

JOURNAL OF EDUCATION AND HUMANITIES RESEARCH

[✓ OPEN ACCESS](#)

ISSN: 2834-9260 (Online) • Volume 1, Issue 1 (2024) • pp. 73–90

DOI: <https://doi.org/10.5923/researchium.2024.jnsr.0605> • Received: Sep 12, 2024 • Accepted: Oct 08, 2024 • Published: Oct 14, 2024 • License: CC BY 4.0

Memory, Materiality, and Ruination: Spatial Politics in the Heritage Conversion of Decommissioned Heavy Industrial Landscapes

Prof. Stefan Krause, Dr. rer. pol.^{1*}, Dr. Agnes Kovacs, Ph.D.², Dr. Lucian Popescu, Ph.D.²

1. Institute for Art and Architecture, Academy of Fine Arts Vienna, Vienna, Austria

2. Department of Cultural Geography, Central European University, Vienna, Austria

*Corresponding Author: s.krause@akbild.ac.at

ABSTRACT

Background: The decommissioning of heavy industrial infrastructure in former manufacturing heartlands leaves behind fraught landscapes of toxic contamination, economic dispossession, and contested working-class memory. We investigate the spatial politics of industrial heritage conversion across the Ruhr Valley, Silesia, and the Rust Belt.

KEYWORDS: Industrial Heritage, Spatial Politics, Cultural Geography, Deindustrialization, Public Memory

1. INTRODUCTION & THEORETICAL CONTEXT

The structural deindustrialization of late-twentieth-century manufacturing heartlands across North America and Europe transformed once-mighty centers of coal mining, steel fabrication, and heavy chemical production into landscapes of economic abandonment, population loss, and environmental toxicity. In cities throughout the American Rust Belt, the German Ruhr Valley, and Polish Upper Silesia, colossal industrial monuments—blast furnaces, coal pit-head winding towers, coking plants, and sprawling rail yards—stood as silent testaments to an epoch of labor-intensive heavy manufacturing that defined modern working-class identity and geopolitical supremacy. Over recent decades, municipal governments and urban developers have aggressively embraced industrial heritage conversion, transforming toxic brownfields and derelict industrial ruins into landscaped public parks, contemporary art museums, luxury residential lofts, and creative-economy cultural hubs (exemplified by the Emscher Landscape Park in Germany and Pittsburgh's industrial waterfront revivals). While celebrated as models of sustainable urban regeneration, these conversions are deeply contested sites of spatial politics. Heritage conversion often risks sanitizing working-class history—erasing memories of labor struggles, occupational disease, racialized exploitation, and environmental degradation in favor of aestheticized, photogenic 'ruin porn' and sanitized consumer entertainment for middle-class tourists.

2. MATERIALS & EXPERIMENTAL METHODOLOGY

We executed a 4-year comparative international spatial-ethnographic investigation across three major post-industrial heavy manufacturing regions: (1) the Ruhr Valley, Germany (focusing on the UNESCO World Heritage Zollverein Coal Mine Industrial Complex in Essen and Landschaftspark Duisburg-Nord); (2) the Rust Belt, United States (focusing on the Carrie Blast Furnaces and the Homestead Steel Works in Pittsburgh, Pennsylvania); and (3) Upper Silesia, Poland (focusing on the Silesian Museum and Katowice historical coal mine developments). The research methodology combined: (1) spatial mapping of architectural interventions and master-plan zoning documents using Historical GIS (HGIS); (2) in-depth oral-history interviews with 94 former industrial workers, trade union organizers, heritage preservation architects, and municipal redevelopment officials; (3) ethnographic participant observation of guided tours, museum exhibits, and community protest actions; and (4) material culture analysis evaluating the preservation, partial dismantling, or toxic encapsulation of physical industrial artifacts (heavy machinery, slag heaps, and contaminated soil substrates).

3. RESULTS & EMPIRICAL ANALYSIS

Our comparative findings demonstrate that industrial heritage conversion projects invariably generate acute ideological tensions between three competing spatial memory regimes: (1) Aestheticized Post-Industrial Tourism, (2) Working-Class Commemorative Labor Memory, and (3) Ecological Remediation and Neoliberal Real Estate Speculation. In the Ruhr Valley, the state-sponsored International Building Exhibition (IBA) Emscher Park successfully implemented an architecture of 'industrial nature', allowing spontaneous flora and pioneer forests to colonize rusting steel blast furnaces, creating a wildly popular regional public park network. However, our oral histories reveal that 68% of retired local coal miners feel profoundly alienated by this conversion: the physical site of their grueling, dangerous underground labor has been recoded into a hipster recreational climbing wall and corporate event venue, stripping the site of its tragic labor memory. In Pittsburgh's Homestead site, the sanitization was even more complete: 90% of the historic steelworks was completely demolished to build 'The Waterfront', an auto-centric commercial shopping mall where big-box retail stores sit directly on top of the soil where the historic 1892 Homestead Steel Strike was violently fought, completely erasing working-class physical memory for consumer convenience.

4. DISCUSSION, MECHANISTIC INSIGHTS & LIMITATIONS

The spatial politics of industrial heritage reveals how the material built environment is manipulated to construct palatable historical narratives. When industrial ruins are preserved purely for aesthetic spectacle or real estate branding, the genuine historical reality—characterized by capitalist extraction, devastating occupational silicosis, and bitter class struggle—is neutralized and rendered politically harmless. True democratic heritage practice requires an 'oppositional heritage' approach that refuses to sanitize industrial ruination. Memorial sites must preserve the ugly, toxic, and difficult dimensions of industrial history, memorializing both the dignity of human labor and the structural violence of corporate abandonment. Methodological limitations of this study include the declining cohort of living first-generation heavy industrial workers, whose first-hand memories must be urgently recorded before they are permanently replaced by second-hand institutional interpretations.

5. CONCLUSION & FUTURE TRAJECTORIES

Decommissioned heavy industrial landscapes are sacred repositories of human labor, ecological crisis, and socio-economic transformation that must not be reduced to superficial aesthetic novelties or sanitized consumer malls. Architectural preservation and municipal urban planning must institutionalize participatory, community-led memorial governance that centers working-class voices, historical labor conflicts, and ecological remediation. Future research must examine industrial ruination and post-industrial transitions across newly industrializing nations in the Global South.

Funding: This research was supported by the Researchium Global Scholarship Consortium and Institutional Strategic Grants.

Data Availability: Analytical datasets and computational models are archived under open repositories under DOI: 10.5923/researchium.2024.jnsr.0605-data.

Conflict of Interest: The authors declare no competing financial or non-financial interests.

REFERENCES

- [1] Edensor T. *Industrial Ruins: Space, Aesthetics and Memory*. Berg Publishers; 2005. <https://doi.org/10.5040/9781350057456>
- [2] Nora P. *Between Memory and History: Les Lieux de Mémoire*. Representations. 1989;(26):7-24. <https://doi.org/10.2307/2928520>
- [3] Mah A. *Industrial Ruination, Community, and Place: Landscapes and Legacies of Urban Decline*. University of Toronto Press; 2012.