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MEMORY AS AN INTERPRETIVE MECHANISM – BETWEEN BELONGING AND ALIENATION IN URBAN SPACE

PAMIĘĆ JAKO MECHANIZM INTERPRETACYJNY – MIĘDZY ZAKORZENIENIEM A OBCOŚCIĄ W PRZESTRZENI MIEJSKIEJ

Abstract

Architecture is a synthesis of meaning and memory, and experiencing it is a process filtered through mental images and emotions. Using the examples of the Centre Pompidou, the Kolumba Art Museum and the Elbphilharmonie, this article illustrates the evolution of the links between the historic fabric and the social experience of heritage. The perception of these same places varies: from a sense of belonging to a sense of alienation. The aim of this article is to analyze memory as an interpretative mechanism that influences the understanding of identity and the expression of architecture.

Keywords: *adaptation, afterimages, interpretation, sensory architecture, transformation*

Streszczenie

Architektura stanowi syntezę znaczenia i pamięci, a jej doświadczanie jest procesem filtrowanym przez mentalne obrazy oraz emocje. Na przykładach Centrum Pompidou, Muzeum Sztuki Kolumba czy Elbphilharmonie ukazano ewolucję powiązań między zabytkową tkanką, a społecznym doświadczaniem dziedzictwa. Odbiór tych samych miejsc bywa różny: od zakorzenienia po obcość. Celem artykułu jest analiza pamięci jako mechanizmu interpretacyjnego, wpływającego na rozumienie tożsamości oraz wyrazu architektury.

Słowa kluczowe: *adaptacja, architektura sensoryczna, interpretacja, powidoki, przekształcenie*

1. INTRODUCTION

The city is perceived as a living process of experience, in which the material realm is inextricably intertwined with emotions and memory. As Kevin Lynch notes, it is a structure of immense scale in which "nothing is experienced in and of itself, but always in relation to its surroundings, the sequence of events leading up to it, and the memory of

past experiences."[1] Urbanized space becomes a carrier of meaning, where processes of embeddedness and the feeling of alienation constantly clash. "One could say that the city itself is the collective memory of its inhabitants, and, like memory, it is linked to objects and places."[2]

Before the human mind interprets the environment, it first perceives it through the senses. According to the phenomenological perspective, architecture should exist in harmony with its surroundings. This enables an existential, multilayered experience of materiality, not only through peripheral or focused vision, but also through haptic perception, sound, and smell.[3] This sensory grounding in space, however, quickly goes beyond mere biology. As Władysław Strzemiński argues, "what matters to us is not what mechanically catches the eye, but what a person becomes aware of through their own vision."[4] Visual awareness allows us to perceive our surroundings historically, which is the basis for the transformation of our knowledge of the world.

In this context, the phenomenon of afterimages becomes a key analytical tool for studying spatial relationships. These traces of optical stimulation, which remain on the retina, translate into architecture as the moment when a material object becomes a lasting, mental phantom. The urban fabric thus overlaps with collective memory, and architecture constitutes a ceaseless synthesis of meaning and imagination. The design response to an existing building must take into account not only its locational context but also a profound respect for its history. This determines whether the building generates a sense of emotional security or instead becomes a vehicle for alienation and estrangement.

2. AFTERIMAGES OF THE PAST: THE THEORY OF VISION AND SENSORY EXPERIENCE IN CONTEMPORARY ARCHITECTURAL ADAPTATION

The experience of architecture goes far beyond analyzing the geometry and mere visual perception. A place's identity is shaped by the way materials respond to touch, the texture of the ground registering human footsteps, and the unique silence. Sensory perception is directly linked to emotions encoded in the consciousness of its inhabitants. Objects preserving the authentic fabric of the past represent the tradition and cultural continuity of a community. Introducing a new, original form into such a meaningfully saturated historical context creates a natural tension. Innovative shapes can initially surprise, even evoking a sense of alienation and aesthetic shock in viewers, requiring a lengthy process of familiarization with the space.[5]

We see an engagement with the sensory realm and afterimages of the past at the Kolumba Museum (Ill. 1, 2) in Cologne, designed by Peter Zumthor. Understanding this architectural

[1] K. Lynch, *The Image of the City*, The MIT Press, Cambridge–Massachusetts–London 1990, p. 1.
[2] A. Rossi, *The Architecture of the City*, The MIT Press, Cambridge–Massachusetts–London 1982, p. 130.
[3] J. Pallasmaa, *The Eyes of the Skin: Architecture and the Senses*, John Wiley & Sons, London 2012, pp. 11–13.
[4] W. Strzemiński, *Teoria widzenia*, Wydawnictwo Literackie, Kraków 1958, p. 15.
[5] E. Węcławowicz-Gyurkovich, *Odważna współczesna realizacja w zabytkowym środowisku*, "Wiadomości Konserwatorskie" 2010, no 28, p. 70.

intervention requires an analysis of the historical context of the city's Roman quarter. Archaeological research conducted since the 1970s has revealed nearly two millennia of uninterrupted cultural and architectural continuity, during which successive eras built their temples directly atop older structures. In 1942, British air raids reduced the historic center to rubble.[6] This event was the starting point for a new architectural creation – a contemporary museum was created to showcase the art collections belonging to the Roman Catholic Archdiocese. Zumthor believed that architecture should emerge from within, directly from the spirit of its location. The museum's new, three-story exterior integrated the scattered, traumatic traces of the past into a single, coherent façade: from ancient Roman fragments, through medieval and Gothic stone relics, to the post-war chapel designed by Böhm.[7] The architect integrated the contemporary structure with the preserved single-story ruins of the church in the south-eastern corner of the site, where several pointed-arch blind windows with fragmentary tracery have survived. The key to achieving this formal coherence was the choice of building material. The new volume was constructed using specially developed elongated bricks in a muted beige-gray tone.[8]





Ill. 1. The Kolumba Museum, source: https://www.archdaily.com/72192/kolumba-musuem-peter-zumthor (access: 9.07.2026)

Ill. 2. Interior of the Kolumba Museum, source: https://www.cologne-tourism.com/arts-culture/sights/detail/kolumba (access: 14.07.2026)

A new structure was built above the historic archaeological site. Its supporting framework rests on columns placed at carefully selected points, minimizing disturbance to the original ground. The experience of the museum's interior is based on the use of light, sound, and touch, creating a bridge between the reality of the material and the viewer's imagination. Visitors walk along a wooden, zigzagging walkway suspended above the exposed archaeological excavations, allowing them to physically engage with the layers of history accumulated over the centuries. Deep asceticism and the deliberate stripping of the architecture of

[6] *Ibidem*, p. 71.

[7] *Kolumba Museum / Peter Zumthor*, "ArchDaily", https://www.archdaily.com/72192/kolumba-musuem-peter-zumthor (access: 10.07.2026).

[8] E. Węcławowicz-Gyurkovich, *Odważna..., op. cit.*, pp. 73–74.

superfluous elements of expression serve to create a sense of absolute tranquility.[9] The lower levels of the museum have been enhanced with wide bands of openwork brickwork featuring a dense grid of tiny perforations. Diffused light filters into the interior through these small openings, creating a constantly evolving pattern. The profound tranquility of the interior contrasts with the expressive, jagged form of the medieval ruins, further emphasizing their presence.[10] The upper floors feature ascetic wall surfaces, in which only a few windows have been cut out in stainless steel frames. Thanks to such interventions, the structure not only captures the energy and vibrations of the place but also becomes a multisensory afterimage in the consciousness of the contemporary visitor.

Similar to the design of the Cologne Museum, the adaptation of the devastated structure of the Neues Museum in Berlin (Ill. 3, 4) creates a sensory space that sustains the memory of cultural identity and wartime trauma. Located on Berlin's Museum Island, the structure represents the concept of memory-archive in its pure, material form. The historical foundations of this site date back to the first half of the 19th century, when Karl Friedrich Schinkel's classicist Old Museum (Altes Museum) opened to the public in 1830. As its continuation, and to address the lack of space, Friedrich August Stüler designed the Neues Museum between 1843 and 1855, expanding the complex's exhibition space. Bombing damage during World War II reduced the building to ruins. The small portion of the surviving skeleton was preserved, and reconstruction began in 1990.[11]





Ill. 3. The Neues Museum, source: https://davidchipperfield.com/projects/neues-museum (access: 9.07.2026)

Ill. 4. Interior of the Neues Museum, source: https://rohstoffgewinner.com/referenz-neues-museum-berlin/ (access: 14.07.2026)

The loss of heritage was significant not only in symbolic terms but also because of innovative techniques and solutions of Prussian construction art. The building was a testament to the changes taking place in contemporary construction, which introduced modern structures while preserving the classicist ideal of architecture.[12]

[9] *Ibidem*, p. 75.

[10] *Kolumba Museum…*, *op. cit.*

[11] E. Węcławowicz-Gyurkovich, *Nowoczesna konserwacja Neues Museum w Berlinie*, "Czasopismo Techniczne" 2012, no 4-A (13), pp. 174–176.

[12] W. Lorenz, *Classicism and High Technology – the Berlin Neues Museum*, "Construction History" 1999, no 15, p. 45.

The contemporary intervention, designed by British architect David Chipperfield and historic preservationist Julian Harrap (winners of the 1997 competition; completed between 2003 and 2009), is based on minimalism with subtle interventions in the structure. As in Zumthor's Cologne project, the designers rejected imitation and historicist reconstruction of the eclectic interiors, opting, among other things, to deliberately not recreate the lost steel roof girders.[13] The renovation of the representative staircase, details such as cleaned fragments of polychrome, and the exposure of preserved structural elements and walls with visible bullet holes allow for the preservation of full authenticity. All contemporary interventions are clearly distinguished from the historical substance. The Neues Museum exemplifies the conscious application of knowledge in the adaptation and conservation of historic fabric, which constantly stimulates the viewer's visual and tactile perception. The structure has regained its former form and grandeur without compromising the authenticity of its later layers, both architectural and, above all, cultural and wartime, allowing for the continuation of memory. Through this sensual contrast between the smoothness of contemporary minimalism and the roughness of war wounds, the building generates a profound silence, transforming a physical ruin into an authentic, living medium for the continuation of social memory.

3. TOWARD THE EXPERIENCE OF PLACE: THE PROCESS OF SHAPING THE RELATIONSHIP BETWEEN ARCHITECTURE AND SOCIETY

The widely recognized concept of *genius loci* provides a foundation for understanding how a given space is embedded in the public consciousness. The coexistence of material elements, individual memory and collective associations, the history of a place, and emotions associated with a given object influence the relationship between humans and architecture. Historic monuments are living organisms, responding to dynamic changes occurring in their environment.[14] A building's roots are not tied to the moment of its creation, but to the long-term process of how successive generations have perceived and interpreted it.

Located in Paris, the Pompidou Center (Ill. 5, 6) is a symbol of innovation and cultural change, serving as a landmark for residents and tourists alike. Renzo Piano and Richard Rogers, after winning the competition in 1971, created an iconic work that enriched France with a cultural and artistic center. Six years after the design was completed, a building full of colors and contrasts was erected; its design sparked interest but was also largely met with disapproval.[15] Traditional society was confronted with a new architectural experience. This postmodern work challenged the perception of a built environment characterized by a uniform, predictable urban form shaped between 1852 and 1870 by the French urban planner Georges-Eugène Haussmann. Before its redevelopment, Paris was a dangerous city, full of narrow streets without sidewalks and lacking a proper sewer system. The spread of disease, rising crime, and appalling living conditions contributed to drastic changes in urban planning.[16] Subsequent generations of archi-

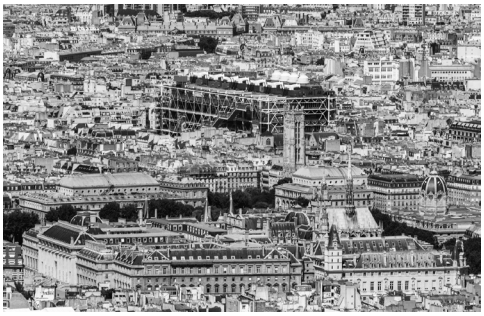
[13] E. Węcławowicz-Gyurkovich, *Nowoczesna…, op. cit.,* pp. 176–177.

[14] M. Vecco, *Genius loci as a meta-concept*, "Journal of Cultural Heritage", 2020, no 41, pp. 10–11.

[15] W. Zhang, *Centre Pompidou: The Reproduction of Parisian History and Culture in a Postmodernist Building*, "Studies in Art and Architecture" 2023, no 2(3), pp. 57–58.

[16] R. Dobek, *Haussmann – budowniczy nowego Paryża*, "Wiek XIX. Rocznik Towarzystwa Literackiego imienia Adama Mickiewicza" 2019, no 12(54), pp. 231–234.

tects implemented modernist designs that were not as shocking as postmodernist ideas. The Center for Art and Culture earned the nickname "spaceship," invading the previously familiar structure like a foreign body. Intense colors distinguished the technical infrastructure, and the building itself was formed in glass, reinforcing the impression of structural otherness (Ill. 6.). In light of the presented arguments, the Pompidou Center could have become entrenched as an alien element, destined for demolition and replacement. The protests against the Gaullist government, known as "May '68," became a turning point. Organized by students in the 1960s, they quickly triggered significant changes throughout society, resulting in educational reform, the liberalization of rights, and an avant-garde approach to creation. Artists began expressing themselves through innovative movements such as conceptualism and multimedia art. There is no doubt that a new era had begun, one that, by breaking with traditionalism, ushered in a desire to embrace new means of expression. The Centre Pompidou project responded to this need, providing artists with a space for individual experimentation, unconstrained by traditional beliefs.[17] This example illustrates the changes taking place in the collective memory of Parisian society. The evolution of this iconic landmark did not result in the loss of the place's deep-rooted spirit, but rather reinterpreted its meaning, leading to the gradual integration of the structure into the collective memory. This demonstrates the dynamic nature of a space's character and proves that the perception of architecture is a continuous and flexible process, shaped by social conditions.





Ill. 5. The Centre Pompidou, source: https://www.archdaily.com/955786/pompidou-center-to-close-completely-for-renovations-during-3-years/60104e0163c017327e00001c-pompidou-center-to-close-completely-for-renovations-during-3-years-image (access: 9.07.2026)

Ill. 6. Interior of the Centre Pompidou, source: https://commons.wikimedia.org/wiki/File%3ACentre_Pompidou%2C_int%C3%A9rieur.jpg?utm_source=chatgpt.com (access: 14.07.2026)

4. THE EXISTING STRUCTURE AND THE NEW ICON – RECONSTRUCTION AND DECONSTRUCTION OF MEMORY

Examining a historic monument in the context of a palimpsest allows us to explore its significance within an interdisciplinary framework that brings together aspects of local identity.[18]

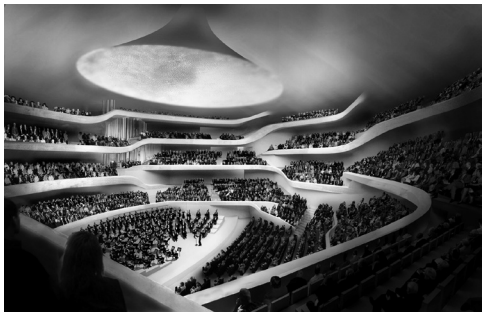
[17] W. Zhang, *Centre Pompidou…, op. cit.,* pp. 58–61.

[18] F. Lanz, *The building as a palimpsest: heritage, memory and adaptive reuse beyond intervention*, "Journal of Cultural Heritage Management and Sustainable Development" 2024, no 14(1), pp. 10–14.

The complexity of the physical layer and the cultural strata built up over time begin to form a unified structure that is difficult to separate into its individual components. Reconstructing memory may, at the same time, entail a certain deconstruction of the architectural form, in order to introduce a further layer in the form of a contemporary narrative. Reinterpreting heritage should not obscure the past or marginalize history, but rather develop its significance through continuity.

A contemporary response to the process of shaping memory is the former cocoa bean warehouse – the Elbphilharmonie (Ill. 7, 8) in Hamburg. It was originally built in 1875 and, following the destruction of the Second World War, was rebuilt to a new design between 1963 and 1966. Inadequate technical preparation meant that the building failed to fulfill its function, which led to it being abandoned in 2001. Six years later, Alexander Gérard, a Hamburg-based developer and architect, began collaborating with the architectural practice Herzog & de Meuron, resulting in the completion in 2016 of a project that has become a symbol not only of Hamburg but also of modern acoustic technology.[19]





Ill. 7. The Elbphilharmonie, source: https://thespaces.com/hamburgs-elbphilharmonie-open/ (access: 9.07.2026)

Ill. 8. Interior of the Elbphilharmonie, source: https://thespaces.com/take-a-first-glimpse-of-life-inside-hamburgs-elbphilharmonie/ (access: 14.07.2026)

The success of the composition can be described as a balanced integration of proportion, order and harmony, building on the principles of the Vitruvian triad. The concert hall, reminiscent of a ship's hull, was designed as a deconstruction of nature, taking into account the city's maritime history. The result is a stunning form of an irregular glass wave in the form of a superstructure, separated from the lower part of the building by an elongated viewing terrace that ensures integration with the landscape. The building's brick base, punctuated by a regular rhythm of vertical cut-outs, blends naturally with the urban fabric in the style of North German Expressionism.[20] The new identity, based on historical continuity, not only created a space for music to flourish but also enriched the city with a diverse public and commercial offering, an integral part of which is accommodation. The

[19] T. Heuer, J. Runde, *The Elbphilharmonie and the Hamburg effect: on the social positioning, identities and system functions of a building and a city*, "European Planning Studies" 2022, no 30(1), pp. 85–105.

[20] A. Ryś, *Triada Witruwiusza na przykładzie obiektu użyteczności publicznej – filharmonii w Hamburgu*, [in:] A. Mielnik (ed.), *Definiowanie przestrzeni architektonicznej: mity architektury,* vol. 4, Oficyna Wydawnicza Atut, Wrocław 2021, pp. 88–94.

Elbphilharmonie is gradually becoming an international symbol, much like the Sydney Opera House, which lends individuality and character to the space.[21] It can be concluded that this project is a significant element of landscape and culture in a socio-architectural context, responding to the changing needs of a city undergoing transformation over time. The deconstruction of the seaside wave established the object as an icon, yet it was the reconstruction of memory that allowed the philharmonic to become a work of art that provided historical continuity for Hamburg. Society gained a new space for identifying with the place, allowing for the construction of memory in a collective context, far beyond the architectural symbol itself.

5. SUMMARY

Architectural memory is a process that evolves between obliteration, reconstruction, and complete deconstruction. Creative adaptations of historic structures, as in Berlin's Neues Museum or Cologne's Kolumba Museum, demonstrate how physical ruins, when confronted with the rigors of minimalism, become authentic carriers of memory, allowing for the sensory "domestication" of a difficult history. Gradual social acceptance can reinterpret an initially alien object into an icon of a new era, as exemplified by the Centre Pompidou in Paris.

The uniqueness of the historic buildings is based on their fractal composition – the creation of structures adapted to human scale, where a change of perspective reveals new layers of time, textures and ornaments.[22] Blurring these details increases disorientation because it is the generalized mental image of the physical world that is "used to interpret information and guide action."[23] in an urbanized environment. On the one hand, architectural dualism determines personal associations, and on the other, collective memory unites these individual experiences, because in fact "all these experiences, their sum, constitute the city".[24]

Properly understood, concern for heritage does not mean historicizing mummification, but creative reinterpretation. The spectacular success of the Hamburg Elbphilharmonie demonstrates that respect for historical foundations allows for the bold deconstruction of form and the creation of new meanings. The true value of architecture is revealed when its material surface lends credence to a contemporary narrative without severing its roots. Following Władysław Strzemiński's conclusion, "harmony and beauty arise not from denying real vision, but from greater congruence with our real vision."[25] Architecture then becomes not a passive scenography, but a living organism in which the phenomenon of strangeness ultimately gives way to a sense of deep roots.

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[21] T. Heuer, J. Runde, *The Elbphilharmonie…, op. cit.*, pp. 11–14.

[22] A. Mus, P. Nowak, *Skala i symbolika współczesnej architektury*, "Zeszyty Naukowe Towarzystwa Doktorantów UJ" 2013, no 7(2), pp. 75–77.

[23] K. Lynch, *The Image…, op. cit.*, p. 4.

[24] A. Rossi, *The Architecture…, op. cit.*, p. 28.

[25] W. Strzemiński, *Teoria…, op. cit.*, p. 55.

References

[1] Dobek R., *Haussmann – budowniczy nowego Paryża*, "Wiek XIX. Rocznik Towarzystwa Literackiego imienia Adama Mickiewicza" 2019, no 12(54), pp. 231–234.

[2] Heuer T., Runde J., *The Elbphilharmonie and the Hamburg effect: on the social positioning, identities and system functions of a building and a city*, "European Planning Studies" 2022, no 30(1), pp. 85–105.

[3] *Kolumba Museum / Peter Zumthor*, "ArchDaily", https://www.archdaily.com/72192/kolumba-musuem-peter-zumthor (access: 10.07.2026).

[4] Lanz F., *The building as a palimpsest: heritage, memory and adaptive reuse beyond intervention*, "Journal of Cultural Heritage Management and Sustainable Development" 2024, no 14(1), pp. 10–14.

[5] Lorenz W., *Classicism and High Technology – the Berlin Neues Museum*, "Construction History" 1999, no 15, p. 45.

[6] Lynch K., *The Image of the City*, The MIT Press, Cambridge–Massachusetts–London 1990.

[7] Mus A., Nowak P., *Skala i symbolika współczesnej architektury*, "Zeszyty Naukowe Towarzystwa Doktorantów UJ" 2013, no 7(2), pp. 75–77.

[8] Pallasmaa J., *The Eyes of the Skin: Architecture and the Senses*, John Wiley & Sons, London 2012.

[9] Rossi A., *The Architecture of the City*, The MIT Press, Cambridge–Massachusetts–London 1982.

[10] Ryś A., *Triada Witruwiusza na przykładzie obiektu użyteczności publicznej – filharmonii w Hamburgu*, [in:] A. Mielnik (ed.), *Definiowanie przestrzeni architektonicznej: mity architektury*, vol. 4, Oficyna Wydawnicza Atut, Wrocław 2021, pp. 88–94.

[11] Strzemiński W., *Teoria widzenia*, Wydawnictwo Literackie, Kraków 1958.

[12] Vecco M., *Genius loci as a meta-concept*, "Journal of Cultural Heritage" 2020, no 41, pp. 10–11.

[13] Węcławowicz-Gyurkovich E., *Nowoczesna konserwacja Neues Museum w Berlinie*, "Czasopismo Techniczne" 2012, no 4-A (13), pp. 174–176.

[14] Węcławowicz-Gyurkovich E., *Odważna współczesna realizacja w zabytkowym środowisku*, "Wiadomości Konserwatorskie" 2010, no 28, p. 70.

[15] Zhang W., *Centre Pompidou: The Reproduction of Parisian History and Culture in a Postmodernist Building*, "Studies in Art and Architecture" 2023, no 2(3), pp. 57–58.

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