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AFTERIMAGE ARCHITECTURE. BETWEEN ABSENCE AND MEMORY OF PLACE

ARCHITEKTURA POWIDOKOWA. MIĘDZY NIEOBECNOŚCIĄ A PAMIĘCIĄ MIEJSCA

Abstract

This article addresses the problem of afterimage architecture as a means of revealing absent layers of space and sustaining the memory of place. The discussion is framed within the context of architectural illusion, understood not as a falsification or distortion of reality, but as a consciously crafted tool for spatial perception. The reception of architecture is shaped by prior experiences, memories, and encoded cultural images, which influence the interpretation of spatial forms. Architecture can evoke images of lost places, foster a sense of familiarity with unfamiliar spaces, or reconstruct experiences existing only in the user's memory. In this approach, afterimage architecture becomes a medium for revealing traces of the past that are present in the structure of the contemporary city, and the illusion serves as one of the mechanisms activating the viewer's memory and imagination. Consequently, the experience of architecture transcends its material form and can remain a permanent element of the user's memory even after the object's physical disappearance. The article proposes a classification of the forms of materialization of afterimage architecture.

Keywords: *afterimage architecture, narrative materializations, performative materializations, sensory materializations, visual materializations*

Streszczenie

Artykuł podejmuje problem architektury powidokowej jako sposobu ujawniania nieobecnych warstw przestrzeni oraz podtrzymywania pamięci miejsca. Rozważania osadzono w kontekście iluzji architektonicznej rozumianej nie jako fałsz lub deformacja rzeczywistości, lecz jako świadomie kształtowane narzędzie percepcji przestrzeni. Odbiór architektury jest kształtowany przez wcześniejsze doświadczenia, wspomnienia oraz zakodowane obrazy kulturowe, które wpływają na interpretację form przestrzennych. Architektura może przywoływać obrazy miejsc utraconych, budować poczucie znajomości wobec przestrzeni nieznanej lub rekonstruować doświadczenia istniejące jedynie w pamięci użytkownika. W tym ujęciu architektura powidokowa staje się medium ujawniania śladów przeszłości obecnych w strukturze współczesnego miasta, a iluzja pełni rolę jednego z mechanizmów aktywizujących pamięć i wyobraźnię odbiorcy. W konsekwencji doświadczenie architektury wykracza poza jej materialną formę i może pozostawać trwałym elementem pamięci użytkownika nawet po fizycznym zniknięciu obiektu. W artykule zaproponowano klasyfikację form materializacji architektury powidokowej.

Słowa kluczowe: *architektura powidokowa, materializacje narracyjne, materializacje performatywne, materializacje sensoryczne, materializacje wizualne*

1. INTRODUCTION

For centuries, architecture has been perceived as one of the most enduring forms of human activity. Its durability, despite exposure to wars, natural disasters, and interventions, has always been relative. As a result, many objects in space have ceased to exist physically, leaving behind at most traces in the spatial structure, archives, iconography, and sometimes only in the memories of their users. Therefore, the question of the limits of architecture's existence seems crucial. Does a building cease to exist with the loss of its material substance? Or do buildings or structures, through artifacts or memories, continue to be part of the architectural reality of a place? Answering these questions may require a shift away from the traditional understanding of architecture as a solely physical object. Every experience in space, interpreted individually, is filtered through earlier memories and encoded patterns of perception. In this context, afterimages in architecture acquire particular significance, allowing us to perceive and interpret layers of meaning in space that transcend material form and evoke hidden meanings in places. Various means of expression can be employed in this process, including architectural illusion, which serves as a tool for activating memory and imagination. This allows architecture to evoke the experience of places that no longer physically exist. This approach aligns with the phenomenological theory of the "spirit of place," developed by Norwegian architectural theorist Christian Norberg-Schulz[1]. According to him, the unique and unrepeatable identity of a place stems not only from its current form, but also from the layers of meaning accumulated over successive generations. This place becomes a carrier of memory, and architecture serves as a medium for its interpretation. The concept of place developed by Norberg-Schulz is paralleled by the theory of "places of memory" (*lieux de mémoire*) by the French historian Pierre Nora, who argues that, in the absence of living memory, material traces of the past acquire particular significance, serving as a repository for and a stimulus to collective experiences of the past[2]. A place of memory or remembrance can be a historical object, a ruin, an archaeological relic, a fragment of a wall, an empty square, or a historical archive.

This article focuses in particular on the phenomenon known as "afterimage architecture," which can serve as a tool for maintaining the continuity of a place's memory by materializing traces of the past, even though the objects that constitute the "places" have lost their physical form.

2. ARCHITECTURE AS A MULTI-SENSORY EXPERIENCE

The development of both traditional and contemporary forms of spatial visualization, currently particularly prevalent in social media, has led to a situation in which buildings are increasingly assessed based on single, often attractive, images. As a result, architecture functions as an object to be viewed, not experienced. The phenomenology of architecture proposes a different perspective on space. People do not observe a building merely from the outside, but experience its structure through direct sensation. A building, in its spatial

[1] C. Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture,* Rizzoli, New York 1980, pp. 6–23.

[2] P. Nora, *Between Memory and History: Les Lieux de Mémoire*, "Representations" 1989, no 26, pp. 7–24.

sequences, gradually reveals subsequent layers and meanings as the user moves through it. Peter Zumthor emphasizes that architecture primarily affects people through atmosphere, understood as the magic of the real relationship between space and people, shaped by light, materials, proportions, sounds, changing perspectives, the rhythm of movement, the way the user is guided through the space, and the individual user's experience[3]. The stronger the experience of a space and the memory of it or events within it, the more lasting the memory becomes. The perception of space in the viewer's consciousness is filtered through their own memories, emotions, and previous recorded experiences. Juhani Pallasmaa also points out that architectural memory is a complex, multi-sensory record, in which we remember not only images but also the tactile sensations of materials, the interior temperature, sounds, and the smell of a specific place. In his essay *The Place of Man*, he writes:

> The experience of the environment always involves several senses. One fundamental weakness of architecture today is in fact its exclusively visual quality, setting it outside our emotions. The intensity and tranquility of our experiences of a natural setting-or of a Japanese garden, for instance-stem from the fact that we are using all our senses[4].

Therefore, considering the non-material dimension of architecture, the physical erasure of a building's form from space does not necessarily mean the disappearance of its impact. An object can continue to function in human memory as an experience, despite its material disappearance. Spatial afterimages can trigger perceptual processes leading to the reconstruction of lost meanings. In this approach, architecture endures not only as an object but also as an experience rooted in the memory of the place and its previous, as well as even new, previously socially and culturally unconnected users. The city can be viewed as a multi-layered organism, in which successive eras leave their own traces, contributing to its identity. Traces of former spatial arrangements remain inscribed in the street layout, plot divisions, artifacts, historical documents, and the collective memory of its inhabitants. This thinking is close to the Geneva thinker André Corboz, who calls new urban interventions that overwrite earlier layers in urban space a palimpsest[5]. Each generation leaves its own trace, contributing to the identity of a place even when it is no longer directly visible. The concept of palimpsest originates from the medieval practice of reusing parchments from which earlier texts were removed, leaving only partially visible traces. Discovered foundations, cellars, wall fragments, and former plot layouts can be considered elements of a city's spatial DNA.

3. MATERIAL FORMS OF AFTERIMAGE ARCHITECTURE

Various means of spatial expression, such as light, contour, archaeological relics, voids, information, and digital technologies, can materialize or quasi-materialize traces of afterimage architecture, excluding forms of reconstruction of built structures. Their goal is not to recreate lost architectural substance, but to activate users' spatial memory and reveal the city's historical layers. In this approach, four basic forms of materialization of afterimage architecture can be distinguished, taking into account the experience of architecture through

[3] P. Zumthor, *Thinking Architecture. Birkhäuser*, Basel 2006, pp. 83–87.
[4] J. Pallasmaa, *Encounters 1. Architectural Essays*, Rakennustieto Publishing, Helsinki 2012, p. 75.
[5] A. Corboz, *Le territoire comme palimpseste*, "Diogène" 1983, no 121, pp. 14–35.

seeing, interpretation and knowledge, as well as through the body and senses: visual, narrative, sensory and performative materializations (Ill. 1).

3.1. VISUAL MATERIALIZATIONS

Visual forms of materializing afterimage architecture, which utilize various spatial means to evoke the memory of vanished architecture, include relic materialization, contour materialization, light materialization, and negative materialization.

Relic materialization is based on the preservation and display of authentic remains of structures, such as foundations, wall fragments, cellars, or archaeological layers. An example of this approach is the Museum Under the Market Square in Krakow, where discovered relics of the medieval city were preserved in situ and became an integral element of contemporary spatial narrative. The remains of medieval buildings discovered during archaeological research were not removed or obscured by new development. Instead, they have become an integral part of contemporary public space. Visitors simultaneously experience places of memory both within the main square, which functions on the surface, and the historical layer hidden beneath.

Contour materialization involves recreating the outline, scale, or geometry of a nonexistent structure using spatial structures, floor elements, or artistic installations. Among the most famous works of this type is David Hammons's sculpture "Day's End" on the western shore of Manhattan in New York City, which represents a kind of sketch reproducing the previously demolished port warehouse at Pier 52. Before the warehouse's demolition in 1975, artist Gordon Matta-Clark cut large openings in the walls, roof, and floor of the abandoned warehouse, creating a kind of "cathedral of light" opening to sunlight and water (Ill. 2). Meanwhile, Spanish artist Juan Garaizabal's sculpture "Memoria Urbana" recreates the outline of the defunct Bethlehem Church in Berlin, destroyed in 1945 (Ill. 3). The project was created in 2012 as part of the international Memorias Urbanas project. In both cases, the buildings themselves are not reconstructed, but their spatial traces, alluding to the history of the site. A special variety of contour materialization is planar reconstruction, realized at floor level. This includes markings of the outlines of former defensive walls, temples, or other no longer existing structures. The former course of the Berlin Wall is legible in Berlin thanks to markings in urban surfaces. An interesting example of visual materialization is the 2013 project of the Garden of Remembrance in Marburg, Germany, which commemorates the former synagogue that was set on fire on Kristallnacht in 1938 (Ill. 4). Light materialization can utilize illumination, projection, and multimedia technologies to evoke lost architectural elements. This allows for the non-invasive disclosure of historical layers of a place without interfering with the preserved historic substance. An example of this approach is the illuminated recreation of the frescoes decorating the façade of the Old Scales House in Nysa (Ill. 5).

The means of spatial expression and the conveyor of meaning of negative materialization is the conscious exposure of emptiness, absence, or the trace of a nonexistent object as a fundamental element. A particularly striking example is the National September 11 Memorial in New York, where the outline of the defunct World Trade Center towers was marked by monumental depressions in the place of the former foundations (Ill. 6). The project does not reconstruct the lost WTC towers, but instead marks their presence with monumental voids outlining the former foundations. Paradoxically, the absence of the original objects becomes the primary vehicle of meaning here.

3.2. NARRATIVE MATERIALIZATIONS

Among the narrative forms of materialization of afterimage architecture, we can distinguish informational (and/or interpretive) and digital materializations. These forms rely on conveying and reconstructing knowledge about absent layers of space using text, images, digital media, and immersive tools. Informational (and/or interpretive) materialization can be implemented through text, iconography, maps, spatial information systems, educational boards, and activities that popularize knowledge about a place. Its goal is to enable users to decipher the absent layers of the city without having to physically reveal them. Iconographic sources, documents, historical plans, and various narratives that restore the memory of lost objects play a special role here. Digital materialization utilizes tools such as augmented reality (AR), virtual reality (VR), digital models, and multimedia reconstructions. Their use allows users to experience lost architecture without interfering with the existing space.

3.3. SENSORY MATERIALIZATIONS

Sensory (or multi-sensory) materialization involves the evocation of absent architecture by engaging senses other than sight, particularly touch, hearing, smell, and sometimes thermal perception. It is a means of reconstructing the atmosphere of a place and its associated experiences, which may utilize authentic materials, surface textures, sound compositions, scents, or microclimatic conditions. Among the sensory forms of afterimage architecture materialization, we can distinguish haptic, acoustic, olfactory, atmospheric, and temporal materializations. Sensory materialization includes:

- **haptic (tactile) materialization** utilizing the texture of materials, relics of walls, historic surfaces, or recreated architectural details accessible to the touch,
- **acoustic materialization** based on the reconstruction or interpretation of ancient soundscapes, such as the sounds of industry, ports, markets, or sacred buildings,
- **olfactory (scent)** materialization, utilizing characteristic scents associated with the former function of a place, vegetation, or traditional materials,
- **atmospheric materialization** referring to the perceived atmosphere of the place, mood, light, shadow, temperature, humidity, microclimate, i.e. the phenomenological qualities of space,
- **temporal materialization** consisting of revealing absent architecture through phenomena occurring at specific moments in time, related to daily cycles or the season, as well as to atmospheric conditions or historical events – in this case, the memory carrier is not a permanent object, but a recurring temporal phenomenon that periodically evokes an absent layer of space.

Temporal materialization may include:

- **solar-luminous materialization** revealing traces of architecture using natural light appearing at specific times of the day or year,
- **seasonal materialization** utilizing changes in vegetation, snow, humidity, or landscape color,
- **meteorological materialization** involving specific weather phenomena such as fog, rain, snow, dew, wind, reflections in water, shadows and other effects depending on atmospheric conditions,

- **memorial materialization** utilizing temporary installations, illuminations, or events occurring on specific dates related to the history of the site.

The proposed classification is open-ended. In design practice, individual forms of materialization can often coexist. For example, displays of ruins and preserved relics left as evidence of the loss of historical substance can be classified as all of the above-mentioned forms of materialization of afterimage architecture. Evening illuminations on buildings are not only luminous but also temporal, as they become visible only at a specific time of day. Similarly, the shadow of a nonexistent object cast at a specific time of year would be a classic example of temporal materialization of afterimage architecture.

3.4. PERFORMATIVE MATERIALIZATIONS

Performative materializations are forms of materializing ideas, memories, meanings, or spatial traces through action, movement, use, interaction, or a temporal event. Their essence lies in their dynamic, relational, and processual nature, in which architectural form represents specific content and, through usage practices, actively creates and recreates it. Performative materializations include:

- **movement materializations** revealed through the user's movement and sequential exploration of space; the perception of the afterimage depends on the route, sequence of views, and changes in vantage points,
- **participatory materializations** requiring the active participation of users or communities; the afterimage becomes legible through interaction, co-creation, or engagement of recipients,
- **ritual materializations** associated with repetitive practices, celebrations, ceremonies, and acts of memory; the meaning of the afterimage is sustained by ceremonies, celebrations, meetings, and acts of collective memory,
- **processual materializations** that gradually emerge as a result of long-term spatial, social, or environmental changes; the afterimage is a dynamic state occurring over time.

4. FORGOTTEN ARCHITECTURE

A particularly interesting manifestation of architectural decline is the situation in which the loss of material substance is accompanied by the gradual fading of the memory of the structure's very existence. While well-known symbolic structures often remain present in the public consciousness despite physical destruction, many everyday buildings disappear almost entirely from cultural spaces. This process leads to the creation of "blank spots" in the city's history, and with them, to a weakening of the continuity of the memory of a place. A lack of awareness of the significance of a place and a disregard for its historical, cultural, and spatial values can easily lead to the falsification of space.

An example of this phenomenon is the now-defunct tenement house located on the eastern side of the market square in Nysa, which had housed a pharmacy since 1438. This building, like approximately eighty other tenement houses located in the historic city center, was demolished in the early 1950s, and the recovered building materials were used in the reconstruction of other Polish cities. For over five centuries, the pharmacy was an integral element of urban space, contributing to both the market square landscape and the city's social life. Its significance did not stem solely from its utilitarian function. The pharmacy was part of residents' daily

practices, a place for exchanging information, a symbol of the continuity of local traditions, and a testament to the city's centuries-long development. This case illustrates the fundamental difference between the loss of a building and the loss of significance. The material destruction of a structure does not necessarily lead to the disappearance of its cultural presence. This only happens when the ability to interpret the narratives associated with it disappears. In this sense, architecture ceases to exist not when it is demolished, but when it ceases to be a part of collective memory. The presented example illustrates the erasure of a crucial element of the city's identity. For contemporary residents of Nysa, graphic representations of the city, short films, and oral histories before its destruction create a powerful image of an idyllic town. Afterimages of the city in its historical form are not the exclusive domain of architects. The question of how former buildings, including the market pharmacy, materialized remains open.

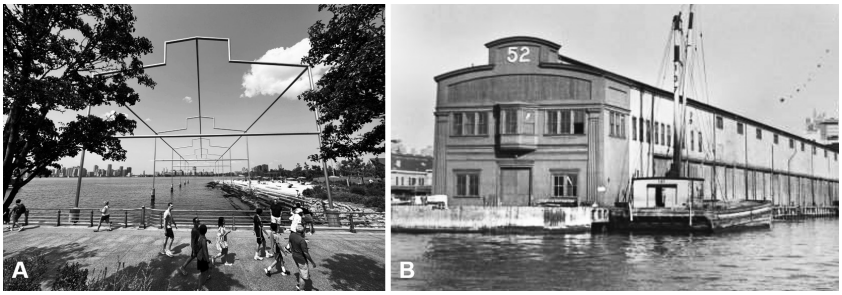
5. SUMMARY

Based on the analyses conducted, it can be concluded that architecture exists not only as a material object, but also as a carrier of memory, meaning, and experience. The disappearance of an object does not necessarily mean the complete disappearance of its impact. Architecture can persist as a trace inscribed in the structure of the city, as a memory present in the consciousness of residents, or as an element of the spatial imagination activated by contemporary design activities. In this context, memory takes on particular significance. Memories and images imprinted in consciousness, as well as culturally rooted patterns of perception, contribute to the understanding of place.

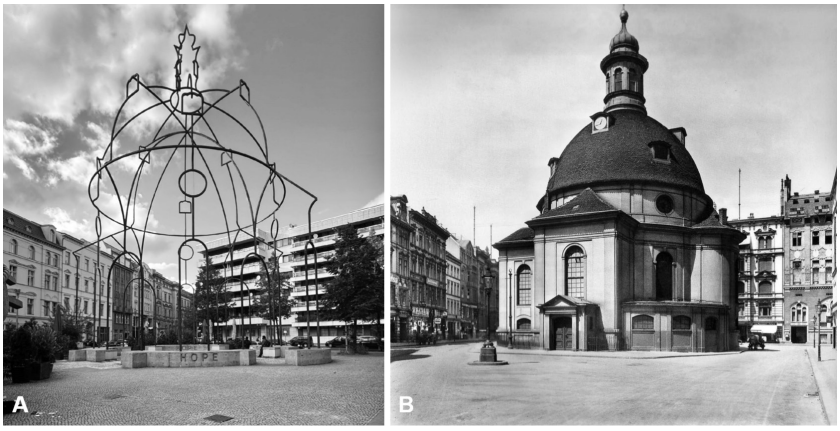
The examples analyzed demonstrate that contemporary design increasingly seeks ways to reveal absent layers of space. One such approach is afterimage architecture, a distinct category of design activities in the space of absent heritage. It utilizes intermediary solutions such as light, multimedia, spatial installations, the display of relics, and symbolic markings of former urban structures. Afterimage architecture is not reconstruction in the traditional sense of the word. It does not seek to literally recreate lost substance or create the illusion of authenticity. Its goal is to reveal absence and enable the viewer to consciously experience the multi-layered nature of a place. In this sense, it becomes a unique form of dialogue between past and present.

Forms of Materialization of Afterimage Architecture			
visual materializations	narrative materializations	sensory/ multisensory materializations	performative materializations
• relic-based • contour-based • light-based • negative	• informational/ interpretative • digital	• haptic • acoustic • olfactory • atmospheric • temporal materializations: o solar-light o seasonal o meteorological o commemorative	• movement • participatory • ritual • processual

Ill. 1. Forms of materialization of afterimage architecture, source: author



Ill. 2. A) David Hammons' sculpture "Day's End" recreating the outline of the Pier 52 loading dock, Manhattan, New York, photo by the author, 2024, B) Pier 52, 1951, source: New York Public Library, https://media.villagepreservation.org (access: May 30, 2026)



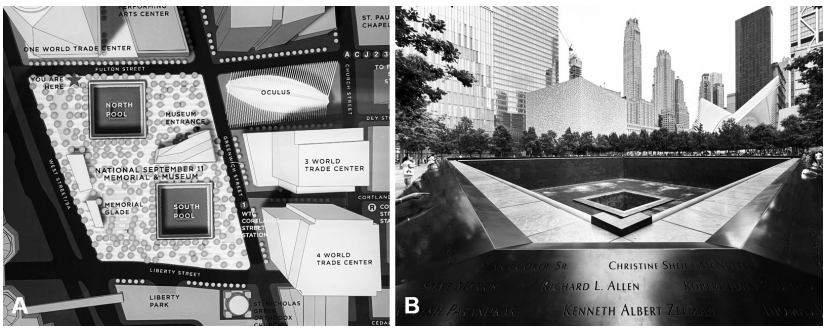
Ill. 3. A) The sculpture "Memoria Urbana" by Juan Garaizabal reproducing the outline of the Bethlehem Church in Berlin destroyed in 1945, 2012, photo by the author, 2024, B) Bethlehem Church, 1910, source: R. Schneider (ed.), Berlin um 1900, Nicolaische Verlagsbuchhandlung, Berlin 2004, p. 96



Ill. 4. Garden of Remembrance in Marburg, Germany, on the site of the former synagogue set on fire on Kristallnacht in 1938, designed by scape Landschaftsarchitekten GmbH, 2013: A) general view, B) project idea, source: www.scape-net.de (access: May 30, 2026)



Ill. 5. The Old Scales House in Nysa: A) existing condition B) mapping on the front elevation reproducing lost frescoes, design: Michał Kaczmarzyk, photo by the author, 2026



Ill. 6. National September 11 Memorial in New York. A memorial and museum at the World Trade Center site commemorating the victims of the terrorist attacks of September 11, 2001. An example of negative reconstruction, a powerful form of evocation of absence, designed by Michael Arad, Peter Walker, PWP Landscape Architecture: A) site plan, B) general view, photo by the author, 2025

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