

SPATIAL ANALYSIS OF THE KOSMAJ MEMORIAL COMPLEX: BETWEEN KERNFORM AND KUNSTFORM

ABSTRACT

The paper examines the Kosmaj Memorial Complex using tectonic theory to reveal its architectural, social, historical, and aesthetic values. The analysis explores the dichotomy between Kernform (core form) and Kunstform (art form) to provide insights into the synthesis of structural rationality and aesthetic expression within the monument. The research methodology focuses on spatial analysis, which consists of field surveys, geometric assessments, material studies, and archival investigations. A central aspect of the study is the examination of the interrelationship between construction and structure, emphasising the integration of architectural and sculptural elements. To disclose the complex's spatial and symbolic characteristics, the study emphasises the geometric analysis of the monument's components as well as its materialisation, construction methods, and technological execution. The research further addresses the current condition and use of the Kosmaj Memorial Complex, providing recommendations for its preservation and adaptation. Despite the lack of archival documentation, the methodology demonstrates how fieldwork and systematic analysis can uncover the monument's tectonic values, offering a framework for future studies of Yugoslav memorial architecture. This study highlights the Kosmaj Memorial's significance as a confluence of artistic desire and structural integrity by presenting it through the prism of tectonic theory.

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KEY WORDS

KOSMAJ MEMORIAL COMPLEX
MONUMENT OF NATIONAL LIBERATION WAR IN YUGOSLAVIA
VALUE OF THE MEMORIAL ARCHITECTURE
TECTONICS
PROTECTION OF THE MONUMENT

The first relevant information is found in the literature and previous research. In the journal *Urbanism of Belgrade No. 5*¹, information about the competition and preliminary designs was found. Additionally, in the *Spomenik database*², there is a significant overview of historical information about the monument that points to further research. The first part of the paper introduces us to the location of the complex, goes through competition design proposals and finds archival documentation while also defining the problems of obtaining appropriate documentation in future research on Yugoslav monuments of the National Liberation War. The second part of the paper presents a spatial analysis of the complex with the attached author's graphic and photo documentation.

The research aims to find the hidden values of the Monument to the Kosmaj Partisan Unit (Figure 1). Many details and data about the monument are lacking, which is mentioned in only a few places in the literature on architecture in Yugoslavia during the National Liberation War.

The research methodology begins with various analyses, including observations, fieldwork, and mapping. Using tectonic theory, the relationship between form and construction is considered. Additionally, the user experience is compared with postulates of didactic theory, and the form of the monument is analysed using universal topics of contemporary sculpture. Steps in the research process also involve searching for documentation through different institutions, summarising processed information, describing and comparing data, and ultimately drawing logical conclusions and making recommendations regarding the protection and use of the monument complex.

The list of institutions to which a request was sent for any documentation about the monument begins with *the Institute for the Protection of Cultural Monuments of the City of Belgrade*³, where it is found that the monument is not under any protection, and there are no tendencies to protect it. For more detailed information, *SUBNOR⁴ Serbia* refers to *SUBNOR of the Municipality of Sopot*, where their role in preserving the monument is still unclear. They do not have their archive, but they cooperate with the *Archives of the Municipality of Sopot*⁵, which is also not transparent and up-to-date, posing an additional problem in further cooperation and attempts to find the appropriate documentation. They do not have technical documentation about the monument (they claim that the contractor has it), but they have certain decisions that can serve as input in other institutions. In the *Historical Archives of Belgrade*⁶, within the *City of Belgrade Fund - City Secretariat for Education and Culture*⁷, contracts between the *City of Belgrade* and the *Municipality of Sopot* were found, regulating the financing of the monument, but also mentioning the *Decision on the establishment of committee for the construction of monument*⁸, as well as *Decision on the construction of monument*⁹ that can serve as input in the archives of the *City Secretariat for Urban Planning and Construction*¹⁰ to find technical documentation of the monument. Also, among the documents from the *Historical Archives*, a confirmation was found that the contractor for the monument was the *Construction Company Komgrap*¹¹. Since the company is bankrupt, its archive is not in the *Historical Archives*, so the recommendation is to contact the bankruptcy trustee and obtain permission through the *Commercial Court in Belgrade*¹² to access the archive. This was done, but the request was rejected with the explanation that there is no technical documentation for the monument in the Komgrap Archives. In *the Archives of Yugoslavia*¹³, as one of the last institutions where documentation is sought, only documents revealing the cause of inadequate protection of the monuments of the National Liberation War, including the Monument to the Kosmaj Partisan Unit, were found.



FIGURE 1: Monument to the Kosmaj Partisan Detachment (Unit) [Author, 2021]

1. MEMORIAL PRACTICE AND VALUES OF THE MONUMENT THROUGH TECTONIC THEORY

1.1 Monuments and Memorial Practices in Socialist Yugoslavia

The memorial practices of socialist Yugoslavia present a unique context where political, cultural, and artistic dimensions shaped monumental expression. In Yugoslavia, Spomeniks (monuments) became cultural and political phenomena, intertwining collective memory, identity, and public space¹⁴. As Bojana Pejić notes¹⁵, monuments materialise collective memories and act as sites where state power and societal consciousness converge, transcending commemoration to engage in cultural and political discourse.

The Kosmaj Memorial Complex epitomises the spatial and symbolic innovation of Yugoslav post-WWII commemorative culture and embodies an artistic and ideological heritage rooted in its sociopolitical context. This paper employs tectonic theory—an architectural framework uniting structural, material, and symbolic considerations—to analyse these monuments. Central to this analysis is the dichotomy between Kernform (core form) and Kunstform (art form), offering insights into the synthesis of structural rationality and aesthetic expression.

Post-WWII, Yugoslavia's socialist government sought to memorialise the sacrifices and victories of its multiethnic Partisan forces. These commemorations emphasised “brotherhood and unity,” favouring abstract, modernist styles that universalised the memory of struggle. By the 1960s, modernist abstraction became dominant, eschewing figural representations for monumental forms conveying collective heroism. Monumental production in Yugoslavia served as tools for shaping identity and memory. Initially focused on heroic and dynastic themes, the shift under socialism commemorated the People's Liberation War and revolution. These monuments legitimised ideology by spatialising selective memories of unity, sacrifice, and resistance¹⁶. Heike Karge highlights the dynamic nature of Yugoslav remembrance, involving both state-led initiatives and grassroots participation. This duality reflects the interplay of official narratives and community agency in shaping monuments.¹⁷

Spomeniks symbolised the traumatic experiences of WWII, particularly the Partisan struggle and its ideology. The term evolved to represent the abstract commemorative structures unique to Yugoslavia, balancing universalist aesthetics with local narratives. Unlike socialist realism in other Eastern Bloc countries, Yugoslav spomeniks embraced modernist abstraction for a conceptual engagement with memory. Sanja Horvatinčić emphasises spomeniks as spatial

assemblies integrating landscape, sculpture, and user experience into a narrative of memory.¹⁸ Their locations—authentic wartime sites—and form materialised liberation memories while signalling a vision of socialist modernity.¹⁹ This aligns with Maurice Halbwachs' concept of collective memory, where landscapes anchor shared histories.²⁰

Spomeniks, engaging with their environments, created immersive experiences of memory. They spatialised ideology, blending symbolic and functional elements to perform memory through public interaction. This aligns with tectonic theory's focus on synthesising structure, materiality, and meaning, making it a valuable analytical lens.

1.2 Tectonic Theory and Memorial Architecture

Tectonic theory, rooted in the writings of Gottfried Semper and later expanded in contemporary architectural discourse, examines the relationship between construction (Kernform) and representation (Kunstform). This framework underscores the importance of structural logic and material authenticity while recognising the expressive potential of architectural forms. Tectonics in architecture refers to the artistic expression of construction through structural composition, elements, or details, serving as a way to resist reduction and embody the poetics of construction. It is the transformation of a structural form into an artistic element. In memorial practice, the tectonic approach reveals how Yugoslav architects and artists transformed structural necessities into symbolic narratives, creating monuments that are both materially grounded and conceptually evocative.

Bötticher's concept²¹ of tectonics as a synthesis of materiality, function, and ornament finds resonance in the Yugoslav memorial tradition. For instance, the modernist Spomeniks often utilised organic or geometric forms that abstractly evoked themes of resilience, unity, and transformation.²² These forms transcended figurative representation, aligning with already mentioned Pejić's observation that monuments in socialist Yugoslavia performed rhetoric of power through abstraction and monumental scale. Frampton's focus²³ on the poetics of construction further enriches this analysis. His emphasis on tactile and spatial engagement underscores the experiential dimension of Yugoslav memorials, where users interact with the site, the materiality of the monument, and the surrounding landscape.²⁴ This interaction transforms the monument into a kinetic and immersive experience, aligning with already mentioned Karge's view of remembrance as a practice rather than a static artefact.

2. PHYSICAL AND HISTORICAL CONTEXT OF THE MONUMENT

2.1 Location

Administratively and territorially, the Kosmaj Memorial Complex is located in Šumadija, near Mladenovac, in the Belgrade municipality of Sopot, in the southernmost part of the territory of the city of Belgrade. Mountain Kosmaj, after Avala (506m), is the lowest mountain in Šumadija, with an altitude of 626m. The memorial complex is located on one of its three peaks - Mali Vis. The entire landscape is covered with dense vegetation. The complex is situated within a protected green zone - Landscape of Outstanding Features “Kosmaj”, more precisely, a natural good of local importance, category III.²⁵

2.2 Historical context

During the Second World War in 1941, armed resistance groups actively opposed the occupation of Serbia. Communist partisan rebels carried out the majority of this organisation. A secret meeting of members of the Communist Party of Yugoslavia (KPJ)²⁶ was held at a mountain lodge at the top of Mount Kosmaj, founding the Kosmaj Partisan Detachment (Unit) by merging detachments from the Kosmaj region and the Sava River region. During the war, the detachment lost hundreds of its soldiers in battles and also participated in the liberation of Belgrade from German control.

In the late 1960s, local committees of the veterans' organisation SUBNOR began to make plans (together with many groups from regional and local communities) for the construction of a memorial complex at the top of Mount Kosmaj in memory of the Kosmaj Detachment and its efforts during the National Liberation War, as well as to honour the soldiers from the region who died during the war.²⁷ After a public Yugoslav competition and several years of construction, the monument was completed in 1971 and remains to this day one of the masterpieces of the combination of sculpture and architecture in the former Yugoslavia.

After the breakup of Yugoslavia in the 1990s, the monuments of the National Liberation War became spaces with specific aesthetic strategies that testify to a certain common past and encourage different universal gestures:

As physical witnesses, these monuments today are not just monuments to the Second World War or the partisan struggle but have become monuments to Yugoslavia itself, to its progressive anti-nationalist and anti-fascist perspective. They continue to maintain an invisible network

*throughout the territory of the former Yugoslavia and remind us of the disruptions and segmentation of the former unified space.*²⁸

In this work, in today's contemporary moment, the goal is to find the universality of the language of these monuments, such as the Kosmaj Memorial Complex.

Considering the memorial and touristic potentials of the monuments today, according to the analysis²⁹, we can distinguish three groups of monuments based on their degree of functionality and one subgroup with a distinct memorial significance, which has also determined a specific way of their planning and arrangement:

1. monuments commemorating the victims of major German offensives;
2. monuments to a group or detachment of fighters;
3. monuments to fighters who fell in the liberation of a city; and
- 3a. monuments at the site of death camps.

The Kosmaj Memorial Complex belongs to both the second and third categories. The second group of monuments has significance ranging from local to regional. For this reason, these places were built to be excursion sites. Monuments to fallen fighters during operations to liberate cities occupy prominent positions above the city or on their approaches and are generally not planned for longer stays by people. Therefore, their functions are reduced to memorial ones, and the space is designed like a park.

3. COMPETITION FOR THE PRELIMINARY DESIGN OF THE KOSMAJ MEMORIAL COMPLEX

The competition organiser was the Monument Construction Committee chaired by Moma Marković. The competition lasted from March to November 1969 and was general, public, anonymous, and Yugoslav. There were 26 entries that met the requirements (two did not). The announcement of the winners and the exhibition of works was held at the Art Pavilion on Kalemegdan Fortress (now the Cvijeta Zuzorić Pavilion³⁰).³¹

The Pavilion is another institution from which documentation was requested for this competition; however, all documentation from this competition was owned by SUBNOR. The Pavilion served only as a space for announcing the winners, so there is no trace of it in the Pavilion. The winning design was under the code MAY [serb. MAJ] (Figure 2), whose authors were the sculptor Vojin Stojić and the architect Gradimir Medaković, both from Belgrade.

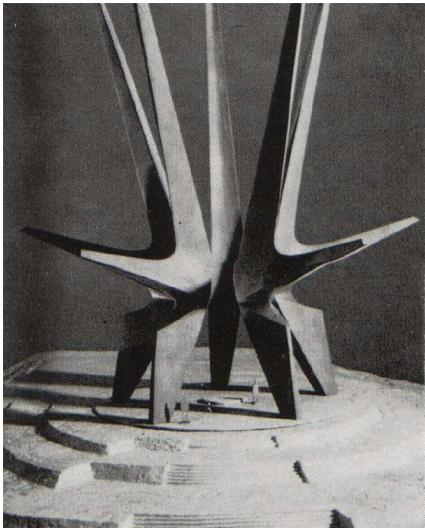
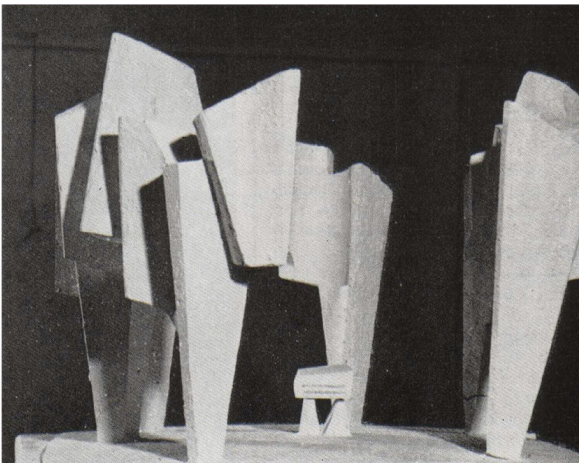
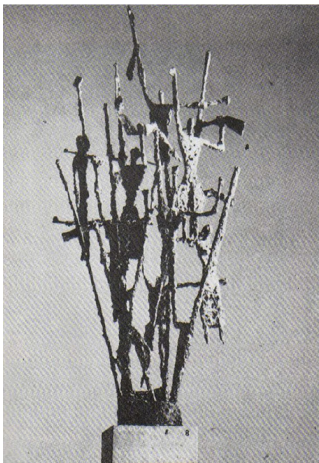
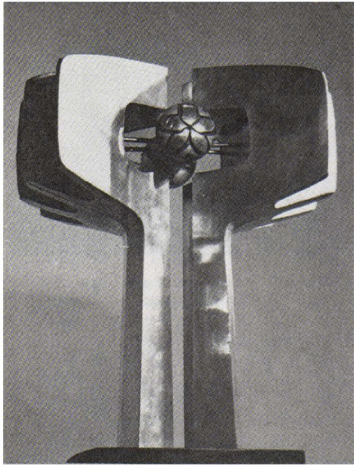
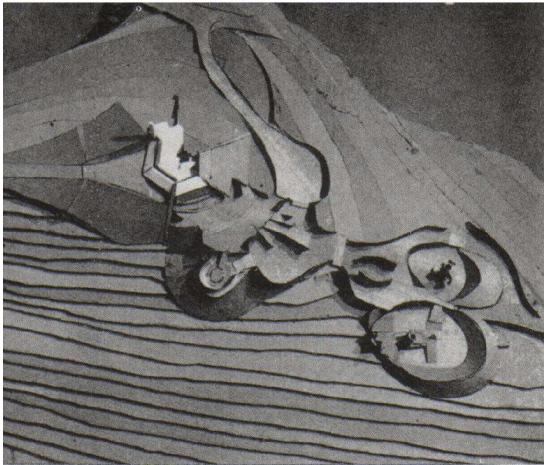


FIGURE 2: Competition works [Urbanism of Belgrade No. 5, 24-25.]
UP: Winning design with code MAY (serb. MAJ)
MIDDLE-LEFT: Work with code JAVKA,
MIDDLE-RIGHT: Work with code SOPOT-Y
DOWN-LEFT: Work with code OATH (serb. ZAKLETVA)
DOWN-RIGHT: Work with code 89000



The jury stated:

...by purely visual means, without narration, (this sculpture) announces the magnificence and character of the (Kosmaj) Detachment. They met, grew up and immediately rushed into battle. The sculpture is so composed that its dynamic movement of mass expresses itself, combining, unifying, then, immediately afterwards, a violent surge, striving upwards and downwards, a radiating and far-reaching action.³²

The second prize was awarded to the work under the code 89000, authored by architect Miodrag Stanković and sculptor Ante Gržetić from Belgrade. The jury emphasised that through sculptural forms close to figurative expression, the authors enabled the monument to be viewed in its values from all sides. Harmony among all elements has been achieved. This solution, it can be said, also seeks form in masses that try to resist gravity.³³

The third prize was equally divided between the two works. For the work under the code OATH [serb. ZAKLETVA], authored by sculptor Nandor Glid, architect Vera Kovačević, and horticulture consultant engineer Petar Pecelj, from Belgrade, the jury highlights that the composition arose from a strong dramatic sense with quality visual language, yet with certain instabilities that undermine monumentality. The solution, which “with its delicate form” or light structure also tries to achieve the effect of levitation, is skillfully done in such a way that the linear elements of the structure depict members of the detachment with flags. It can be said that the solution is of lower quality compared to the others because it did not go the way of abstraction like the others but touched on realistic representation.³⁴

For the work under the code SOPOT-Y, authored by sculptor Jovan Kratožil from Belgrade, the jury noted that the sculptural work is mature and that the author has consistently expressed himself symbolically, but the plateau base of the sculpture architecturally diminishes its value.³⁵

The work under the code JAVKA by unknown authors received a purchase prize. The jury initially did not plan to award purchase prizes. However, it made this decision because of the idea in this work to connect the lives of new generations with nurturing memories of the Kosmaj Partisan Detachment (Unit), making the monument a constantly active factor in the life of the people. The solution emphasises the urban concept and movement within the complex, providing different views of the natural landscape of Kosmaj through changes in levels. The idea of the monument itself is not very clear, so apart from the theme of movement and formation of large gestures in the form of paths and plateaus, nothing else can be concluded.³⁶

This competition's contribution is reflected in competitors' approach to the complex problem: a visual-spatial-synthetic, urban-architectural-sculptural task. There are tendencies towards approaching architecture as sculpture and merging them into one.³⁷

Additionally, interesting fact is that among the competition entries featured in this issue of the journal *Urbanism of Belgrade* [serb. *Urbanizam Beograda*], there is no design by architects Aleksandar Đokić and Momčilo Krković, according to whose urban concept it can be concluded that the current complex was realised. (Figure 3)³⁸ The design itself is conceived so that the plateau is approached by roads that "wind" to form a lyre shape.³⁹ The design for the monument itself is quite rough in its white masses, opposite to the slimness and elegance of the winning design. However, this design was purchased and is presumed to have been adopted for implementation in urban planning, while the design for the monument itself on the plateau adopted the aforementioned winning design by Vojin Stojić and Gradimir Medaković.

4. FUNDING AND PROTECTION OF THE MONUMENT: ARCHIVAL DOCUMENTATION

From the archival documentation from the *Historical Archives of Belgrade*, among the documentation about the Municipality of Sopot, there was found information that the monument's contractor was the *Construction Company Komgrap* and that other companies were also involved such as: *Electrodistribution of Belgrade*⁴⁰, *Water directorate Palanka – Smederevska Palanka*⁴¹, *Road Company Belgrade*⁴² and *Forest Management Company Belgrade*⁴³.

According to the contract between the city of Belgrade, i.e., the *City Secretariat for Education and Culture*, and the Municipality of Sopot, the financing of the monument was defined. Among the archival documentation on financing, information about the formation of the *Decision on the establishment of a committee for the construction of the monument* stands out, as well as the *Decision on the construction of the monument (no. 01-4347 from 5 November 1968)*, which can be used for further research and finding the missing technical documentation about the monument.

UPPER RIGHT FIGURE

FIGURE 3: The urban concept of the Kosmaj Memorial Complex by Aleksandar Djokic and Momcilo Krkovic [Jevtovic Aleksandra. (2018), *Arhitekta Aleksandar Djokic. Doktorska disertacija. / Architect Aleksandar Djokic. Doctoral Dissertation / Univerzitet u Beogradu – Filozofski fakultet. Odeljenje za istoriju umetnosti*, 213.



Предмет: Обавештење у вези захтева

Подноском од 25.08.2021. године који сте доставили Привредном суду у Београду, тражили сте да Вам се омогући увид и копија техничке документације за Споменик Космајском партизанском одреду (из 1971.године).

С тим у вези, обавештавамо Вас да смо увидом у архиву ХК „Комграп“ а.д. Београд - у стечају утврдили да не поседујемо техничку документацију за Споменик Космајском партизанском одреду , услед чега нисмо у могућности да одговоримо на Ваш захтев.



FIGURE 4: Answer of the bankruptcy trustee of the Construction Company Komgrap. Access to the archive through the Commercial Court in Belgrade was rejected.

In the *Archives of Yugoslavia*, within the *Fund 297 - SUBNOR 1947-1973. Commission for Cultivating Revolutionary Traditions*⁴⁴, a report on the problems of construction and protection of monuments of the National Liberation War was found, concluding that this is a crucial issue in the memorial architecture of Yugoslavia that needs to be addressed and that the entire problem has been left to the individual republics to try to solve. Perhaps this is one of the reasons why the Monument to the Kosmaj Partisan Detachment (Unit) is not protected in any way, as well as why its technical documentation has been neglected, lost, or removed. (Figure 4)

5. SPATIAL ANALYSIS OF THE KOSMAJ MEMORIAL COMPLEX

The spatial analysis is based on a spatial reading of the path from entering the complex to the plateau and the monument at the top of Kosmaj (Figure 5). The following elements are distinguished:

- 1. first memorial spot (inscribed rock)
- 2. second memorial spot (inscribed rock)
- 3. third memorial spot (inscribed rock)
- 4. plateau with the Monument to the Kosmaj Partisan Detachment (Unit)
- 5. main walkway to the plateau
- 6. side footpath to the plateau
- 7. footpath from the parking lot
- 8. road - bypass around the monument complex
- 9. parking (P)

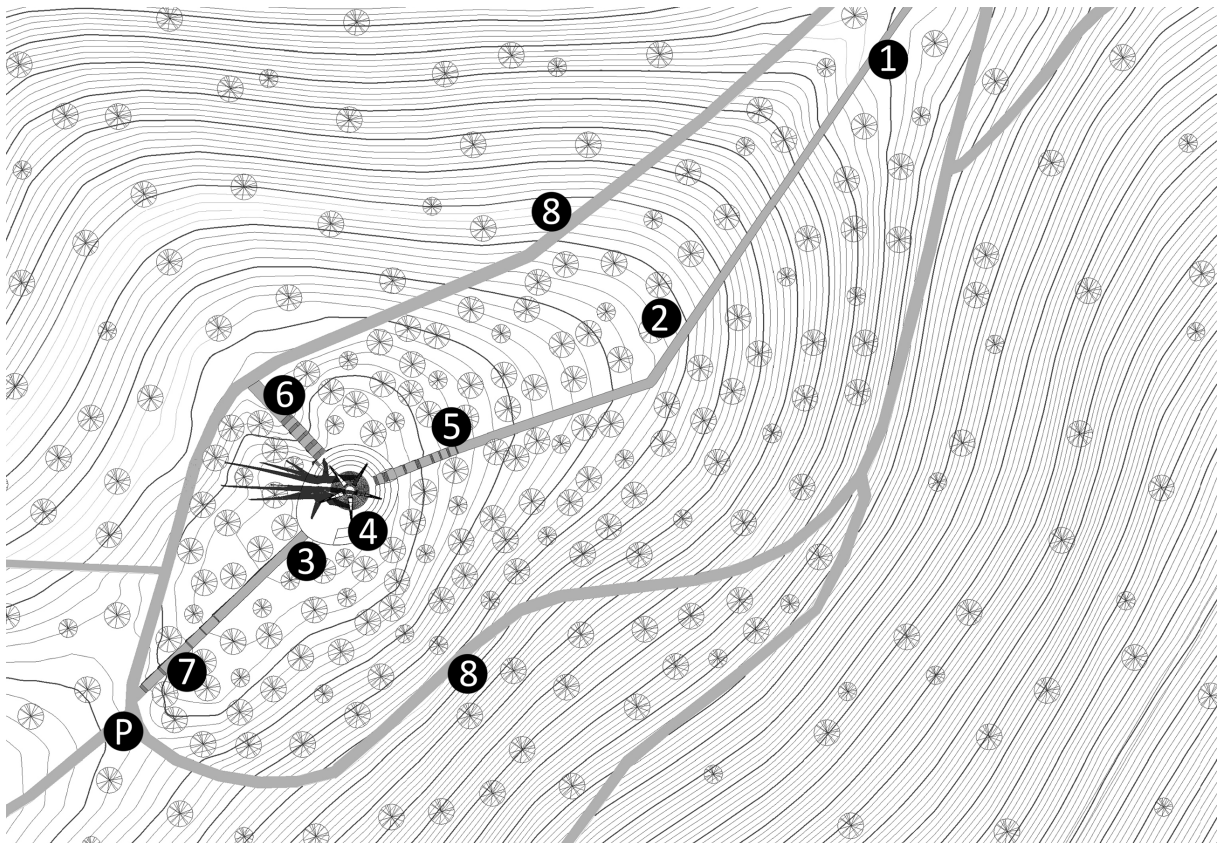


FIGURE 5: Site plan of the Kosmaj Memorial Complex – elements of spatial analysis [Author, 2021]

5.1. Access to the monument

The analysis is based on the comparison of *didactic theory and principles*⁴⁵ with elements of experience. If we talk about *the principle of systematicity and gradualism*, as one of the eight principles within the didactic theory⁴⁶ we can compare the user experience with user education where every more complex human work takes place according to a certain system, in a certain order. This also applies to education. There are four basic rules of progression:

1. from closer to further
2. from simple to complex
3. from easier to harder
4. from the concrete to the abstract.

This logic is the same in the user experience process: conquering and exploring the memorial space. As the user goes through the complex, he is confronted with abstract forms at different positions in the landscape.

The approach to the monument has been analysed from two perspectives: by car and on foot to the plateau where the monument is located. Even from the main road from Sopot to Kosmaj, the monument is seen within the dense vegetation of the mountain. Access to the complex is provided by car, with a turn-off from the Mladenovac-Sopot road. A one-way road, in the form of a bypass around the complex shaped like an elongated ellipse, has been constructed, with a parking lot located at the end of the road or halfway around the “circle” surrounding the complex. Upon arrival at the parking lot, visitors pass through a dense forest landscape, with no indications that the monument complex and plateau are nearby. The clearing where the monument is situated is carefully hidden, creating a psychological sense of unease and anticipation of reaching the monument, as well as uncertainty about whether the correct path is being followed. Certainly, members of the detachment awaiting German soldiers did not know when, where, or what kind of danger would emerge.

As for the pedestrian approach to the plateau and monument, three types of access routes via walkways or footpaths have been established. The plateau can be accessed via the main walkway if cars are parked before entering the complex. Initially, a large clearing is encountered, not indicating the gradual elevation. The paving has been made of rough stone, allowing for areas where boundaries blur with grassy patches. Additionally, signs directing visitors towards the monument or the point at the top, Mali Vis, are occasionally present.

The first memorial spot is encountered among the bushes on the right side, reminding visitors of Tito's speech in 1945 on Kosmaj at the national assembly near Hajdučica. The stone inscription reads:

Here, within reach of Belgrade, Serb sons who did not want to be enslaved but set themselves the task of fighting to the last drop of blood for the freedom of their homeland.⁴⁷

As the movement continues, the forest is entered, perception sharpens, and details are closely observed. On the left side, a new stone boulder, the second memorial spot, is noticed, inscribed with:

With the German occupier's blockade of Kosmaj on 8-9 August 1941, the Partisans escaped one of the first major actions against them in Serbia. Providing heroic resistance to the superior enemy, most of the fighters of the Mladenovac and First Kosmaj Unit broke out of the hoop. Thirteen Partisans, led by their fearless Commander Milan Milisavljević-Žuća, remained forever on the slopes of Kosmaj.⁴⁸

As the path progresses into the forest, transitions from paths to inclines made of rocks are experienced. Stairs occasionally slow the movement, their increasing numbers hinting at the monument's strength and scale. Emerging from the leaves, the monument slowly appears, presenting a mass of movement and stance. The majority of the steps are climbed to approach the plateau, emphasising the significance of the approach – all elements of the monument are observed carefully and at a slow pace.

The side footpath to the plateau is designed to be extremely steep. Rock steps have been incorporated, interrupted by a ramp providing a brief reprieve. The steps have not been separated from the terrain, creating an effect of land art integrated with the surrounding earth. The pedestrian approach further emphasises the tops and movements of the sculpture, viewed from a lower angle. However, the intended visual experience is disrupted by inadequate maintenance of the greenery, where young trees obscure the monument.

The footpath from the parking lot has been designed with unique features compared to the others. Initially, a series of stairs overcame significant height, transitioning to a gentle ramp and flat terrain before reaching the plateau. The path is further emphasised and paved at the plateau's edge. At first, the monument appears as a vague stone mass, but details become clearer with proximity, creating the effect of the monument emerging from the ground. The tops and length of the elements amplify this impression. On the right side,

before reaching the plateau, the last of the three memorial spots (inscribed rocks) is noticed, commemorating the formation of the Kosmaj-Posavina Partisan Detachment (Unit). The stone reads:

On the second of July 1941, the Kosmaj/Sava-area Partisan regiment was formed at this place. At the end of July, this regiment expanded to become two regiments of Kosmaj and Sava. In all four years of the war, within the gates of Belgrade, the rifle of freedom never ceased to fire. Over 5820 fighters and allies of the resistance died for freedom, of which 3411 young men and girls (along with 16 fighters from this regiment) were proclaimed to be national heroes.⁴⁹

5.2. *Form of the monument*

The geometric analysis of the monument or its form's genesis reveals it to consist of five identical elements arranged in radial rotation around an imaginary axis. The cross-section of the monument's lower part, its base, and its branching parts upwards take the form of a regular trapezoid, varying in size with height. (Figure 6). Photographs and on-site measurements have been used to conduct a dimensional analysis of one element. The element is approximately 30 meters in height, with cross-sectional thicknesses ranging from 1.5 to 2 meters, indicating the monument's bulkiness and dominance. Specific radii of curvature and angles formed with the contact surface and between elements contribute to a "sense of defying gravity." (Figure 7)

The plateau itself possesses a geometrically unique design. Viewed in plan, it is egg-shaped with one completely flat portion. The circle beneath the monument is separated by distinct paving, while a section of the plateau in front of the monument is divided into three levels connected by stairs or ramps. The paving beneath the monument is circular and smooth, contrasting with the irregular paving in the rest of the complex. A change in paving emphasises the pedestrian approach from the parking lot. (Figure 8)

In the next part of the paper, a comparison of the spatial analysis of the monument with various universal themes of contemporary sculpture will be presented. (Figure 9)

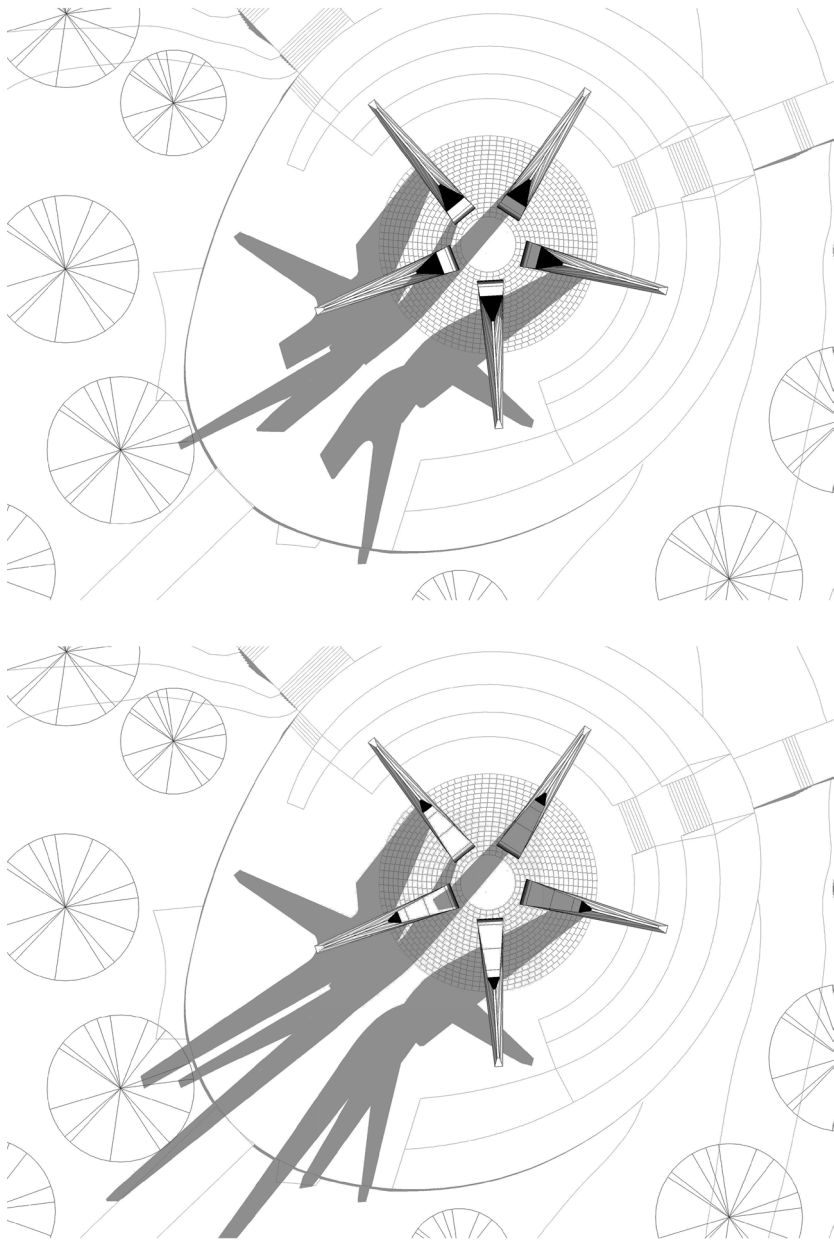


FIGURE 6: The base plan of the monument - trapezoid as a section [Author, 2021]

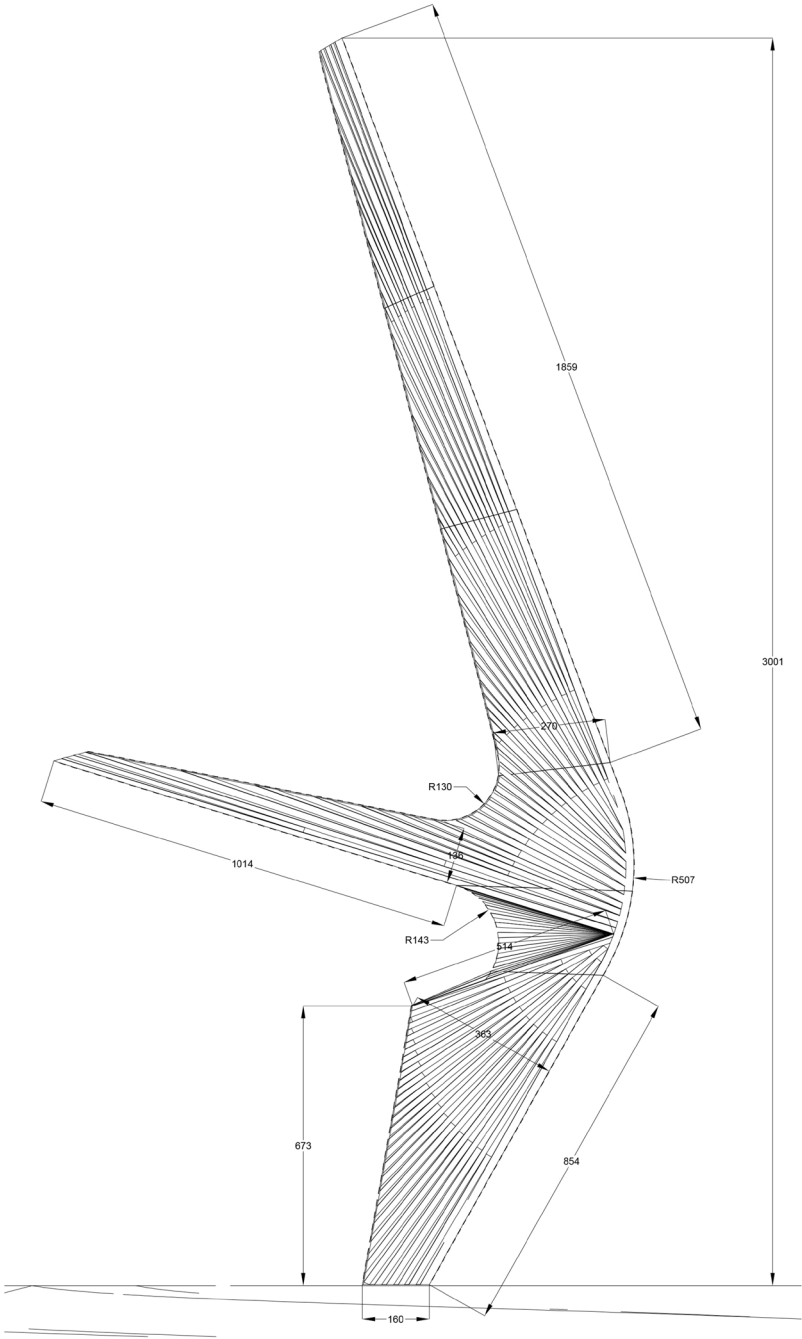


FIGURE 7: Dimensional analysis of the one element [Author, 2021]

The Kosmaj Memorial Complex embodies themes resonant with contemporary sculptural traditions, particularly when examined through universal spatial and conceptual paradigms. Drawing on sources like Rowan Bailey's⁵⁰ discourse on the duality of material and thought processes in concrete sculpture, Michael Kolb's⁵¹ analysis of monuments as spatial-cognitive metaphors, and Rosalind Krauss's⁵² exploration of temporality and spatiality in modern sculpture, we can situate the Kosmaj monument within broader sculptural dialogues.

Spatially, the monument's primary theme is MOVEMENT. Despite the monument's bulky appearance, its slender and independent masses enhance the effect of movement. From a distance, the monument appears as a singular "body" waving or "opening arms," but closer observation reveals independent elements creating a dynamic effect.

The secondary theme is MEMORY, as the complex is dedicated to the victims of the National Liberation War detachment. Memorial elements on the path, combined with the fusion of architecture and sculpture in the main monument, reinforce this theme. Memorial spots by the pathway evoke feelings of insecurity and anticipation, transitioning to liberation upon reaching the plateau, as a reincarnation of the souls of all those killed in that place.

SHADOW is another theme that contributes to the three-dimensionality. Shadows cast by elements at specific times of the day introduce dynamic relationships among the components. The themes of SPACE and VOLUME are reflected in the interstitial spaces between elements, where feelings of confinement, narrowing, and eventual liberation are experienced as visitors gaze upwards towards the peaks.

GRAVITATION emerges as a dominant theme, as one element appears visually heavier at the top, creating the illusion of anti-gravity. While circling the sculpture, different perspectives enhance this effect, especially when contact with the ground disappears from view.

SURFACE and TEXTURE are also notable themes. Rhythmic surface treatments create dynamism throughout the sculpture, while the motif of sun rays radiating from an imagined centre among the elements contributes to the sense of unity.



FIGURE 8: UP: Emphasised pedestrian approach in paving, DOWN: Regular paving of the circle under the monument [Author, 2021]

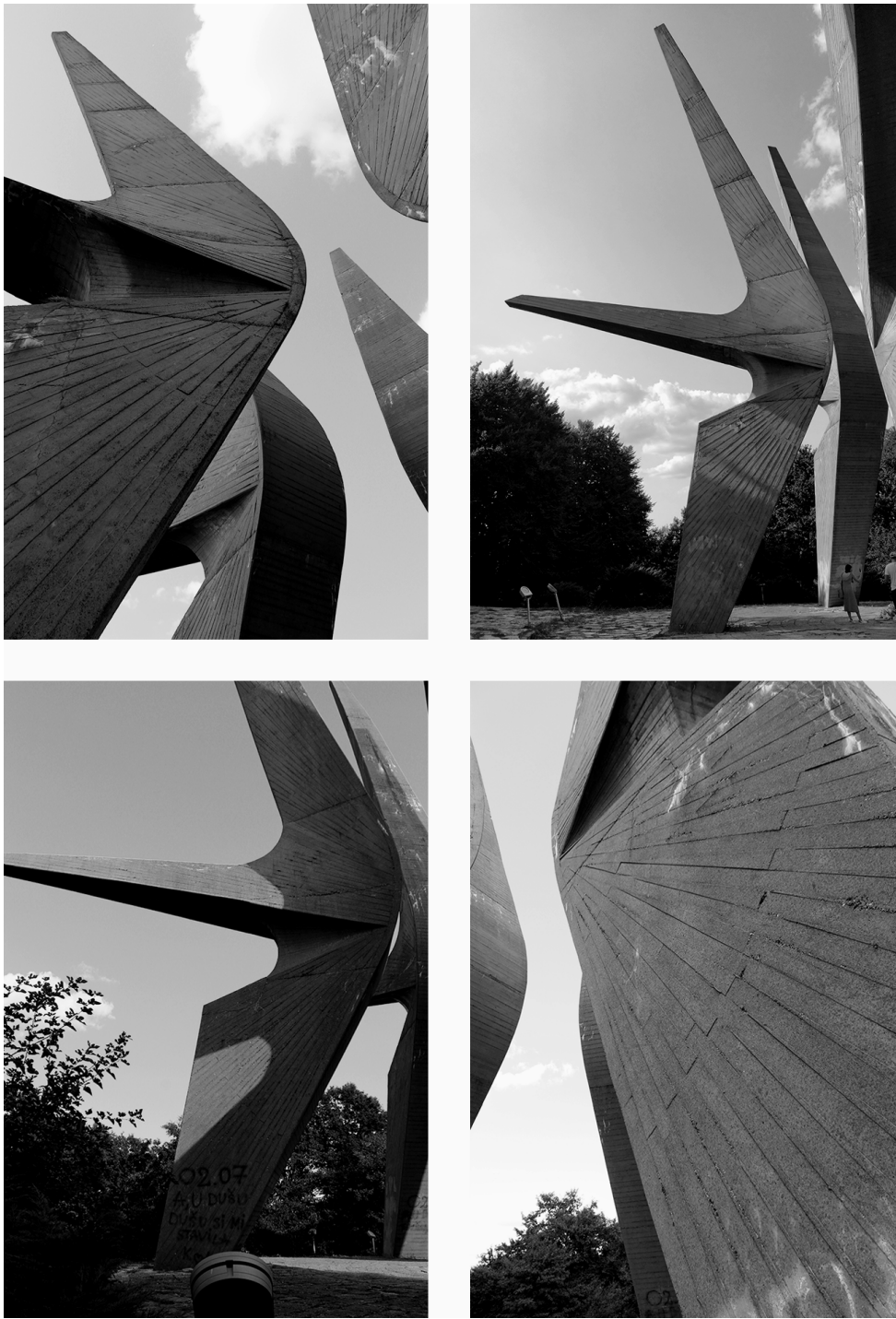


FIGURE 9: Spatial analysis - themes of MOVEMENT (UP-LEFT), GRAVITY (UP-RIGHT), SHADOW (DOWN-LEFT) and SURFACE (texture) (DOWN-RIGHT) [Author, 2021]

5.3 *Tectonics of the monument: Kernform and Kunstform*

The Kosmaj Memorial Complex exemplifies the tectonic interplay and dichotomy between Kernform and Kunstform. Its structural framework—rooted in construction's physical and material realities—is elevated by its symbolic gestures, which resonate within the surrounding natural landscape. The monument's abstract forms evoke notions of resilience and transcendence, while its spatial configuration fosters an immersive, almost ritualistic engagement with memory.

Its bold geometric forms, integrated with the natural topography, and its concrete structure—robust and enduring—demonstrate a Kernform that anchors it within the physical landscape and respects structural integrity and material logic. This structural rationality is not merely functional; it symbolises the enduring legacy of Yugoslav resistance and solidarity. Simultaneously, its Kunstform manifests through abstract symbolism, evoking themes of resilience and unity where the abstract composition of the memorial's sculptural elements invites interpretive engagement and emotional resonance. The tension and harmony between these aspects create a spatial assembly that engages the user experientially, aligning with the tectonic theory's holistic perspective. This duality reflects the broader Yugoslav approach to memorialisation, where abstraction served as a means of universalising memory and fostering collective identification.

Tectonic theory emphasises the expressive potential of materiality, assembly, and construction. Monuments of socialist Yugoslavia, through their innovative use of concrete, steel, and abstract geometries, exemplify a synthesis of technical and aesthetic values. For instance, the Kosmaj Memorial's radial composition and tall elements reflect the dynamism of socialist progress and the solemnity of wartime sacrifice. Here, the Kernform can be understood as the monument's structural and functional core, anchoring it within the landscape and memory. The Kunstform, meanwhile, manifests in its visual and experiential qualities, inviting viewers to engage with its symbolism and spatial presence.

The analysis uncovers how the Kosmaj complex integrates its core structural principles with its artistic aspirations by employing tectonic theory. The dynamic relationship between its load-bearing elements and its symbolic language of abstraction reflects a broader Yugoslav ambition to universalise memory while grounding it in the specificity of place and material.

Also, from another point of view, memorials could be considered relational assemblies. The spatial logic of the monuments of socialist Yugoslavia aligns with tectonic principles by emphasising the interrelation of landscape, monument, and user experience. These monuments create a “spatial assembly” designed for temporal and spatial engagement. Here, the Kosmaj Memorial Complex integrates its sculptural-architectural elements with the surrounding natural environment, encouraging movement and reflection. This kinetic interaction transforms the monument from a static object to a dynamic site of memory, resonating with Pierre Nora’s concept of *lieux de mémoire* (sites of memory) as spaces where collective identity is constructed and contested.⁵³

The spatial configuration of memorials further illustrates their tectonic values where design often incorporates the natural topography, fostering an interaction between the monument, its surrounding landscape, and its audience.⁵⁴ For example, the Kosmaj Memorial’s placement atop a hill leverages the terrain to enhance its visibility and symbolic resonance, creating a dialogic relationship between the site and its viewers.

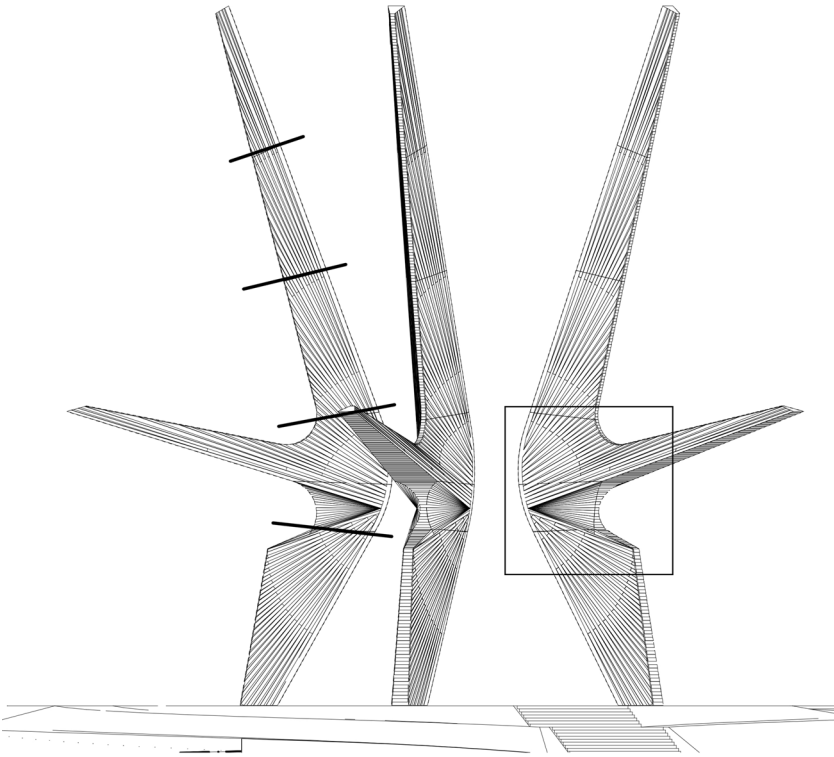
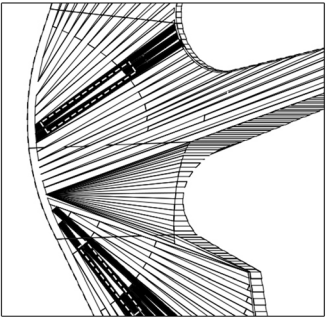
These memorials’ kinetic and relational qualities also highlight their departure from static monumental traditions. Visitors are not merely passive observers but active participants, engaging with the monument through movement, reflection, and imagination. This participatory dimension aligns with tectonic theory’s focus on the experiential impact of built form.

In detail, the way the monument is positioned on the plateau reflects the idea of placing the monument in the natural landscape, its position, role, and message. The construction inside the monument is not visible - the reinforcement and foundations help with stability, “carry” the elements and form their meaning as *Kernform*. While the size and arrangement of the five elements dominate the structure of the monument, the unnoticed change in the rhythm of lines in the relief of the elements remains in forming the meaning of *Kunstform*.

By observing the individual element of the monument, one can see the relationship between sculptural and architectural treatment, or the “imaginary boundary” that separates the two treatments. The base of the element is extremely architectural, with sharp-edged forms, as well as the top and upper part of the monument where clean edges dominate. In the middle, there is a highly sculptural expression in the form of an accent, where, again, a “boundary” is formed between architecture and sculptuality using different radii of curves and edges.

Additionally, its construction technology is specific to this monument. To cast such long and high slender structures, “interruptions in concreting” were inevitable, which could be seen as clear and visible lines, yet carefully integrated into the sculpture and architecture of the entire monument. The surface treatment of the concrete is also extremely dynamic, so the formwork installation technology was a real challenge to achieve the effect of the “sun” and its rays dominating the texture of the entire monument. It is assumed that between two formwork boards, another board was placed to form a triangle, and another board was placed over them for attachment. For this reason, the triangle is protruded by the thickness of the board, which contributes to the relief. (Figure 10)

FIGURE 10: “Interruptions in concreting”, Detail: Formwork installation technology form [Author, 2021]



5.4 Current state of the monument

The monument is in a rather neglected state, although there are elements of restoration and maintenance, as well as a tendency for further use and promotion. For example, the monument is an emblem of the Municipality of Sopot.

Media interest in the monument varies over time, sometimes being extremely high. It appears in different films, including “The Hunger Games: Mockingjay Part 2” and “Ghost in the Shell.” There are also tourist tours, as well as a techno festival in 2018 that attracted a large number of young people.⁵⁵

The space of the complex is maintained, as evidenced by the mowed green areas, as well as the trimmed bushes and trees, along with the mentioned lacks where greenery disrupts the views and sight of the monument. However, the nighttime illumination of the entire complex, as well as the monument itself, suggests that maintenance of this space does exist, and there are good elements. The illumination of the paths involves the original lampposts from the 1971 design, which contributes to the authenticity of the space. The illumination of the monument on the plateau is regulated by new point LED sources, with a warm light colour (presumably around 3000K), placed around the monument. One criticism is their positioning and the way the monument is illuminated. They are placed so that each light source illuminates one element equally, creating a monotony in the lighting without dynamism. During the observation of the night lighting, one light source was not working, creating a situation where a much more dynamic variant was displayed, with even the unlit parts of the monument participating in its composition and contributing to a much greater sense of three-dimensionality.

6. CONCLUSIONS

Analysing the Kosmaj Memorial Complex through the dual lenses of memorial practice and tectonic theory reveals how Yugoslav memorial practices synthesised structural logic and symbolic expression. By navigating the interplay between Kernform and Kunstform, these monuments transcend traditional dichotomies of representation, embodying the universal, specific, enduring, and ephemeral. The Kosmaj Memorial Complex, as a case study, embodies this synthesis, offering a profound example of how tectonic theory can illuminate the unique values embedded within these monumental forms. This approach enriches our understanding of Yugoslav monuments and offers broader insights into the role of architecture and art in shaping collective memory and identity.

In the hope of finding the missing technical documentation of the monument, the monument itself stands on the edge of time as an indelible trace of a historical story. The crucial missing part could help reveal the intentions of the authors and the monument as a whole, hidden in the steel behind the concrete, defining its *Kernform*.

The Kosmaj Memorial Complex bridges local historical specificity with universal themes of contemporary sculpture. Its spatial configuration, material choices, and temporal resonance align with broader sculptural practices, showcasing its significance as both a cultural artefact and a participant in the global language of monumental art. By leveraging frameworks from Bailey, Kolb, and Krauss, the Kosmaj site underscores how monuments articulate collective memory through an interplay of form, material, and embodied experience.

Also, this paper contributes to further research and considerations of the adequate approach and scholarly interest in researching this type of specific monuments from socialist Yugoslavia, which would be based on a comprehensive understanding of the specific social, cultural, and ideological circumstances that defined the character of memorial sculpture in that historical period, especially the most vulnerable memorials dedicated to the National Liberation War.

In the domain of protection, the priority in the future needs to be consideration of the preservation of this place as a whole, since the Kosmaj Memorial Complex is not protected. The decision must be between the culture of memory, protection, active maintenance, and further use of this space.

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NOTES

- 1 Journal *Urbanism of Belgrade* No. 5 [serb. *Urbanizam Beograda*, br. 5] published in 1969 by the Town Planning Institute of Belgrade
- 2 Comprehensive online resource for the most significant and notable abstract and modernist World War II monuments built in Yugoslavia. It was set up in 2016 by writer, history hobbyist and travel enthusiast Donald Niebyl – source: <https://www.spomenikdatabase.org/>
- 3 serb. Zavod za zaštitu spomenika kulture grada Beograda
- 4 Union of War Veterans of the National Liberation Wars [serb. Savez udruženja boraca narodnooslobodilačkih ratova]
- 5 serb. Arhiv Opštine Sopot
- 6 serb. Istorijski arhiv Beograda
- 7 serb. Fond Grada Beograda - Gradski Sekretarijat za obrazovanje i kulturu
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- 16 ibid
- 17 Karge Heike (2014). *Sećanje u kamenu – okamenjeno sećanje?* Beograd: Biblioteka XX vek.
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- 28 Kirn Gal i Robert Burghardt. „Jugoslovenski partizanski spomenici: Između revolucionarne politike i apstraktnog modernizma.” *Pregled postjugoslovenskih istraživanja* 2, 1 (2012): 19:
- serb. Kao fizički svedoci, ovi spomenici danas nisu samo spomenici Drugom svetskom ratu ili partizanskoj borbi, već su postali spomenici samoj Jugoslaviji, njenoj progresivnoj antinacionalističkoj i antifašističkoj perspektivi. Oni nastavljaju da održavaju nevidljivu mrežu širom teritorije bivše Jugoslavije i da podsećaju na poremećaje i segmentaciju nekadašnjeg jedinstvenog prostora.
- 29 Garača Vuk, Svetlana Vukosav, Milan Bradić i Jelena Tepavčević (2019). Planiranje, opremanje i vrednovanje spomenika NOB-a u Jugoslaviji. [Planning, furnishing and evaluation of National Liberation War monuments in Yugoslavia]. *Arhitektura i urbanizam*, (49), 60-69. <https://doi.org/10.5937/a-u0-24074>
- 30 serb. Umetnički paviljon „Cvijeta Zuzorić“
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32 ibid, 24:

serb. ... čisto likovnim sredstvima, bez naracije, (ova skulptura) saopštava veličanstvenost i karakter Odreda. On se sastajao, narastao i odmah nezadrživo hitao u borbu. Skulptura je tako komponovana da svojim dinamičnim kretanjem masa izražava jedno združivanje, sjedinjavanje i odmah zatim silovito bujanje, stremljenje u vis i u stranu, jedno značenje i dalekosežno dejstvovanje...

33 ibid, 24.

34 ibid

35 ibid

36 ibid

37 ibid, 25.

38 Jevtović Aleksandra. (2018), *Arhitekta Aleksandar Đokić. Doktorska disertacija*. [Architect Aleksandar Djokić. Doctoral Dissertation] Univerzitet u Beogradu – Filozofski fakultet. Odeljenje za istoriju umetnosti, 158.

39 ibid, 213.

40 serb. Elektro distribucija Beograd

41 serb. Vodoprivredno preduzeće Palanka – Smederevska Palanka

42 serb. Preduzeće za puteve „Beograd“

43 serb. Preduzeće za gazdovanje šumama „Beograd“ (danas Srbija Šume)

44 serb. Arhiv Jugoslavije. Beograd. fond 297. SUBNOR 1947-1973. Komisija za negovanje revolucionarnih tradicija.

45 Meyer Hilbert. (2002). *Didaktika razredne kvake*. Zagreb: Educa

46 Poljak Vladimir. (1991). *Didaktika*. Zagreb: Školska knjiga.

47 serb. Evo ovdje, na domaku Beograda, sakupili su se srpski sinovi koji nisu htjeli da budu robovi nego su sebi stavili zadatak da se bore do poslednja kapi krvi za slobodu svoje otadžbine.

48 serb. Blokadom Kosmaja nemački okupator je već 8-9. avgusta 1941. izveo jednu od svojih prvih značajnijih akcija protiv partizana u Srbiji. Pružajući herojski otpor nadmoćnijem neprijatelju većina boraca mladenovačke i prve kosmajске čete probila se iz obruča. Zauvek je ostalo na padinama Kosmaja trinaest partizana na čelu sa svojim komandirima Milanom Milosavljevićem Žućom.

49 serb. Na ovom mestu 2. jula 1941. formiran je Kosmajsko-posavski partizanski odred. Već krajem jula od ovog odreda nastala su dva nova – Kosmajski i Posavski. Za sve četiri godine rata, ovde na kapijama Beograda, nije prestala da puca oslobodilačka puška. Za slobodu je palo 5820 boraca i partizanskih saradnika, među kojima 3411 mladića i devojaka.

- 50 Bailey Rowan. (2015). Concrete Thinking for Sculpture. *Parallax*, 21(3), 241–258. <https://doi.org/10.1080/13534645.2015.1058884>
- 51 Kolb Michael J. (2019). *Making Sense of Monuments: Narratives of Time, Movement, and Scale* (1st ed.). Routledge. <https://doi.org/10.4324/9780429427756>
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- 55 Spomenik Database, *Kosmaj Memorial Complex*.

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