

Integrating Museum Narratives in the Adaptation of Post-Industrial Heritage to Multifunctional Buildings in Warsaw, Poland

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Warsaw has recently seen the development of several new multifunctional complexes built on former industrial sites, incorporating relics of historic industrial architecture and referencing their past. Despite significant investment pressure, high land prices and rising construction costs, more investors are recognising the importance of preserving parts, or even entire quarters, of former industrial buildings. The article examines three major post-industrial revitalisation projects in Warsaw that successfully combine modern design with the memory of the sites' former industrial uses. Each project demonstrates how contemporary architecture can coexist with historical elements, creating spaces that honour the past while meeting the demands of modern urban life. These revitalised areas not only provide functional spaces for residential, commercial and cultural activities but also serve as living monuments to the city's industrial heritage. By doing so, they contribute to reshaping Warsaw's urban landscape, offering a meaningful dialogue between history and progress.

Keywords: Revitalisation, Industrial site, Adaptive reuse, Warsaw

Introduction

Adaptive reuse is a practice born of resourcefulness. Evidence of it can be found in various guises through the centuries from ancient times to present day. As Liliane Wong has stated, “with the birth of societies, the need for economy dictated the reuse of materials and structures. In the built environment, this approach led to the salvaging of obsolete buildings for parts to reuse in new construction”.¹ Nowadays, adaptation plays an extremely important role in sustainable urban development. The phenomenon can have “a significant influence in relation to contemporary trends in (peri-)urban sustainability, especially considering the past decades of the human-caused depletion of natural resources and environmental pollution”.² The adaptation to a new function of a building is perceived not only as a way of saving the material heritage of the past, but also as an attempt to save the intangible values important for the local community, as these buildings play an important role in “maintaining social bonds and

¹ WONG, Liliane. *Adaptive reuse in architecture: A typological index*. Basel: Birkhäuser, 2023, p.12.

² VARDOPOULOS, Ioannis. Adaptive Reuse for Sustainable Development and Land Use: A Multivariate Linear Regression Analysis Estimating Key Determinants of Public Perceptions. In: *Heritage*, 6(2), 2023, p. 811.

identity, participat[ing] in the constitution of memory and the experience of continuity”.³ It plays an important role in the economic development of the city, enhancing its attractiveness and competitiveness. Professor Gregory Ashworth has pointed out that “the uniqueness of the cultural space is also becoming a value of economic importance”.⁴

Post-industrial heritage is tangible evidence of progress, innovation and entrepreneurship and records the knowledge of past technology. It is a common phenomenon that post-industrial buildings remain unused for many years after the end of production. In most cases post-industrial structures very rarely return to their original function, i.e., production, and “therefore the change of use of the structure is an inseparable factor that determines development opportunities in the process of works undertaken on technical monuments”.⁵

The city of Warsaw, like other Polish cities, is not an exception and the phenomenon of adapting post-industrial buildings has been widespread there in the last decade. The industrial revolution led to an unprecedented expansion of the urban fabric in the nineteenth and twentieth centuries, both in the industrial basins of Europe and around the world. These observations apply equally to Warsaw. Many architectural and infrastructural complexes and facilities where industrial activity was once carried out have been preserved in both the centres and peripheries of cities and towns of southern Poland. They “offer material testimony to the identity of the place and the socio-economic basis for the existence or development of a given centre, as well as the entire multinational and multicultural region”.⁶

The Report towards an Integrated Approach to Cultural Heritage for Europe highlights the impact of cultural heritage on employment growth and the development of traditional and new industries. Economic benefits are now linked to competitive advantage, and not only at the local level of individual cities, but also on a European continental scale. These trends were formulated in the document *Getting Cultural Heritage to Work for Europe*, which indicated that “cultural heritage is a significant force for 21st century Europe. The economic benefits of cultural heritage have most commonly been seen in terms of tourism, but it is now also seen as an innovative stimulant for growth and employment in a wide range of traditional and new industries”.⁷

The adaptation of architectural heritage to a new function can be considered also as an opportunity to preserve its historical, cultural and urban value for future generations. It is important to seek a dialogue of compromise between history and the present, between the tangible and intangible values of architectural heritage. Of notable importance are “the relevance of architectural heritage for contemporary society and the role that its functional

³ SOWIŃSKA-HEIM, J. *Transformacje i redefinicje: Adaptacja dziedzictwa architektonicznego do nowej funkcji a zachowanie ciągłości historycznej miejsca* [Transformations and Redefinitions: Adapting Architectural Heritage to New Functions while Preserving the Historical Continuity of the Place]. Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 2018, p. 233 [in Polish].

⁴ ASHWORTH, Gregory J. *Planowanie dziedzictwa* [Heritage planning]. Kraków: Międzynarodowe Centrum Kultury, 2015 [in Polish].

⁵ WALCZAK, Bartosz. M., GRABOWSKI, Mateusz. Superficiality, Disregard, and Ignorance in the Process of Protection and Conservation of Postindustrial Heritage in Poland. In: *Wiadomości Konserwatorskie – Journal of Heritage Conservation*, 2023, 74, p. 86.

⁶ GYURKOVICH, M, UHEREK-BRADECKA, B., BRADECKI, T., GYURKOVICH, J., GYURKOVICH, M. Adaptation of the architectural and infrastructural post-industrial heritage of underground mines for museum functions in southern Poland. In: *Muzeologia a Kultúrne Dedištvo*, 2024, 12(2), p. 46.

⁷ *Getting cultural heritage to work for Europe: Report of the Horizon 2020 expert group on cultural heritage*. Directorate-General for Research and Innovation 2015, p. 6., accessed August 5, 2024, <https://openarchive.icomos.org/id/eprint/1693/>.

transformation plays in the changes taking place in the urban fabric”⁸. It is crucial to find a compromise between the need to preserve the existing fabric of buildings and the needs for change arising from social and technical development.

Scope and state of the research

The purpose of this study is to present examples of the adaptation of post-industrial sites and buildings for multifunctional purposes while preserving their industrial narrative, including the creation of museums or open living museums in these spaces. Establishing museums or preserving industrial elements and connotations is a way of safeguarding Warsaw's industrial heritage and protecting the industrial symbols in the landscape that have become an integral part of the capital's identity.

The basic criteria for selection were as follows:

- Territorial scope: location in Warsaw, the capital of Poland, which has undergone rapid urban transformation, particularly after its post-war reconstruction and the economic growth of the last few decades. By focusing on this city, the study can provide insights that might influence broader national trends or set precedents for other cities in Poland or Central Europe.
- Time scope: buildings which have been adapted or expanded in the last 10 years for multifunctional use. Such time frame can highlight contemporary approaches to multifunctional redevelopment, which often incorporate modern architectural techniques and sustainable practices, particularly in light of increasing interest in heritage conservation and adaptive reuse in Warsaw.
- Research delimitation: buildings that are legally protected as monuments. The analysed buildings were all constructed at the end of the nineteenth century or the beginning of the twentieth century. They share common architectural features: the factory buildings were rarely plastered; the decorative elements of the façades were predominantly based on brick detailing; architectural motifs such as arcades, pilaster strips, arcaded friezes and dentil cornices were frequently employed, referencing past architectural styles, primarily Gothic and Romanesque.⁹

The qualitative research methods employed in this study include the analysis of existing documents and data, and a literature review, as well as the use of digital platforms such as websites and social media, which provide insights into visitor experiences, public engagement and the current state of these sites and in situ research. Together, these methods provide a holistic understanding of how industrial heritage sites are transformed into multifunctional spaces while preserving their historical and industrial narratives.

Nikolas Falk noted that the idea of adapting post-industrial heritage to a new function came from the United States to the United Kingdom, and from there spread to the rest of Europe.¹⁰

⁸ SOWIŃSKA-HEIM, J. *Transformacje i redefinicje...* [Transformations and Redefinitions...], p. 13 [in Polish].

⁹ KRASUCKI, Michał. *Warszawskie dziedzictwo postindustrialne* [Warsaw post-industrial heritage]. Warszawa: Fundacja “Hereditas”, 2011, pp. 8–11 [in Polish].

¹⁰ One of the first examples of adaptation was the transformation in the 1960s of Domenic Ghirardelli's chocolate factory in San Francisco into a multifunctional space housing restaurants as well as shops, offices and galleries. A new function was introduced to the Lowertown area in Saint Paul (Minnesota) and the Docklands in London. In the UK, long-term funding and support programmes have been undertaken for post-industrial regeneration projects (so-called Brownfields) in Glasgow, Manchester, Birmingham and Liverpool, among others. The first museums in post-industrial buildings began to emerge as early as the turn of the twentieth century. These were museums presenting the history and objects associated with the industry, and therefore of an auto-thematic nature. (FALK, Nicolas. *New Uses for Old Industrial Buildings*. In: Stratton, Michael [ed.], *Industrial Buildings: Conservation and Regeneration*. London: E & FN Spon, 2000.)

At the end of the twentieth century, as well as at the beginning of the twenty-first century, there were many projects for the adaptation to museum functions of buildings with different original purposes. As a result, many academic books and other publications on this topic have been published in Western Europe and America. Recently, the topic has gained significant popularity. The literature on the reuse of post-industrial heritage, particularly from an architectural perspective, has been studied by the following authors: James Douglas, *Building Adaptation*; Sally Stone, *Undoing Buildings*; Johannes Cramer and Stefan Breitling, *Architecture in Existing Fabric*; Bie Plevoets and Julia Sowińska-Heim, *Community Initiatives as a Catalyst for Regeneration of Heritage Sites: Vernacular Transformation and Its Influence on the Formal Adaptive Reuse Practice*. A book written by James Douet, *Industrial Heritage Re-tooled: The TICCIH Guide to Industrial Heritage Conservation*, establishes the first set of comprehensive best practices for the management, conservation and interpretation of historical industrial sites. An attempt to create a model aimed at improving strategies for the adaptation of architectural heritage to new functions was undertaken by Bie Plevoets and Konraad van Cleempoel. The search for a model that could assist practitioners in making decisions regarding the methods and possibilities of introducing new functions into heritage buildings is also being undertaken by Peter Bullen and Peter Love.

The available literature specifically about post-industrial reuse in Warsaw is limited. The most comprehensive and detailed book on the subject of industrial heritage in Warsaw is *Warsaw's Post-Industrial Heritage*, written by Michał Krasucki. The work explores the transformation of industrial spaces in Warsaw, with a particular focus on how post-industrial sites are being adapted for new uses in modern times. It also addresses the preservation challenges faced in an urban environment.

Industrial heritage protection and values

The historical value of industrial buildings relates not only to the date of their origin, but also to the events and people related to them. In the case of technical monuments, the evaluation of engineering solutions (in terms of construction and technology) is extremely important. Technical heritage sites may also represent value for the history of production, expressed primarily through equipment and machinery: the facilities' equipment and its spatial layout. Therefore, special importance should be given to structural, material and power-system changes. Changes in the spatial layout of the buildings, the dimensions of the buildings and the interior layout are important. Finally, one should not forget the "intangible values, especially the social significance of the monument, traditions, terminology, language and also old skills (operation of machinery and equipment), which should be protected in connection with the material object".¹¹ The authenticity of the object is important.

An important event for post-industrial heritage protection was the First International Conference on the Protection of Industrial Heritage, held in Ironbridge, United Kingdom, in 1973. In 2002 The International Committee for the Conservation of the Industrial Heritage (TICCIH) hammered out a charter, signing it in the great steel-milling and tank-manufacturing town of Nizhny Tagil in the Russian Urals. *The Nizhny Tagil Charter for the Industrial Heritage*, passed by the assembled delegates at the triennial National Assembly of the TICCIH held in Moscow on 17 July, 2003, defined industrial heritage "as the remains of industrial culture which

¹¹ WALCZAK, Bartosz M. Czy zabytki techniki i inżynierii to w Polsce wciąż dziedzictwo „drugiej kategorii”? Rys historyczny oraz aktualne problemy [Are monuments of technology and engineering in Poland still "second-class" heritage? Historical outline and current problems]. In: *Ochrona Dziedzictwa Kulturowego*, 2016, 2 (16), pp. 139–141 [in Polish].

are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted and used, transport and all its infrastructure, as well as places used for social activities related to industry such as housing, religious worship or education”.¹² The charter defined the main ideas, principles and assumptions for the protection of industrial heritage.

In 2011 a further framework document was signed in Dublin by the TICCIH and the International Council for Monuments and Sites (ICOMOS). The *ICOMOS – TICCIH Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes*, “*Dublin Charter*”, were adopted by the 17th ICOMOS General Assembly on 28 November, 2011. The document highlighted that the industrial heritage to be protected includes both material assets – immovable and movable – and intangible dimensions (pt 1). Adaptive use is considered to be the most frequent way and often the most sustainable way of ensuring the conservation of industrial heritage sites or structures. Nevertheless, “new uses should respect significant material, components and patterns of circulation and activity (pt 10)... Wherever possible, physical interventions should be reversible, and respect the age value and significant traces or marks (pt 11)”.¹³ All these documents highlight that industrial heritage and monuments are gaining increased awareness and need to be preserved.

Warsaw’s post-industrial heritage

Warsaw was once an important industrial centre in the Russian Empire and later in the Second Polish Republic. At the beginning of the twentieth century, the city was home to several thousand industrial plants, ranging from large factories employing up to 4,000 people to small family-owned businesses.¹⁴ The city specialised in a broad range of metallurgical production, and some of its products gained recognition not only in local markets but also in European and even global markets. Unfortunately, in recent years, Warsaw residents have witnessed the destruction and deterioration of the city’s preserved industrial architecture. Entire factory complexes, railway facilities, rows of historic buildings and their remaining technical equipment – all significant technical monuments – have been and continue to be demolished.

Fortunately, over the past decade, there have been examples of the reuse and revitalisation of former industrial building complexes where the value of the old structures has been recognised, as presented in Table 1. These buildings have been adapted for multifunctional purposes, expanded, and modern structures added, all while preserving their unique character and genius loci.





¹² *The Nizhny Tagil Charter for the Industrial Heritage: The International Committee for the Conservation of the Industrial Heritage (TICCIH)*. 2003. Accessed August 5, 2024, <https://ticcih.org/wp-content/uploads/2013/04/NTagilCharter.pdf>

¹³ *ICOMOS – TICCIH Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes. “Dublin Charter”*. Adopted by the 17th ICOMOS General Assembly on 28 November, 2011, accessed September 7, 2024, https://www.icomos.org/images/DOCUMENTS/Charters/GA2011_ICOMOS_TICCIH_joint_principles_EN_FR_final_20120110.pdf.

¹⁴ KRASUCKI, Michał. *Warszawskie dziedzictwo postindustrialne* [Warsaw post-industrial heritage]. Warszawa: Fundacja “Hereditas”, 2011, pp. 15–17 [in Polish].

Tab. 1: *Eight adaptation projects of post-industrial sites in Warsaw for new functions from the last decade.*
Source: M. Arno, 2024.

Name	Built/ Extension	Reused and reopened	New function	Photo of current state, 2024.
Former Norblin, Buch Brothers, and T. Werner Metal Works Factory (later Warsaw Metal Rolling Mill)	1809/1882/ 1940–1950.	2021	Norblin Factory It is a multifunctional complex of buildings including boutique cinema, restaurants, service functions, Norblin Factory Museum, office spaces and organic Biobazar. Architect: PRC Architekci /architect Piotr Blaim	
Former Haberbusch and Schiele Brewery	1846–1890	2021	Warsaw Breweries is a mixed-use space, blending commercial, residential and leisure green areas, office buildings and restaurants. Architect: JEMS Architekci	
Former Powiśle Power Plant	1903–1905/ 1922–1923/ 1936–1938	2020	Elektrownia Powiśle (Powiśle Power Plant) The site has been transformed into a luxury, mixed-use space with high-end retail stores, restaurants, a food hall, offices and residential areas. Architect: APA Wojciechowski	
Former Koszyki Marketplace Hall	1906–1909	2016	Hala Koszyki (Koszyki Hall) It serves as both a market and restaurant space with part of the area dedicated to art exhibitions. An underground parking garage and two six-storey office buildings were built next to the restored structure. Architect: JEMS Architekci	

Complex of former gasworks buildings	1886–1888	1977/2022 reopened	The Museum of the Warsaw Gasworks is held in the former gas compression and pumping station building. Two brick rotundas at the city gasworks, which housed metal gas tanks until the 1970s, remain unused.	
Former Warsaw Vodka Distillery “Koneser” Complex – Warsaw Society for the Purification and Sale of Spirits	1895–1897	2011–2019 Phased opening of each building	Koneser is now a mixed-use complex with cultural, residential and commercial functions. The space includes art galleries, offices, shops, restaurants and museums. Architect: Juvenes and Bulanda & Mucha	
Linen and Jute Manufactory Joint-Stock Company/ “Pocisk” Munitions Plant S.A	1898/ 1920s.	2008–2019	Soho Factory The site was repurposed as a residential complex, where the old factory buildings were transformed into art galleries, creative studios and commercial spaces. Architect: WWAA architecture studio/ Konkret Architekci	
Buildings of the PRAGA Chemical Products Factory Joint-Stock Company	1899	2019–2025	BOHEMA – Praga Zone It is a residential complex with office and commercial users. New residential buildings were constructed alongside the railway tracks, and the brewhouse is set to be transformed into loft-style apartments by 2025. Architect: Sud Architekt Polska	

Case studies

In the following part of the article three post-industrial revitalisation projects in Warsaw will be discussed. They are: Praga Koneser Centre, Powiśle Power Plant and Norblin Factory. The design projects were conducted during the last decade. They successfully combine modern

design with the memory of the sites' former industrial use. Each project demonstrates how contemporary architecture can coexist with historical elements, creating spaces that honour the past while meeting the demands of modern urban life. These revitalised areas not only provide functional spaces for residential, commercial and cultural activities but also serve as living monuments to the city's industrial heritage. By doing so, they contribute to reshaping Warsaw's urban landscape, offering a meaningful dialogue between history and progress.

The author analysed whether: the memory of the building's previous function is maintained; the history conveyed by the building remains clear; and significant elements reflecting its former use are retained. The research included a deeper analysis of the values and properties of the adapted building. The analysis of the project's physical dimension, therefore, led to reflections on the intangible aspects of architecture. The fundamental issue is determining "the relationship between the new and the old form, the attitude towards the past, and the history of the place as revealed through contemporary architectural concepts".¹⁵

Case study 1: Norblin Factory

Historical context

The Norblin Factory began its operations in the second half of the nineteenth century. In 1893, a new company was established under the full name of the Joint-Stock Company of Metal Factories Norblin, Brothers Buch, and T. Werner. During the Warsaw Uprising of 1944, the factory suffered significant damage. After the war, it was nationalised under the name Warszawa Metal Rolling Mill and resumed operations, albeit in a reduced capacity. During the Second Polish Republic, the factory was one of the largest metalworking enterprises in Poland. In the 1980s, the site housed a branch of the Museum of Technology (as the Museum of Industry), and the Printing Museum was also located there.¹⁶ In 1982, the company went bankrupt, leading to the closure of the museums. That same year, the factory was added to the register of historical monuments, and in 2013, at the request of the owner, 10 factory buildings and 42 machines from the former production line were placed under legal protection, collectively known as the Industrial Complex of the Former Norblin Factory. In 2008, the post-industrial area was purchased by Capital Park Group. The long-awaited revitalisation of the Norblin Factory began in 2017 and was completed and opened in 2021.

Location in the city centre

The two-hectare post-industrial area in the heart of left-bank Warsaw was, for years, a neglected gem of the city's industrial architecture. Today, Norblin Factory sits in the city centre, near the Rondo Daszyńskiego metro station on the second metro line, surrounded by office buildings and residential skyscrapers. The scale and unique character of the former factory complex gave the project an urban dimension. Norblin Factory is designed as a network of public passages, with an effort to preserve the scale and layout of the original routes and squares between the factory buildings, even in the new parts of the complex. The visual axes, alleys and numerous pathways have been retained, and the entire area remains open and accessible from all surrounding streets.

¹⁵ SOWIŃSKA-HEIM, J. *Transformacje i redefinicje...* [Transformations and Redefinitions...], p. 123 [in Polish].

¹⁶ Website of Norblin Factory Museum, accessed October 8, 2024, <https://muzeumfabrykinorblina.pl/>.

Museum concept

The Norblin Factory is a modern complex that includes offices, shops, restaurants, cafes, an eco-market, a boutique cinema and an open-air museum that allows visitors to explore the history of the site and view numerous preserved post-industrial elements. The Norblin Factory Museum is designed as an open-air museum, featuring 10 historic buildings and 50 machines and devices dating from the late nineteenth century to the 1950s, which have been returned to their original locations after many years. The museum is visited by approximately 8,000 people annually. The tour takes the form of a city game. The permanent exhibition of the Norblin Factory Museum is based on four main touring paths: “Buildings and Architecture”, “Machines and Devices”, “Products” and “People”. Visitors can explore the trails using printed educational materials or through the dedicated Norblin Factory mobile app.

The “Buildings and Architecture” trail offers a journey through the preserved structures of the Norblin Factory, telling its story through the lens of industrial architecture. The route features ten buildings, spanning from the oldest to the most recent – from remnants of the pre-industrial era, such as the annex of Franciszek Ryx’s villa from the late eighteenth century, to buildings from the 1930s, including the annexes known as the *Namiarownia*. Along the trail, visitors can also discover how these structures were transformed over time, particularly in response to damage from World War II and the Warsaw Uprising.

The “Machines and Equipment” trail follows the original, fully preserved production line of the former Norblin Factory. As visitors move along the route, they follow the journey of raw materials through the manufacturing process, from one set of machines to the next. This trail features 50 historic machines and devices, dating from the late nineteenth century to the 1950s.

The “Products” trail highlights original silver-plated and other metal goods – commonly referred to as “platers” – that were manufactured at the Norblin Factory from the mid-nineteenth century until 1940. The trail is divided into two routes. The first, called the “Stylistic Display Cases”, features items grouped by decorative style, including Rococo, Louis XVI, Art Nouveau and Art Deco. The second route, known as the “Thematic Display”, organises objects by their function, showcasing items related to lighting and to restaurant and home furnishings, as well as containers for sugar and spices and accessories for preparing coffee and tea. Across both routes, visitors can view approximately 400 catalogued artifacts, representing over 600 individual pieces.

The “People” trail takes visitors through the streets and courtyards of the Norblin Factory, offering a deeper look into the lives of those who shaped its history. This walk is a chance to discover the stories of key individuals, influential families and entire communities whose lives and work were intertwined with the factory over the years.

Revitalisation and construction works

The revitalisation and construction work at the Norblin Factory in Warsaw’s Wola district represents a thoughtful blend of historical preservation and modern innovation. Historic buildings were carefully restored and extended vertically (Fig. 1), while original machinery and devices were renovated and displayed in publicly accessible areas (Fig. 3). The site’s historic communication routes – including tracks with turntables and cast-iron plates – were preserved (Fig. 2), and transport wagons were creatively repurposed into designer benches. A wartime inscription from the Warsaw Uprising has been preserved behind glass on one of the walls. The project also included the planting of over 100 trees and the introduction of Poland’s first

automatic bike-parking system. Conservation efforts covered both immovable monuments, such as ten historic buildings, and approximately 50 movable machines. Architectural details such as war-era bullet marks, bricks, embedded metal elements and surface imperfections were deliberately retained. Additional historical features – such as polychrome remnants, tools, fragments of cast-iron structures, post-war safety signs and a chamotte brick floor – were uncovered and exhibited. Where structural replacements were necessary, such as wooden beams, joinery and metalwork, they were recreated using historical methods, preserving the most unique original elements. Some of the original factory halls were also expanded with new architectural volumes. Throughout the project, the central aim was to maintain the site’s “living history”, honouring the memory and presence of its former users while adapting it for contemporary use.

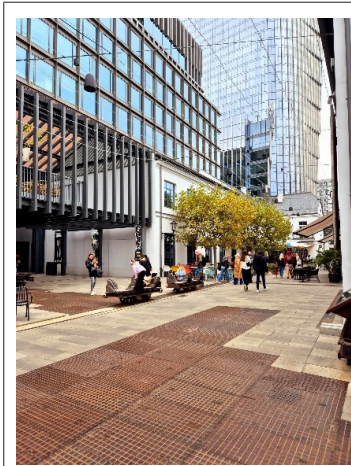


Fig. 1: View of the former scale and residential buildings extended upwards. The wagons were transformed into designer benches and preserved cast-iron plates.

Source: M. Arno, 2024.

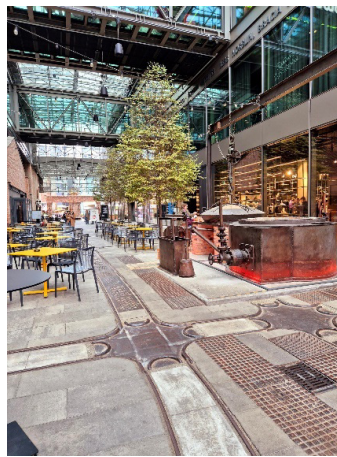


Fig. 2: View of the glass-covered passage between factory halls, with displayed machines, preserved tracks with turntables and cast-iron plates.

Source: M. Arno, 2024.

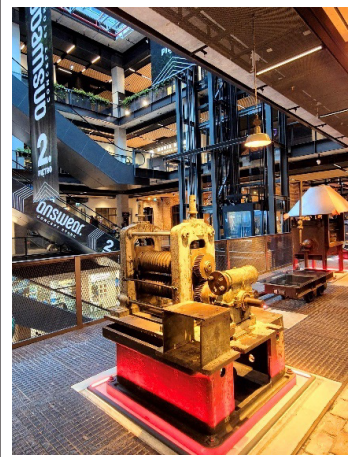


Fig. 3: View of the exhibition of industrial machines displayed in the newly built atrium as a part of the Norblin Factory Museum.

Source: M. Arno, 2024.

Case study 2: Powiśle Power Plant

Historical context

Powiśle Power Plant was constructed between 1903 and 1905 by the Parisian company Compagnie d'Electricite Varsovie. Between 1922 and 1924, the plant was expanded and modernised, becoming one of the most advanced and largest power plants in Poland. The power plant operated during the defence of Warsaw in 1939 and throughout the Warsaw Uprising in 1944. It played a significant role in these dramatic events, with resistance members – mainly plant employees – working tirelessly to maintain the city’s power supply. Restarted shortly after the war in 1945, the plant underwent further modernisation, transforming into a combined heat and power plant. A special heating section was created to exclusively serve the Palace of Culture and Science. The plant was closed in the early 1990s, and in 2001, the entire complex was fully shut down. In 2004, the buildings were listed as historical monuments. Between 2013 and 2014, preparatory and demolition works were carried out. In 2016, the site was purchased by Tristan Capital Partners and White Star Real Estate, with construction

work commencing shortly after. In 2020, the site opened as a modern, multifunctional space combining retail, cultural, residential and office functions.

Location in the city centre

The former old Warsaw power plant is located right next to the river, connected to the Copernicus Science Centre and the Vistula Boulevards. This area is well-connected to other parts of Warsaw, situated near the Copernicus Science Centre metro station (on the second metro line) and the Świętokrzyski Bridge, which links the right and left banks of the city.

The revitalisation not only transformed the purpose of the old buildings but also changed the overall character of the space. New elements were introduced, including four intimate, publicly accessible squares that are seamlessly integrated with the surrounding area. Once a closed-off space, the area has been opened up to the neighbourhood by removing fences, creating several plazas and introducing new passageways through the buildings. This has made the urban structure and layout more legible and accessible.

Museum concept

The revitalised area of the former power plant is a modern complex that includes retail spaces, services, offices and apartments. The museum concept for Elektrownia Powiśle centres on the idea of “powering heritage” – celebrating the site’s industrial legacy while showcasing its transformation into a vibrant, mixed-use urban space. The museum component aims to preserve and interpret the site’s industrial past through immersive, multimedia storytelling. Historic structures, machinery and architectural features are not only conserved but integrated into the visitor experience. Exhibits highlight the plant’s role in the electrification of Warsaw, its wartime resilience and its post-war evolution. Visitors can explore the functions of turbines, switchgear and control systems, many of which remain in situ and are enhanced with digital reconstructions and interactive displays.

In line with the adaptive reuse of the complex, the museum operates as a living heritage space – blending cultural programming, educational activities and public exhibitions within a broader environment that includes retail, dining and wellness areas. This integration underscores the dynamic relationship between the past and present, making industrial history accessible and engaging for diverse audiences.

Revitalisation and construction works

The historic buildings were renovated, and three office buildings and an apartment complex were added. The site also features bunkers from World War II and a fully preserved guard-observation shelter from the time of the German occupation. The historic buildings were adapted for their new functions in close cooperation with the conservator of monuments, preserving their original structures and façades, which underwent meticulous conservation, repairs and restoration. Traditional brick-firing methods were used during the revitalisation, and items recovered from the power-plant buildings were repurposed to create unique interior decorations.

As part of the revitalisation efforts, the boiler house was almost completely rebuilt. Its previously enclosed basements were opened up and integrated into the public space, with galleries added to enhance accessibility and visual flow (Fig. 6). The machine hall received a new extension on the Leszczyńska Street side, and its original roof skylights were carefully

restored. On Lipowa Street, the machine hall was fitted with a new glass façade, allowing natural light to flood the interior. The former caisson (water-tank) building was repurposed to house a restaurant with a terrace, blending industrial heritage with contemporary use. Many original components of the former power plant were preserved and now feature as part of the building's interior design (Fig. 5).¹⁷ Some structures that no longer exist were reimagined with new functions – for example, the former 30-metre chimneys, dormers and coal lift. The coal lift was creatively transformed into a panoramic glass elevator, offering both functionality and a nod to the site's industrial past (Fig. 4).¹⁸

As part of the adaptation process, several buildings were demolished to make way for the revitalised complex. These included: a post-war extension to the machine hall, built on the site of the original 1904 addition that once housed battery systems; a residential building on Elektryczna Street dating back to before 1910; and Boiler Room No. III. Also removed were a workshop hall located on the site of the original Boiler Room No. I, a workshop building from the World War II era, another post-war extension to the machine hall, a series of coal bunkers, and a mixed-use residential-warehouse building. These demolitions were deemed necessary to streamline the site's layout and restore its historical integrity while accommodating new functions.

		
<p>Fig. 4: <i>View of the inner piazza with the former boiler house, 30 m chimney and the blue coal lift transformed into a panoramic elevator, surrounded by modern residential and office buildings.</i></p> <p>Source: M. Arno, 2024.</p>	<p>Fig. 5: <i>Interior of the food hall in the former machine hall with preserved control stations with original handwritten labels under the switches.</i></p> <p>Source: M. Arno, 2024.</p>	<p>Fig. 6: <i>Interior of entirely rebuilt boiler that became part of the shopping mall with added galleries.</i></p> <p>Source: M. Arno, 2024.</p>

Case study 3: Praga Koneser Centre Historical context

The history of the former spirit distillery dates back to the late nineteenth century. By 1897, the complex included several factory buildings, as well as warehouses, workshops, residential

¹⁷ Control stations with original handwritten labels under the switches, insulators of various sizes, shapes and colours, industrial lamps, switches, steel railings, equipment and furniture still make up an essential part of the interior decor and the structures of the buildings in the Powiśle Power Plant complex.

¹⁸ The blue booth on the roof of the boiler building (formerly the engine room for the coal shaft) is one of the most recognisable landmarks of the power plant. Behind the hanging northern glass wall of the engine room, the original crane is on display.

buildings and even a school, all constructed from characteristic red brick in a Neo-Gothic style. It was one of the most modern and largest treasury warehouses in the Russian Empire. The factory enjoyed its peak in the 1920s, but the outbreak of World War II interrupted its development. In September 1939, several buildings were severely damaged, and in 1944, the occupiers blew up most of the halls, although some buildings survived. After the state took over the facility in 1947, production resumed and continued until the early 2000s.

In 2007, after the distillery's closure, a five-hectare plot, along with the historic buildings, was purchased by BBI Development and the Liebrecht & wood group, marking the beginning of revitalisation and the adaptation of the buildings for new purposes.¹⁹ In 2012, the entire site, including its surrounding fence, was listed as a historical monument. Between 2011 and 2019, extensive revitalisation and construction work was carried out in several stages.

Location in the city centre

The former spirit distillery covered five hectares in Warsaw's Praga district. Since its revitalisation, the site remains a central feature of Praga-North, conveniently located near the second metro line. Thanks to the area's extensive tram and bus connections, Koneser is only about five minutes from the Old Town. The revitalisation has played a significant role in transforming both the landscape and the function of Warsaw's right-bank area, contributing to its growing appeal as a vibrant cultural hub. Although the site is surrounded by its historic fencing, the entire area is publicly accessible, featuring internal streets and three squares designed to serve as public spaces. In 2017, the central square of the former distillery complex was officially named Koneser Square.

Museum concept

The Polish Vodka Museum, located in the former Rectification and Boiler House building, was realised in a later stage of the project. Drawing on the history of the site, the museum spaces and narrative were created by blending the old with the new: combining contemporary exhibition solutions with historical objects and content. The purpose of the Polish Vodka Museum is to present the history, tradition and place of Polish Vodka in the modern world (Fig. 9). It also aims to raise awareness of the value and significance of the Polish Vodka brand among both Polish and international audiences.

The museum concept is rooted in the idea of combining authenticity, education and experience. It offers an immersive journey through the history, production and cultural significance of Polish vodka. Exhibitions are organised chronologically and thematically, beginning with the origins of vodka distillation in Poland and its development through the centuries, including its role in society, economy and tradition. Visitors can explore historic documents, advertising materials, original machinery and multimedia installations that bring the story to life. One of the core features of the museum is its sensory engagement. Guided tours include interactive elements, such as grain and scent samples, distillation process simulations and, for adult visitors, curated tastings of certified Polish vodkas. This hands-on approach strengthens the museum's role not only as a historical archive but as an experiential space that connects past and present.

The museum also serves as a cultural and educational hub, offering workshops, lectures, temporary exhibitions and events that explore broader themes related to Polish culinary culture,

¹⁹ Website on the history of Koneser, accessed October 8, 2024, <https://koneser.eu/historia-konesera/>.

craftsmanship and design. The museum offers the opportunity of guided tours in any of seven languages and it attracts 50,000 visitors a year.²⁰

Revitalisation and construction works

The development of the Praga Koneser Centre project was carried out in multiple stages. The architectural design included the revitalisation and adaptation of all historic buildings within the complex for new purposes, as well as the construction of modern structures aesthetically integrated into this unique location. The goal of the project was to combine the preserved post-industrial buildings with new structures to create a cohesive, multifunctional space.

The complex includes retail, service, entertainment and cultural spaces, as well as modern offices and residential units (190 lofts). It was designed to resemble a small town, with a central square serving as a public space that unifies the area and acts as the main gathering place for meetings and public events. The Praga Koneser Centrum also features large underground parking facilities, and the area has been closed to car traffic.²¹

The revitalisation of the former distillery complex involved a comprehensive transformation that carefully balanced preservation with adaptive reuse. The main gate of the distillery was fully renovated, restoring its historic character. Several key buildings were repurposed for modern functions: the historic Directorate and Guardhouse were adapted into office spaces, while the Mechanical Workshop underwent full revitalisation. The New Spirit Warehouse was transformed into Poland's only Google for Startups co-working space, creating a unique hub for innovation within a heritage setting. The Rectification and Boiler House building was adapted to house the Polish Vodka Museum, complemented by restaurants, bars and cafés (Fig. 8). The Spirit Warehouse now serves as a vibrant dining venue, offering bars and restaurants (Fig. 7) and the historic Bottle Store was converted into a mixed-use space with restaurants, galleries and creative studios. Finally, the Treasury Warehouse was adapted into the boutique Moxy Hotel,²² blending contemporary hospitality with industrial heritage.

²⁰ Website of The Polish Vodka Museum, accessed October 8, 2024, <https://muzeumpolskiejwodki.pl/o-muzeum/>.

²¹ Website on the history of Koneser, accessed October 8, 2024, <https://koneser.eu/historia-konesera/>.

²² Ibidem.



Fig. 7: From the right: The spirit warehouse (now a gastronomic centre), the Rectification and Boiler House building (housing the Polish Vodka Museum and restaurants), with an industrial chimney in the background and new concrete office building.

Source: M. Arno, 2024.

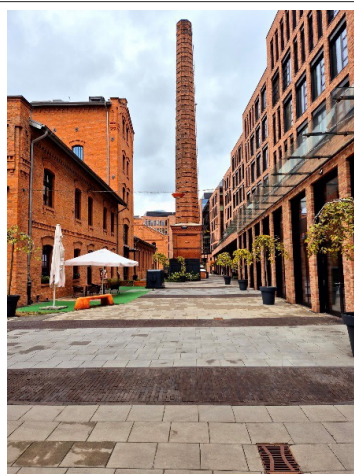


Fig. 8: The view of the Rectification and Boiler House building (the Polish Vodka Museum) with the chimney and residential house with services on the ground floor (on the right).

Source: M. Arno, 2024.



Fig. 9: The interior, with exhibition, of the Polish Vodka Museum.

Source: M. Arno, 2024.

Discussions

Gregory Ashworth, one of the leading heritage scholars, supports the idea of understanding heritage as a process, and not as a form. He connects “heritage with change, and refuses the idea that heritage – whether it is in a tangible or intangible cultural form – is primarily about preservation or conservation”.²³ Heritage is currently identified as “that part of the past that we select in the present for contemporary purposes, be they economic, cultural, political or social”.²⁴

A positive aspect of adaptation is the introduction of diverse functions is the revitalisation and popularisation of places that once played a significant role in the urban space, located in the city centre. It serves as an important catalyst for the regeneration of these areas, as well as for rebuilding identity and improving the city’s image. Cultural heritage is currently without any doubt one of the most important resources of global tourism. At the same time, “tourism can be a tool used by local communities to learn about and respect their own heritage”.²⁵ The post-industrial heritage of Warsaw is vividly present and visible in the revitalised areas of Koneser, Elektrownia Powiśle and Fabryka Norblina. The vodka-production legacy is honoured through the Polish Vodka Museum, which not only showcases the history of vodka production but also the industrial processes that were once central to the site. The architecture of Powiśle Power

²³ ASHWORTH, Gregory J. Heritage in fragments: A fragmented instrument for fragmented policies. In: Jacek Purchla and Monika A. Murzyn (eds), *Cultural Heritage in the 21st Century: Opportunities and Challenges*. Kraków: International Cultural Centre Krakow, 2007, pp. 29–32.

²⁴ GRAHAM, Brian, ASHWORTH, Gregory J., Tunbridge. John E. *A Geography of Heritage: Power, Culture and Economy*. London: Hodder Education Group, 2000.

²⁵ BITUŠÍKOVÁ Alexandra. Cultural heritage as a means of heritage tourism development. In: *Muzeológia a kultúrne dedičstvo*, 2021, 9(1), pp. 81–95.

Plant is monumental, and the industrial architecture has been retained, including massive steel beams, exposed brickwork and large industrial windows, preserving the site's robust, utilitarian aesthetic. Key elements of the old power plant, such as boilers, turbines and machinery, have been integrated into the modern design, emphasising the industrial past of the site. Historical plaques and displays provide context for the industrial history, ensuring that visitors understand the site's heritage. Several original factory buildings and production halls in Norblin Factory have been preserved, maintaining the industrial identity of the site, including steel frameworks, brick exteriors and large industrial windows. Historical machines and industrial equipment are displayed throughout the complex, allowing visitors to connect with the site's manufacturing legacy. Architectural elements such as cobblestone streets and original signage have been restored, preserving the atmosphere of the former industrial site.

On the other hand, the analysis of the three revitalisation projects also highlights challenges and negative aspects, such as the disappearance of traditional urban public spaces, their privatisation and, consequently, their commercialisation. Excessive aestheticisation of historical sites and buildings can result in the loss of their historical value. The adaptation of architectural heritage for new functions creates a conflict between cultural (historical) value and functional (economic) value. New divisions and extensions have been made, causing the area to lose its cohesion. It is important to maintain proper proportions and relationships between the original architectural fabric and any introduced interventions, ensuring that the new elements do not overpower the original character of the place. Preserving respect for the material heritage of the historic substance is essential. It should be noted that aspects of "commercialization and typical signs of potential full gentrification are also present, despite some efforts to integrate local heritage into the district's new identity".²⁶ These negative aspects highlight the need for careful, balanced planning when transforming industrial heritage sites, ensuring that the historical significance is preserved while meeting contemporary needs.

Conclusions

In adapting post-industrial heritage to new functions, it is crucial to take a holistic approach, protecting both the historical substance and cultural context. The ideal intervention adds new value while preserving the building's original function and significance, ensuring it remains a testament to the past. The building's historical, cultural and social importance, as well as its place in the urban landscape, must be preserved. This requires collaboration among stakeholders, including governments, academia and local communities. Attention should be paid to the remains of the production equipment such as devices, machines, overhead cranes, means of transport, technical installations, technical floors, channels and assembling structures. The main purpose for the preservation of these should be not be aesthetic but the understanding of the original production function of the object. As Loulanski notes, heritage conservation is increasingly moving towards "monuments to people; from objects to functions, and consequently from preservation to sustainable use and development".²⁷

However, what is noticeably lacking in some of the reviewed projects is a sense of authenticity. It is important to acknowledge that certain changes are inevitable due to new functions, building

²⁶ SADOWY, Katarzyna, LISIECKI, Adam (2019). Post-industrial, post-socialist or new productive city? Case study of the spatial and functional change of the chosen Warsaw industrial sites after 1989. In: *City, Territory and Architecture*, 6(1), 4.

²⁷ LOULANSKI, Tolina (2006). Revising the Concept for Cultural Heritage: The Argument for Functional Approach. In: *International Journal of Cultural Property*, 13(2), p. 212.

code requirements and modern building technologies and materials. The research shows that, at times, the transformation of industrial heritage into new functions (cultural, commercial, public services, education, office) results in forms that are unrecognisable and significantly different from their past appearance and character. Some designers treat the post-industrial environment simply as “raw material” for the new function. The post-industrial areas, once sites of hard labour for previous generations, have now been transformed and embraced by residents as spaces for leisure activities, walks, social gatherings and other uses. The past and present, though vastly different, blend and intertwine seamlessly to tell the story of the place.

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