and 24 modules. The angles alternate between 30 and 60 degrees.

Inside the cylindrical drum, there is a square-shaped masonry core which represents the center of the monument and whose depth in the ground can be appreciated to 1/3 of the height of the monument [21].

With reference to the architectural conception, the triumphal monument appears as a creation of the era of Trajan. The development of the volumetric registers vertically, the construction of the base to support the weight of the top statue, required a design “in floors,” which led to a construction with a diameter of about 40 m and a height of 40 m.

After the reconstruction of this triumphal monument Tropaeum Traiani from Adamclisi appears in Vienna, in 1895, the work *the triumphal monument Tropaeum Traiani from Adamclisi*, belonging to the authors G. Tocilescu, G. Niemann, and O. Benndorf. After 10 years Teohari Antonescu publishes in Iassy *Le trofée d'Adamclisi*. Minister Mihai Kogălniceanu gave G. Tocilescu's proposals to rebuild monumentally damaged at that time, but not in Adamclisi, but in Bucharest. This decision recognized the historical value of the monument. M Kogălniceanu obtained the necessary funds for this project, which is why at the beginning of the twentieth century, the stage of transfer of the pieces of great historical importance to Bucharest began.

The project of restoration of the monument in Bucharest, as it results from the records of archeologist Adrian Rădulescu, has dragged on for many years. The

transfer of the pieces is blocked in 1909, when a considerable number of pieces with many transshipments from the old ones that were already transported in ships wagons and then deposited first at the university, from where they were transported to the National Museum of Antiquities, after which in the Freedom Park where they remain until 1948. In 1948, thanks to Horia Teodoru, Professor at the Faculty of Architecture, the sculpted pieces including the statue are deposited at the History Museum in Bucharest.

However, the desire to restore and rehabilitate the monument even in Dobrogea is reinstated in the period 1957–1969 when Vasile Caranache organizes the Dobrogea Archeology Museum, which also includes the Tropaeum Traiani. Contemporary with this period, A. Rădulescu reports on the difficult road of implementation of the project of historical reconstruction of the glorious monument to the place where it was born 2000 years ago (**Figures 6 and 7**) [29].

Even if authenticity could be interpreted as illusory, historical expressiveness was undeniable. In 1960 there is a first debate followed by many others, by which the specialists propose two variants: the first solution was to restore the pieces from Bucharest to Adamclisi and the reconstruction of the missing ones, and the second solution was to keep the original pieces at the History Museum in Bucharest and the creation of a copy that respects the architectural lines, the geometry, and the volumetry of the monument but with copies made of stone according to the original ones. After long debates, the second version was approved, and it became applicable only after 12 years. In 1973 the works begin so that in the year of the centenary, 1978 (100 years after Dobrogea's joining the Romanian State), the monument was rebuilt with new technology using a metal structure clad with stone pieces from the same quarry exploited 2000 years ago, which recreates the conditions for cultivating the historical heritage. All these stages are fully presented in publications published after 1960 (**Figure 7**).

They were published on this occasion, papers comprising the research results, both in PONTICA magazine, e.g., the works of the *Triumphal Monument Tropaeum Traiani from Adamclisi* [22] or *An act of patriotic significance - Reconstruction of the triumphal monument from Adamclisi* [29], as well as to the Romanian Academy Publishing House, in a second volume of the monograph *Tropaeum Traiani* with subtitle *Roman Monuments* [21] and *Tropaeum Traiani Monument and fortress* [30] in the period that followed.

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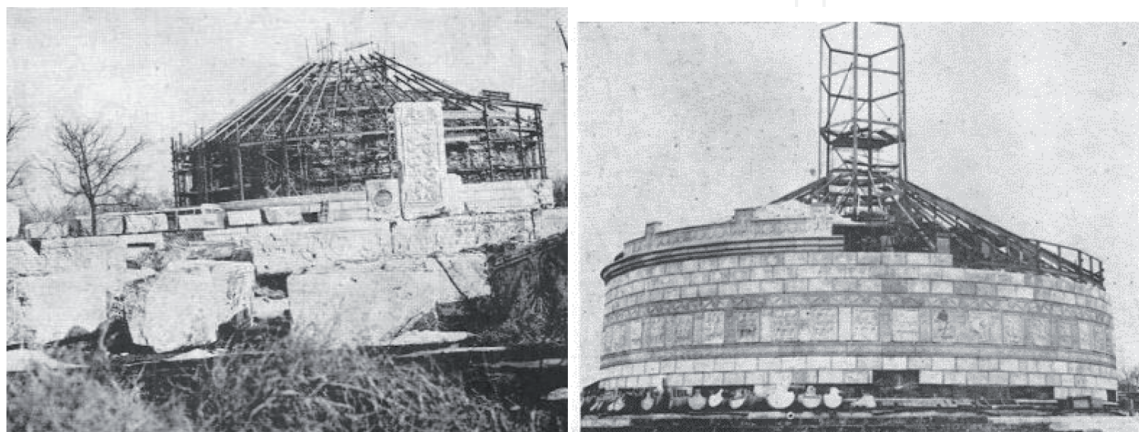


Figure 6.
Images during the work of reconstruction [29].

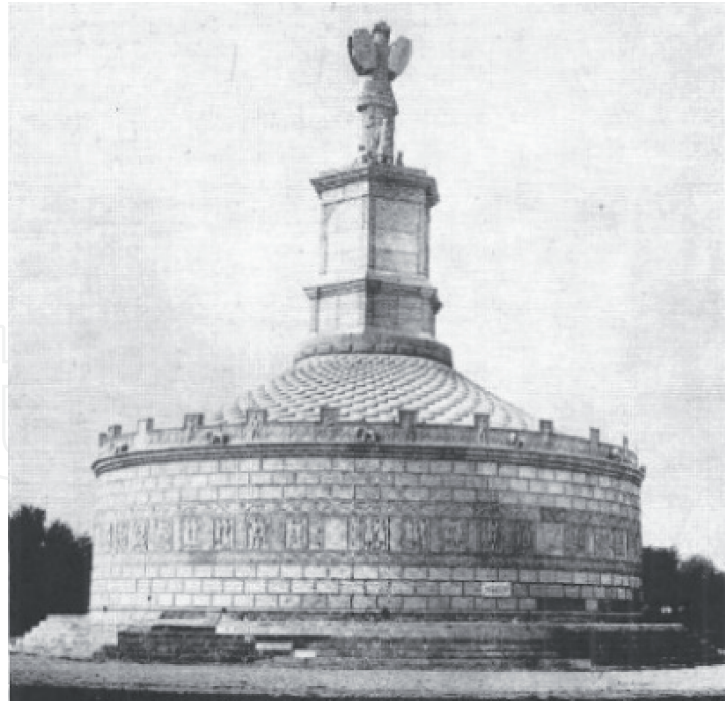


Figure 7.
The restored monument [29].

subtitle Roman Monuments [21] and Tropaeum Traiani Monument and fortress [30], in the period that followed.

The Roman triumphal monuments from La Turbie and Adamclisi show both *similarities and differences*, between them, from a constructive point of view and from the point of view of the conception and manner of restoration.

4. Similitudes and differences

4.1 Similitudes

The triumphal monuments signify the military victory of the Roman empire over some foreign and distant territories and peoples, Gaul and Dacia, respectively.

Both monuments are cylindrical in shape and are inscribed and decorated.

The buildings, with their surroundings of historical importance and with the related archeological discoveries, continue to appear in the contemporary tourist circuits, increasing the prestige and importance of the respective historical and archeological sites, with their documentary, cultural, and spiritual load.

Monuments belong to the category of military construction works raised in gratitude for the Roman conquests led by emperors Trajan and Augustus.

Both monuments are located in a high, representative position, with specific visibility as well as the ancient world.

The great height of the two monuments served not only the constructive purpose but more for the successive and gradual embodiment of the Roman idea of triumph, respectively: the victory is described by plastic through the register of metopes, the submission of the defeated ones in the images carved on battlements that are finalized with the materialized triumph, and the trophy with top weapons that crown the monument.

Both monuments were destroyed and restored.

Both monuments date from the Roman era, and methodologically the geometric principles of architectural composition were applied.

It is noteworthy that A. Furtwangler considers the alternation of the different stages of the trophies at La Turbie and Adamclisi as similarity. In support of these theories, he refers to the lighthouse in Alexandria, which was built between 300 and 280 B.C., kept in authentic form until the eighth century A.D. and which consisted of three floors. The Adamclisi monument and in fact also the La Turbie one can be framed as an expression of the Hellenistic tradition in a Roman art monument of the time of Augustus and Trajan, respectively.

The shape and dimensions of the two monuments are comparable and strikingly similar to one of the Seven Wonders of the World—the Mausoleum at Halicarnassus (completed in 350 B.C. and which collapsed after 850 years). The latter has a configuration similar to the monument of La Turbie—the square base with the height of the base of 12 m and a total height of the monument of 49 m, respectively.

The same architectural composition of the base is found as in the monument in France, built at La Turbie, at the Tivoli temple. And in the Orient, there is the architectural composition described, isolated at the Roman mausoleum in Adalia (Delik Tas), and located on the coast of Asia Minor (historical research records locate this last monument somewhere in the second century, an aspect that excludes it from the category of the two compared monuments).

The type of monument with cylindrical drum and with circular base can be found in La Turbie. Another architectural component of the Adamclisi monument is the hexagonal base on the structure, composed of two floors, an element that corresponds to numerous monuments in Italy.

From an architectural point of view, also at the Adamclisi monument, it can be identified the circular base, the cylindrical drum, and a hexagonal structure, on which the trophy is placed, an expression of the repertoire of the Roman architecture. The existence of the steps around the circular base is the expression of the Greek architecture which at that time intersected with the monumental Roman architecture.

Both monuments have the main register consisting of metopes and pilasters. The upper friezes form a pendant with the lower friezes. The lower friezes of both monuments represent the first ornamental architectural element.

Jules Formigé notes that in the main part of the Adamclisi monument, the architectural forms from La Turbie would be reproduced, and he also notes other similarities among which the hexagonal base that supports the statues, two captives, the height of the cylindrical drum heights, a.o.

Both monuments were subjected to the destruction and reconstruction during about 2000 years.

The image of the Alps monument has been reconstructed graphically three times: by architect and archeologist George Niemann, by J.C. Formigé, and by Jules Formigé (father and son) who, following archeological research, collected over 3000 fragments of stone and marble that came from the building. After G. Niemann collaborated in the reconstruction of the triumphal monument at Adamclisi from 1890 to 1895, under the guidance of G. Tocilescu and with O. Benndorf, he also helped to reconstruct the triumphal monument in the Alps.

Roman builders have appealed since the third century B.C., at *opus caementicium*, a technique clearly apparent in the trophy from La Turbie and a technique found also to achieve the Adamclisi monument.

The monument of La Turbie is mentioned in a poem from the thirteenth century, which refers to the monument called “La Tor del jayan” (Tower of the Giants), about which the destruction of the statues of the peak, considered as representing idols, is recorded, and the trophy of Trajan was mentioned timidly in the fifteenth century and after only another 400 years later.

4.2 Differences

Tropaeum Augusti was built in the year 6 B.C. in honor of Roman Emperor Augustus to celebrate the definitive victory over the 45 Alpine tribes, and Tropaeum Traiani was raised in honor of Roman Emperor Trajan between 106 and 109 A.D. to highlight the definitive victory over the Dacians in 102 A.D.

Currently, the two monuments illustrate two different conceptions and ways of reconstruction: Tropaeum Augusti preserves the original ancient construction consolidated, thus having an incomplete aspect of the edifice, while Tropaeum Traiani was subsequently renovated, presenting a complete aspect of the edifice.

The monuments contain different constructive, structural, and decorative elements.

From the point of view of the restoration solutions, it can be appreciated that by the restoration solutions applied to the two monuments, they differ, motivated by the fact that:

- The reconstruction of the trophy in La Turbie Alps was achieved by integration of the original pieces and partly by reconstruction, which led to the complete image of the whole, while preserving the authenticity of the monument, noticeably altering the conical part, the roof, to support the statues of Augustus and the two captives positioned at his feet. Very little restored, combining anastylosis with reconstruction, the facade allows to understand the structure of the monument as well as the techniques applied by the Romans. Quite remarkable constructors, the Romanians have combined in their constructions rationality and greatness.
- The reconstruction of the triumphal monument from Adamclisi respects the architecture and the geometry of the original monument but was made in exchange from new materials, so that the authenticity is no longer preserved.

For both countries, France and Romania, the restoration of these two monuments represents a national and patriotic desire, charged with historical substance, and represents the stone chronicle of the great warrior epics of the two countries.

5. Conclusions

The monuments of Tropaeum Augusti and Tropaeum Traiani constitute by their designation and symbolism the birth certificates in stone and attest the Latin origin of the French and Romanian peoples and languages.

The durability of these imposing buildings over time represents the guarantee of the inheritance of Romanity and Latinity in the two European extremities, western and eastern, respectively.

The quite remarkable achievements of the Roman architecture and engineering have kept their tourist interest until now, appearing in most of the touristic circuits organized in the two maritime areas, the Maritime Alps (France)/Monaco Principality and Dobrogea/Constanța (Romania), respectively.

As shown, both monuments at La Turbie and Adamclisi represent the historical expression of the bravery of the Roman people, using art in conception, sciences in structure composition/structure geometry, and science and technology of materials and sculpture.

These monuments represent not only an ancient work dedicated to the victories but also a summit of the scientific thinking of the era applied in the art of construction.

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References

- [1] Bologa AȘ. În fuga anilor. Constanța: Ed. Ex Ponto; 2017. 329 p
- [2] Guide du Pneu Michelin, Côte d'Azur Haute Provence. 1954. pp. 143-144
- [3] https://fr.wikipedia.org/wiki/Trophée_des_Alpes
- [4] https://en.wikipedia.org/wiki/Tropaeum_Alpium
- [5] https://de.wikipedia.org/wiki/Tropaeum_Alpium
- [6] Romanian Dexonline
- [7] Popescu Prelipceanu AE. Misterul monumentului antic de la Adamclisi. București: Ed. Brumar; 2018. 106 p
- [8] Fiche de visite-Centre des monuments nationaux-Trophée d'Auguste a La Turbie
- [9] <https://journals.openedition.org/insitu/docannexe/image/20293/img-16.jpg>
- [10] <http://www.mediatheque-patrimoine.culture.gouv.fr>
- [11] <https://journals.openedition.org/insitu/docannexe/image/20293/img-10.jpg>
- [12] Binninger S. Le trophée d'Auguste a'. La Turbie: Éd. du Patrimoine; 2009. 64p
- [13] <http://www.as-lashha.com/medias/files/2011-10-15-sti-ml-turbie.pdf>
- [14] Le patrimoine monumental du comté de Nice entre France et Piémont
- [15] Papuc G. Complexul muzeal de la Adamclisi. Ghid ilustrat, Ed. Ex Ponto; 2019. 46 p
- [16] https://ro.wikipedia.org/wiki/Tropaeum_Traiani
- [17] <https://sites.google.com/site/cetatidindobrogea/tropaeum-traiani/Magazinculturalstiintific>
- [18] <https://www.youtube.com/watch?v=9g86cuK4lJA>
- [19] https://en.wikipedia.org/wiki/Tropaeum_Traiani
- [20] Rădulescu A, Bitoleanu I. Istoria Dobrogei. Ed. Ex Ponto; 1998. 640 p
- [21] Sâmpetru M. Tropaeum Traiani-Monumente romane. Ed. Acad. Rom. 1984. Available from: www.cimec.ro
- [22] Florescu FB. Monumentul de la Adamklissi. Ed. a II-a, Acad. Rom. 1961. 750 p
- [23] Grumel V. Traité d'études byzantines. Paris: La Chronologie; 1958. pp. 477-478
- [24] Cronica cercetărilor arheologice din Romania, MIC, pp. 12-13. Available from: <http://patrimoniul.gov.ro>
- [25] Culture, histoire et patrimoine de Passy; 2019. Available from: www.forgottenbooks.com
- [26] Tocilescu G, Benndorf O, Nieman G. Das Monument von Adamklissi: Tropaeum Traiani. Wien; 1895. 150 p
- [27] Barbu V. ¹Monografie-“Trofeul lui Traian”. București: Ed. Albatros; 1987. 1018p
- [28] Papuc G, Bodolică V. Despre amplasarea metopelor de la monumentul triumfal Tropaeum Traiani, Pontica. Vol. 41. 2008. pp. 393-402

[29] Rădulescu A. Un act de semnificație patriotică-Reconstituirea monumentului triumfal de la Adamclisi, Pontica. Vol. 10. 1978. pp. 9-14

[30] Rădulescu A. Tropaeum Traiani Monument și Cetate. Ed. Sport Turism; 1988. 196 p

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