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Doctoral dissertation

**Urban space regeneration of industrial heritage cities – the
comparative study of textile manufacturing in Łódź and Yazd**

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Abstract (English)

This dissertation investigates the role of industrial heritage in shaping urban regeneration, socio-cultural identity, and heritage tourism, with a comparative focus on Łódź, Poland, and Yazd, Iran—two cities with historically significant textile manufacturing sectors. Drawing upon critical heritage studies and the Historic Urban Landscape approach, the research explores the multifaceted values of industrial heritage, including social, cultural, economic, and spatial dimensions, and examines strategies for its sustainable integration into contemporary urban development.

The dissertation is structured around six empirical and conceptual studies. The first study develops a conceptual framework for applying the Historic Urban Landscape principles to industrial heritage regeneration, emphasizing recognition, partnership, diagnosis, and intervention to operationalize stakeholder-inclusive planning. Subsequent studies investigate the socio-economic and cultural significance of textile heritage sites in Yazd, highlighting that adaptive reuse can generate economic value, enhance collective memory through community involvement, and facilitate phased restoration strategies. Parallel research in Łódź examines local communities' construction of memory and identity related to textile heritage, revealing complex, generationally and class-informed perceptions shaped by nostalgia, economic decline, and urban transformation.

Further studies evaluate stakeholders' perspectives on integrating Łódź's industrial heritage into tourism, identifying gaps and opportunities for inclusive, sustainable, and culturally resonant tourism practices. Complementary analyses in Yazd develop a model for promoting industrial heritage tourism by leveraging abandoned textile factories' potential for adaptive reuse, event hosting, and socio-economic revitalization. The dissertation concludes with a comparative investigation of urban regeneration strategies in Łódź and Yazd, emphasizing the importance of balancing public-private investment, enhancing accessibility, and preserving cultural heritage values while achieving socio-economic and social outcomes.

Collectively, these studies advance understanding of industrial heritage as a dynamic agent of urban regeneration and community identity formation. The dissertation contributes theoretical and practical insights into stakeholder-driven planning, adaptive reuse, and the operationalization of the Historic Urban Landscape framework in industrial heritage contexts. By integrating comparative perspectives across European and Middle Eastern contexts, the research offers transferable strategies for policymakers, urban planners, and heritage managers to promote equitable, culturally informed, and sustainable urban transformation within industrial districts.

Abstrakt (polski)

Przedmiotem badań przedstawionych w rozprawie jest rola dziedzictwa przemysłowego w procesach rewitalizacji miejskiej, kształtowaniu tożsamości społeczno-kulturowej oraz rozwoju turystyki dziedzictwa kulturowego, w szczególności dziedzictwa przemysłowego, w perspektywie porównawczej opartej na dwóch przykładach: Łodzi (Polska) i Jazdu (Iran) – miastach, w których historii kluczową rolę odegrał przemysł włókienniczy. Odwołując się do krytycznych studiów nad dziedzictwem oraz podejścia Historycznego Krajobrazu Miejskiego (Historic Urban Landscape), w pracy analizowane są wielowymiarowe wartości dziedzictwa przemysłowego: społeczne, kulturowe, ekonomiczne i przestrzenne oraz strategie jego zrównoważonej integracji z rozwojem miasta.

Rozprawa opiera się na cyklu powiązanych badań empirycznych i koncepcyjnych. Pierwsze z nich formułuje ramy pojęciowe zastosowania podejścia Historycznego Krajobrazu Miejskiego w regeneracji dziedzictwa przemysłowego, akcentując znaczenie etapów rozpoznania, partnerstwa, diagnozy i interwencji jako sposobu operacjonalizacji planowania uwzględniającego udział interesariuszy. Kolejne analizy dotyczą znaczenia społeczno-kulturowego i ekonomicznego dziedzictwa włókienniczego w Jazdzie, wskazując, że adaptacyjne ponowne wykorzystanie (adaptive reuse) może generować wartość ekonomiczną, wzmacniać pamięć zbiorową poprzez angażowanie społeczności oraz wspierać procesy odnowy obiektów. Równolegle prowadzone badania w Łodzi pokazują złożone, uwarunkowane pokoleniowo i klasowo postrzeganie dziedzictwa, kształtowane zarówno przez nostalgię, jak i doświadczenia transformacji gospodarczej.

Kolejne analizy koncentrują się na perspektywie interesariuszy w zakresie włączania łódzkiego dziedzictwa przemysłowego w rozwój turystyki, identyfikując luki oraz możliwości wdrażania praktyk turystycznych o charakterze inkluzywnym, zrównoważonym i kulturowo zakorzenionym. Uzupełniające analizy w Jazdzie prowadzą do sformułowania modelu promocji turystyki dziedzictwa przemysłowego w oparciu o potencjał opuszczonych zakładów włókienniczych. Rozprawa kończy się analizą porównawczą strategii regeneracji w Łodzi i Jazdzie, podkreślając znaczenie równoważenia inwestycji publicznych i prywatnych, poprawy dostępności oraz ochrony wartości dziedzictwa kulturowego przy jednoczesnym osiągnięciu efektów społeczno-ekonomicznych.

W perspektywie całościowej badania te ukazują dziedzictwo przemysłowe jako dynamiczny czynnik rewitalizacji miejskiej i kształtowania tożsamości społecznej. Dysertacja wnosi wkład teoretyczny i praktyczny w planowanie oparte na interesariuszach, adaptacyjne ponowne wykorzystanie oraz operacjonalizację podejścia Historycznego Krajobrazu Miejskiego, oferując wnioski przydatne dla decydentów, urbanistów i zarządców dziedzictwa w kontekście zrównoważonej transformacji obszarów poprzemysłowych.

چکیده (فارسی)

این رساله به بررسی نقش میراث صنعتی در شکل‌دهی به بازآفرینی شهری، هویت اجتماعی-فرهنگی و گردشگری میراث، با تمرکز تطبیقی بر ووچ، لهستان، و یزد، ایران - دو شهر با بخش‌های مهم تاریخی تولید پارچه - می‌پردازد. این تحقیق با بهره‌گیری از مطالعات میراث انتقادی و رویکرد منظر شهری تاریخی، ارزش‌های چندوجهی میراث صنعتی، از جمله ابعاد اجتماعی، فرهنگی، اقتصادی و فضایی را بررسی می‌کند و استراتژی‌های ادغام پایدار آن در توسعه شهری معاصر را بررسی می‌کند.

این رساله حول شش مطالعه تجربی و مفهومی ساختار یافته است. مطالعه اول، چارچوبی مفهومی برای به‌کارگیری اصول منظر شهری تاریخی در بازآفرینی میراث صنعتی ایجاد می‌کند و بر شناخت، مشارکت، تشخیص و مداخله برای عملیاتی کردن برنامه‌ریزی فراگیر ذینفعان تأکید دارد. مطالعات بعدی، اهمیت اجتماعی-اقتصادی و فرهنگی مکان‌های میراث نساجی در یزد را بررسی می‌کنند و تأکید می‌کنند که استفاده مجدد تطبیقی می‌تواند ارزش اقتصادی ایجاد کند، حافظه جمعی را از طریق مشارکت جامعه افزایش دهد و استراتژی‌های مرمت مرحله‌ای را تسهیل کند. تحقیقات موازی در ووچ، ساخت حافظه و هویت جوامع محلی مرتبط با میراث نساجی را بررسی می‌کند و برداشت‌های پیچیده، نسلی و طبقاتی شکل گرفته توسط نوستالژی، رکود اقتصادی و تحول شهری را آشکار می‌سازد.

مطالعات بیشتر، دیدگاه‌های ذینفعان را در مورد ادغام میراث صنعتی ووچ در گردشگری ارزیابی می‌کند و شکاف‌ها و فرصت‌های موجود برای شیوه‌های گردشگری فراگیر، پایدار و فرهنگی را شناسایی می‌کند. تجزیه و تحلیل‌های تکمیلی در یزد، مدلی را برای ترویج گردشگری میراث صنعتی با بهره‌گیری از پتانسیل کارخانه‌های نساجی متروکه برای استفاده مجدد تطبیقی، میزبانی رویدادها و احیای اجتماعی-اقتصادی توسعه می‌دهد. این پایان‌نامه با بررسی تطبیقی استراتژی‌های بازسازی شهری در ووچ و یزد به پایان می‌رسد و بر اهمیت ایجاد تعادل بین سرمایه‌گذاری عمومی-خصوصی، افزایش دسترسی و حفظ ارزش‌های میراث فرهنگی در عین دستیابی به نتایج اجتماعی-اقتصادی و اجتماعی تأکید می‌کند.

در مجموع، این مطالعات، درک میراث صنعتی را به عنوان یک عامل پویا در بازسازی شهری و شکل‌گیری هویت جامعه ارتقا می‌دهند. این رساله، بینش‌های نظری و عملی در مورد برنامه‌ریزی مبتنی بر ذینفعان، استفاده مجدد تطبیقی و عملیاتی‌سازی چارچوب منظر شهری تاریخی در بافت‌های میراث صنعتی ارائه می‌دهد. این تحقیق با ادغام دیدگاه‌های تطبیقی در بافت‌های اروپایی و خاورمیانه، استراتژی‌های قابل انتقالی را برای سیاست‌گذاران، برنامه‌ریزان شهری و مدیران میراث ارائه می‌دهد تا تحول شهری عادلانه، آگاهانه فرهنگی و پایدار را در مناطق صنعتی ترویج دهند.

Introduction

Research problem and significance of the topic

Industrial heritage has emerged as a prominent issue in post-industrial cities that are facing economic restructuring, spatial change, and social transformation. In the context of socio-economic geography, industrial heritage sites are increasingly acknowledged not only as material traces of past production systems, but also as socio-spatial resources that are embedded in processes of value creation, identity formation, and territorial development (Kuzior et al., 2022; Martinović & Ifko, 2018). From the perspective of spatial management, the issue of the regeneration of former industrial districts is associated with complex questions related to land use transformation, accessibility, investment approaches, coordination of stakeholders, and long-term sustainability (Roberts, 2000; van Duijn et al., 2016). Although the use of industrial heritage for urban regeneration is often presented as a driver of urban renewal, many cases of urban regeneration continue to be associated with short-term economic benefits or symbolic regeneration, leading to gentrification, loss of authenticity, and lack of social inclusion (Ploegmakers & Beckers, 2014; Wrona, 2020). These issues highlight the central research problem that is addressed in this dissertation: how industrial heritage can be effectively integrated into processes of urban regeneration in a way that produces balanced socio-economic outcomes while preserving spatial identity and cultural value. This problem is particularly significant for socio-economic geography and spatial management, as it contributes to the understanding of post-industrial transformation in a place-based, governance-sensitive, and value-focused manner.

State of research and research gap

Existing literature has already contributed significantly to the understanding of different aspects of industrial heritage regeneration. Previous studies have explored the role of adaptive reuse as a sustainable planning approach (Bullen & Love, 2011), cultural and social effects of regeneration projects (Cysek-Pawlak et al., 2023), and economic performance in terms of job creation, tourism development, and place branding (Baumgartner, 2025; Konior & Pokojaska, 2020). Other studies have investigated the role of physical and spatial factors in determining the effectiveness of regeneration, such as accessibility, connectivity, territoriality, and functional diversity (Huang et al., 2020; Liu et al., 2023). Nevertheless, the current literature is still scattered, often focusing on economic, cultural, or spatial aspects in a non-integrated manner, as parts of a larger socio-spatial

system. Furthermore, most of the existing literature is based on single-case studies or quantitative analysis, which provide little information on governance patterns, stakeholder interactions, and context-specific interpretations of effectiveness (Della Lucia & Pashkevich, 2023).

Therefore, there is still a substantial research gap in the area of the lack of comparative qualitative research that explores the interaction between socio-economic values, spatial properties, and governance patterns in industrial heritage-driven urban regeneration in different cultural and institutional settings. More specifically, there is a lack of comparative studies between Central European and West Asian post-industrial cities, despite their common industrial heritage and different planning systems. This dissertation fills this gap by proposing a place-based, stakeholder-driven, and comparative methodology that directly informs the research objectives and questions, and contributes to the theoretical and practical knowledge on effective urban regeneration in industrial heritage settings.

Existing dissertation has concentrated on the urban regeneration of industrial heritage cities through case studies of Yazd, Iran, and Łódź, Poland. Each case study exemplifies the industrial heritage cities in Central Europe and West Asia, characterized by distinct socio-economic, socio-cultural, and physical conditions. These two cities functioned as pivotal centers for textile manufacturing; however, the majority of textile factories have been closed since the 1990s, primarily due to urban development and the influx of imported textiles (Dehghan Pour Farashah, Niemczewska, et al., 2025; Walczak, 2015). Due to the obsolescence of their original functions, several factories in these two cities have undergone transformations in usage since the 2000s (Dehghan Pour Farashah & Pourzakarya, 2025; Walczak & Kępczyńska-Walczak, 2024). In 2020, approximately 150 adaptive reuse projects were implemented in the textile factories of Łódź. The predominant new functions introduced in 115 of these facilities included retail, services, and office spaces. This selection was influenced by various factors, including the scope of heritage protection, typological characteristics, and the central location, which frequently attracts the interest of real estate developers (Walczak, 2023).

Industrial heritage and critical heritage studies (CHS)

Heritage plays a pivotal role in shaping the identity and perception of a city, which is inherently influenced by emotional responses and lived experiences (Walczak, 2015). The conventional definitions of heritage have been fundamentally challenged by the emergence of critical heritage

studies (CHS) as a significant subfield. This approach examines the historical, sociocultural, governmental, and political dimensions of heritage (Gentry & Smith, 2019; Lixinski et al., 2024). CHS adopts a people-oriented approach that examines the reception, negotiation, and transformation of heritage across temporal contexts (Smith, 2006; Witcomb & Buckley Am, 2013). In contrast to an approach to heritage preservation that emphasizes material and intrinsic values, the CHS underscores the foundational relationship between the community and the continuity of heritage (Poulios, 2014). This foundational relationship may encompass urban spaces that embody complex layers of societal memory and cultural narratives, thereby facilitating the navigation of their historical contexts and the formation of collective memories (Soyer & Tunca, 2025). Urban regeneration can significantly influence the landscape of collective memory and emotional attachment within local populations, while also complicating the power dynamics among the stakeholders involved (Sacco et al., 2013).

The concept of heritage is expanded to encompass elements that have, until recently, received insufficient attention, such as industrial heritage. The legacy of our recent industrial past serves as a significant representation of a rich production culture, which necessitates preservation and revitalization as a recognized aspect of heritage (Alba Dorado, 2023). Industrial heritage encompasses significant historical, social, cultural, technical, commercial, and aesthetic value, thereby constituting an essential component of our cultural legacy (Dehghan Pour Farashah, 2024; Mo et al., 2022). In the late 20th century, the revitalization and utilization of industrial heritage sites emerged as effective strategies for promoting urban regeneration in Britain, serving as a reference point for other countries (Couch et al., 2008; Zhang et al., 2022). Industrial heritage serves as both a source of cultural identity and a commodity that contributes to economic development; however, tensions frequently arise between these dual functions (Yang et al., 2019). Historic industrial sites are integral to tourism development and urban regeneration initiatives, providing opportunities for efficient new uses despite inherent challenges (Pickard, 2018). Transforming industrial heritage buildings into innovative spaces presents significant potential for hosting cultural events, leisure activities, and tourism (Lee et al., 2022; Murzyn, 2016; Navratil et al., 2018). Furthermore, the revitalization of these structures can lead to substantial improvements in environmental quality (Becchio et al., 2018). The revitalization of industrial heritage sites has the potential to catalyze urban regeneration when implemented through an integrated development

framework that encompasses physical, economic, social, and cultural dimensions (Sun & Chen, 2023).

CHS and collective memory emphasize the processes through which local communities construct, interpret, and contest industrial heritage (Assmann, 2011; Wertsch, 2021). Sun and Chen (2023) contend that the unique significance of the industrial area is rooted in its historical and contemporary functions. Retired workers, labor unions, and communities whose livelihoods have been shaped by industrial activities are currently confronted with the challenge of preserving and commemorating their industrial heritage (Smith & Campbell, 2017). These sites elicit intricate emotional responses that encompass both feelings of loss and pride (Dehghan Pour Farashah, Ghaderi, et al., 2025). Industrial heritage also encompasses the cities, sites, and transformations that have substantial implications for urban planning. The recognition and management of industrial heritage sites, encompassing preservation, revitalization, and selective demolition, are intricately linked to the conflicts that emerge within planning practices (Oevermann & Mieg, 2014b). Consequently, management and revitalization of industrial heritage are closely interconnected with endeavors in urban and regional planning, alongside the tensions that emerge in the remembrance of heritage (Douet, 2016; Oevermann & Mieg, 2014a). The built environments linked to industrial history predominantly display a mundane character, defined by intricate, expansive, polluted, or otherwise degraded landscapes (Smith, 2006). Lu et al. (2020) assert that, in recent years, the value of industrial heritage has been recognized within a broader context, shaped by urban regeneration initiatives, rather than being evaluated exclusively according to the standards and norms delineated in conventional heritage discourses and their associated frameworks. According to CHS, there is a significant emphasis on the necessity of context-sensitive approaches for comprehending heritage as a dynamic and contested process within post-industrial urban environments (Dehghan Pour Farashah et al., 2026). Therefore, the revitalization of industrial heritage through a comprehensive approach has the potential to enhance both the appreciation and value of such heritage (Babutsalı Alpler et al., 2020).

Urban regeneration and historic urban landscape

The Historic Urban Landscape (HUL) recommendation, which integrates socioeconomic development with the regeneration of urban heritage, was endorsed by the UNESCO General Conference in 2011 (UNESCO, 2011). The HUL approach reflects the evolution of heritage

philosophy over the past three decades and the dynamic role of heritage within cities (Bandarin, 2019). The framework emphasizes the recognition and analysis of the global and local, tangible and intangible, environmental and cultural, as well as the interconnected layers of urban environments (Taylor, 2016). The HUL approach advocates for a reevaluation of urban regeneration and conservation strategies (Dehghan Pour Farashah, 2024). The novelty of this approach lies in its comprehensive perspective on cities, which incorporates social, cultural, and economic dimensions. Consequently, the HUL framework distinguishes itself as an innovative approach to addressing contemporary urban challenges within the context of regeneration (UNESCO, 2011). The multi-layered nature of industrial heritage value necessitates that the regeneration process incorporates an appropriate approach (Dehghan Pour Farashah, 2023). The HUL approach is well-suited for the regeneration of industrial heritage, as it takes into account all relevant values necessary to transform these sites into livable spaces.

Hence, it is imperative to incorporate the regeneration of industrial heritage into the HUL approach. In this context, Dehghan Pour Farashah (2024) presents a four-step conceptual planning framework that encompasses recognition, partnership efforts, diagnosis and feasibility, and intervention action. Recognition and partnership initiatives encompass the identification and classification of industrial heritage values, as well as the engagement of stakeholders in the development of innovative governance strategies. Diagnosing issues related to industrial heritage sites and conducting feasibility studies for adaptable urban uses could enhance living standards and create a balance between quality of life and urban development. Intervention actions take into account both the tangible and intangible values of industrial heritage in the context of regeneration, aiming to address the existing barriers. Furthermore, the parameters for adaptive reuse initiatives that facilitate urban regeneration and the conservation of industrial heritage are essential to consider. Thus, the novelty of this research lies in the integration of industrial heritage regeneration with the HUL approach, which enhances urban planning practices and policies in cities characterized by industrial heritage. Furthermore, this research conceptualizes heritage not as a static remnant of the past, but as an ongoing, contested process in which memory, identity, and socio-political relations are inextricably intertwined.

Dissertation concept and objectives

Research aims and research questions of the Ph.D. thesis

This integrative commentary combines six peer-reviewed publications that together examine the role of industrial heritage in contemporary urban regeneration from a socio-economic and spatial management perspective. Although each publication treats a particular aspect of industrial heritage, from conceptual planning approaches and value analysis to stakeholder governance and comparative urban regeneration, the sum of their contributions is to develop a unified analytical understanding of the role of industrial heritage as a catalyst for sustainable urban regeneration. The studies are based on qualitative, place-specific research approaches focused on textile manufacturing cities, and in particular on the contrasting institutional, cultural, and socio-economic contexts of Central Europe and West Asia. Figure 1 illustrates the conceptual and methodological framework of the dissertation. The overarching research question concerning urban regeneration in industrial heritage cities is examined through a comparative case study approach, focusing on the cities of Łódź and Yazd. The HUL approach serves as the primary spatial-planning framework, structuring the analysis of industrial heritage within the context of broader urban systems. Empirical research is conducted through fieldwork, observation, and semi-structured interviews, yielding qualitative data that are analyzed using coding and reflexive thematic analysis across six studies. The CHS approach constitutes the interpretive layer, exploring the dynamics of memory, identity, power, and value negotiation within the regeneration process. While the HUL framework scrutinizes the principles of spatial integration, the CHS approach critically assesses the representation of heritage and the construction of meaning. The integration of these theoretical perspectives with empirical analysis informs the dissertation's findings on the efficacy of regeneration, governance, and socio-spatial transformation.

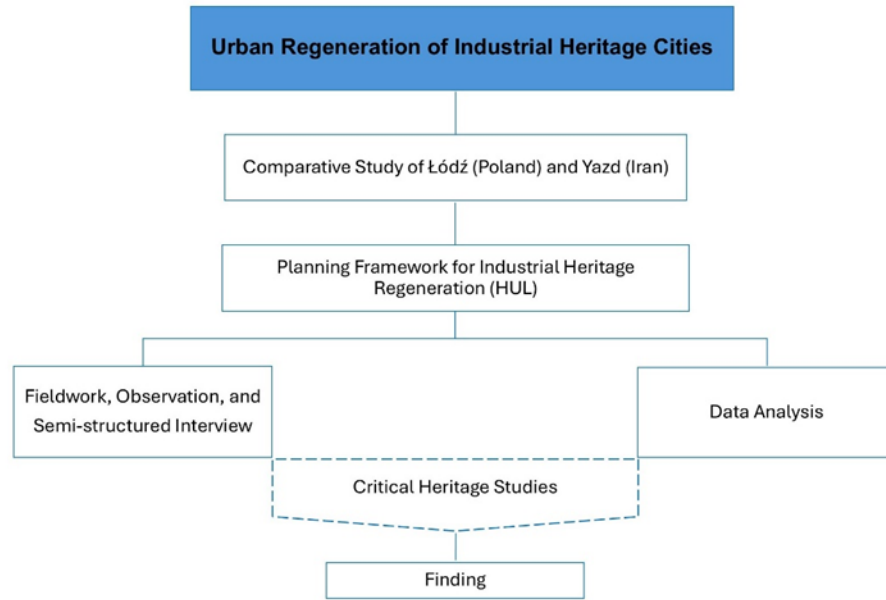


Figure 1. Research process (Source: own work).

From these interrelated studies, the research aims and questions of the integrative research are developed to combine conceptual, empirical, and comparative knowledge and to formulate a unified research agenda that explores values, governance, spatial processes, and effectiveness in the role of industrial heritage in urban regeneration.

The study outlined several objectives as follows:

1. To conceptualise the role of industrial heritage in urban regeneration by integrating heritage conservation, spatial planning, and socio-economic development perspectives.
2. To identify values of textile industrial heritage, and examine how these values influence adaptive reuse and regeneration strategies.
3. To examine governance, stakeholder involvement, and investment structures shaping the effectiveness of urban regeneration in industrial heritage sites.
4. To compare industrial heritage-led urban regeneration processes in different socio-economic and cultural contexts, in order to identify transferable principles for effective spatial management.

The study aimed to address the following research questions:

1. How can industrial heritage be conceptually integrated into urban regeneration and spatial planning frameworks to support sustainable socio-economic development?
2. What values are attributed to textile industrial heritage sites, and how do these values shape adaptive reuse and regeneration outcomes?
3. How do governance models, stakeholder roles, and public–private investment dynamics influence the effectiveness of industrial heritage–led urban regeneration?
4. How do contextual differences (institutional, cultural, socio-economic, and spatial) between cities affect the effectiveness of industrial heritage–based urban regeneration, and what lessons can be transferred across contexts?

Cycle logic of articles

The dissertation has a cumulative and cyclical research logic, whereby each article tackles a different but related aspect of industrial heritage-led urban regeneration. The cycle starts with conceptual development, where a planning and analytical framework is developed to locate industrial heritage within the wider processes of urban management. The cycle then proceeds to empirical research, whereby the socio-economic, cultural, and spatial values embedded in textile manufacturing heritage are identified and interpreted. The results of this value-oriented research are then used to analyze adaptive reuse, tourism development, and stakeholder governance, whereby the outcomes of urban regeneration are shown to be influenced by multi-actor interactions and institutional arrangements. The cycle finally ends with a comparative and evaluative stage, whereby the findings from the earlier stages of the research cycle are synthesized to evaluate the effectiveness of urban regeneration in different socio-economic and cultural settings. It is through this cumulative and cyclical process, whereby the research moves from conceptualization to valuation, governance, and finally evaluation, that the articles as a whole provide a cumulative research program that tackles the central research questions at different levels of analysis, whereby industrial heritage is shown to be an integrated socio-spatial resource in contemporary urban regeneration.

Study area

The choice of Łódź (Poland) and Yazd (Iran) is informed by a comparative research design that seeks to investigate the role of industrial heritage-led urban regeneration in different socio-economic, cultural, and institutional settings. Both cities were prominent textile production hubs in the nineteenth and early twentieth centuries, and both underwent a rapid process of deindustrialization from the late twentieth century onwards, leaving large numbers of obsolete industrial sites. This common industrial heritage offers a controlled setting for comparison, while the different political systems, planning cultures, values, and economic structures offer a setting to explore how context influences regeneration outcomes. From the perspective of socio-economic geography, this Central Europe and West Asia comparative study enables the discovery of general principles and context-dependent limitations in spatial management and urban regeneration. The choice of industrial sites is centered on large-scale textile factories and their surrounding neighborhoods, which historically comprised self-contained socio-spatial systems that integrated production, residence, and social infrastructure. In Łódź, factory complexes located in central areas were chosen for their strategic location and role in city-wide regeneration. In Yazd, industrial sites located near the historic center and the expanding urban area were chosen to represent different spatial processes and conditions of governance. These sites were chosen because they represent different levels of regeneration, adaptive reuse, and abandonment, and thus enable a comparative evaluation of the effectiveness of regeneration, stakeholder engagement, and spatial integration.

Yazd

The city has historically been inhabited predominantly by Jewish, Zoroastrian, and Muslim communities. Yazd began to gain prominence in the Sasanian Empire (438–457) due to its strategic location near the Silk and Spice Roads on the Central Iranian plateau (Figure 2). This location exemplifies the adaptation to and utilization of limited resources for survival in a desert environment. The cultural heritage of Yazd, encompassing earthen architecture and traditional handicrafts, has largely remained preserved throughout the years (Dehghan Pour Farashah, Niemczewska, et al., 2025). The presence of skilled artisans, along with the rich history of the textile industry in Yazd, has significantly contributed to the establishment of modern industrial institutions at the beginning of the 20th century (Dehghan Pour Farashah & Pourzakarya, 2025). The importation of industrial machinery from Europe and the United States facilitated the

establishment of large-scale factories, which significantly contributed to the economy of Yazd for more than fifty years (Ramazankhani, 2016). These factories were characterized by distinctive architectural patterns and designs that are indicative of their historical context (Dehghan Pour Farashah et al., 2019). Since the 1990s, several textile factories in Yazd have been closed due to urban development, environmental concerns, economic recessions, and shifts toward service-oriented and heavy manufacturing sectors (Dehghan Pour Farashah & Pourzakarya, 2025; Esfahani & Pesaran, 2009). Due to their substantial dimensions, advantageous urban locations, and the adaptability of their modular structures, these entities pave the way for conversion into diverse uses (Figure 3). However, there has been a lack of adequate efforts to promote awareness of these sites in Yazd in comparison to other heritage buildings (Samadzadehyazdi et al., 2020).

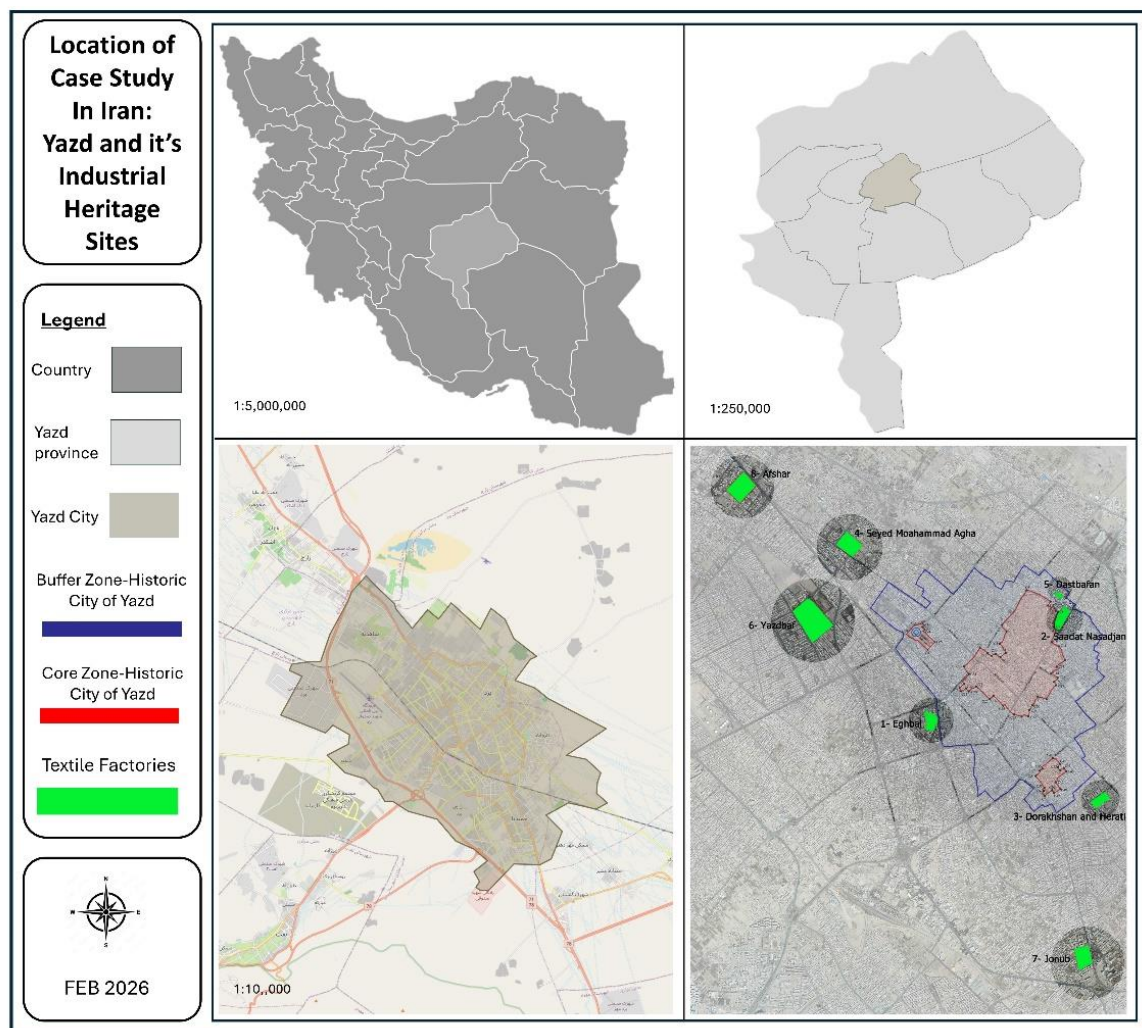


Figure 2. Location of Yazd province in Iran and the location of the city of Yazd (Source: own work).

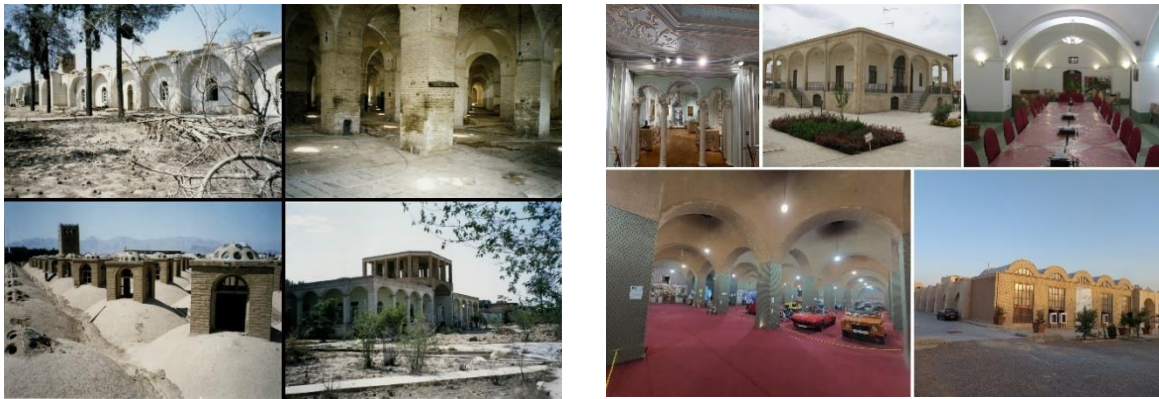


Figure 3. Textile factories before and after revitalization in Yazd (Source: own work and ICHHTO).

Łódź

Łódź is located in the central region of Poland and was granted city rights in 1423, maintaining a modest status as a settlement until the eighteenth century (Figure 4). The city underwent a transformation into a rapidly developing center of industry, primarily in the field of textile manufacturing, in 1820, as a result of a decision made by the authorities (Dehghan Pour Farashah, Niemczewska, et al., 2025). Individuals from various regions of Europe, including southern Germany, Silesia, Bohemia, and Jewish communities, migrated to Łódź. Accordingly, Łódź was a multicultural city characterized by the coexistence of diverse groups, including Jewish, German, Russian, and Polish populations (Mokras-Grabowska & Mroczek-Żulicka, 2024). The city experienced a relatively stable period of growth and expansion during the socialist era, following a phase of rapid development in the 19th and early 20th centuries. However, the political and economic transition of 1989 resulted in the dissolution of the protected Soviet market, while the rise of less expensive textile production in Asia, alongside antiquated infrastructure, significantly contributed to the decline of the textile industry (Dehghan Pour Farashah, Ghaderi, et al., 2025; Galuszka, 2022). This phenomenon has led to a landscape characterized by abandoned industrial sites, thereby necessitating the development of innovative uses for these neglected industrial heritage sites to reconstitute the identity of Łódź. Since the early 2000s, there has been a growing number of adaptive reuse projects involving these sites. These textile factories have been repurposed as educational institutions, commercial centers, cultural venues, and residential complexes (Walczak, 2015). The revitalization efforts pertaining to former textile factories in the

early 2000s coincided with the transition to a more consumption-oriented society (Figure 5). This movement has facilitated the preservation of Łódź's unique identity while simultaneously adapting to the post-industrial economic landscape (Dehghan Pour Farashah, Niemczewska, et al., 2025).

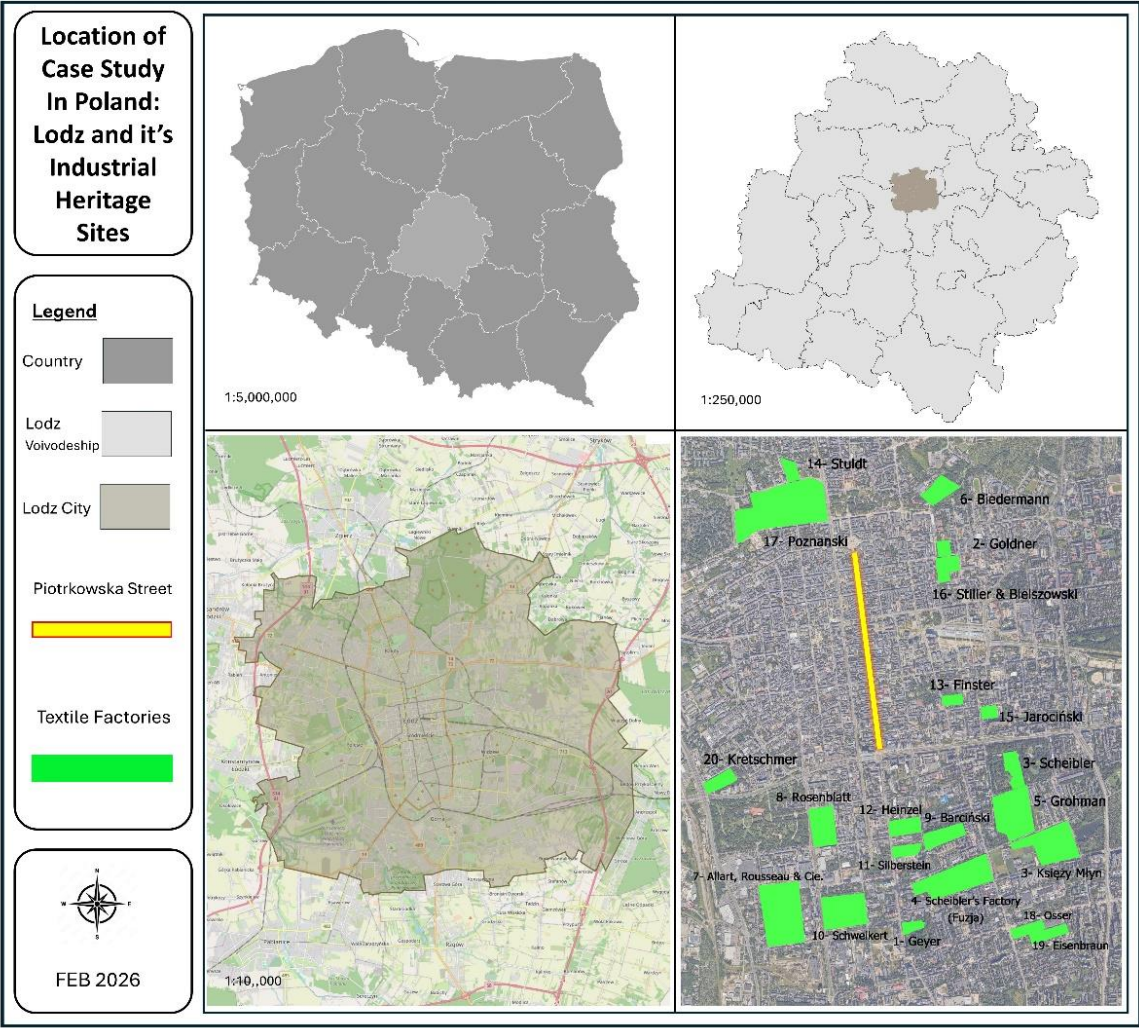


Figure 4. Location of Łódź province in Poland and location of the city of Łódź (Source: own work).

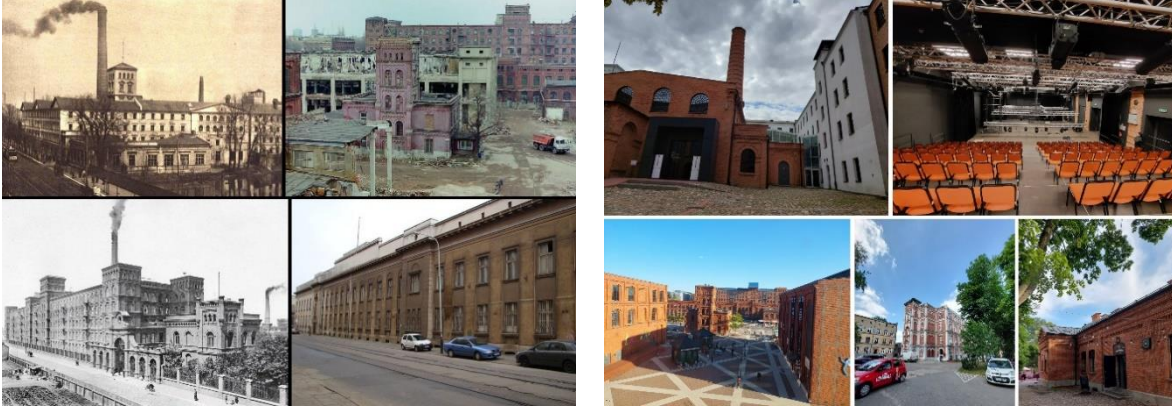


Figure 5. Textile factories before and after revitalization in Łódź (Source: own work and Łódź Miasto).

Justification of site selection

The criteria for selecting industrial heritage sites in Łódź and Yazd were meticulously defined to ensure consistency and validity in the comparative analysis of the two case studies (Table 1). Firstly, only sites exceeding one hectare in size were included, facilitating a focus on large-scale industrial sites with significant spatial impacts on the surrounding urban environment. Secondly, the selection was restricted to sites that have undergone revitalization or adaptive reuse initiatives, allowing for an examination of the outcomes of regeneration efforts, rather than focusing on abandoned or inactive industrial sites. Thirdly, all selected sites are either formally or socially recognized as industrial heritage sites, ensuring that the study investigates historically embedded urban environments rather than newly developed areas. Finally, the selected sites share a historical connection to textile production, thereby establishing functional equivalence between Łódź and Yazd as textile-based industrialized cities. By concentrating on large textile factories recognized for their heritage status and currently undergoing transformation, the study explores functionally equivalent post-industrial spaces, thereby enhancing the methodological rigor pertaining to the regeneration of industrial heritage in urban contexts.

Table 1. Criteria for selection of industrial heritage sites (Source: own work).

Selection Criterion	Operational Definition	Analytical Purpose	Comparative Function (Łódź–Yazd)
Minimum site area	Industrial complex ≥ 1 hectare	Ensures spatial significance and urban impact	Selects large-scale post-industrial areas in both cities
Revitalisation / adaptive reuse	Site undergoing or completed regeneration	Enables analysis of regeneration processes and outcomes	Allows comparison of transformation trajectories
Heritage recognition	Identified as industrial heritage site	Focus on historically embedded urban landscapes	Ensures historical equivalence
Textile industrial function	Former textile factory	Maintains sectoral consistency	Links cities through shared industrial legacy

Following the application of the selection criteria delineated in Table 1, an initial compilation of textile industrial sites was generated for both case study cities. Based on the minimum area criterion of one hectare, eight textile factory complexes were identified in Yazd, while twenty were identified in Łódź. Subsequently, additional criteria pertaining to adaptive reuse/revitalization status, designation as industrial heritage sites, and historical connections to textile production were employed to further refine the list. This systematic filtering process ultimately resulted in the selection of five textile factories in Yazd and nine in Łódź for further analysis (Table 2 and 3). Factories highlighted in red are designated as selected factories. The shortlisted industrial heritage sites served as the foundation for the empirical research, which informed the execution of fieldwork, stakeholder interviews, and qualitative analysis procedures, as discussed in the subsequent section on data and research methods. The maps included in the individual articles primarily fulfill an informational and locational role, delineating the broader administrative context of the case-study cities within their respective regions. However, the empirical scope of this research is constrained to specific post-industrial textile heritage sites situated within the administrative boundaries of the cities of Łódź and Yazd. Consequently, the analysis concentrates on urban regeneration processes at both the site and city levels, rather than on development dynamics at the regional scale.

Table 2. List of textile factories of Yazd (Source: own work).

Factory. No	Name of Factory	Establishment Year	Year of Closure	Current Condition	Revitalisation Completion Date	Area (Hectare)
1	Eghbal	1931	1978	Reused (Yazd Science and Technology Park)	2006	3.65
2	Saadat Nasadjan	1934	2000s	Under revitalisation for hotel	2026	10
3	Dorakhshan and Herati	1935	1980s	Reused (Innovation Factory)	2022	4.1
4	Seyed Moahammad Agha	1948	2000s	Abandoned	Not applicable	8.47
5	Dastbafan	1948	1980s	Abandoned and school	1990s	1.16
6	Yazdbaf	1956	Not applicable	Active (in its original function)	Not applicable	14
7	Jonub	1959	2003	Reused as seasonal exhibitions and museum	2017	5.37
8	Afshar	1963	2010s	Abandoned	Not applicable	12.1

Table 3. List of textile factories of Łódź (Source: own work).

Factory. No	Name of Factory	Establishment Year	Year of Closure	Current Condition	Revitalisation Completion Date	Area (Hectare)
1	Geyer's White Factory	1837	1990	Museum	1960	2.88
2	Ferdinand Goldner's factory	1883 - 1896	1995	University	2001	1.1
3	Księży Młyn (Priest's Mill)	1824	2006	Offices and housing	2024	10
4	Scheibler's Factory (Western part – now "Fuzja")	1878	2003	Residential, offices and restaurant	2024	18.5
5	Grohman factory	1888	2003	Abandoned / office, conference, cultural and exhibition centre	2013	1.45
6	Biedermann factory	1863	1990	Destroyed and new factory	Not applicable	4.4
7	Allart, Rousseau & Cie.	1879	1989	Abandoned and destroyed / housing	Not applicable	8.8
8	Rosenblatt factory	1880	1934	Lodz University of Technology / Mostly new buildings	1945	7.6
9	Salomon Barciński factory	1884	2004	Residential Dental Medic / completely new buildings	Not applicable	4.8
10	F.W. Schweikert factory	1908	1994	Lodz University of Technology Library / partly new buildings	2002	8.7
11	Markus Silberstein Factory	1896	1980	Apartment rental agency / partly destroyed, partly abandoned, partly office	2000	2.4
12	J.Heinzel dyeing and printing house	1861	1925	Destroyed, buildings from 20th century	Not applicable	4
13	Teodor Finster factory	1881	1990s	Offices and Social Sciences Academy / labor Office	2000s	1.6
14	Jan Stüldt factory	1886	1937	Destroyed	Not applicable	1.8
15	Factory of Zygmunt Jarociński	1889	1995	Abandoned	Not applicable	1.5
16	Stiller and Bielszowski Factory	1876	1950s	Warehouses / Little factories	2000s	1.7
17	Izrael Poznański's factory	1872-1892	1992	Arts centre, shopping mall, and leisure complex	2006	27
18	Osser	1903	1995	Abandoned / workshops	Not applicable	4
19	Eisenbraun	1894	1950s	Workshops	Not applicable	2,8
20	Kretschmer	1880	1990s	Hotel, Apartments	2013	2

Data and research methods

This study is based on a comparative study derived from a larger research project conducted during the PhD program. Comparative study in the social sciences is exemplified in cross-cultural or comparative research that aims to analyze differences and similarities across various countries or cultures (Lambert, 2001). In relation to data collection, the author employed semi-structured interviews with experts and professionals, complemented by fieldwork and observational analyses

of textile manufacturing heritage sites, with particular emphasis on revitalization projects in these two cities. The fieldwork and observation involve a thorough analysis of the condition of industrial heritage sites and their contextual environments, utilizing photography and note-taking as primary methodologies. The adaptation and modification of these sites for new purposes, along with the interactions between users and heritage spaces, have been thoroughly documented. Regarding semi-structured interviews, 46 interviews were conducted in Łódź from November 2023 to March 2024, and 32 interviews were conducted in Yazd from July 2023 to September 2023. The interview guidelines were developed in accordance with the literature review and aligned with the study's research questions and objectives. Interviews were seized at the time of data saturation. The interviewees were recognized experts in the disciplines of architecture, urban studies, economics, and tourism. Additionally, eight interviewees in Łódź were former employees of textile factories, while six interviewees in Yazd had similar backgrounds. The snowball sampling was employed for the participant selection to ensure balanced representation between the public and private sectors, as well as between academic and practitioner domains. Initial invitation messages were dispatched to experts in Yazd, followed by subsequent telephone calls. In the case of Łódź, experts were solicited for interviews through email correspondence. Interviews with participants were conducted in their offices or in a nearby café in Persian, Polish, and English, while ensuring adherence to anonymity protocols. A voice recorder was utilized during the interviews, with the consent of the participants, and the recordings were subsequently transcribed. Each interview had a duration ranging from 80 to 120 minutes, with the Polish and Persian interviews translated into English for analytical purposes. Content, thematic, and reflexive thematic analysis techniques were employed to analyze the texts using Atlas.ti software (version 8). The textual data were analyzed utilizing these techniques to elucidate underlying themes (Ghaderi et al., 2020). The data were coded in accordance with the research inquiries and subsequently classified based on semantic and conceptual relationships, followed by appropriate labeling. A network of coding groups was established, featuring a principal theme for each network along with supplementary sub-codes to elucidate the interconnections among concepts (Ghaderi et al., 2024). In the results section, excerpts from the interview findings are presented from five distinct studies.

Dissertation structure

The articles are arranged to reflect a progressive and cumulative research cycle, from conceptual thinking to empirical research, governance analysis, and comparative synthesis (Table 4). The articles are arranged in such a way that each one introduces a new level of analysis but builds directly on the insights developed in the previous studies. The research cycle starts with theoretical and planning conceptualization, which provides the analytical framework for understanding the concept of industrial heritage in the context of urban regeneration. The research cycle then progresses to empirical value assessment and spatial regeneration analysis, followed by governance, tourism, and stakeholder analysis as mechanisms that shape the outcomes of regeneration. The final article synthesizes the different strands of the research through a comparative assessment of their effectiveness.

List of publications included in the doctoral dissertation

- 1. Dehghan Pour Farashah, M.** (2024). Conceptual Planning Framework to Integration of Industrial Heritage Regeneration with Historic Urban Landscape approach. *Geographia Polonica* (ISSN: 2300-7362), 97(4), 425-446. Doi: <https://doi.org/10.7163/GPol.0286> pkt. MEiN = 100.
- 2. Dehghan Pour Farashah, M.** (2023). Evaluation of social and economic values in textile manufacturing heritage sites: the case of Yazd. *Ge-conservation* (International Institute for Conservation of Historic and Artistic Works, (ISSN: 1989-8568), 24(1), 228-237 DOI: <https://doi.org/10.37558/gec.v24i1.1266> pkt. MEiN = 40.
- 3. Dehghan Pour Farashah, M., Ghaderi, Z., & Kaya, E.** (2026). Identity construction and collective memory: A critical heritage study of Łódź's post-industrial legacy. *Cities*, 170, 106743. <https://doi.org/10.1016/j.cities.2025.106743> pkt. MEiN = 100.
- 4. Dehghan Pour Farashah, M., Pourzakarya, M.** (2024). Reviving the Past: Unveiling Urban Industrial Heritage in Yazd, Iran. In *Heritage Tourism in Contemporary Asia*. Publisher: Springer Nature. pkt. MEiN = 20
- 5. Dehghan Pour Farashah, M., Ghaderi, Z., & Kaya, E.** (2025). Unraveling the industrial heritage values: a stakeholder-driven heritage tourism model for Łódź, Poland. *Journal of Heritage Tourism*, 1-26. <https://doi.org/10.1080/1743873X.2025.2591394> pkt. MEiN = 70.
- 6. Dehghan Pour Farashah, M., Niemczewska, Z. E., & Porfírio Coutinho Guimarães, P.** (2025). Exploring the Effectiveness of Urban Regeneration: The Comparative Study of the Industrial Heritage Sites of Łódź (Poland) and Yazd (Iran). *European Journal of Geography*, 16(2), 314-334. <https://doi.org/10.48088/ejg.m.far.16.2.314.334> pkt. MEiN = 40.

Table 4. Cycle of the dissertation research programme (Source: own work).

Article	Aim	Data / Method	Key Finding	Builds Dissertation Element
Article 1	Conceptualise integration of industrial heritage into urban planning	Systematic literature review; reflexive thematic analysis	Industrial heritage must be integrated into planning through a multi-layered HUL-based framework	Theory
Article 2	Identify socio-economic values of textile industrial heritage	Semi-structured expert interviews (Yazd); qualitative analysis	Social and economic values are central drivers of adaptive reuse	Empirical foundation (values)
Article 3	To explore how local communities construct and negotiate memory and identity related to textile manufacturing heritage in post-industrial Łódź	Exploratory qualitative research: observational fieldwork and semi-structured interviews (n = 46); reflexive thematic analysis	Industrial heritage is a contested, emotionally charged, and class- and generation-dependent process, shaped by nostalgia, trauma, memory adaptation, and socio-cultural positioning	Theoretical–empirical grounding of socio-cultural dimensions of heritage
Article 4	Examine industrial heritage as a tourism-led regeneration tool	Case-based analysis; conceptual modelling (Yazd)	Tourism can catalyse regeneration when aligned with heritage values	Applications & sectoral integration
Article 5	Develop a stakeholder-driven heritage tourism model	40 stakeholder interviews (Łódź); reflexive thematic analysis	Governance and stakeholder balance determine regeneration sustainability	Governance & applied theory
Article 6	Compare effectiveness of regeneration across contexts	Comparative qualitative analysis (Łódź–Yazd); expert interviews	Effectiveness is context-dependent but guided by transferable principles	Synthesis & comparative contribution

Function of each article in the dissertation cycle

- **Article 1** establishes the conceptual and planning foundation that frames industrial heritage as a socio-spatial resource.
- **Article 2** grounds the dissertation empirically by identifying socio-economic values that justify regeneration interventions.
- **Article 3** grounds the dissertation by showing that industrial heritage is a contested process of memory and identity construction shaped by social and generational dynamics.
- **Article 4** demonstrates how industrial heritage functions as an applied development instrument through tourism.
- **Article 5** introduces governance and stakeholder dynamics as decisive mechanisms shaping regeneration success.
- **Article 6** integrates all prior insights into a comparative evaluation of effectiveness, completing the research cycle.

Summary

Stakeholders, power, and implementation effectiveness

Through the articles, the effectiveness of implementation in the urban regeneration of industrial heritage is revealed to be less about physical change and more about stakeholder dynamics, power, and governance. In the case of Łódź, the effectiveness of regeneration is influenced by complex dynamics between municipalities, investors, cultural institutions, and communities. When governance structures enable stakeholder inclusion and negotiation, regeneration results in multifunctional spaces that equilibrate economic reuse with identity preservation. However, exclusionary or top-down strategies to regeneration increase conflict, especially between former industrial workers and older communities whose memories are associated with industrial trauma (Articles 3 and 5). In the case of Yazd, state-dominated governance structures in regeneration frequently exclude local socio-cultural values, thereby undermining the social effectiveness of regeneration (Articles 2 and 4).

Conflicts, memory, and identity as structuring forces

The articles show that the conflict over industrial heritage is not only economic or spatial but also symbolic and emotional. In Łódź, heritage sites are “memory landscapes” where nostalgia, trauma, pride, and resentment are intertwined (Article 3). Social class and generations are strong factors in the perception of regeneration: working-class people stress loss and experience, while middle- and upper-class people stress economic regeneration and image. This directly influences the acceptance of regeneration schemes and whether adaptive reuse is seen as regeneration or commodification. In Yazd, while the social and economic significance of industrial heritage is recognized, the non-material aspects of memory and identity are less institutionalized, and therefore the conflict is less visible but not less important (Articles 2 and 4).

Adaptive reuse as an instrument: conditions for success and failure

Adaptive reuse appears in the articles as a tool rather than a guarantee. The three conditions for successful adaptive reuse are:

- (1) the recognition of both material and immaterial values of heritage;
- (2) functional diversity matching local socio-economic needs; and

(3) governance frameworks that involve stakeholders throughout the process.

In the case of Łódź, adaptive reuse schemes that served cultural, commercial, and social purposes were more likely to promote identity reconstruction and urban dynamism (Articles 3 and 5). In Yazd, adaptive reuse tends to be economically motivated, with too little attention to cultural storytelling and community participation, resulting in a lack of social sustainability (Articles 2 and 4). Unsuccessful adaptive reuse occurs when reuse favors economic logic over socio-cultural continuity, causing alienation and symbolic loss.

Comparative insight: Łódź vs Yazd

A comparison between Łódź and Yazd shows that context is a decisive factor. Although both cities have a common textile industry heritage, their paths to regeneration differ. Łódź represents a more pluralistic but also conflict-ridden approach to heritage, where heritage is negotiated. Yazd represents a more centralized approach to regeneration, where regeneration is integrated into state-led urban development policies. The articles together demonstrate that effectiveness is not transferable as a model, but that principles of transferability exist: inclusion, recognition, and integration (Articles 5 and 6).

Explicit answers to the research questions

RQ1

The articles demonstrate that integration requires a value-led and stakeholder-informed planning approach, rather than a purely technical or economic one (Articles 1, 3, 5).

RQ2

Social, cultural, emotional, and economic values jointly shape outcomes, with intangible values playing a decisive role in acceptance and sustainability (Articles 2, 3, 4).

RQ3

Balanced governance structures and inclusive stakeholder coalitions are critical determinants of effectiveness; exclusion amplifies conflict and undermines long-term success (Articles 4, 5, 6).

RQ4

Effectiveness is context-dependent, shaped by institutional frameworks, memory politics, and socio-economic conditions, though guided by transferable principles (Article 6).

Theoretical contribution

This dissertation makes a contribution to socio-economic geography and spatial management by developing an integrated theoretical framework of industrial heritage-led urban regeneration as a socio-spatial, value-mediated, and governance-contingent process. Based on the HUL approach (UNESCO, 2011), the study applies it to the context of industrial heritage by illustrating how heritage values are mediated through planning and stakeholder engagement rather than being conserved as fixed attributes (Dehghan Pour Farashah, 2024). Informed by CHS (Smith, 2006), the dissertation refutes the hegemonic economic and aesthetic discourses of regeneration by prioritizing collective memory, identity, and experience as key theoretical constituents of post-industrial urban change (Dehghan Pour Farashah et al., 2026). Evidence from Łódź illustrates that heritage values are mediated in class and generational terms, supporting the argument about the socially mediated nature of heritage and the fallibility of authorized heritage discourse (Dehghan Pour Farashah, Ghaderi, et al., 2025; Dehghan Pour Farashah et al., 2026; Smith & Campbell, 2017). The dissertation further develops the theoretical framework of value-led regeneration by illustrating that social, cultural, and emotional values are the key determinants of the effectiveness of adaptive reuse, rather than being secondary to economic logics (Bullen & Love, 2011; Dehghan Pour Farashah, 2023; Dehghan Pour Farashah & Pourzakarya, 2025). Moreover, it advances the theoretical framework of governance in urban regeneration by theorizing stakeholder engagement and public-private-community collaboration as spatial mediators of effectiveness (Dehghan Pour Farashah, Ghaderi, et al., 2025; Della Lucia & Pashkevich, 2023; Roberts, 2000). Lastly, through the comparative study of Łódź and Yazd, the dissertation develops the theoretical framework of regeneration effectiveness as context-contingent while distilling transferable principles for spatial management in post-industrial cities (Dehghan Pour Farashah, Niemczewska, et al., 2025).

Practical implications

This dissertation provides a number of key practical implications for urban regeneration and spatial management in post-industrial cities, especially those with textile manufacturing legacies. In the case studies, the results clearly show that community engagement and equity are not separate from economic and social sustainability but are in fact integral to each other, and that regeneration projects that exclude local residents, especially those with industrial heritage, are likely to face long-term social defiance and symbolic failure (Dehghan Pour Farashah, Ghaderi, et al., 2025;

Dehghan Pour Farashah et al., 2026). Successful industrial heritage regeneration, therefore, requires participatory planning approaches that take into account both material and immaterial heritage values and involve diverse stakeholders throughout the planning and implementation process (Dehghan Pour Farashah, 2024; Smith, 2006).

The study also clearly shows that adaptive reuse works best when it is integrated into overall strategies of urban regeneration and functional diversity. The conversion of former factories into mixed-use spaces that combine cultural, commercial, residential, and recreational activities increases urban vitality while maintaining place identity, as seen in urban regeneration projects in Łódź (Dehghan Pour Farashah, Ghaderi, et al., 2025; Dehghan Pour Farashah et al., 2026). However, as seen in the Yazd case, economically driven reuse strategies that neglect sufficient socio-cultural integration are likely to result in reduced community ownership and social effectiveness (Dehghan Pour Farashah, 2023; Dehghan Pour Farashah & Pourzakarya, 2025). These findings, therefore, stress the need to align adaptive reuse strategies with local socio-economic needs and cultural narratives rather than viewing heritage sites as discrete investment opportunities (Bullen & Love, 2011).

Finally, this dissertation stresses the importance of feasibility studies and strategic planning tools in industrial heritage regeneration. Feasibility studies, in particular, need to expand beyond purely financial considerations to include social impacts, stakeholder relationships, and spatial integration within the larger urban system (Dehghan Pour Farashah, Niemczewska, et al., 2025; Roberts, 2000). This integrated approach will allow policymakers, planners, and investors to develop regeneration strategies that are not only financially viable but also socially inclusive and spatially sustainable.

Research limitations and directions for future research

However, despite the contributions, this dissertation also has a number of limitations that also indicate directions for future research. Firstly, the research is mainly qualitative, using semi-structured interviews and participant observation, which allowed for a detailed analysis of stakeholder views, heritage values, and governance in the context of industrial heritage. While this is a very effective way of researching the complex socio-cultural meanings and narratives of heritage, it is not very generalizable to other urban and institutional settings. Future research could use a mixed-methods approach, combining quantitative surveys, spatial analysis, and economic

data to investigate broader trends and confirm qualitative findings in a variety of other industrial heritage sites.

Secondly, while the comparative analysis between Łódź and Yazd is very informative in terms of understanding how different socio-economic, cultural, and institutional contexts influence urban regeneration, it is necessarily constrained by the choice of two case study cities. A more comprehensive comparison between a variety of post-industrial cities in different regions would enable a more systematic evaluation of context-dependent and transferable principles of regeneration.

Third, the time frame of the research, which took about two years, does not reflect the long-term effects of the revitalization of industrial heritage. Long-term studies could be done to monitor changes in the perceptions of stakeholders, tourism, and socio-economic factors, providing a more comprehensive insight into the sustainability and resilience of regeneration.

Fourth, although the dissertation emphasizes planning, governance, and stakeholder views, it does not investigate the use and experience of the regenerated industrial heritage spaces after the regeneration process. Future research could be done to investigate how these spaces are used and avoided, providing a more comprehensive insight into the inclusion and belonging of regeneration.

Finally, the research is concentrated on planning, governance, and perceptions, and not on the gap between policy design and implementation. Future research could be done to investigate how the constraints of financial and regulatory systems, institutional inertia, and political cycles influence the translation of regeneration strategies into practice, providing a more comprehensive insight into why effective industrial heritage policies succeed in some cases and fail in others.

It should be acknowledged that this section of the dissertation has been formulated as a manuscript and submitted to "European Spatial Research and Policy," which is currently under review at the time of the dissertation's submission.

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Scientific achievements during PhD study

List of publications included in the doctoral dissertation

1. **Dehghan Pour Farashah, M.** (2024). Conceptual Planning Framework to Integration of Industrial Heritage Regeneration with Historic Urban Landscape approach. *Geographia Polonica* (ISSN: 2300-7362), 97(4), 425-446. Doi: <https://doi.org/10.7163/GPol.0286> **pkt. MEiN = 100.**
2. **Dehghan Pour Farashah, M.** (2023). Evaluation of social and economic values in textile manufacturing heritage sites: the case of Yazd. *Ge-conservation* (International Institute for Conservation of Historic and Artistic Works, (ISSN: 1989-8568), 24(1), 228-237 DOI: <https://doi.org/10.37558/gec.v24i1.1266> **pkt. MEiN = 40.**
3. **Dehghan Pour Farashah, M., Ghaderi, Z., & Kaya, E.** (2026). Identity construction and collective memory: A critical heritage study of Łódź's post-industrial legacy. *Cities*, 170, 106743. <https://doi.org/10.1016/j.cities.2025.106743> **pkt. MEiN = 100.**
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6. **Dehghan Pour Farashah, M., Niemczewska, Z. E., & Porfírio Coutinho Guimarães, P.** (2025). Exploring the Effectiveness of Urban Regeneration: The Comparative Study of the Industrial Heritage Sites of Łódź (Poland) and Yazd (Iran). *European Journal of Geography*, 16(2), 314-334. <https://doi.org/10.48088/ejg.m.far.16.2.314.334> **pkt. MEiN = 40.**

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1. **Dehghan Pour Farashah, M., & Aslani, E.** (2021). Assessing elements of potential tourism resources in a historic city from host community and tourists' viewpoints: A perspective from Iran. *Turyzm/Tourism*, 31(2), 155–180. <https://doi.org/10.18778/0867-5856.31.2.09> **pkt. MEiN = 40.**
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8. **Dehghan Pour Farashah, M.**, Pahlevanzadeh, M., Khanian, M., & Jabbarian Amiri, B. (2025). Hidden Cultural Ecosystem Services in Private Green Spaces: A Case of Unesco World Heritage Site. *International Journal of Conservation Science*, 16(4), 1947–1962. <https://doi.org/10.36868/IJCS.2025.04.23> **pkt. MEiN = 140.**
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Peer Reviewer

1. *International Journal of Tourism Policy* (ISSN: 1750-4104) **pkt. MEiN = 20.**
2. *Journal of Asian Architecture and Building Engineering* (ISSN: 1347-2852) **pkt. MEiN = 40.**
3. *Tourism Planning & Development* (ISSN: 2156-8324) **pkt. MEiN = 70.**
4. *Heritage & Society* (ISSN: 2159-0338) **pkt. MEiN = 100.**

Conference presentations

1. **Dehghan Pour Farashah, M.**, Aslani, E., & Ansarisadrabadi, A. M. Exploring the Sustainability in a Rural Area of the World Heritage city of Yazd during the COVID-19 Pandemic: The Example of a Survived Ecolodge's Innovations. 7th UNESCO UNITWIN Conference 2022: World Heritage and Tourism Innovation, Portorož, Slovenia, 15-20 May 2022.

2. **Dehghan Pour Farashah**, M. Extrinsic Value of Industrial Heritage: The Case of Textile Manufacturing in Yazd and Lodz. Bridging Cultures through Travel: From theory to practice, CultSense Project & ATLAS SIG Cultural Tourism, Rotterdam, Netherlands, 14-15 June, 2023.
3. **Dehghan Pour Farashah**, M. The Challenges and Achievements of Adaptive Reuse in Textile Manufacturing Heritage sites: Examples from Lodz and Yazd. Challenges and Opportunities in the Conservation, Promotion and Adaptive Reuse of the Industrial Heritage, Bucharest, Romania, 21-22 September, 2023.
4. Cheraghi, E., Ghaderi, Z., **Dehghan Pour Farashah**, M., & Uktamov, M. Nowruz as a cultural tourism asset in Central Asian states: the intersection between cultural policy and event management. The 3rd "One Belt, One Road, One Tourism" International Conference, School of Hotel and Tourism Management, The Hong Kong Polytechnic University, and Hospitality Management and Tourism School, Central Asian University, Tashkent, Uzbekistan, 24-27 June 2025.
5. **Dehghan Pour Farashah**, M. & Coutinho Guimarães, P. P. Challenging authorized heritage discourse: stakeholder perspectives on industrial heritage in Łódź, Poland. Challenges and Opportunities in the Conservation, Promotion and Adaptive Reuse of the Industrial Heritage, Bucharest, Romania, 25-26 September, 2025.

Teaching Experience

1. University of Lodz, Institute of the Built Environment and Spatial Policy, Lodz, Poland, 2023- 2025; (**Urban space regeneration and development of public space, Shaping space in rural areas, Cultural objects in the landscape**).

Distinctions and awards

1. Scholarship for winter school, University of Szczecin, the project granted by NAWA Poland within the Spinaker programme, 2023.
2. PROM PROJECT, University of Lodz, 2023.
3. STER NAWA programme - Incentive scholarships for best-performing doctoral students, NAWA Poland, 2024.

Research internship

1. The Winter School “How to Become A Better Scientist and Teacher”, 2nd Edition, University of Szczecin, Poland, February 27 – March 5, 2023.
2. Digital media for tourism in Creative Cities: experiences from the center of Portugal, USI, Università della Svizzera italiana – University of Coimbra – Universidade Europeia of Lisbon, Portugal, 11 – 18 February, 2024.

Published papers



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A CONCEPTUAL PLANNING FRAMEWORK TO INTEGRATION OF INDUSTRIAL HERITAGE REGENERATION WITH HISTORIC URBAN LANDSCAPE APPROACH

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Abstract

The Historic Urban Landscape has emerged as a new approach to reconcile heritage conservation and urban development. This approach has been increasingly used in planning literature since 2011. In this study, a four-step conceptual framework is developed by reflexive thematic analysis of recent literature on industrial heritage regeneration and Historic Urban Landscape. By integrating the principles of the Historic Urban Landscape into the regeneration of industrial heritage, a planning framework is developed with the aim of establishing recognition, fostering partnership, promoting diagnosis and feasibility, and implementing intervention measures. Also, it seems to help operationalize the Historic Urban Landscape approach in the context of industrial heritage sites by involving all stakeholders.

Keywords

industrial heritage • partnership • heritage value • regeneration • Historic Urban Landscape • conceptual planning framework • reflexive thematic analysis • conservation • development

Introduction

The term “industrial heritage” encompasses locations, buildings, complexes, areas, and landscapes, and related equipment, artifacts, and records that demonstrate past or current industrial production processes, from raw material extraction to product manufacturing and the associated infrastructures (ICOMOS-TICCIH, 2011). Industrial heritage

holds substantial historical, social, cultural, technical, commercial, and aesthetic value, making it a vital part of our cultural legacy (Douet, 2016; Mo et al., 2022). Over recent decades, abandoned industrial buildings have become global phenomenon, leading to significant social, urban, and economic consequences. These buildings are often celebrated for their uniqueness, particularly in historically industrialized nations (Dell’Anna,

2022). They serve as reminders of past industrial processes and contribute to the distinct character of industrial city landscapes, playing a significant role in both real estate heritage and cultural history (Pickerill, 2021; Arbab & Alborzi, 2022).

In the latter half of the 20th century, the transformation of industrial historic sites began, with Britain serving as a model for effective urban regeneration strategies, influencing other Western European nations (Walker, 2001; Couch et al., 2008; Dellios, 2019). This industrial transformation involves the redevelopment and reuse of land, buildings, and urban structures (Ball, 2002; Kosmowski, 2019; Jarczewski & Koj, 2023). Conservation or adaptive reuse of industrial heritage sites can revitalize urban areas in industrial decline and stimulate the regional economy (Xie, 2006). The preservation and revitalization of such industrial heritage sites must address not only structures and industrial processes but also the surrounding streetscape, community, and spatial fabric (Mo et al., 2022). According to the National Heritage Protection Plan 2011-15 in the UK, industrialization significantly impacts the environment, and historic industrial sites are integral to tourism and urban regeneration initiatives, offering potential for empathetic new uses despite inherent challenges (Pickard, 2018).

Urban heritage faces increasing challenges in the 21st century, including mass tourism, urbanization, commercial exploitation, and climate change. Consequently, heritage revitalization has become more complex, necessitating a shift from the 1976 UNESCO Recommendation concerning the Safeguarding and Contemporary Role of Historic Areas (Liu et al., 2019). Following the "Vienna Memorandum," the creation of indicator systems has been experimental within the context of 21st-century heritage strategies (UNESCO, 2005). On November 10, 2011, the UNESCO General Conference approved the Historic Urban Landscape (HUL) recommendation, which combines socioeconomic development with urban heritage conservation (UNESCO, 2011a). The HUL approach reflects the

evolution of heritage philosophy over the past thirty years and the changing role of heritage in society (Bandarin, 2019). This framework emphasizes recognizing and analyzing the global and local, tangible and intangible, environmental and cultural, and interconnected layers of cities (Taylor, 2016).

The regeneration of industrial districts has redefined urban heritage (UNESCO, 2016a). As Höftberger (2023) highlights, classifying urban heritage and regeneration has been central to European urbanism debates. The HUL approach encourages a rethinking of urban development, recreation, conservation, and redevelopment. It aims to show how city layers have developed and transformed over time, not just identifying structures of historical significance but also evaluating the preservation and changes of these layers (Rey Pérez et al., 2017). The HUL Recommendation offers a novel tool for historical city planning and heritage preservation, applicable to industrial heritage (Alba Dorado, 2023). In terms of its novelty, it emphasizes a comprehensive perspective on cities by considering social, cultural, and economic dimensions. This novel perspective is in contrast to traditional approaches that prioritize physical conservation. Consequently, the HUL distinguishes itself as an innovative approach to tackling contemporary urban challenges in the context of the regeneration of historic areas (UNESCO, 2011a).

Nonetheless, despite the growing importance of industrial heritage and an HUL approach, this paper finds a noticeable gap in the integration of both concepts within planning literature. Most recent efforts have thus far overlooked the use of the HUL approach for the regeneration of industrial heritage and have focused instead on protected historic city centers. In the meantime, attention is thus diverted from possible points of synergy that concern a comprehensive approach to urban regeneration in industrial areas. In terms of theory, this conceptual framework seeks to address this by integrating the principles of HUL with the regeneration of industrial heritage. For the purpose of this research, the following will be answered:

1. How could the principles underlying the HUL approach be used for reinterpreting industrial heritage regeneration?
2. What are the principal constituents and stages of a conceptual planning framework that incorporates HUL and industrial heritage regeneration?
3. What are the potential benefits and challenges of such an integrated approach?

Hence, the purpose of the present paper is the integration of the applicability of the industrial heritage regeneration into the HUL approach. After the delineation of the methodology, the principles and concepts of the HUL are discussed; after that comes the importance and dimension of industrial heritage regeneration. The third section discusses and concludes with the proposed conceptual planning framework basing on the current documents and resolutions related to industrial heritage regeneration in the HUL approach. This recognizes the applicability of the HUL approach for applying not just within the historically protected city centers but to the new categories of industrial heritage, which include industrial spaces, landscapes, and intangible heritage areas. There is therefore the need to come up with a new conceptual framework in order to achieve the effective management of the regeneration of industrial heritage.

Methodology

This study employs a qualitative research approach, using pre-existing data to conduct a comprehensive literature review. Pre-existing data, such as texts from books, papers, and other materials, can be compared to data gathered through observations and interviews, as they also represent people's beliefs and perspectives (Merriam & Tisdell, 2016; Morgan, 2022). In the context of integrating industrial heritage regeneration with the HUL approach, the literature review serves as the central research methodology. It provides a conceptual planning framework for the regeneration of industrial heritage sites within urban spaces.

Selection of documents

The initial step in the document analysis process involves the selection of relevant documents. Researchers must consider several factors when choosing these texts (Morgan, 2022). According to Flick (2009), four criteria are essential for selecting documents: authenticity, credibility, representativeness, and meaning.

Authenticity: This criterion assesses whether a document is genuine and reliable (Dunne et al., 2016). Authenticity ensures that the document is a primary source, free from significant flaws or alterations that may skew its content. (Mogalakwe, 2009). This paper uses original documents, reports, and charters from UNESCO, ICOMOS, and TICCIH, which are highly authentic and authoritative in heritage preservation and regeneration, to provide foundational guidelines for industrial heritage regeneration and the HUL approach.

Credibility: This refers to the accuracy and reliability of the document's content. Researchers must determine whether the document's source is trustworthy, considering potential biases or motivations behind its creation (Flick, 2009; Kridel, 2015). In this context, the term 'bias' pertains to systematic distortions in sources, whereas 'trustworthy' signifies reliability based on factual accuracy and the reputation of esteemed organizations such as UNESCO, ICOMOS, and TICCIH. These sources are deemed reliable due to their extensive research and well-established methodologies. Moreover, materials published in reputable and peer-reviewed journals are considered 'trustworthy' due to their stringent review processes and adherence to rigorous academic standards.

Representativeness: A document is representative if its content reflects a typical example within a group of similar documents. This ensures that the document's information is not unique but rather indicative of broader trends or patterns (Dunne et al., 2016)

Meaning: This involves understanding both the literal and interpretative meanings of the document's content. Researchers must

consider the context in which the document was created to fully grasp its significance (Mogalakwe, 2009; Morgan, 2022).

The Scopus database was utilized to identify relevant research on industrial heritage regeneration and the HUL approach. Additionally, resolutions, reports, and charters from UNESCO, TICCIH, and ICOMOS were included to ensure a comprehensive review. The screening process involved a thorough reading of titles and abstracts, followed by an in-depth review of selected documents (Arbab & Alborzi, 2022). A snowball sampling technique was also employed to identify complementary references related to available approaches, frameworks, and case studies for industrial heritage sites and the HUL (Parker et al., 2019).

The international recommendations and charters, which are certified by UNESCO, ICOMOS, and TICCIH, are shaped by policy agendas and diplomatic negotiations involving member states. Nevertheless, these frameworks and guidelines contribute to the preservation and revitalization of urban areas and are influenced by political and socio-economic circumstances. On the other hand, scientific papers critically evaluate the effectiveness and implementation of these recommendations through empirical research. Through an examination of these papers, we can gain insights into the practical application of these international guidelines and their impact on the transformation of industrial heritage regeneration and urban planning.

Reflexive thematic analysis

The selected documents were analyzed using Reflexive Thematic Analysis (RTA), a qualitative method that emphasizes the researcher's reflective and interpretative lens throughout the analytical process (Braun & Clarke, 2021). In this regard, the researcher does not confine bias but rather highlights its presence, acknowledging their own preconceptions that might impact the analytical process and findings (Mantzoukas, 2005). RTA involves

a six-phased approach: 1) Familiarization with the data; 2) Generating initial codes; 3) Searching for themes; 4) Reviewing themes; 5) Defining themes; 6) Producing the report (Braun & Clarke, 2013). The reflexive approach to coding allows for an evolving process, where codes can be split or renamed based on the researcher's interpretation of the data. This method enables the identification of themes that represent shared meaning patterns, rather than merely summarizing the data (Braun et al., 2019). Atlas.ti version 8 software was used to facilitate the coding process.

Findings

The present paper examines the findings derived from a comprehensive analysis of various sources of literature, including journal articles, books, book chapters, conference proceedings, and reports. A thorough search was conducted on Scopus using specific keywords such as "Historic Urban Landscape," "HUL," and "industrial heritage regeneration," resulting in the identification of approximately 100 potentially relevant publications. In addition, an extensive snowball sampling technique was employed to expand the pool of literature by extracting relevant references from the aforementioned records, ultimately accumulating a total of 428 publications for initial screening (Fig. 1).

Moreover, the websites of UNESCO, TICCIH, and ICOMOS were utilized to identify relevant reports. Subsequently, the titles and abstracts of these publications were meticulously examined to ensure their adherence to the exclusion criteria. To conduct the literature screening, it was important to develop multiple exclusion criteria in order to match the objectives of the study. If any of the papers were narrowly centered around the HUL or failed to discuss planning frameworks, they were excluded from the papers due to the study's larger field of vision. Also excluded were those studies that were not covered under industrial heritage, for instance, research focusing on green areas or on Geographic Information Systems (GIS).

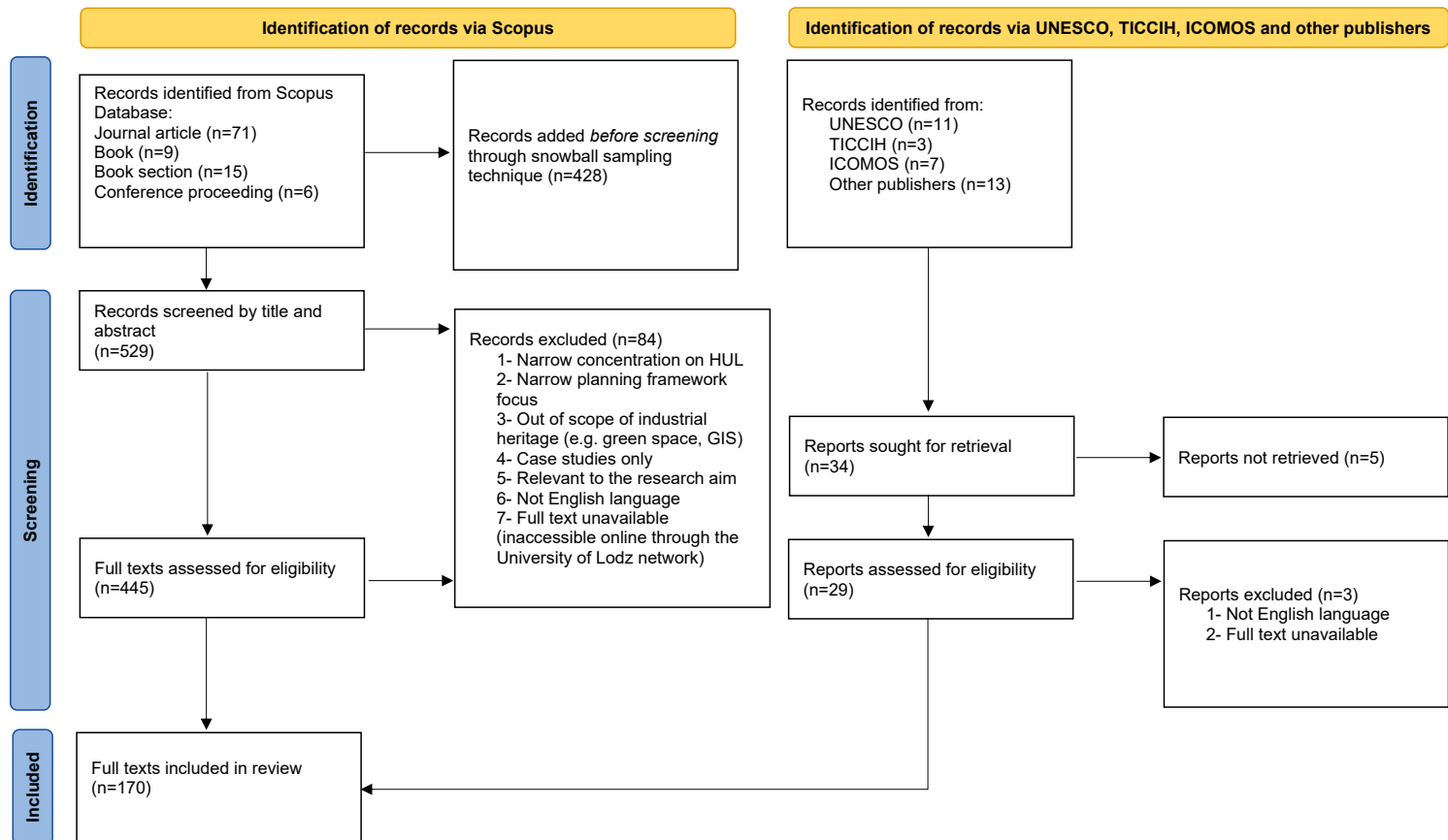


Figure 1. Diagram of the workflow of identification, screening, eligibility, and exclusion of texts

Only case studies that bring theoretical advancements that relate to the research aim were included for review. Furthermore, only papers published in English languages were included to ensure easy understanding of the contents. Additionally, papers were excluded where full text was not freely available for access through the University of Lodz network. These criteria reduced the chance of including irrelevant or overlapping literature and helped identify all the literature that was directly related to the analysis. After conducting a thorough review, a total of 170 publications were ultimately selected for inclusion in this study. Among these, 59%

consisted of journal articles, while the remaining 41% encompassed books, book chapters, conference proceedings, and reports (Fig. 2).

This paper has identified a rise in publications that make reference to the HUL approach and industrial heritage since 2011, coinciding with the release of the UNESCO (2011a) and ICOMOS-TICCIH (2011) recommendations on the HUL and the conservation of industrial heritage sites (Fig. 3). Moreover, there has been a particularly significant increase in the number of papers published after 2016, which aligns with the publication of Douet (2016), UNESCO (2015a), UNESCO (2015b), UNESCO (2016a), and UNESCO

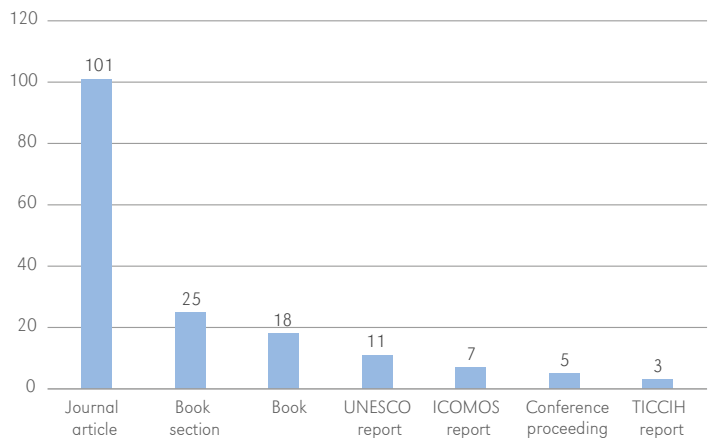


Figure 2. Number of published documents included for analysis

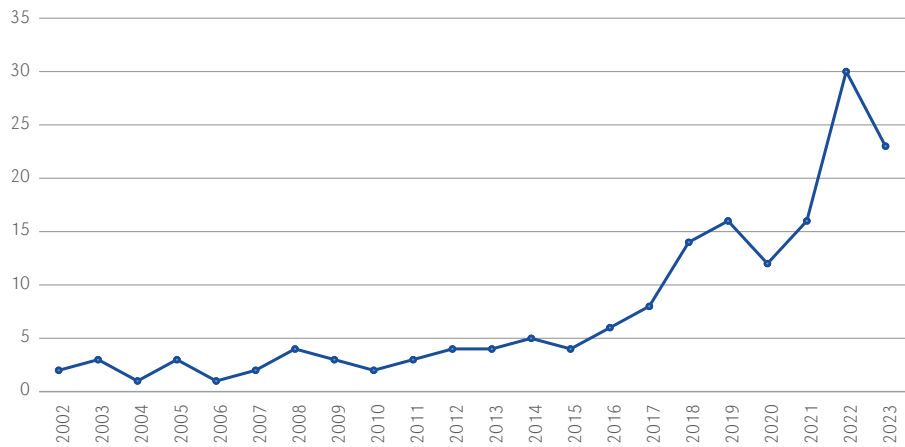


Figure 3. Number of published documents per year

(2016b). The research disciplines of the publications are mainly related to social sciences, arts and humanities, and Environmental Science. Publications within fields such as Earth and Planetary Sciences, Chemical Engineering, Medicine and Multidisciplinary disciplines are still very limited (Fig. 4). The results further reveal that journals with a focus on conservation and heritage, such as the Journal of Cultural Heritage Management and Sustainable Development, Historic Environment Policy and Practice, and the International Journal of Heritage Studies, have utilized heritage dimensions in the context of urban regeneration by incorporating them into the HUL guidelines.

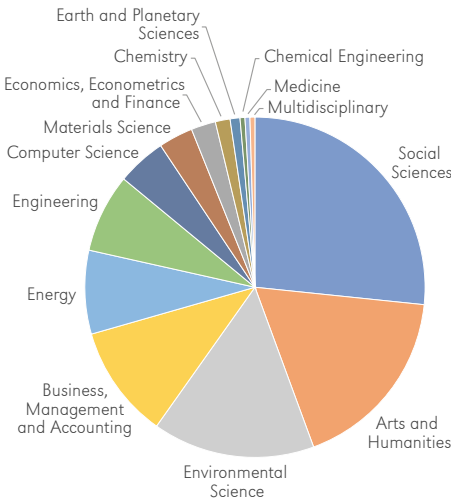


Figure 4. Published documents by subject area

The results also indicate that the academic discourse surrounding HUL and industrial heritage has predominantly taken place within the United Kingdom, with a total of 18 documents (Fig. 5). This finding underscores the significant influence that HUL and industrial heritage have had on universities and institutions in the UK. Chinese universities are increasingly integrating the HUL into their research, focusing specifically on the use of GIS tools and map translation. This trend is observed across 16 different documents. Regarding Poland, five documents

addressed the industrial heritage, while two documents focused on the HUL and urban regeneration.

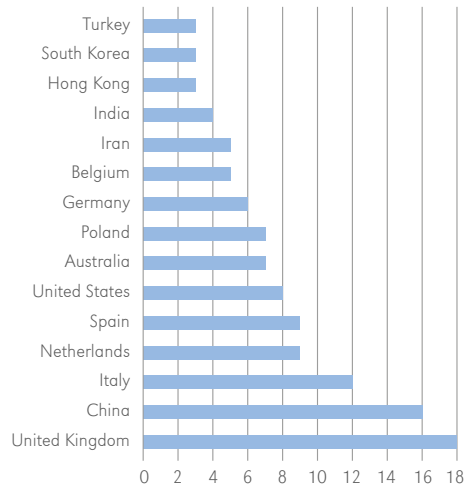


Figure 5. Number of published documents according to the countries

The sample texts were imported into Atlas.ti version 8 in order to categorize them into different themes. The top 10 codes used in the literature were extracted based on their frequencies to identify aspects related to the HUL and industrial heritage regeneration (Fig. 6). Subsequently, the sample texts were analysed using reflexive thematic analysis, following the six-phase format of thematic analysis.

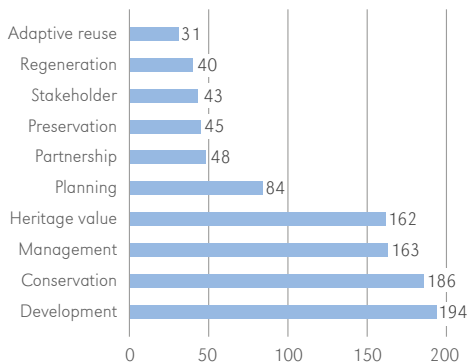


Figure 6. Charts showing the frequency of the top 10 codes

Understanding the differences between preservation, conservation and regeneration are also key to industrial heritage as well as HUL approach. The fundamental aim of preservation is to maintain heritage sites as they are, preserving them from decay and being changed in any way that would threaten their validity (Orbasli, 2008). In contrast, conservation is a more active intervention which considers the management of changes to heritage assets that ensure their historic qualities are maintained and they continue in use for the intended purposes (Jokilehto, 2006). Regeneration is about conversion and revitalization which respects their relevance today as functional entities in our urban cultures. This often takes place through creative interventions, which add economic and social value to these sites contributing towards sustainable development (Smith, 2006). These differences have to be understood in order to incorporate industrial heritage successfully into the HUL, and each should respectively tailored as an approach between historic conservation or contemporary requirements (Pendlebury, 2013).

The following sections present the findings of this study under seven main themes, staying in line with one significant feature from each theme and extracted literature that focuses on the HUL approach and industrial heritage regeneration. These sections highlight challenges encountered within applying the HUL approach to industrial heritage regeneration. These themes are then consistently presented in the following sections, resulting in a structured synthesis of the literature collected. This method guarantees that findings are presented in a clear and coherent way, which is congruent with the objectives of the study.

Historic Urban Landscape approach

HUL approach in Urban Heritage Management

In the age of globalization, cities face increasing competition both nationally and globally. While globalization fosters similarities in

finance, information technology, and urban development patterns, culture and heritage remain distinct resources (UNESCO, 2016b; Ramírez Eudave & Ferreira, 2021). The HUL approach, endorsed by UNESCO, is a comprehensive, interdisciplinary method for managing heritage resources within dynamic urban environments. Unlike traditional methods, the HUL approach integrates heritage management into broader urban development strategies, aiming to guide change in historic cities (UNESCO, 2016b). This approach recognizes heritage as a powerful driver of environmental, economic, social, and cultural development, valuing both tangible and intangible heritage as key resources for cities and their inhabitants (Caballero, 2016; Taylor, 2018). The HUL method emphasizes mapping social, cultural, natural, and physical characteristics to inform decision-making and apply normative and regulatory frameworks tailored to specific local needs. These frameworks help preserve the authenticity and integrity of urban heritage while facilitating transformations that enhance living standards and urban spaces (Van Oers & Haraguchi, 2010; UNESCO, 2011a, 2013, 2016b). To evaluate the HUL's effectiveness in historic cities, it is crucial to document the spatial integration of cultural assets through comprehensive mapping (Saleh & Ost, 2023).

Urban heritage analysis, monitoring, and management technical approaches are fundamental to the HUL's knowledge and planning tools. Various surveying technologies create base maps at different scales, and GIS link quantitative and qualitative data to specific areas. This can include an inventory of cultural resources, financial, demographic, and architectural details (Hosagrahar, 2014). For instance, the project "Mapping Problematic Memories in the Historic Urban Environment" explored the Gulou area in Beijing, highlighting socio-cultural impacts like the forced displacement of original inhabitants (UNESCO, 2015a). Additionally, Fusco Girard (2013) applied the HUL approach to port cities, focusing on using cultural resources for urban regeneration and developing a synergized

circular economy. This study demonstrated the HUL approach's potential to foster sustainable urban development by integrating cultural heritage into broader economic and environmental strategies. These case studies underscore the novelty of the HUL approach, integrating comprehensive urban management with heritage conservation and addressing socioeconomic development in ways that previous methodologies have not fully captured.

Values in HUL management

Historic urban districts are undergoing significant transformations due to urban expansion. The values communities attach to these areas and their environments are deeply influenced by global activities (UNESCO, 2011a). Therefore, it is crucial to define the values and qualities that all stakeholders agree to preserve. These should emerge from stakeholder meetings and participatory planning efforts (Aureli & Del Baldo, 2023). The HUL approach helps in understanding the significance and worth of historic regions by considering their conditions, which guides the dynamic city's layout, planning, and management (UNESCO, 2015b). This method supports communities in evolving while maintaining the values associated with their history, shared memories, and environment (UNESCO, 2011b).

A frequency analysis conducted on heritage value terms in the Scopus database reveals a notable increase in the inclusion of such terms in the discourse surrounding the HUL concept in recent years. For instance, Jiang et al. (2023) explored integrating modern built-up areas with the intangible heritage of Suzhou in China, suggesting that urban planners reconfigure new urban areas to align with community values, thereby reintegrating local culture with the Suzhou context. Similarly, Barrett (2023) emphasized how explicit articulation of HUL principles significantly impacts conservation practices in Worcester, England, and beyond. These studies illustrate how the HUL approach reassesses the relevance of cultural assets beyond physical surroundings (Boonmee, 2022). The challenge remains to use inclusive techniques to

describe embedded cultural values within HULs (Barrett, 2023). These values should be the foundation for the city's overall management and development (UNESCO, 2016b).

Community engagement in HUL

Community involvement, commitment, and relationships play a crucial role in fostering social cohesiveness, adaptability to challenges, and creativity (Fabbicatti & Biancamano, 2019). Heritage and culture often provide a context for participatory processes, where urban conservation and regeneration initiatives encourage new forms of cooperative partnerships. These partnerships, involving local authorities, promote inclusive community projects, local empowerment, and civic pride (Tomka et al., 2019). To enhance the capacity of local communities in urban regeneration, deliberate efforts such as expanding funding and training opportunities or allowing the use of public spaces are essential (UNESCO, 2016a). The HUL approach integrates a broad range of stakeholders, including local, national, regional, public, and private players, in the urban development process, influencing local policy, governance, and management (UNESCO, 2011a; Ripp & Rodwell, 2018; Rodwell, 2018; Ginzarly et al., 2019). The HUL strategy emphasizes the need for participatory processes to develop consensus on the values and characteristics to be preserved. This approach aims to reconnect various interest groups and stakeholders from the public, private, and civic sectors (Khalaf, 2018). It necessitates the involvement of multiple specialists, professionals, and stakeholders, each with different levels of interest and engagement in the historic city. Various actors have implicitly adopted distinct methods, specifically linked to diverse techniques of surveying and modeling the city (Ramírez Eudave & Ferreira, 2021).

Local stakeholders often communicate through workshops utilizing analytical techniques like maps, interactive discussion formats such as World Cafés, and co-creative production of visions and ideas (Smith, 2014). Aureli and Del Baldo (2023) argue that a more

participatory strategy can lead to superior outcomes. Involving numerous stakeholders enables municipalities with limited financial resources to support initiatives aimed at socio-economic growth and historical preservation. Participation is crucial for operationalizing an active HUL conservation strategy (Aas et al., 2005; Tas et al., 2009). The HUL approach stresses the importance of local community involvement in promoting a democratic form of urban governance that relies on multiple actors and advocates for new governance methods for planning and managing urban systems (Kazepov, 2010). Projects utilizing data from various stakeholders and disciplines highlight the relevance of considering current data to develop a comprehensive city planning strategy aligned with the HUL proposal (Rey Pérez et al., 2017). However, research in different countries indicates that the HUL method faces challenges, such as a lack of defined responsibilities for specialized administration and public engagement in urban heritage management (Marović et al., 2022). The method remains primarily applied and researched in China and Europe (Rey-Pérez & Pereira Roders, 2020).

Balancing development and conservation

Cities are increasingly becoming pivotal in shaping global politics, social change, innovation, and development. They are emerging as the primary consumers, advocates, and creators of heritage in all its forms, both now and in the future (Bandarin, 2019). The challenge for cities undergoing rapid urban growth is to acknowledge and preserve key heritage aspects while integrating them harmoniously into territorial and urban planning. This approach requires considering the global challenges cities face while planning for future growth (Rey Pérez et al., 2017). Developing and conserving historic cities necessitates a comprehensive understanding of the complexity and diversity of urban areas, particularly regarding tangible and intangible cultural assets (UNESCO, 2011a). A growing body of literature emphasizes the need to balance local urban development and heritage

conservation (Rey-Pérez & Pereira Roders, 2020; Aureli & Del Baldo, 2023). The rise of the HUL approach has transformed conservation practices (Taylor, 2016). It now views cultural assets not just as entities to be preserved (Liu et al., 2019), but as sources of social cohesion, diversity, innovation, and drivers of urban regeneration (UNESCO, 2013; Taylor, 2018). This evolution in urban heritage conservation practice, reflected in the HUL approach, equips policymakers and managers to address emerging challenges and opportunities more effectively (UNESCO, 2011b). Ultimately, the HUL approach addresses the crucial question of how development and conservation can coexist in urban settings (Höftberger, 2023).

The study of urban heritage spans both academic and public policy realms, reflecting the complex issues surrounding urban heritage conservation and regeneration. These issues dominate heritage management policies and practices globally, albeit at different levels (UNESCO, 2016a; Kaczmarek, 2019). Overcoming current disciplinary barriers and developing integrated approaches are essential for generating the evidence base needed for well-informed policies and investments in the HUL regeneration (Gravagnuolo & Girard, 2017). The coexistence of modernization and heritage is crucial in regenerating cities. The HUL and urban morphology draw attention to historical processes that can support urban regeneration (Shen & Dong, 2022). The practice of urban regeneration needs to be integrated and comprehensive (Korkmaz & Balaban, 2020), adapting traditional and historical places to meet contemporary demands while maintaining their historical integrity (Embaby, 2014). The contribution of significant innovations to methods and practices for the preservation and redevelopment of historic fabrics has often been limited by traditional planning tools, which are not tailored to the flexibility and procedural nature of historic center regeneration (Atzeni et al., 2022). Through HUL regeneration, urban productivity can be increased via adaptive reuse initiatives, and new management and economic models (Gravagnuolo

& Girard, 2017). Understanding urban regeneration experiences through the HUL framework highlights successful transformations that balance the complexities of urban systems and the historical relationship between city and heritage. This allows for sustainable interventions in areas where conservation needs and demands reach a new equilibrium of mutual support and interaction (De Rosa & Di Palma, 2013). Since the 1950s, there has been increasing attention to neglected industrial buildings and urban forms as new heritage categories, sparking regeneration initiatives in urban areas (UNESCO, 2016a). Figure 7 illustrates the aspects of HUL, with details in literature review.

Zhang et al., 2022; Dehghan Pour Farashah, 2023). Western Europe, particularly Britain, is where modern industry and its legacy first emerged during the Industrial Revolution in the late nineteenth century (Zhang et al., 2020), represent a wide range of values from science and architecture to society and technology. These sites include mines, factories, workshops, machinery, and buildings, each contributing to a comprehensive understanding of industrial civilization (Zhang et al., 2023).

Industrial heritage sites connect the modern world to past work, showcasing the development and evolution of industries (Dell’Anna, 2022). They form part of a sociocultural legacy, containing valuable historical information

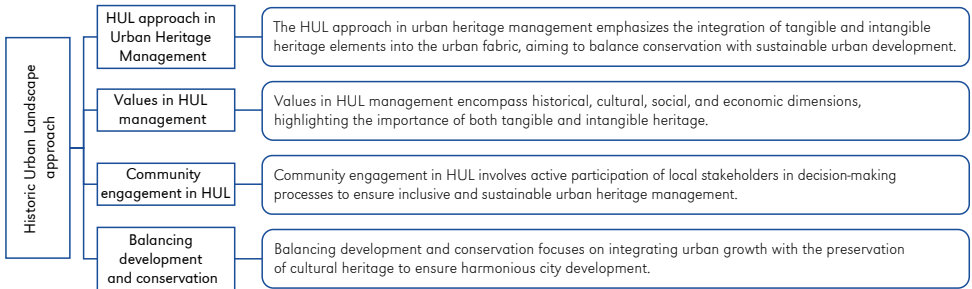


Figure 7. The aspects of HUL through the reflexive thematic analysis of the literature review

Industrial heritage regeneration

Industrial heritage importance in the HUL context

The definition of heritage has expanded to include industrial heritage, previously overlooked, but now recognized for its significant cultural value. This inclusion is essential in the HUL approach, as it acknowledges the rich manufacturing culture of our recent industrial history (Alba Dorado, 2023). The regeneration of industrial heritage in HUL involves combining conservation with modern urban development needs, addressing polluted and abandoned areas through adaptive reuse and innovative management models (Kirkwood, 2001). The industrial heritage, a vital legacy of the Industrial Revolution, holds historical, economic, and cultural significance (Kisiel, 2020;

Orbasli, 2008). The rarity and artistic value of industrial artifacts, often characterized by exceptional design and craftsmanship, further emphasize their importance (Njuguna et al., 2018). Beyond tangible heritage, industrial heritage includes intangible elements such as workers’ skills, memories, and social interactions (ICOMOS-TICCIH, 2011). A multifaceted approach is required to understand industrial heritage fully, especially in cities where it intersects with social and cultural importance. This includes workers’ housing, cultural activities, social gathering places, and familial structures, all integral components of industrial heritage (Affelt, 2015; Douet, 2016). Although determining the worth of cultural heritage is a highly debated and contextualized matter (Landorf, 2009), the field of industrial heritage research is characterized by a broad scope,

a variety of research methodologies, and an abundance of study viewpoints and topics (Fitzgerald, 2007; Palmer, 2012). The inclusion of industrial heritage within the HUL framework highlights its evolving importance. Industrial sites, now understood as integral to HUL, showcase changes over time, reflecting past industrial activities. This connection between historical context and social identity is significant; abandoned industrial facilities serve as tangible reminders of the past, and the activities that took place within the walls of these factories are psychical records of everyday people's lives over generations (Martinović & Ifko, 2018). According to the HUL approach, the regeneration of industrial heritage sites encompasses a range of activities. This entails the adaptive reuse of buildings, environmental remediation, and the incorporation of these sites into wider urban regeneration strategies.

Revitalizing industrial heritage

The decline of industrial areas due to globalization and competition from emerging nations has given rise to new urban concerns (UNESCO, 2016a). This has led to the destruction of industrial architectural heritage through large-scale demolition without proper investigation and analysis (Zhang et al., 2022). Aging and degradation have left significant portions of industrial heritage in ruins (Dragutinovic et al., 2022). However, these industrial sites serve as crucial "reserves of space" for urban areas, making their regeneration essential for enhancing urban living standards and promoting sustainable development (Đukić et al., 2018). Traditionally, recycling abandoned industrial land for alternative uses has not significantly improved the environments being replaced (Kirkwood, 2001). Nevertheless, the adaptable architecture of these buildings, originally designed to house massive industrial machinery, allows for diverse uses, including performance venues, libraries, museums, and other large-scale activities (Bottero et al., 2015; Tu, 2020; Eom et al., 2021). The spatial and architectural components of these buildings make

them potential catalysts for urban change, especially in challenging locations (Guo et al., 2021; Radziszewska-Zielina et al., 2022). Revitalizing industrial buildings in polluted areas can significantly improve environmental quality (Becchio et al., 2018), while their conversion into innovative spaces holds promise for cultural events, leisure activities, and tourism (Alker & Stone, 2005; Murzyn, 2016; Navratil et al., 2018; Lee et al., 2022).

Western European nations, after entering the post-industrial period in the mid-20th century, began preserving their industrial heritage amidst the collapse and restructuring of traditional industries. Many of these sites have since been integrated into urban landscapes, becoming desirable for development due to their unique architectural forms, which influence their functionality in regeneration efforts (Arbab & Alborzi, 2022). This international interest in industrial heritage has spurred extensive research and projects, enhancing the understanding and study of this heritage across various levels (Alba Dorado, 2023). For example, in Karabük, Turkey, several projects aim to integrate city physical forms with social realities, preventing social and physical decline while promoting sustainable development (Özkan Altınöz, 2016). These projects prioritize sustainable production, consumption, and socialization objectives, aligning with broader urban development goals. This underscores the need for effective frameworks to deter demolition and encourage the transformation of industrial heritage sites (Cercleux et al., 2012).

Strategies for regenerating industrial heritage

Industrial heritage is shaped by the work culture that has influenced society. Its study and intervention are integral to understanding its territorial, social, and cultural context (Alba Dorado, 2023). When planning for the conservation and preservation of industrial heritage, comprehending its location complexities is crucial. To preserve the identity and spirit of abandoned industrial sites during regeneration, evaluating both the tangible and

intangible values of the heritage is essential. This analysis guides decisions on preserving material remnants and planning modern interventions (Đukić et al., 2018). Urban regeneration plans increasingly emphasize industrial heritage, considering industrial neighborhoods, surrounding terrain, and building facades. Professionals, local elites, and governments view urban and industrial heritage as tools for regeneration, preserving unique area characteristics while fostering sustainable development (Rautenberg, 2012). Governments aim for sustainable regeneration by reusing abandoned plants and warehouses to generate employment and revenue in revitalized areas (Wang, 2009). Transforming heritage contexts, particularly industrial heritage regeneration, requires engaging with various discourses and planning philosophies, including urban development, architecture, and heritage conservation (Oevermann & Mieg, 2017). The terms “revitalization” and “regeneration” describe social, cultural, physical, and economic aspects. “regeneration” often refers to a holistic approach encompassing these dimensions, especially in Western Europe (Grazuleviciute-Vileniske & Urbonas, 2014). This approach has been effective in repurposing abandoned industrial structures, stimulating economic growth, and improving urban peripheries (Murzyn, 2016; UNESCO, 2016a).

Significant research has explored the complex effects of industrial heritage regeneration on buildings, neighborhoods, and cities, considering diverse urban contexts, goals, and design methodologies (Hospers, 2002;

Alfrey & Putnam, 2004; Wu et al., 2022). Before regenerating industrial sites, examining location parameters is crucial (Martinović & Ifko, 2018). Researchers have found that land policy property rights significantly affect the industrial regeneration process (Wu et al., 2022; Li et al., 2023). Regenerating industrial heritage requires interdisciplinary collaboration and learning from both domestic and international examples (Chen et al., 2019; El-Abidi et al., 2019; Wuni et al., 2022). Economic evaluation criteria are essential for assessing investments in industrial heritage regeneration. Dutch researcher Ruud van der Kemp emphasized economic indicators as fundamental for comparing investments and regeneration efforts (Ifko, 2018). Historical initiatives like the 1987 Recommendation No. R (87) 24 on European industrial towns have highlighted the role of public authorities in revitalizing industrial cities. These efforts aim to attract residents, businesses, and investments, fostering community commitment (Council of Europe, 1987). The 1988 international conference on “Heritage and Successful Town Regeneration” in Halifax, UK, showcased various Western European examples, demonstrating a multifaceted approach to industrial heritage regeneration (Pickard, 2018). It is feasible to effectively revitalize industrial heritage sites and promote urban regeneration through the integration of industrial heritage into the HUL framework, with a focus on contextual regeneration efforts and prioritization of sustainable and economic measures. The aspects of industrial heritage regeneration are shown in Figure 8.

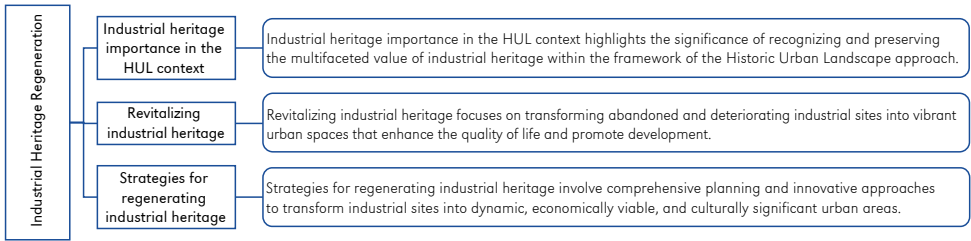


Figure 8. The aspects of industrial heritage regeneration through the reflexive thematic analysis of the literature review

Discussion and conclusion

The existing literature on the HUL approach focuses on four key aspects. First is the "HUL Approach in Urban Heritage Management," which maps tangible and intangible components for the city and its residents (Caballero, 2016; Taylor, 2018). Determining the effectiveness of the HUL in a historic city involves mapping the spatial integration of such heritage (Saleh & Ost, 2023). Second is the "Values in HUL Management," embodying a range of values associated with the past, shared memories, and the surrounding environment (UNESCO, 2011b). The HUL approach reevaluates the worth of heritage beyond the physical environment (Boonmee, 2022), which serves as the starting point for preservation or development (UNESCO, 2016b). Thirdly, "Community Engagement in HUL" operationalizes an active strategy for HUL (Aas et al., 2005; Tas et al., 2009). The formation of new cooperative partnerships involving local authorities results in urban regeneration initiatives (Tomka et al., 2019), advocating for new governance methods for planning and administering urban systems (Kazepov, 2010). Finally, "Balancing Development and Conservation" addresses how development and conservation can coexist in a city (Höftberger, 2023). The HUL views cultural heritage as sources of social cohesion, diversity, and innovation, as well as drivers of creativity and urban regeneration (UNESCO, 2013; Taylor, 2018), thus no longer prioritizing heritage preservation alone (Liu et al., 2019). Economic models, new management, and adaptive reuse initiatives can enhance urban productivity through HUL regeneration (Gravagnuolo & Girard, 2017). With the growing number of industrial heritage sites and many abandoned sites, regeneration has become more important in heritage conservation over the last decades. Accordingly, three key components - "Industrial Heritage Importance in the HUL Context," "Revitalizing Industrial Heritage," and "Strategies for Regenerating Industrial Heritage" should be considered regarding the industrial heritage regeneration in cities.

Industrial heritage importance in the HUL context:

This aims to identify the value of industrial heritage, which was previously overlooked in the definition of heritage (Alba Dorado, 2023). The literature review revealed the significance of industrial heritage value, particularly regarding intangible heritage value (Dehghan Pour Farashah, 2023). Researchers have highlighted a wide range of values, including historical, economic, architectural, social, technological, and cultural significance (Kisiel, 2020; Zhang et al., 2022; Zhang et al., 2023). Tangible and intangible heritage are intertwined, as abandoned industrial facilities serve as reminders of the past, capturing the everyday lives of people over generations through their psychological records (Martinović & Ifko, 2018).

Revitalizing industrial heritage: This investigates how industrial heritage has long since fallen into ruin, and deterioration is dominant (Dragutinovic et al., 2022). Industrial sites serve as crucial spaces for regeneration, enhancing the standard of living in urban areas and promoting sustainable development (Đukić et al., 2018; Jarczewski & Koj, 2023). Recycling abandoned industrial land for alternative urban uses often involves demolitions that overlook the preservation of existing heritage (Kirkwood, 2001).

Strategies for regenerating industrial heritage: Planning for the conservation and preservation of industrial heritage involves a complex of discourses and planning philosophies, including urban development, architecture, and heritage conservation (Oevermann & Mieg, 2017). Regeneration strategies address social, cultural, and economic processes alongside physical interventions (Grazuleviciute-Vileniske & Urbonas, 2014; Kaczmarek, 2019). This process offers opportunities to revitalize abandoned industrial sites by creatively converting them to achieve economic flourishing (Murzyn, 2016; UNESCO, 2016a).

An in-depth reading of the result shows the feasibility of integrating industrial heritage regeneration into the HUL. The intertwined tangible and intangible values of industrial

heritage create development opportunities. Due to the multi-layered nature of the industrial heritage value, it is imperative that the regeneration process incorporates a suitable approach. The HUL approach is ideal for dealing with industrial heritage regeneration, considering all values to turn these sites

into livable spaces. The HUL guidebook and the Recommendation on the Historic Urban Landscape serve as the foundation for the proposed conceptual planning framework, which has been refined in light of relevant research and experiences with HUL and industrial heritage regeneration.

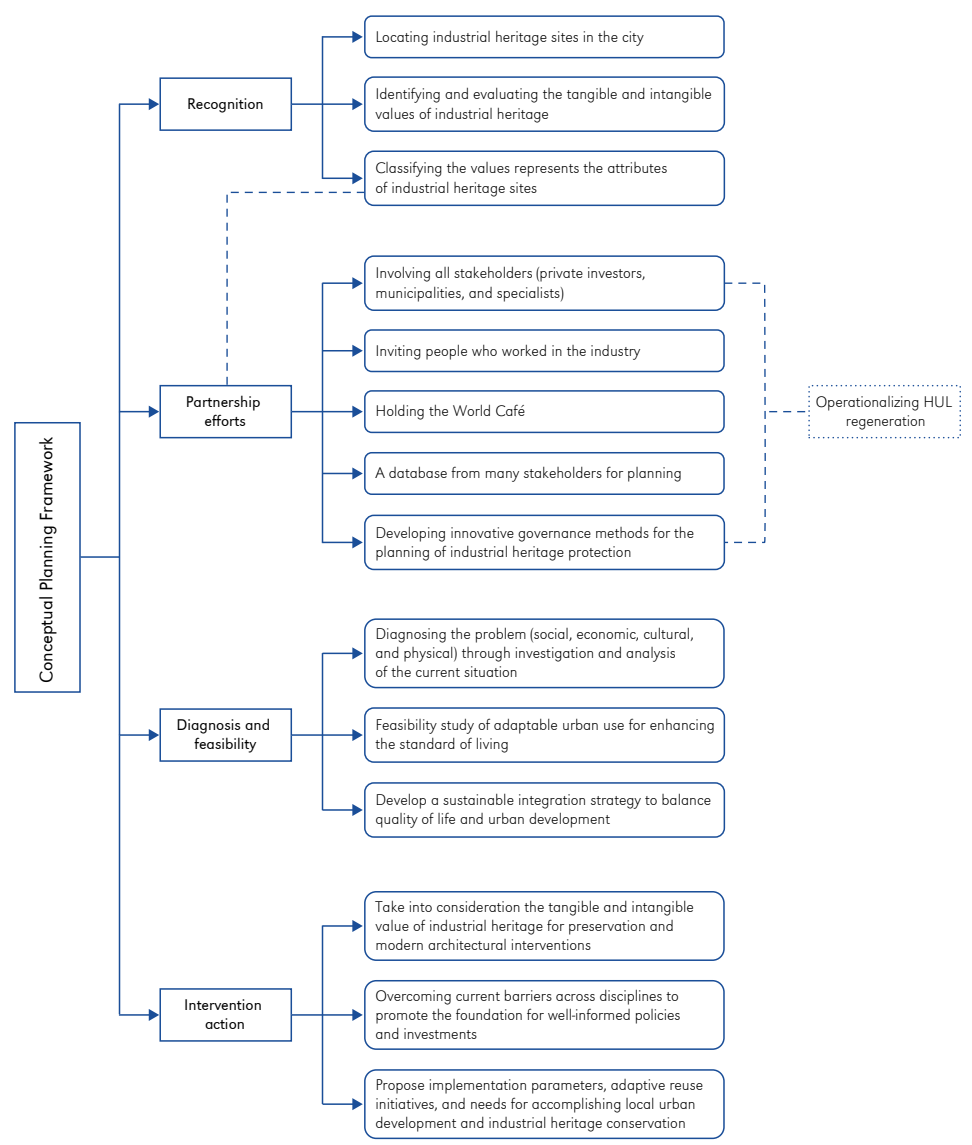


Figure 9. The suggested conceptual planning framework for the integration of industrial heritage regeneration with HUL

The conceptual planning framework needs practical discussion, considering all relevant aspects of successful processes rather than merely proposing different steps. Recognition and partnership efforts involve identifying and classifying industrial heritage values and involving stakeholders in developing innovative governance methods. Four main steps should be followed to ensure an effective conceptual planning framework:

Recognition: Identify and evaluate the tangible and intangible values of industrial heritage sites. Classify the values characterizing the attributes of these sites.

Partnership efforts: Actualize HUL regeneration and gather collective memories through the World Café. Develop innovative governance methods for planning industrial heritage protection based on stakeholders' opinions.

Diagnosis and feasibility: Diagnose problems related to industrial heritage sites and conduct feasibility studies of adaptable urban use to enhance living standards and balance quality of life with urban development.

Intervention action: Implement preservation and modern architectural interventions, addressing current barriers to inform policies and investments.

The recommended conceptual planning framework's sub-steps and specifics are displayed in Figure 9.

Hence, the framework contributes to the industrial heritage discourse, regarding the HUL approach as crucial for regenerating industrial heritage sites. It stimulates future empirical research by highlighting gaps in the literature and integrating regeneration into the HUL approach, enhancing understanding and articulation of heritage value from stakeholder perspectives. This critical examination of industrial heritage value within the diversity of industrial heritage sites offers new insights into planning and regeneration, addressing the practice-research gap to develop stronger analytical frameworks for industrial heritage regeneration.

Editors' note:

Unless otherwise stated, the sources of tables and figures are the author's, on the basis of their own research.

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Paper Trails

Imagem: Aspecto exterior da fábrica de papel de Marianaia, Tomar © Renata Faria Barbosa.

Evaluation of social and economic values in textile manufacturing heritage sites: the case of Yazd

Mohammadhossein Dehghan Pour Farashah

Abstract: This paper aims to explore the social and economic values of textile manufacturing heritage sites in Yazd (Iran). A critical literature review was made to address the values of heritage. Then, the values of heritage were scrutinized based on industrial heritage sites in Yazd through the case study method. In-depth interviews with 12 experts were conducted, and the results showed that prior to reusing industrial heritage, its historical and cultural value should be recognized. The results also revealed that the holding of events at these sites with an impact on the collective memory should involve people. Moreover, adaptive reuse has had an impact on urban macroeconomics and created economic value added for locals. The results also confirmed that having multiple buildings inside a factory might help with the restoration phasing plan

Keywords: Extrinsic value, Revitalization, Adaptive reuse, Textile factory, Yazd

Evaluación de los valores sociales y económicos de los sitios patrimoniales de fabricación textil: el caso de Yazd

Resumen: El objetivo de este artículo es explorar los valores sociales y económicos de los sitios patrimoniales de fabricación textil de Yazd (Irán). Se realizó una revisión crítica de la literatura para abordar los valores del patrimonio. Después se analizaron los valores del patrimonio basándose en los emplazamientos del patrimonio industrial de Yazd mediante el método de estudio de casos. Se realizaron entrevistas en profundidad a 12 expertos y los resultados mostraron que, antes de reutilizar el patrimonio industrial, hay que reconocer su valor histórico y cultural. Los resultados también revelaron que la celebración de actos en estos lugares con repercusión en la memoria colectiva debería implicar a la gente. Además, la reutilización adaptativa ha tenido un impacto en la macroeconomía urbana y ha creado un valor económico añadido para la población local. Los resultados también confirmaron que tener varios edificios dentro de una fábrica podría ayudar con el plan de fases de restauración..

Palabras clave: Valor extrínseco, Revitalización, Reutilización adaptativa, Fábrica textil, Yazd

Avaliação dos valores sociais e económicos em sítios patrimoniais da indústria têxtil: o caso de Yazd

Resumo: Este artigo tem como objetivo explorar os valores sociais e económicos dos sítios patrimoniais da indústria têxtil em Yazd (Irão). Foi feita uma revisão crítica da literatura para abordar os valores do património. Em seguida, estes foram analisados com base nos locais de património industrial em Yazd através do método de estudo de caso. Foram realizadas entrevistas aprofundadas a 12 especialistas e os resultados mostraram que, antes de reutilizar o património industrial, o seu valor histórico e cultural deve ser reconhecido. Os resultados revelaram também que a realização de eventos nestes locais com impacto na memória coletiva deveria envolver os residentes. Além disso, a reutilização adaptativa teve um impacto na macroeconomia urbana e gerou valor económico acrescentado para os habitantes locais. Os resultados também confirmaram que a existência de vários edifícios no interior de uma fábrica pode ajudar as fases do plano de restauro..

Palavras-chave: Valor extrínseco, Revitalização, Reutilização adaptativa, Fábrica têxtil, Yazd

Introduction

Heritage is now generally viewed as a contentious field made up of various ideals and practices (West 2010). Before the 1990s, values in heritage management were mostly centered on the resources' historical significance. This has changed, though, as these days, heritage values are frequently classified as intrinsic, extrinsic, or instrumental. Intrinsic values are those that naturally exist in historical property and do not require reformation in order to be realized (Clark and Maeer 2008). Extrinsic or instrumental values, on the other hand, rely on human evaluation of the asset and often require some kind of modification to the resource in order to be achieved. In light of the fact that extrinsic or instrumental values are evaluated from a variety of individualized, cultural, and social viewpoints, they are essentially subjective (Chen and Chen 2010). In terms of aesthetics, culture, and economics, heritage buildings are seen as reusable resources, and revitalizing them would give a city and neighborhood more character and a more human scale (Adiwibowo *et al.* 2015).

Industrial heritage values are linked to a number of characteristics that are not always related to physical or aesthetic attributes (Veljković and Kaptı 2021). Interestingly, little research has been carried out on the extrinsic value of industrial heritage sites. For example, in the perspective of value universality and variety, Lu *et al.* (2020) explored the reproduction of the discourse on industrial heritage with reference to a wider spectrum of social and cultural imperatives in China. In another piece of research, Veljković and Kaptı (2021) examined industrial heritage in the Tuzla municipality (Bosnia and Herzegovina) and holistically assessed its cultural and historical relevance for conserving the identity of its inhabitants, guided by international norms for the valorization of cultural and historical heritage.

With the creation of huge textile factories, Yazd became acknowledged as the primary textile production centers in Iran. However, most textile factories have been shut down since the 1990s, due to the territorial development of cities and wasteful textile imports. Starting in the 2000s, in some of these buildings, due to the obsolescence of the original function, there have been new uses (Dehghan Pour Farashah 2023). This article aims at identifying and expressing the extrinsic value of the new functions of textile manufacturing sites in Yazd. The main contribution of this study is to re-evaluate the values of textile manufacturing heritage sites after adaptive reuse beyond the regular definitions and characteristics of industrial heritage and to highlight these values in Yazd.

The article is organized as follows: The methodology section describes the three-phase data collection process. The next section summarizes the critical literature review on the revaluation of industrial heritage after adaptive reuse. The case studies section presents the textile manufacturing heritage sites in Yazd. It then provides a summary of the new uses in these textile factories and their values after

adaptive reuse. The results and discussion section are based on experts' shared understandings of industrial heritage values in Yazd. The final section restates the research topic and states the implications of the research. The limitations of this study are also reported in the conclusion section.

Research methodology

The study adopted a multi-method approach to collecting data. The present study had three phases: (1) the critical literature review; (2) case study method; and (3) Semi-structured interview.

Phase 1. This is an analytical technique in the qualitative research method that comprises in-depth study and critical assessment of material gathered from many sources in order to provide new and richer insights in research (Raimi *et al.* 2021). Through this approach, the existing research will be enhanced and challenged (Weatherall 2019). This will be accomplished by taking a fresh look at critical literature reviews, evaluating how they have been performed, and presenting a fresh viewpoint on how the art of writing and reviewing them might be improved (Wright and Michailova 2023). This phase addresses the values of heritage.

Phase 2. In architecture, the case study method is often employed as an episodic research tool. Typical outcomes of such research include precedent buildings, typological concerns, or technological techniques (Bachman 2007). Also, the case study method in heritage studies has the potential to provide an important critique for the revaluation of heritage sites (Jones *et al.* 2016). In this phase, the values of heritage will be scrutinized based on Yazd's industrial heritage sites. The selection criteria relate to the area and new uses of these sites (because they are likely to be appreciated for their physical characteristics and preserved from any material modification). Hence, the factories that are larger than one hectare were investigated.

Phase 3. Semi-structured interviews were conducted for obtaining several perspectives about the same topic. Hence, the benefits of Semi-structured interviews include gaining insights into experts' shared understandings of industrial heritage values, which were elicited in the second phase. The participants were familiar with textile manufacturing heritage sites in Yazd. An in-depth interview was conducted with the first interviewee followed by the gathering of data until redundancy was attained (Ghaderi *et al.* 2022). After conducting 9 successful interviews, it was concluded that the new respondents were simply echoing what the earlier respondents had said (Newhart and Patten 2023). However, three additional interviews were performed to bring the total to 12 cases in order to be sure there was no more information remaining to be discovered. A period of time between 35 and 65 minutes was allotted for each interview, which took place at the respondents' offices at a time of mutual convenience. Of these 12 interviewees, three were female and the rest were male [Table 1].

Respondents	Gender	Age	Educational level	Occupation
R01	Male	45	Master	Interior designer
R02	Male	40	Bachelor	Conservation architect
R03	Female	33	Master	Conservation architect
R04	Female	33	Master	Conservation architect
R05	Male	31	Ph.D.	Consulting firm
R06	Male	29	Master	Urban engineer
R07	Male	57	Master	Consulting firm
R08	Male	35	Master	Instructor
R09	Female	32	Master	Architect
R10	Male	44	Ph.D.	Assistant professor
R11	Male	56	Ph.D.	Associate professor
R12	Male	53	Master	Consulting firm

Table 1. - Profile of the respondents. Source: Author.

An interview guideline was prepared based on the critical literature review and in line with the study's research problem and objective. To discover the primary themes, ideas, and concepts, the interviews were recorded, transcriptions were made, and the transcripts were then analyzed and coded (Taylor *et al.* 2015). The computer software program Atlas.ti version 8 was utilized to analyze data through coding.

Critical literature review

Heritage values are diverse by nature and frequently at odds with one another. Usefulness and advantages are implied by value. Heritage is valued for its practical, symbolic, and other social roles rather than for its intellectual merits (as one element of material culture) (Mason 2002). In the past, the value of heritage has most frequently been associated with values related to history and aesthetics. However, there has been a change in the heritage sector, and there is now more social value being associated with historical settings (Walter 2014; Jones 2017). The extrinsic value of heritage has recently been based on its economic and social importance (Bedate *et al.* 2004). As argued by a number of academic and business studies (Kim *et al.* 2007; Darvill *et al.* 2018), if properly managed, heritage can have a positive impact on society and the economy. In terms of the economy, heritage can foster job possibilities, promote local, regional, and national economies, and develop tourism (Jeonglyeol Lee *et al.* 2007). The social worth of heritage can also be seen in its capacity to increase social cohesiveness, create intercultural communication, empower local people, foster a feeling of community, and improve quality of life (Pendlebury *et al.* 2004; Khirfan 2014). Additionally, adaptive reuse is a significant conservation strategy that recycles previous resources and turns them into experiences for the present (Hong and Chen 2017). Everywhere and at various scales,

adaptive reuse can enhance the cultural atmosphere of today's historic cities and buildings (Remøy and van der Voordt 2014).

The idea of industrial heritage is broadly accepted throughout the world. Different academic fields, including cultural studies, architecture, the arts, urban planning, and history studies, have acknowledged this idea (Han 2023). It is undeniable that the importance and worth of industrial heritage are continually being reexamined in light of new circumstances, and as a result, conservation efforts have expanded to encompass a wider range of issues and context-specific social and cultural demands. Within an extensive framework of urban development, the discourse on industrial heritage is frequently reproduced by relying on various values and interests (Lu *et al.* 2020). Unexplored cultural potentials of settings are revealed when the cumulative values of industrial heritage sites are assessed, which may not be apparent when looking at each site separately (Veljković and Kaptı 2021). Reusing industrial heritage has great economic possibilities. The historic industrial area is currently largely found in the city center of numerous urban settings with favorable geographical circumstances from the standpoint of urban location and land value. It is also the perfect place to build high added value, contemporary cultural and creative enterprises. The reuse of industrial heritage buildings and investments in industrial construction are utilized to determine the economic value, with the index of reusability being comparatively more significant (Yao *et al.* 2019). The term "social value" has been used in a variety of contexts to refer to some or all of the following: social capital, symbolic worth, spiritual linkages, attachment to location, and community identity (Jones 2017). Therefore, it is becoming more and more crucial to take into account the opinions of the local population before beginning the development of

a cultural heritage site (Barile and Saviano 2015). In practice, Herman *et al.* (2023) proposed the aspects of social value of industrial heritage as follows: promotion of the region's industrial heritage, serving as a local symbol; management of tourist traffic to ensure the preservation of the industrial heritage; engagement and activation of the neighborhood; and diversification of economic possibilities.

The above exploration of the revaluation of industrial heritage values shows that extrinsic values are also inevitably associated with sites. Indeed, there is an emphasis on a set of values (e.g. the economic and social significance) that have become the aspects of extrinsic value. Thus, these values [Table 2] show the aspects of extrinsic values of industrial heritage that were articulated in the critical literature review.

Extrinsic value of industrial heritage	
Economic value	Social value
• Creation of job opportunities • Economic stimulation on a local, regional, and national scale • Tourism promotion • Land value, good site characteristics, and the majority of the historic industrial areas are now found in the city center. • Ideal setting for the development of contemporary cultural and creative industries with high added value • The excellent index of adaptive reuse in the revitalization • Increasing economic potential through diversity	• Increasing public inclusion • Enhancing the standard of living • Encouraging cross-cultural dialogue • Displaying the region's symbol(s) • Encouraging community involvement in the area • Encouraging social cohesiveness • Representing local identity • Bonding social capital and spiritual affiliations • Promoting adherence to place

Table 2.- Extrinsic value of heritage. Source: Author.

Case study

—Yazd

The province of Yazd [Figure 1] is situated near the Silk and Spice Roads in Iran's center. It is evidence of how scarce resources were used to survive in the desert. The cultural heritage of Yazd has hardly changed over the years. At the 41st session of the UNESCO World Heritage Committee, held in Kraków, Poland, from 2–12 July 2017, the historic city of Yazd [Figure 2], which covers an area of 195 hectares, was inscribed as a World Heritage Site. Prior to this, Dolat Abad Garden and Zarch Qanat in the historic city of Yazd were also inscribed in 2011 and 2016, respectively (UNESCO 2023).



Figure 1.- Location of Yazd province in Iran. Source: (UNESCO 2023)

Over the centuries, people with spinning wheels in traditional workshops produced diverse and beautiful textiles such as “Karbas” and “Termeh” for courtiers and governors in Yazd. Industrial form predominates in textiles at the beginning of the 20th century due to the importation of industrial machinery from Europe and the United States. With the construction of huge factories, Yazd became known as one of Iran's major hubs for the production of textiles and, for more than 50 years, it played a significant role in the city's economy (Ramazankhani 2016). These factories [Table 3] were built as structures with distinctive patterns and buildings during their time. Unfortunately, this sector of the economy has been in decline for decades due to factors like excessive textile imports and a lack of competitiveness. As a result, the majority of textile factories have been closed (Dehghan Pour Farashah *et al.* 2019).

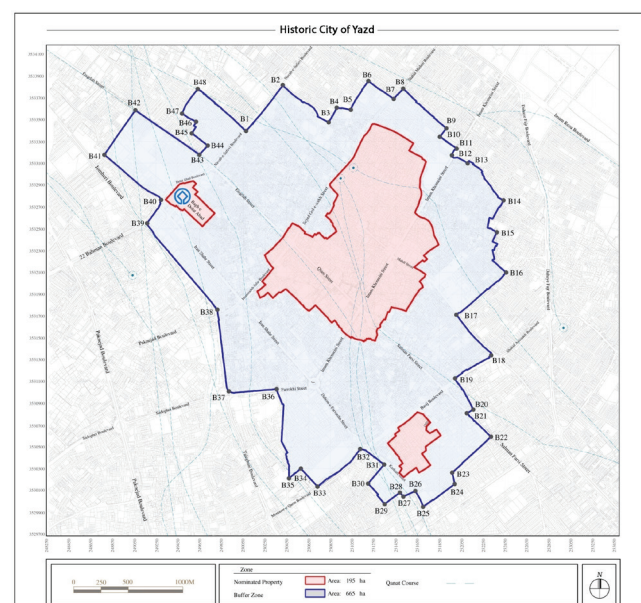


Figure 2.- Area of the Historic city of Yazd. Source: (UNESCO 2023).

F. No	Name of Factory	Establishment Year	Current Condition	Area (Hectare)
1	Eghbal	1931	Reused (Yazd Science and Technology Park)	3.65
2	Saadat Nasadjan	1934	Under restoration (Hotel since 2020)	10
3	Dorakhshan and Herati	1935	Reused (Innovation Factory)	4.1
4	Seyed Moahammad Agha	1948	Abandoned	8.47
5	Dastbafan	1948	Abandoned and school	1.16
6	Yazdbaf	1956	Active	14
7	Jonub	1959	Reused as seasonal exhibition venue and museum	5.37
8	Afshar	1963	Abandoned	12.1

Table 3.- List of textile factories of Yazd. Source: Author.

These buildings, due to their large dimensions, their desirable urban locations, and the flexibility of the plans due to the modular structure, have a great ability to be converted into various uses, especially cultural uses. Iran, despite having textile factories that are among the best and most beautiful examples of industrial architecture, gives the destruction of such spaces more priority than its protection and restoration. Only a few examples of former industrial buildings have been restored and changed; fortunately, Yazd is one of the few cities in Iran whose textile factories have been preserved. The approach to changing the use of these factories in Yazd is to preserve the structure but change the shells. Also, the issue of reversibility in restoration has been considered in the implemented projects.

Following the approval of the government in 2003, Eghbal factory [Figure 3] was handed over to the Science and Technology Park of Yazd province to set up a technology center. Considering the need to preserve this valuable textile manufacturing heritage site as the first factory in Yazd, an attempt has been made to restore and revitalize it, while preserving its structure and traditional identity, to turn this complex into a center of science and technology. Based on this, with the help of qualified consultants, the design of the site was carried out and the restoration activities started at the beginning of 2004 and were completed in 2008. The Jonub factory [Figure 4] consisted of different parts, and its private guest house became the museum of light and illumination in 1998 (Pahlevanzadeh 2015). Also, in 2017, a part of the spinning hall of this factory



Figure 3.- Exterior and interior view of Eghbal factory, Yazd © Mohammadhossein Dehghan Pour Farashah

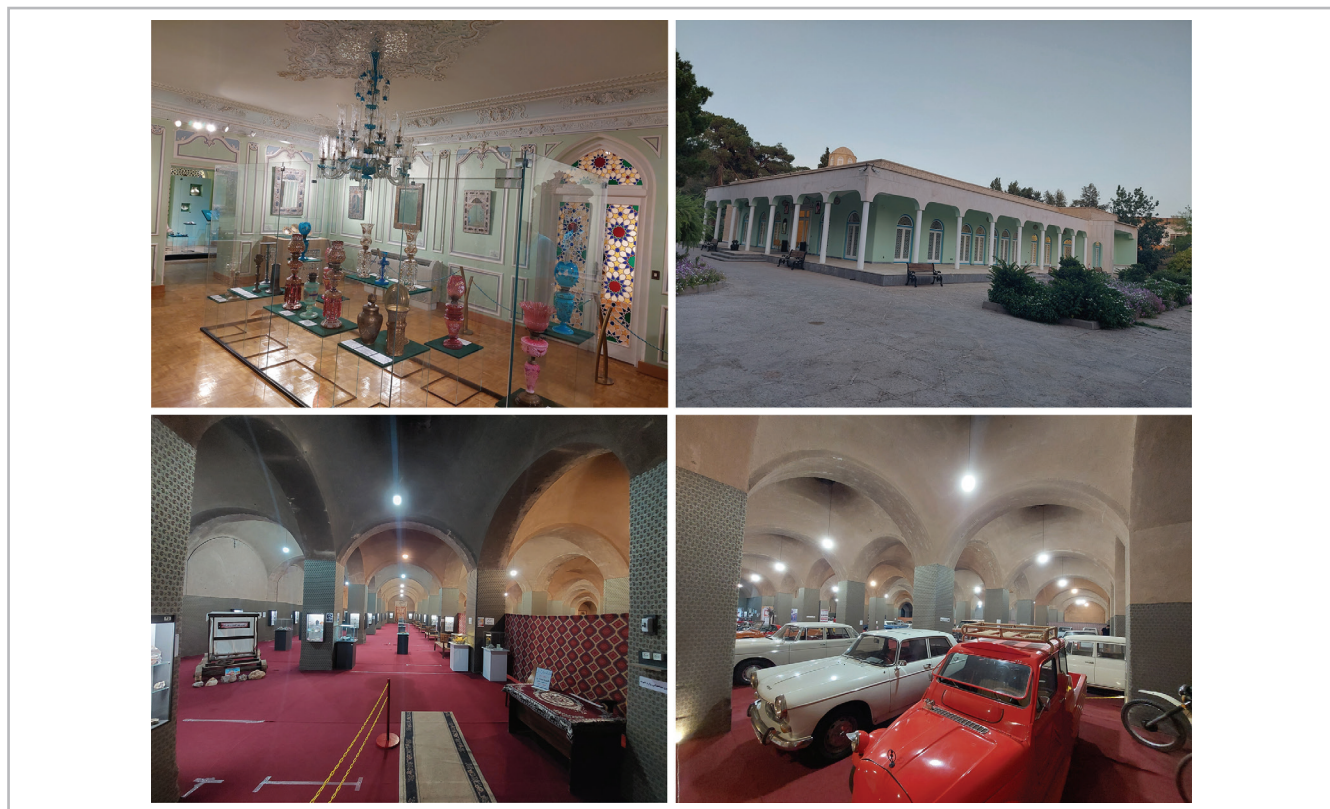


Figure 4.- Exterior and interior view of Jonub factory, Yazd © Mohammadhossein Dehghan Pour Farashah

has become a museum of historical and classic cars in Yazd, while another part is used as a seasonal and temporary exhibition space.

Yazd Innovation Factory was launched in 2022 on an area of 1.7 hectares in the form of two halls at the location of the Dorakhshan and Herati factories [Figure 5]. The Innovation Factory is a platform where many tools and resources needed

by entrepreneurs, from infrastructure, mentors, and advisors to venture capital investors, accelerators, and service providers, are granted to startups and businesses. The idea of setting up innovation factories in abandoned sites in the heart of cities was a solution that worked for the first time in Paris in 2019. When the French transformed the old Paris railway station into a dynamic space for the development of innovation ecosystems and start-ups, this idea soon found



Figure 5.- Exterior view of Dorakhshan factory, Yazd © Mohammadhossein Dehghan Pour Farashah.

fans in other European cities such as Berlin, Lisbon, etc., and now it has become a model for the development of innovation spaces (Derakhshan Innovation 2023).

Saadat Nasadjan factory, which is located in the Buffer Zone of the historic city of Yazd, after being abandoned for several decades, is being revitalized with a new use since 2020. The establishment of the first factory hotel in Iran and the largest factory hotel in the Middle East in the heart of this industrial factory is a valuable action that not only helps to preserve this industrial heritage and the industrial history of Yazd, but it also fosters the seeds of entrepreneurship and economy grow from these abandoned sites, while creating employment for more than 300 people. (Yazd CHTO 2020).

Results and discussion

—Textile manufacturing heritage at first glance

As there were no defined criteria pertaining to textile manufacturing heritage, respondents were asked to explain what came to mind when they mentioned textile manufacturing heritage and how it is differentiated from other types of heritage. One respondent declared 'I remember the Eghbal factory and the adaptive reuse of the first factory in Yazd' (R01). Before the reuse of industrial heritage, it should be first recognized the historical and cultural value of this property (Han 2023). Another respondent who was working in the field of adaptive reuse said, 'I remember the first time I went to visit Saadat factory about 20 years ago. The magnificence of this factory was very attractive to me, and I felt proud of this heritage' (R02). It also connects to "place attachment," which describes the social cohesiveness, sense of belonging, or other sentiments of connection that social groupings acquire from a particular history (Mason 2002).

The definition of industrial heritage refers to tangible heritage, e.g., buildings and machinery, as well as intangible heritage related to tradition and industrial culture (Herman *et al.* 2023). In this regard, one respondent confessed, 'regarding value, apart from the architectural and physical value, I often think of the social and economic values of factories. People trying to improve the industry in Yazd have made the city dynamic. Also, people from different parts of the city worked in these factories, and their livelihood was provided through these factories' (R07). Likewise, factories being active was valuable for some people, as one commentator specifically explained, 'factories that were working then and are still working now. For example, the Yazdbaf factory, which my father represents, is still working after about 70 years' (R08).

— Creative industries and textile factories

According to the respondents, textile factories should distinguish themselves by becoming involved in the local

community. The overall sense was that including cultural and creative industries in their adaptive reuse process makes them unique for locals. Innovation factories are now one of the fastest-growing parts of the economy (Yao *et al.* 2019). Some respondents attributed the social values to them. A respondent (R12) declared: 'A series of companies where young people can find themselves and interact with each other. I think it has a lot of social value'. This resulted in a more cooperative workplace, which is in tandem with the discussion of Pendlebury *et al.* (2004) who noted that the social value of heritage is also manifested in its ability to encourage social cohesion. However, the negative point of the innovation factory, as observed by one respondent, is that 'This use has little connection with the public, and only certain people are involved in the innovation factory. There are also restrictions on the visits of people who worked in the factory' (R08).

— Diversification of economic potential

Integrating adaptive reuse within regional economic development initiatives raises awareness of local governments' obligations to offer suitable solutions for industrial heritage that is in danger (Yao 2014). One respondent noted that 'in terms of the urban economy, it can prevent the suburban sprawl of the city and somehow help the public's interests' (R06). This is consistent with the results of Yao *et al.* (2019) study that the industrial heritage sites are now mainly located in the center of the city with appropriate location positions. Respondents felt that the existence of several uses together in a factory could attract many people. The amount of welfare that heritage creates for society can be used to define the economic value of a cultural heritage. In addition to this value, heritage also promotes welfare when it is appreciated by recreational users, even though there is no direct financial cost (Ruijgrok 2006). Although the change in land use has had an impact on urban macroeconomics. For instance, in some factories it has succeeded in creating economic value added for the local community. One informant highlighted 'Dorakhshan factory was a place of drug addicts and criminals before the change of use, but when it has been changed, it will increase the security of the region, increase the value of the land use for the neighborhood, and be effective for the development of tourism' (R10). These findings are consistent with the results of previous studies in the critical literature review (Lu *et al.* 2020; Han 2023).

— Social value and community benefits

One of the factors that has made the adaptive reuse of factories successful is social values. According to Darvill *et al.* (2018), when people get to experience significant sites or historical landscapes in specific ways, for example by combining elements of tangible and intangible cultural heritage, it can have positive effects and improve one's mental well-being. One respondent said that 'when a factory is converted into different uses such as a shopping mall, cinema, museum, or restaurant, people come for entertainment and shopping,

and this creates a space for social interactions. And most importantly, the presence of people in this factory makes them more familiar with the textile factory' (R11). Another respondent pointed to the combination of events with other uses as the main characteristic of social value and stated, 'it will be better if the factory has a use that the public can use. And I think it is good that the memories of textiles come alive in people's minds. A use that attracts the public on all days of the year. For example, it is an event venue or a shopping center where people visit these factories every day for shopping. Because the large and integrated spaces of the factory are suitable for such uses' (R03). As Walter (2014) and Khirfan (2014) mention, social values are usually connected to an individual's emotional, spiritual, and intellectual experience of heritage, and they represent some form of communal memory or propose inspiration.

Regarding the views of the local community, one informant proclaimed that 'people's participation in changing the use of factories has not been used as an investor. For example, the factory shares should be bought by the people who used to work here, because these people feel attached to this place and remember their past occupation. This approach should be considered in initial studies of adaptive use' (R05). This result is in agreement with Barile and Saviano (2015) and Hong and Chen (2017), who state that when starting the development of a heritage site, it is becoming more and more crucial to take the local community's opinions into account. In Iran, many factors, including politics, are influential on adaptive reuse. For instance, one respondent said, 'political, cultural, and religious factors prevent some uses. There are a series of uses that have been copied from European countries, and those uses have been based on the needs there, but the feasibility has not been assessed here, and the needs of Yazd city have not been taken into account' (R06).

— Index of adaptive reuse

Hong and Chen (2017) believe that the recycling of historical materials into experiences in and for the present through adaptive reuse is a crucial conservation intervention. The majority of respondents asserted that textile factories have high potential for adaptive reuse. In this regard, one participant said, 'factories have a high ability to change use and are diverse. Like other heritage buildings, there are no restrictions on changing their use. The presence of several buildings in a factory can facilitate the phasing of the restoration plan' (R04). The same respondent added, 'the large area of the factory creates the context for an architect's design that can meet the needs of a new use. For example, adding a building as an accommodation or using the old green space of the factories, considering the lack of green space in Yazd city'. This finding should be important for local authorities, who should familiarize hotel operators and investors with the concept of factory accommodations. Similar to Remøy and van der Voordt (2014) findings that adaptive reuse on different scales could contribute to the cultural ambiance of today's cities and buildings.

Another line of investigation was sustainability in the adaptive reuse project to protect the environment. In supporting this statement, one respondent stated that 'an important point is the issue of sustainability in the construction industry, where the consumption of materials is lower. Installation space has been seen in factories before, and this can be very helpful for new uses' (R09). The heritage buildings are regarded as reusable assets in the field of economy, and in maintaining their appearance, they enhance the splendor of a city (Adiwibowo *et al.* 2015).

Conclusion

This study aimed to investigate the extrinsic values of textile manufacturing heritage sites in Yazd, Iran, after their adaptive reuse. Semi-structured interviews were conducted with experts. Several results emerged from the study which provide implications for practitioners and policymakers. First, the results revealed that prior to reusing industrial heritage, its historical and cultural value should be recognized. This result of the study is in agreement with Chen and Chen (2010), who state that values are evaluated from a variety of individual and cultural viewpoints. Second, textile factories should identify themselves by getting involved in the neighborhood. In line with Jones (2017), it can be concluded that these values refer to symbolic worth, spiritual linkages, and community identity. In the process of adaptive reuse, the cultural and creative industries make textile factories unique for locals. Therefore, as Herman *et al.* (2023) express, aspects of social value promote the region's industrial heritage and serve as a local symbol. Third, the local governments should concentrate on integrating adaptive reuse within regional economic development initiatives. For example, since these factories are large, revitalization would cost less to demolish and build a new building. Moreover, changes in land use have had an impact on urban macroeconomics and created economic value added for locals. This finding implies that heritage can support local, regional, and national economies and provide employment opportunities (Jeonglyeol Lee *et al.* 2007).

Fourth, textile factories were regarded as a significant part of social life in Yazd. Hence, for the success of an adaptive reuse project, the local community should participate in the process. This statement means that the opinions of the community should be taken into account throughout the entire process of the adaptive reuse project (Darvill *et al.* 2018; Barile and Saviano 2015). Furthermore, the holding of events at these sites with an impact on the collective memory should involve people (Pendlebury *et al.* 2004). Political, cultural, and religious factors confine some uses in Iran, which is a big dilemma for investors. This study also shows how having multiple buildings inside a factory might help with the restoration phasing plan. On the other hand, the large area of the factory paved the way for the architect's design to add various buildings to the site. Regarding sustainability in the construction industry, adaptive reuse of textile factories would decrease material consumption. This finding confirms the previous studies that

the index of reusability is comparatively more significant in the reuse of industrial heritage buildings (Hong and Chen 2017; Adiwibowo *et al.* 2015).

This study has limitations that must be acknowledged. It is confined to textile manufacturing heritage sites, which restricts the ability to generalize to other industrial heritage sites. Future research might focus on adaptive reuse at different industrial heritage sites in Yazd or Iran. This study focused on the views of experts in adaptive reuse, provides extrinsic value for the revitalization of textile factories in Yazd, but not on the viewpoints of users. Hence, future studies should focus on the understandings of users regarding the adaptive reuse of textile factories. More extensive research is needed to validate some of the results of this study and allow more substantive conclusions to be drawn. And finally, this study did not compare investments in non-historic sites. A future investigation might shed light on the comparison between historic and non-historic sites.

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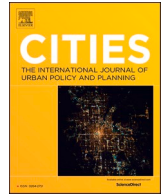
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Identity construction and collective memory: A critical heritage study of Łódź's post-industrial legacy

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ABSTRACT

This study explores how local communities in Łódź, Poland, construct and negotiate their memory and identity regarding the city's textile manufacturing heritage. Utilizing an exploratory methodology that incorporates observational fieldwork and semi-structured interviews with 46 participants from diverse backgrounds, this research investigates socio-cultural perceptions, emotional associations, and generational shifts in attitudes toward industrial heritage sites. Four primary themes emerged from the analysis: memory and identity construction, socio-cultural perceptions of heritage, emotional and symbolic associations, and generational shifts in perceptions. This study concludes that (1) there is a complex relationship between residents and their industrial past, characterized by both nostalgia and darker memories of economic hardship; (2) class-based differences significantly influence heritage perception, with working-class residents emphasizing personal and family connections to textile factories, while middle and upper classes view these sites through the lens of economic development and urban regeneration; (3) younger generations exhibit more positive attitudes toward industrial heritage compared to older residents who experienced the industry's collapse in the 1990s; and (4) heritage is an active, contested process, where individuals and communities continuously engage in heritage-making practices that negotiate memory, identity, and power relations within contemporary socio-political contexts.

1. Introduction

Heritage is often regarded as a treasure passed down from the past and recognized as a collective legacy of today's community. It plays a crucial role in shaping the character and perception of a place, which is naturally influenced by feelings and experiences (Walczak, 2015). Heritage encompasses both tangible and intangible aspects, reflecting a community's background, beliefs, and identity. It involves maintaining and interpreting historical buildings, cultural practices, and shared memories that link the past to the present. However, heritage is not static; it is shaped and influenced by contemporary social, political, and economic priorities (Kaya, 2020).

The conventional definitions of heritage have been challenged by the emergence of critical heritage studies, which analyzes the historical, sociocultural, governmental, and political aspects of heritage (Gentry & Smith, 2019; Lixinski et al., 2024). Critical heritage study adopts a people-oriented focus that considers the reception, negotiation, and

transformation of heritage over time (Smith, 2006; Witcomb & Buckley Am, 2013). The politics of critical heritage studies as identity, belonging, and social meaning, along with economics, are far more complex than conventional definitions of heritage (Dehghan Pour Farashah, 2023). The concepts of heritage and collective memory are relational and patterned to construct an account of history that serves current appraisals and nationalistic political agendas (Halbwachs, 1992; Peckham, 2003).

As a part of the cultural past, industrial history includes the actual remains of industrial work, along with soft records of jobs memorialized through human thoughts, ways, and habits (Garcia, 2018). Industrial history's importance extends beyond simple buildings to encompass significant ideas about work, the past, economic changes, and community identity. However, how it is remembered is often debated, with different groups emphasizing different aspects of industrial history, from technological progress to worker struggles and environmental impacts (Cowie & Heathcott, 2003; Smith, 2006). Even though extensive studies

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have been conducted on the preservation and management of industrial heritage, a significant gap remains in how local people identify and interact with heritage in a post-industrial context. So far, most research has focused on the construction elements of industrial heritage, such as structures and city layouts (Douet, 2016; Oevermann & Mieg, 2014), but little consideration has been given to the lived reality within that narrative and local people's memories.

At the same time, existing literature mainly reflects industrial heritage from a celebratory perspective, emphasizing technological advancement and economic growth (High & Lewis, 2007; Macdonald, 2013), or through critical theory, which highlights the socio-economic consequences of deindustrialization. Thus, it is crucial to understand how various community segments construct these collective memories of industrial heritage and negotiate their identity. Furthermore, there is a gap in the literature concerning the impact of industrial heritage on the contemporary urban identity of post-industrial cities (Rytelewska-Chilczuk, 2016). Therefore, this study builds on these gaps by exploring how the local community understands and remembers the development of industrial heritage, with particular emphasis on the textile manufacturing industry in Łódź, Poland. The objectives of the research are as follows:

1. To explore how local communities in Łódź construct and negotiate their memory and identity concerning the city's textile manufacturing heritage.
2. To analyze the socio-cultural perceptions, emotional associations, and generational shifts in attitudes toward industrial heritage sites in Łódź.

In relation to these objectives, the study also tries to answer the following research questions:

1. How do different social groups in Łódź perceive and memorialize the city's textile manufacturing heritage?
2. In what ways have generational shifts and socio-cultural transformations influenced the interpretation and preservation of Łódź's industrial heritage?

This study is significant because it reiterates that heritage is not a static remnant of the past, but rather an ongoing contested process in which memory, identity, and socio-political relations are intertwined. Understanding the perceptions of local communities toward industrial heritage is therefore crucial for developing inclusive and sustainable heritage management strategies. Accordingly, this study's results can aid policymakers, heritage experts, and urban designers in formulating heritage statements that appeal to local populations and instill a sense of ownership. In parallel, this study enriches the discussion on heritage by providing communities with the opportunity to construct their narratives instead of passively consuming institutionalized heritage. This approach helps understand the complexities of collective memory in post-industrial society and further attempts to explain how industrial heritage can be dealt with in contemporary urban development and cultural policy.

This research builds on the framework of critical heritage studies and collective memory (Assmann, 2011; Wertsch, 2021), focusing on local communities' construction, interpretation, and contestation of industrial heritage. It problematizes the definition of heritage as a static, objective entity by showing that it is negotiated and evolving. It also expands the debate around deindustrialization by discussing how collective memory acts as a device for communities to navigate socio-economic change (Castañeda López & Vela Cossío, 2020). Moreover, this research contributes to the discussion of heritage as a cultural form of memory (High & Lewis, 2007; Macdonald, 2013) by examining how industrial heritage sites serve as "memorylands" in which collective memory and social belonging are rooted. It focuses on the relationships between industrial heritage, urban identity, and memory politics,

contributing to an understanding of heritage in a post-industrial society.

2. Literature review

2.1. Critical heritage studies and memory

Heritage comprises entangled and often contradictory processes that must be understood within a complex landscape (Winter, 2013). It represents intrinsic value and serves as a vehicle for various social, economic, and political outcomes (Ross, 2024). Reframing heritage as a complex human phenomenon, where various forces and actors engage in constructing and reconstructing the past within the present to shape new futures, facilitates the exploration of heritage from diverse perspectives (Fredengren, 2015; Waitt, 2000). Traditional heritage studies focus on the technical aspects of management and practice. In contrast, critical heritage studies, which emerged at the turn of the millennium and represents a growing body of scholarship, emphasizes heritage as a political, cultural, and social phenomenon in which individuals' lives are shaped (Apaydin, 2020; Gentry & Smith, 2019). Critical heritage studies, as a contact zone for diverse disciplines and research agendas, emerges as a significant interlocutor in heritage debates (Sterling, 2020), posing challenging inquiries to uncomfortable questions in heritage theory and practice (Campbell & Smith, 2011; Harvey, 2017).

In this context, contemporary discourse centers on questions pertaining to the definition of heritage, the authority responsible for its determination, and issues of ownership (Smith et al., 2011). These questions must be answered by those communities and groups that develop and attach values and meaning to the heritage and its memory (Apaydin, 2020). Advocates of critical heritage studies argue that the discourses shaping our understanding of heritage are a form of performance, where the interpretation of the past is continuously negotiated against current needs. Critical heritage studies thus explore the implications of how memory is produced, framed, articulated, and inscribed within various spaces, ranging from local to regional, national, and ultimately transnational. It provides a critical lens to analyze contemporary social and political issues of great importance while also serving as a familiar tool for understanding the everyday processes of navigating one's identity, sense of belonging to home, and community (Apaydin, 2020; Waterton et al., 2017).

Dicks (2000) argues that heritage sites can serve as "memory theatres" where younger generations can engage with and learn about their industrial heritage. This intergenerational aspect helps maintain a sense of historical continuity in regional identity. Urban regeneration and transformation can alter the landscape of collective memory and emotional attachment among local populations, while complicating the power dynamics among involved stakeholders (Sacco et al., 2013). For example Chen et al. (2020) examine the collective memory of former workers and local residents, who typically exhibit a profound sense of belonging to Guanggang, China. Their collective memory of the site encompasses not only the history of industrial production but also reflects the robust community relations, frequent everyday interactions, and strong social cohesion characteristic of the area. The concept of living heritage is central to critical heritage studies, emphasizing the continuity of care systems, community connections, livelihoods, and collective memory. This concept challenges the prevailing narrative surrounding communities and locations that are frequently subject to stigma (Ortiz et al., 2023). In contrast to a material and intrinsic value approach to heritage preservation, critical heritage studies highlights the community's foundational connection to the continuity of heritage and seeks to preserve heritage within that contextual framework (Poulios, 2014). This context may encompass urban spaces and cultural arenas that embody complex layers of societal memory and cultural narratives, facilitating the navigation of their historical pasts and the formation of collective memories (Soyer & Tunca, 2025).

In the field of critical heritage studies, it is imperative to understand the complexities of commemoration, selection of memories for

preservation, and decisions regarding what to forget. Furthermore, the practices of physical conservation or intentional destruction become complicated when individual memory intertwines with collective memory (Waterton et al., 2017). This is the case in certain locations that are particularly transformed by the intertwining of trauma and nostalgia (Delanty, 2018; Wójcik et al., 2010). For example, former factories, which as representations of the working class are intricately associated with themes of trauma and nostalgia, become either dilapidated and impoverished or are transformed into new, consumer-oriented urban spaces. In recent times, the transformation of former industrial sites into new vernacular heritage has taken central stage, serving as remarkable spaces entities that convey the narratives of ordinary individuals (Dicks, 2015). Smith and Campbell (2017) demonstrate that nostalgia, arising from deindustrialization and the preservation of industrial heritage for the future, can emerge from memories and memorialization. Furthermore, engaging with the past can shape sentiments and foster emotional commitment to social justice issues.

2.2. Industrial heritage and its importance

Industrial heritage represents one of the most universal yet challenging forms of cultural legacy in modern society. It serves as a witness to the rise and fall of industrial civilization and as a place for local collective memory (McIntosh & C. Prentice, 1999; Zhong et al., 2024). Industrial heritage encompasses the physical remnants of industrialization that have shaped our societies, economies, and landscapes over the past centuries (Douet, 2016). Industrial heritage consists of both tangible elements (buildings, machinery, infrastructure) and intangible aspects (cultural practices, memories, traditions) that collectively represent a region's industrial past. Industrial heritage extends beyond "big stuff" to include "more subtle, intangible forms of heritage, including workers' traditions, songs, and contemporary cultural expressions that evoke industrial history" (Wicke, 2018, p. 4). Hence, Smith (2020) defines industrial heritage not merely as a collection of preserved sites and artifacts but as what she terms a "performative process of meaning making" (Smith, 2020, p. 130). This conceptualization moves beyond traditional preservation frameworks to position heritage as an active negotiation between individuals, communities, and

their physical and cultural environments. Within this framework, industrial sites function as spaces where meanings and values are re-negotiated, re-created, and de-legitimized through social interactions (Smith, 2020, p. 130). Industrial heritage can simultaneously function as a source of cultural identity and a commodity that contributes to economic development, though tensions often exist between these dual roles (Yang et al., 2019). Therefore, the adaptive reuse of industrial heritage sites has emerged as a critical strategy for post-industrial regions navigating the transition away from manufacturing economies (Berkenbosch et al., 2022; Yang et al., 2019). These sites have become increasingly valued resources for regional identity formation and economic development.

2.3. Łódź's industrial heritage

Łódź is the third-most populous city in Poland and the fourth-largest city in area. The city of Łódź (Fig. 1) is situated in the centre of the Łódź region and of the country (Brzezińska et al., 2016). Despite receiving a city charter in the fifteenth century, Łódź did not begin to grow significantly until the nineteenth century, when the structures in the city's center began to take shape (Bochenek & Klemm, 2020). By the 1870s, Łódź had mills comparable to those in Lancashire and Yorkshire, housing similar machinery. In 1884, there were 264 textile enterprises with 525,000 spindles and 11,000 looms in operation, earning Łódź the nickname "Polish Manchester" (Walczak, 2015). Additionally, Łódź experienced a substantial influx of new residents, particularly Germans and Jews, as a result of the rapid expansion of the textile industry (Lamprecht, 2020). Consequently, the city's industries employed hundreds, and in some cases thousands, of workers who migrated to urban areas in pursuit of improved living conditions, whether as laborers or domestic servants. Thus, terms such as "workers" or "working people," within specific contexts and in relation to other agents, contributed to the establishment of a new social order (Zysiak et al., 2018).

Industrialists and commercial tycoons, especially Karl Wilhelm Scheibler and Izrael Poznanski, funded the construction of public buildings, including schools, hospitals, orphanages, and houses of worship (Bentz, 2021). After the textile industry collapsed in 1989, Łódź sought to reinvent itself and repurpose its industrial heritage. Since the early

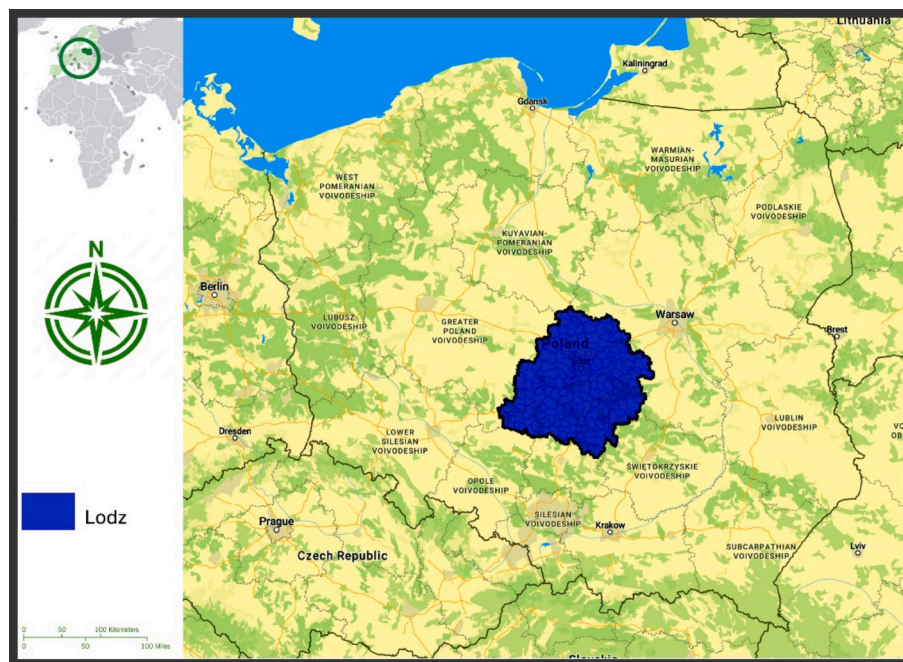


Fig. 1. Location of Łódź province in Poland.
Source: Authors.

2000s, the city has seen a growing acceptance and creative reuse of its buildings, transforming former factories into educational, shopping, cultural, and housing facilities (Walczak, 2015). Furthermore, Łódź has attracted considerable interest from scholars analyzing urban regeneration (Fleming, 2011; Young & Kaczmarek, 1999) and the history of the working class (Rek-Woźniak & Woźniak, 2020).

The Central Museum of Textiles in Łódź, formerly known as the White Factory of Ludwik Geyer (Fig. 2), is the first building on a national scale to be revitalized and to adopt a strategy for changing its use from industrial site to museum. On the site of the former industrial complex of Izrael Poznanski, the enormous Manufaktura is a commercial and cultural hub in the heart of Łódź (Fig. 3). This industrial complex was built in the latter part of the 19th century, when many large workshops and a massive spinning mill were built. The 1990s saw the decline loss of the cotton industry, which led to a slow deterioration of the physical components of historical artifacts. The French company APSYS purchased the entire property in 1998 and developed a multi-functional commercial facility between 1999 and 2002 (Wojnarowska, 2013).

These examples demonstrate how Łódź has embraced its industrial past, repurposing many former factory buildings and complexes into cultural, educational, and commercial spaces (Pielesiak, 2015). This approach has helped preserve the city's unique character while adapting to post-industrial economic realities (Konior & Pokojowska, 2020). Even urban areas that have not undergone revitalization are becoming valuable identity resources for the city and for the development of unique tourism products (Mokras-Grabowska & Mroczek-Żulicka, 2024). However, Rytelwska-Chilczuk (2016) observes that many residents continue to perceive Łódź as a symbol of "mediocrity and greyness" despite ongoing revitalization efforts. This highlights the complex relationship between physical urban transformation, collective memory, and perception shifts.

3. Research methodology

3.1. Research design

The study employs an interpretive qualitative research approach, used in the social sciences to understand the meaning people assign to their experiences, as it seeks to uncover the perspectives of those being studied. Interpretive qualitative research encompasses a broad range of approaches that involve analyzing qualitative data, including text and document analysis, discourse and narrative analysis, ethnographic methods, and various forms of fieldwork. An interpretive qualitative approach should be guided by a straightforward research question and aim for a deeper understanding beyond just describing content (Wiesner, 2022). Addressing the 'how' and 'what' aspects of our research question required adopting this approach. The interpretive qualitative approach enabled an understanding of the subjective experiences and meanings that individuals attach to their heritage.

Semi-structured interviews allowed participants to express their thoughts and experiences in their own words, providing deep insights into community members' personal and collective narratives. Observational fieldwork was complemented by insights into everyday interactions and environments related to the textile factories. The interpretive approach enabled the researchers to conduct a nuanced analysis of various stakeholders' perspectives, including local authorities, heritage managers, business owners, and community groups, regarding Łódź's textile manufacturing heritage. Through qualitative data collection methods, the researchers uncovered how these stakeholders contribute to the construction and preservation of heritage narratives and practices. By interpreting the collected qualitative data, the we identified underlying patterns and themes that informed policy decisions and practical implementation of heritage management and preservation strategies. This interpretative analysis revealed how collective memory and identity are constructed, how stakeholder roles



Fig. 2. Exterior and interior view of Geyer's White Factory, Łódź.
Source: Authors.

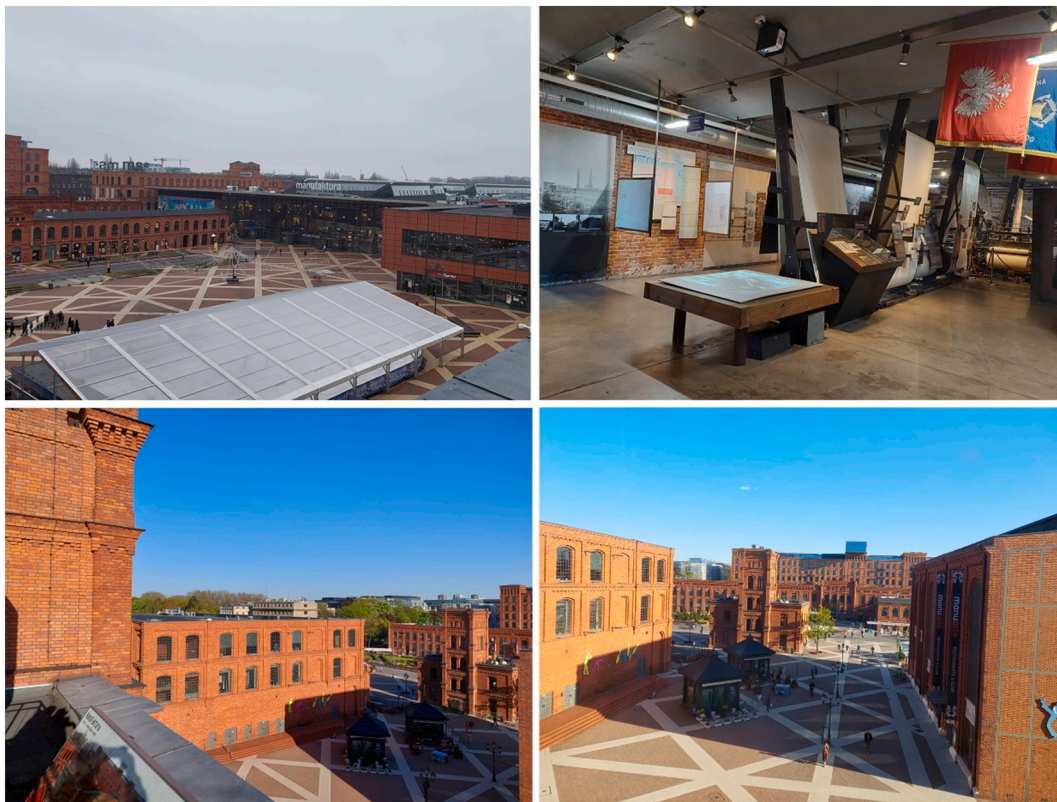


Fig. 3. Exterior and interior view of Izrael Poznański's factory, Łódź.
Source: Authors.

shape heritage practices, and how these factors impact heritage policy.

Exploratory methods were employed, including observational fieldwork and semi-structured interviews. In this study, exploratory research laid the initial groundwork to better understand the memory of local communities in Łódź. Exploratory research involves a preliminary investigation into a subject matter to gain a deeper understanding of the issue, rather than testing a specific hypothesis or providing definitive solutions. It is employed in the context of subjects that have not been thoroughly investigated or sufficiently delineated (Dyson et al., 2016).

3.2. Data and sample

Through a comprehensive assessment of the conditions of textile heritage factories in Łódź and informal discussions with local residents, we first acquired a profound understanding of industrial heritage, a particular form of cultural heritage. We then conducted semi-structured interviews with pertinent stakeholders and experts, whom we identified through snowball sampling. All interviewees were engaged with industrial heritage in Łódź, including architects and urban planners involved in the revitalization of textile factories, professionals from the hospitality and tourism sectors, members of the municipality and regional planning office, specialists such as historians, economists, and sociologists, and, most importantly, representatives of the former working class. During the socialist era, following nationalization, 12,000 workers were employed in the industrial complex of Izrael Poznański, resembling a self-sufficient “city in the city” (Bińczyk, 2006), with nearly half of this workforce consisting of women (Bienkowska, 2022).

According to statistical data, approximately 75,175 workers were employed in the textile industry in Łódź during the 1980s, and around 57,028 in the 1990s (Walker, 1993). We sent an invitation letter to all interviewees and emailed them the interview questions. An interview guide was prepared, focusing on the main research questions:

perceptions and memories of the textile manufacturing heritage, the roles of various stakeholders in its memorialization and preservation, and its impact on heritage policy and practices in Łódź. Overall, 40 interviews were conducted, after which it was established that subsequent respondents merely reiterated the viewpoints expressed by the earlier participants (Patten & Newhart, 2023), thereby achieving redundancy (Ghaderi et al., 2022). However, six additional interviews were conducted, increasing the total number of respondents to 46, to ensure comprehensive data collection and minimize the possibility of any remaining undiscovered information. The interviews ranged from 40 to 60 min and were conducted anonymously in English and Polish, between November 2023 and April 2024. No personal information was collected except for essential demographic details such as gender, age, educational background, and occupation (Table A.1). Of the 46 interviewees, eight were former textile workers; additionally, 10 interviewees had family members who had worked in textile factories.

3.3. Data analysis

The interviews were recorded and subsequently transcribed. A reflexive thematic analysis was employed to analyze the transcripts. Reflexive thematic analysis is a qualitative data analysis method that emphasizes the researcher's reflective and interpretive lens throughout the analytical process (Braun & Clarke, 2021). In this context, the researcher does not seek to mitigate bias; instead, they acknowledge and focus on its presence, fully aware that their preconceptions may impact the analytical process and subsequent conclusions (Mantzoukas, 2005). The study adhered to the six-phased method of thematic analysis, which included the following steps: 1) familiarizing oneself with the data; 2) generating preliminary codes; 3) identifying themes; 4) reviewing themes; 5) defining themes; and 6) preparing the report (Braun & Clarke, 2013).

The reflexive approach to coding involves a dynamic process where

codes can be divided or renamed based on the researcher's understanding of the data, rather than being predetermined at the start of a new study. Instead of solely summarizing the data, this coding method empowers researchers to make novel discoveries. The researcher brings their assumptions, commitments, and scholarly expertise to bear on the data interpretation. Such a coding procedure generates themes that embody collective patterns of meaning (Braun et al., 2019). The computer software program Atlas.ti Version 8 was employed to analyze data through coding. The open coding process was initiated, and the data were coded based on the research inquiries to identify noteworthy aspects. Subsequently, the codes were organized into categories based on their semantic and conceptual relationships, and each category was assigned a name. Following this stage, a network of code categories was established, and a primary theme was selected for each network. Sub-codes or sub-themes were then connected to the main themes to enhance comprehension of the interconnections among the concepts (Ghaderi et al., 2022).

3.4. Trustworthiness and positionality

We adopted an interpretive qualitative approach and sought to conduct and present a rigorous and trustworthy qualitative study. We undertook three principal measures to establish trustworthiness: peer review and debriefing, triangulation, and creating an audit trail. We solicited feedback from researchers and experts who were not previously acquainted with our case. Their critiques aimed to enhance our methodologies and provide insights and commentary on our results (Creswell & Creswell, 2017). To address the triangulation, various data collection methods were utilized, including semi-structured interviews with multiple participants and observational fieldwork (Stake, 2004). We produced comprehensive analytic memos following each data collection and coding round, accompanied by our justifications for these decisions (Yin, 2017).

Our positionality as researchers may influence both the data

collection and data analysis processes (Suddaby, 2006). The first author, possessing academic expertise in industrial heritage studies and urban regeneration, conducted all interviews and fieldwork, thereby playing a critical role in shaping the research. Having lived and conducted research in Łódź for five years, the first researcher has developed a deep familiarity with the spatial and historical context of the textile manufacturing heritage sites. The authors used a city map to guide interviews at former textile factory locations, ensuring meaningful and grounded discussions. We had no prior relationships with participants recruited through snowball sampling. Lastly, we examined the advantages of employing reflexive journaling and maintaining ongoing dialogue with co-authors to mitigate potential biases, thereby ensuring transparency and consistency in the interpretation of data.

4. Results

Our analysis uncovered four primary themes: memory and identity construction, socio-cultural perceptions of heritage, emotional and symbolic associations, and generational perspectives and changes in attitudes. We identified numerous codes within these themes that provide insights into the complex relationship between Łódź's residents and their industrial past (Figs. 4 to 7).

4.1. Memory and identity construction

Industrial heritage can facilitate the transmission of memories and experiences across generations, even as direct involvement in industrial work declines. This theme encompasses a range of factors that influence how individuals and communities form their understanding of the past, including collective memory, memory adaptation, generational trauma, and the phenomenon of broken memory transmission (Fig. 4). Notably, we observed nostalgia alongside dark memory and memory suppression, indicating a nuanced and sometimes conflicted relationship with the city's heritage. One respondent (06) said, "They hate these areas because

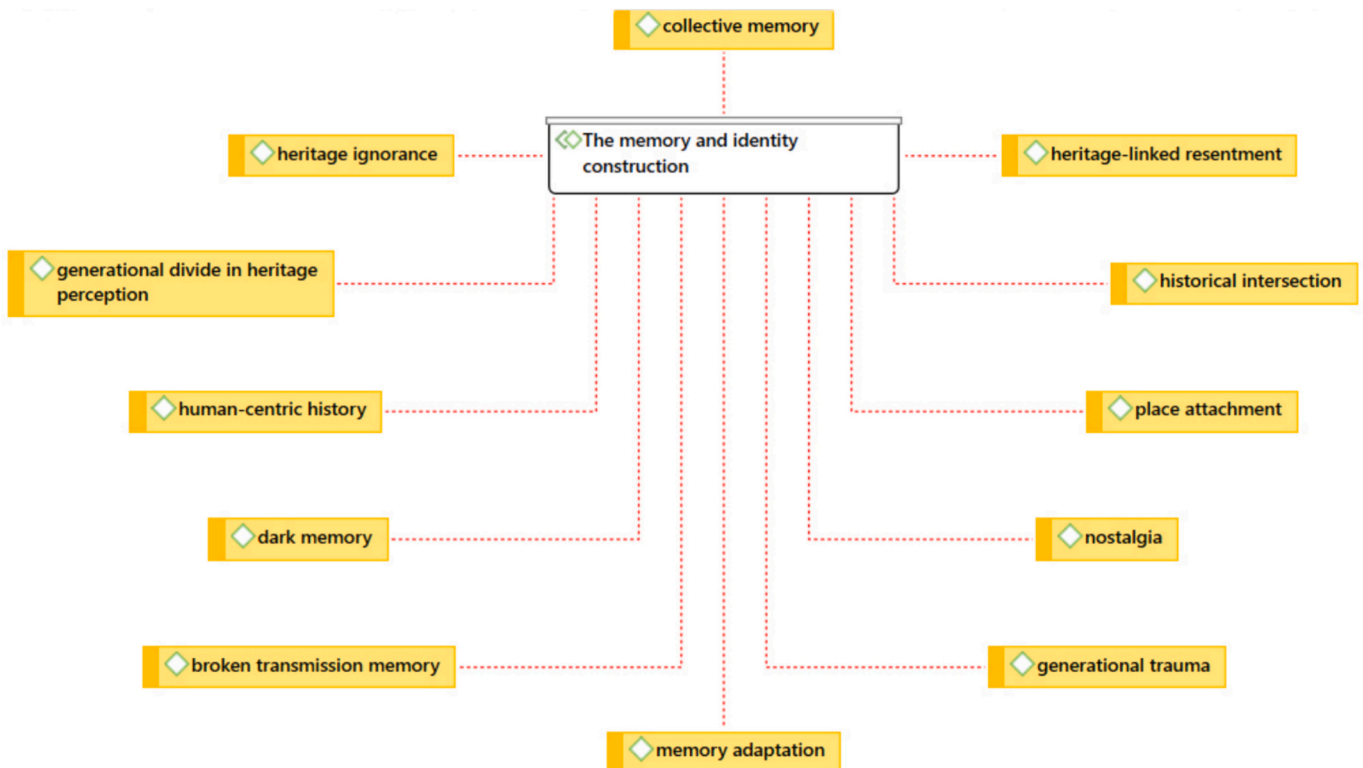


Fig. 4. The most prevalent codes for the first theme (The memory and identity construction).
Source: Author(s).

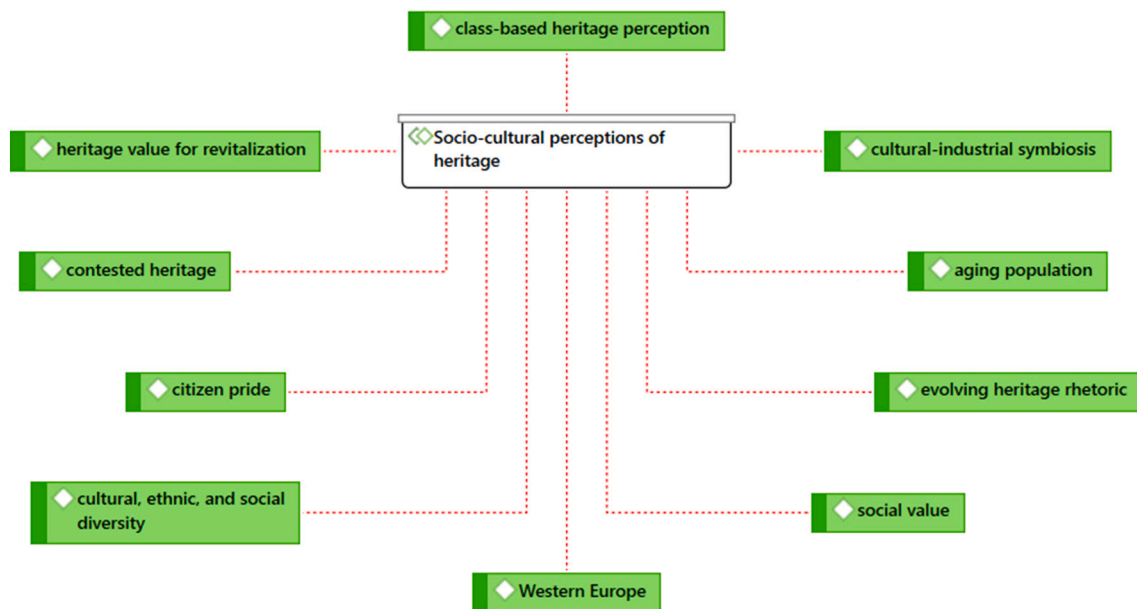


Fig. 5. The most prevalent codes for the second theme (Socio-cultural perceptions of heritage).
Source: Author(s).

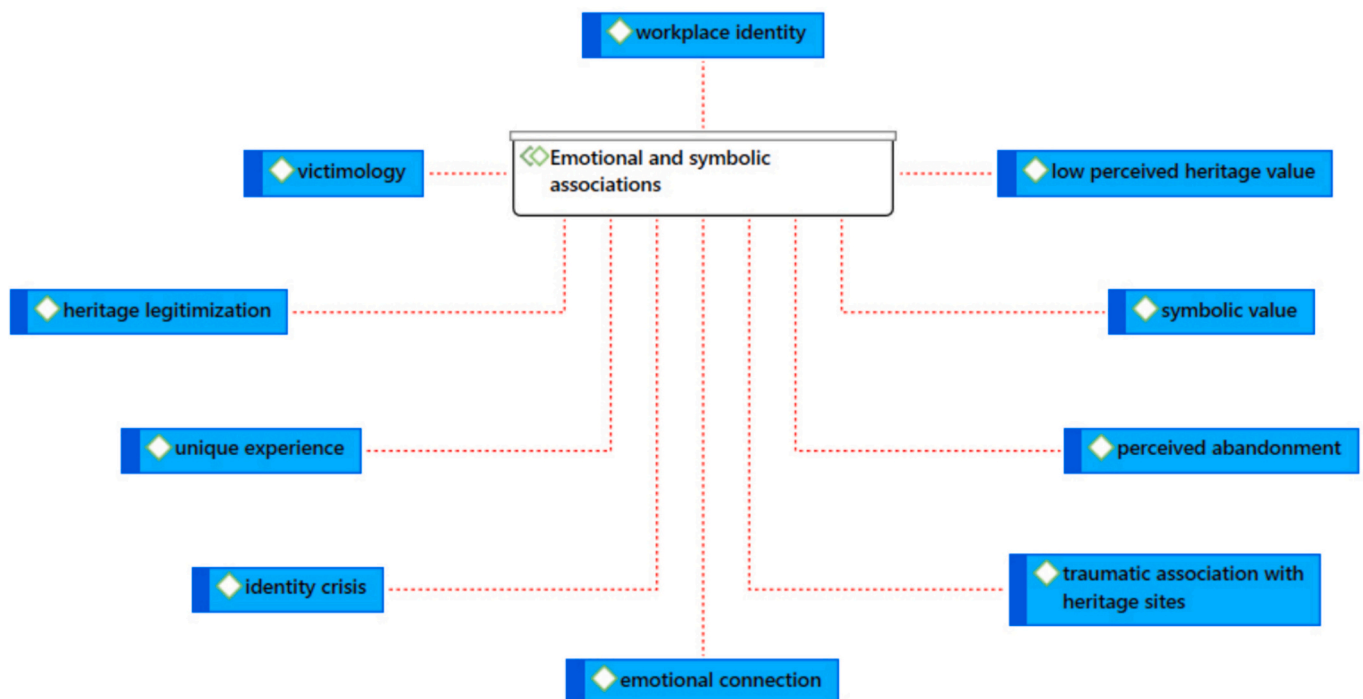


Fig. 6. The most prevalent codes for the third theme (Emotional and symbolic associations).
Source: Author(s).

they still remember that they worked there, their parents worked there, and they lost their job." Another respondent (15) explained, "But sometimes it's, I think, still connected to quite not very pleasant memory because since 20 years ago, 30 years ago, this post-industrial textile manufacturing heritage has been connected to the grey Łódź, not very environmentally friendly aspect, so in general thinking of the society could be quite difficult to distinguish the positive and the negative sides of the industrial location in Łódź."

Some stakeholders argued that transforming these factories into new uses allows "memory adaptation." An experienced tour guide (11)

noted: "According to revitalization processes, when we change the function and when they adopt these areas and put the new function there, we can observe that they are convinced, they are trying to accept and they accept these areas, this new function, even if these memories are still not good because they still remember this past. However, they adapt their memories and choose, for example, oh yeah, look, grandson, your grandfather was working over there." Another respondent (20) said, "It started changing for me personally at the break of the 20th and 21st century. When I was, let's say, finishing my secondary education. And, at that point, I became interested in Łódź, in the history of the city. And somehow in the architecture and the

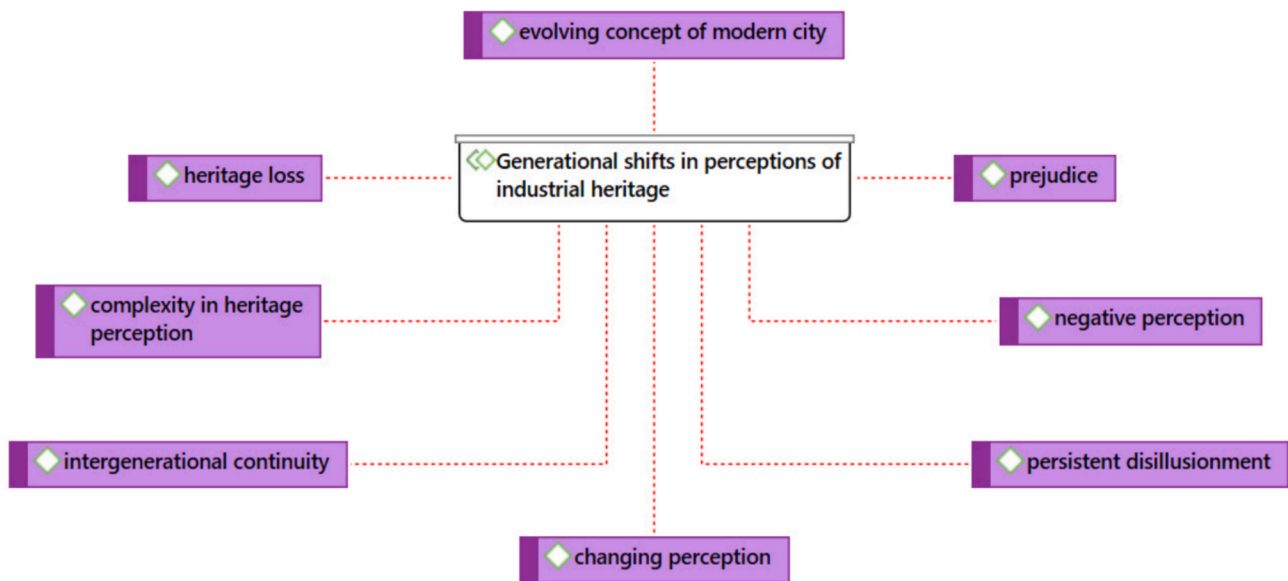


Fig. 7. The most prevalent codes for the fourth theme (Generational shifts in perceptions of industrial heritage).
Source: Author(s).

industry of Łódź as well.” One former textile manufacturing expert (40) identified three periods textile manufacturing:

I see that there are three periods. The first instance was when the workers and people employed there engaged in these textile factories. There was some value for them because they could at least earn money from there. Then, when it was closed, and it was a sample of the torture and pain of these periods, when it started to be revitalized, they started again to evaluate and take into account this kind of heritage.

Accordingly, the first period pertains to the socio-economic value of textile factories, the second period addresses the dark memories and trauma experienced by individuals who worked in these establishments, and the third period focuses on evaluating textile manufacturing and constructing identity.

4.2. Socio-cultural perceptions of heritage

This theme highlights how different social groups interpret and value the textile manufacturing legacy. This theme revealed class-based differences in heritage perception, the importance of citizen pride, and the role of cultural, ethnic, and social diversity in shaping these perceptions (Fig. 5). Furthermore, the theme could explain how the textile industry in Łódź created a melting pot of diverse cultures, leading to a unique social fabric and influencing the city’s heritage. Given the diverse range of respondents from different social classes and with varying interpretations of heritage, this concept was contested. Some stakeholders asserted that the tangible aspects of industrial heritage are more significant, while others, specifically those from the working class, emphasized the importance of its intangible aspects. Respondent 32 contended,

When you ask someone from the working class, they often emphasize their personal heritage and the history of their working-class background. In contrast, when speaking to someone who identifies as middle or upper class—regardless of their original background—they tend to adopt a more modern, adaptable perspective, almost like a product of contemporary societal structures. They may not reflect as much on heritage, as their rhetoric and outlook have shifted with their class identity.

Respondents claimed that the country’s economic and political situation can play a significant role in considering heritage and regeneration practices. The concern about heritage will be ignored when society

and the government have different priorities. They further explained that after the collapse of communism, the value of heritage started to be recognized and appreciated. One freelancer (16) in the field of heritage studies explained, “I would say it depends on the society and the level of awareness, and also the level of life. Because if we live in a poor society, if the country has bigger problems than how to revitalize or renovate the factory, then we would ignore this....”

Respondents added that the textile industry was established as a cultural foundation. The textile industry not only shaped the economic landscape of Łódź but also contributed to its cultural identity, fostering a rich cultural heritage that persists today. One respondent (17) proclaimed that “in the past, factories, especially in the socialist times, organized different cultural and social events for their employees. There have been parties and concerts within the premises of these factories. So, it was also important for the social life.” Respondents further explained that textile factories were the best place for people to meet each other for marriage. A former worker (39) declared: “People met their partners in the factory, their marriages. It was a dating place. I can tell how many marriages have taken place in these factories.”

4.3. Emotional and symbolic associations

Many residents have deep personal connections with Łódź’s industrial past. This includes strong emotional ties to former workplaces, issues of identity crises, and the symbolic value attributed to heritage sites (Fig. 6). The allocation of symbolic value to the three periods is contingent on the respondents’ perspectives, thereby contributing to the process of heritage legitimization. The majority of interviewees believed that over the past 25 to 30 years, the process of heritage legitimization has been undertaken by the government, municipalities, local communities, and particularly private businesses. Prior to this period, the question of whether these textile factories constituted heritage and warranted protection in Poland was extensively debated. For instance, one person said, “I mostly remember them from that time as massive buildings with rich architectural details. However, they also symbolized the city’s decline and the lingering trauma of its past. It was during this period that the first major regeneration project began -Manufaktura.” Another person (28) who had lived her entire life in Łódź addressed the protective spirit of a place with this statement: “The symbolic value, in the context of ‘genius loci’. The ancient factories are important places for citizens—they identify with an industrial heritage as residents of Łódź.” This

theme is significantly related to people who have worked in these factories or have lived in Łódź. For example, one respondent (21) explained: *"I remember two old ladies who were constantly bickering between themselves because they were working in different parts of the same huge factory. Before the war, there were two different factories. They were connected after the war. However, people remembered that it was two different factories, and they sometimes argued over this. So, it was that strong."* Agreeing with this view, another respondent (29) asserted: *"These objects have a very high value for me, primarily sentimental. The Łódź of my childhood is a city of a thousand chimneys, hundreds of factories, and tens of thousands of workers have worked there."*

In addition, traumatic associations with heritage sites and identity crises were also mentioned by some stakeholders and experts. One interviewee (6) declared:

The events of the 1990s marked a significant collapse of the industry, which extended beyond merely the economic aspects. This decline also encompassed the disintegration of the social and community dimensions integral to the industry. Initially, in the transition to capitalism, factories prioritized the elimination of social structures, perceiving them as burdensome to their operations.

Another interviewee (05) concluded: *"When you ask someone very young who recently moved here and is also becoming a part of local society, it will be of different value to them."* This elucidates why certain residents of Łódź are perceived as attributing low value to industrial heritage.

4.4. Generational shifts in perceptions of industrial heritage

Generational shifts in perceptions of industrial heritage emerged as a central theme, reflecting how perceptions of the city's heritage have evolved. This theme encompasses the changing concept of a modern city, persistent disillusionment among some groups, and the complexities of intergenerational continuity in heritage perception (Fig. 7). Respondents perceived that industrial heritage sites received greater consideration from society following the revitalization of textile factories. One participant (13) highlighted:

Even if they are in a bad condition, they are still beautiful, it is still unique architecture. Of course, it is now easier to see that they are great examples of architecture because some have been renovated. But at that time, and especially during that time when textile factories were working, they were not an identity or a heritage for society.

The younger generation is the driving force behind shifting perceptions of textile heritage. One young respondent (04) proclaimed:

Because we were kids, we never went there. So, when we tried to change the view about the factories in Łódź, it was easier with teenagers at the school than with people at the universities. And, it was not easy with people who worked in factories.

The connection between the past and the present can be understood through a generational shift, which can be analytically framed as a subjective negotiation that encompasses dimensions of identity, place, and memory. This changing perception could be a driving force behind the evolving concept of the modern city. Most respondents asserted that the idea of the contemporary city resulted from the regeneration of industrial heritage. Additionally, regeneration of industrial heritage can be coded to reflect the evolving nature of urban planning by integrating heritage into modern city concepts. Respondent (07) noted:

As modern architects and urban planners, cities have been conceptualized as consisting of distinct zones, including an industrial zone, a central zone, and a garden zone, reflecting the principles of Le Corbusier. However, I contend that the future of urban development lies in the creation of multifunctional centers, exemplified by the "15-minute city" concept, which promotes accessibility without the environmental impact associated

with traditional industrial sectors. It is important to note that the textile industry has experienced a significant decline.

A "15-minute city" is a contemporary urban planning model focused on accessibility and sustainability. In addition to positive shifts in perceptions of industrial heritage, the "persistent disillusionment" with political leadership has influenced how residents engage with and perceive the preservation and revitalization of industrial heritage sites. Respondents believed the ongoing disillusionment could lead to the government's failure to adequately support heritage policies and initiatives, especially those related to the city's industrial past. One commentator (12) elaborated that.

in such cities like Łódź, the textile industry emerged from nothing. It developed rapidly during the first hundred years and perished in five to ten years. So, rapid development and collapse were all connected to external conditions but also internal conditions, the policy of lawmakers, the policy of the government, and so on.

5. Discussion

By revealing the distinct and diverse sub-fields of heritage theory and practice and pursuing challenging inquiries into uncomfortable questions in critical heritage studies (Campbell & Smith, 2011; Harvey, 2017), this research provides a comprehensive exploration of how local communities in Łódź perceive and construct their memory and identity regarding the city's textile manufacturing heritage, as well the insights into the dynamic processes of heritage interpretation and preservation in post-industrial urban contexts. Such questions seem to flow naturally when considering how the values underpinning our conservation decisions have changed dramatically over the past three decades (Fleming, 2011; Young & Kaczmarek, 1999). Interview analysis and observational fieldwork have revealed the multifaceted and often conflicting nature of textile manufacturing heritage in Łódź, reflecting broader societal shifts and individual memories. These findings align with previous studies indicating that industrial heritage represents one of the more complex forms of legacy in contemporary society, conveying the narratives of ordinary individuals (Chen et al., 2020; Dicks, 2015; Zysiak et al., 2018). In the case of Guangzhou, China, industrial heritage serves as a testament to the rise and fall of civilization and functions as a focal point for collective memory (Zhong et al., 2024). Custom, local aesthetics, cognition and memory, identity, and the imagination of tradition underscore the significant characteristics of preserving and reusing industrial heritage in Guangzhou. In Łódź, textile manufacturing heritage is critical in transforming shared experiences, stories, and traditions associated with industrial work. This collective memory contributes to the cultural memory and serves as a shared pool of knowledge and symbols (Assmann, 2011). Although direct involvement in industrial work has decreased, former textile factories have become essential to the city's identity. They serve as "memory theatres," allowing younger generations to connect with the industrial past (Dicks, 2000). This engagement is crucial for maintaining a sense of historical continuity, as heritage sites allow for the negotiation of personal and collective identities. Activists and individuals can challenge the commodification of memory, particularly when they reclaim and repurpose commodified memories in innovative ways (Yang et al., 2019). However, the relationship with this heritage is complex (Soyer & Tunca, 2025). Many respondents felt nostalgia while grappling with darker memories of economic hardship, job loss, and difficult working conditions. This duality highlights the nuanced and sometimes conflicted nature of community relationships with their industrial heritage. In other words, the tension between authenticity and the consumption of heritage emerges when market-driven imperatives to attract investors lead to the transformation and commodification of heritage, potentially compromising its intrinsic integrity for economic gain (McIntosh & C. Prentice, 1999; Waitt, 2000). This sentiment is primarily associated with the

working class when the factories they worked in have either become dilapidated or are repurposed into new urban developments (Rek-[Woźniak & Woźniak, 2020](#); [Walczak, 2015](#)).

The process of “*memory and identity construction*” emerges as a significant theme, illustrating how communities reshape their recollections of the past to reconcile painful memories with contemporary aspirations. Interviewees indicated that when factories are revitalized and repurposed, residents often experience a shift in perception, allowing for more positive associations with these spaces. As stakeholders transform industrial sites into cultural or commercial hubs, they facilitate a more constructive dialogue around heritage, bridging the gap between historical trauma and modernity. However, maintaining the authenticity of the industrial sites is crucial in influencing emotional reactions, including joy and nostalgia. Consequently, during the transformation of industrial heritage sites, the consumption of heritage must be carefully considered ([McIntosh & C. Prentice, 1999](#)). Similarly, [Sacco et al. \(2013\)](#) examined how revitalization and transformation complicate the power dynamics among stakeholders and alter the collective memory and emotional attachment of local communities. For many, this transformation is not merely a physical change but a profound reinterpretation of their relationship with the past, where painful memories can coexist with renewed hope and community engagement. However, the commodification of memory at certain sites could lead to doubts, particularly among the older generation, about the success of regeneration projects and the construction of a positive urban image. As a result, the reuse of industrial legacy is inextricably linked to urban and regional planning initiatives, as well as the disputes that develop throughout the process of remembering heritage ([Douet, 2016](#); [Oevermann & Mieg, 2014](#)). Socio-cultural perceptions of heritage represent the narrative of textile heritage memory in Łódź. The study demonstrated how different social groups, interpret and value textile manufacturing heritage according to their class background. Residents from working-class backgrounds mainly addressed the industrial past, focusing on the textile factories in their family and personal history. This finding, in particular, can be understood through the critical heritage studies concept that heritage is a complex human phenomenon that constructs the past within the present to shape new futures through various forces and actors ([Fredengren, 2015](#)).

Conversely, middle- and upper-class people typically view these sites as an opportunity for revitalization and economic development. This diversity highlights extensive social dynamics in which economic conditions, political priorities, and cultural perspectives influence the understanding of heritage. Consistent with [Wertsch's \(2021\)](#) findings, individuals' perspectives significantly shape the interpretation and significance attributed to sites of memory, often resulting in considerable variability ([Wertsch, 2021](#)). A significant turning point in how industrial heritage is valued and perceived in Łódź is the collapse of communism. Interviewees believed industrial heritage often takes a back seat to immediate survival concerns during economic hardship. However, the importance of preserving industrial heritage, given its economic potential, was increasingly recognized in the post-communist era. In Łódź, textile manufacturing heritage contributed to its rich cultural identity and shaped its economic landscape ([Konior & Pokojowska, 2020](#)). Textile factories were social and cultural centers for gathering, celebrating, and forming relationships ([Bentz, 2021](#)). As a lasting heritage, this cultural hub has continued to shape people's perceptions of the city.

Emotional and symbolic associations with Łódź's textile manufacturing heritage address the local community's relationship with former textile factories. These factories are more than just physical buildings; the memories of local personalities, resilience, and identity are embedded within them. Similarly, in other cases, such as in Spain, industrial heritage encompasses more than mere structures; it embodies concepts related to historical labor practices, economic transformations, and community identity ([Garcia, 2018](#)). This situation can be largely attributed to socio-economic dynamics. Grandparents' and parents' negotiations and struggles of today's young people concerning wages,

pensions, and public funds for economic recovery and social protection in Asturias are significant factors. The intangible dimensions of industrial heritage are significantly more intricate, encompassing workers' traditions, a sense of belonging, and social significance ([Dehghan Pour Farashah, 2023](#); [Wicke, 2018](#)). The cases of Yazd in Iran and Łódź resemble each other in terms of the complex interplay between social and economic significance, both of which reflect a post-industrial legacy ([Dehghan Pour Farashah, 2023](#)). However, in Iran, due to the prevailing socio-political and economic conditions, most urban regeneration efforts are predominantly state-led. Consequently, the intangible dimensions of industrial heritage are often inadequately considered.

The concept of a place's protective spirit, or “*genius loci*,” echoes among locals, highlighting the emotional values attached to these textile manufacturing sites. Although some participants see the factories as critical to their sense of place and Łódź's identity, others view them as symbols of loss and decline ([Rytelewska-Chilczuk, 2016](#)). This finding aligns with critical heritage studies, which suggest that diverse spaces play a significant role in framing, producing, and articulating memory. These spaces serve as a familiar framework for comprehending the processes of navigating identity and fostering a sense of belonging within a community ([Apaydin, 2020](#); [Waterton et al., 2017](#)). Among older generations who experienced the decline of the textile industry in the 1990s, the perceptions of textile heritage were sharper, with traumatic associations. Not only financial instability but also a social and emotional disconnection within communities were the result of the economic collapse. The point is that the trauma still influences how locals engage with and view industrial heritage ([Smith, 2020](#); [Smith et al., 2011](#)). However, younger generations view these sites with a fresh perspective and value them as opportunities for cultural hubs and urban regeneration. As [Kaya \(2020\)](#) stated in reference to Sydney, Australia, a generational shift in how heritage is understood and valued highlights that industrial sites are increasingly seen as dynamic concepts rather than static relics of the past. In Sydney, several industrial areas have been recognized as prestigious locations suitable for redevelopment and with potential for economic returns, leading to their transformation to accommodate new uses. These changes have also influenced how these areas are perceived, increasingly positioning them as destinations for shopping, tourism, recreation, leisure activities, and high-value residential developments. Similarly, in Łódź, the shifting perceptions of industrial heritage are extensively reflected in new trends in urban planning and conservation practices. Some interviewees discussed the regeneration of textile heritage sites focused on sustainability and accessibility through contemporary urban planning models. For example, the concept of a “*15-min city*” refers to ongoing efforts to integrate textile heritage sites into modern urban life, enabling locals to access a range of services and amenities. Hence, this integration has the potential for heritage to contribute to the vibrant and inclusive spaces in Łódź ([Pielesiak, 2015](#)). Similarly, the adaptive reuse of textile heritage factories is linked to urban and regional planning efforts aimed at preserving industrial heritage in the Nanfeng Kiln District, China, and the Ruhr region, Germany ([Berkenbosch et al., 2022](#); [Yang et al., 2019](#)). In China, there is an emerging trend of reusing industrial heritage sites for the development of industrial heritage tourism, often manifested as creative parks, in which local governments and various governmental agencies play crucial roles. Simultaneously, over-commodification takes place, and the protection of the historical and cultural value of contemporary industrial heritage is neglected during the redevelopment process ([Yang et al., 2019](#)). The socio-economic conditions in Germany position the Ruhr as a distinct region by presenting an ostensibly uncontested, neutral, and universal industrial history intended for a wide-ranging audience. Simultaneously, prevailing narratives reframe industrial heritage as sites of consumption, valued for their aesthetic qualities and amenities related to sports, the arts, and leisure activities ([Berkenbosch et al., 2022](#)).

6. Conclusion

This study provides valuable insights into how the residents of Łódź construct and negotiate their collective memory and identity concerning the city's textile manufacturing heritage. It demonstrates that the transformation of former textile factories into cultural and commercial hubs allows painful histories to coexist with new narratives of urban regeneration. This process of memory adaptation helps communities reconcile their industrial past with contemporary aspirations, though the emotional attachments to these sites remain complex and sometimes contradictory. Therefore, the research reveals a nuanced relationship between local communities and industrial heritage, characterized by both nostalgia and trauma, pride and resentment.

6.1. Theoretical implications

This empirical study makes substantial theoretical contributions by employing critical heritage studies, alongside the lived experiences and narratives of local communities, to interpret industrial heritage. It challenges traditional heritage studies by examining how identity and memory are constructed through emotional, generational, and socio-cultural perspectives. Highlighting Łódź as a post-industrial city, this study emphasizes the importance of context-sensitive approaches in comprehending heritage as a dynamic and contested process. Moreover, findings within industrial heritage landscapes substantiate the nuanced discourse surrounding collective memory and identity. This study emphasizes the relational and affective dimensions of heritage, wherein meaning is continually negotiated. This framework contradicts the perception of heritage as a static collection of physical remnants. The research further emphasizes the significance of bottom-up heritage practices and the generational shifts in perceptions of collective memory and heritage that are frequently neglected in urban regeneration strategies.

6.2. Practical implications

This study presents significant practical implications, especially in post-industrial cities. The results found that the growing awareness of the symbolic and cultural value of industrial heritage sites in Łódź, especially among younger generations, suggests a positive trajectory for future preservation efforts. However, sustainable heritage management will require inclusive approaches that acknowledge diverse perspectives and histories, bridge generational divides, and respect the authentic memory of those who experienced the city's industrial past first-hand. Therefore, the younger generations, along with individuals who have experienced the city's industrial past, should actively engage in interpreting and preserving Łódź's industrial heritage, while also criticizing top-down urban regeneration efforts. The investigation into the reasons for persistent disillusionment with political leadership revealed that participants believed the government failed to support heritage policies and initiatives, particularly those related to the city's industrial heritage. Inadequate community involvement and the ineffective communication of heritage preservation initiatives have disillusioned residents. By recognizing these complex relationships, stakeholders can be better involved with the textile history while fostering a shared vision for the future of Łódź. This recognition is critical for understanding the dynamics of industrial heritage regeneration in Łódź.

Successful heritage sites, such as Manufaktura, exemplify that "trauma" can be transformed into an attractive product for tourists and investors. Acknowledging complex histories does not necessarily hinder commercial success, particularly when communities have effectively

navigated the process of trauma processing and progressed toward identity reconstruction. Respecting the "dark memories" and "trauma" of the working class and achieving commercial success in regeneration projects, as well as constructing a positive urban image, may not be mutually exclusive. This represents a significant advancement in understanding post-industrial cities' management as a social process. It empowers communities to actively negotiate their relationship with challenging historical narratives in ways that honor collective memory while fostering opportunities for future development.

6.3. Research limitations and directions for future research

Finally, this study has limitations that offer new directions for future research. First, it is confined to textile manufacturing heritage sites in Łódź; the findings may thus not be generalized to other industrial heritage sites in Poland or other countries. Future research might investigate other industrial heritage sites in Poland's cities or beyond. Second, a qualitative approach, employing interviews with stakeholders and experts, was used to develop theoretical and practical contributions to heritage studies and critical heritage studies. Future research might use a quantitative approach with a larger sample size, particularly involving users and visitors of the heritage sites, to achieve robust results. Third, comparative research encompassing analogous practices in other post-industrial cities may enable an examination of the roles of various social groups in constructing identity, as well as in the collective memory, interpretation, and preservation of industrial heritage. Moreover, a comparative analysis with other Eastern European post-industrial cities (e.g., Katowice, Ostrava) and Western European cities and regions (e.g., Manchester, the Ruhr region) situated within distinct political and economic contexts could elucidate whether the characteristics observed in Łódź are particular to the post-socialist experience or if they represent universal phenomena associated with deindustrialization. Finally, longitudinal research examining the long-term effects of the "commodification of memory" is essential. It is crucial to assess whether the regeneration of industrial heritage has unintended consequences, such as accelerated gentrification or the fragmentation of local communities, to inform future urban policy.

CRediT authorship contribution statement

Mohammadhossein Dehghan Pour Farashah: Writing – original draft, Visualization, Software, Resources, Project administration, Methodology, Formal analysis, Data curation, Conceptualization. **Zahed Ghaderi:** Writing – review & editing, Validation, Supervision, Investigation, Conceptualization. **Ece Kaya:** Writing – review & editing, Writing – original draft, Validation, Supervision, Investigation.

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Declaration of competing interest

The authors declare that they have no competing interests.

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Not applicable.

Appendix

Table A.1
Respondents' profiles.

Respondents	Gender	Age	Educational level	Occupation	Respondents	Gender	Age	Educational level	Occupation
R01	Male	45	Master of architecture and town planning	Urban planner	R24	Female	39	Ph.D. in Architecture and Urban planning	Freelancer designer
R02	Male	45	Master of History	CEO watch tourism organization	R25	Male	42	Ph.D. in Architecture and Urban planning	University lecturer
R03	Female	29	Master of architecture	City architect's bureau	R26	Male	40	Master of Architecture and Urban Planning	Architect/consulting firm
R04	Female	26	Master of History	Central Museum of Textile	R27	Female	60	Master of Monument Protection	Planner in the regional planning office
R05	Male	54	Ph.D. of history	Central Museum of Textile	R28	Female	43	Master of Geography	Regional planner in the regional planning office
R06	Male	40	Ph.D. of urban revitalization	University Lecturer	R29	Male	54	Master of Geography	Regional planner in the regional planning office
R07	Male	50	Master of architecture and urban planning	Architect and urban planner/consulting firm	R30	Female	50	Ph.D. in Architecture and Urban Planning	University lecturer/architect
R08	Male	41	Master of ethnologist	Tour guide	R31	Male	67	Master of restoration and conservation of urban complexes	Architect
R09	Male	49	Master of History	Customer experience manager	R32	Female	38	Ph.D. in architecture and urban planning	Freelancer designer
R10	Male	39	Master of architecture and urban planning	Architect/consulting firm	R33	Male	39	Ph.D. in history	University lecturer
R11	Female	42	Master of history and psychology	Teacher/tour guide	R34	Female	66	Ph.D. in Architecture and Urban Planning	University lecturer
R12	Male	38	Ph.D. of history	University Lecturer	R35	Male	56	Master of Management	Hotel Manager
R13	Male	50	Master of Film Studies	Director of Cultural Centre	R36	Male	32	Master of Tourism Geography	Tour guide
R14	Female	43	Master of Marketing	Expert in heritage marketing	R37	Female	41	Ph.D. of history	University lecturer
R15	Male	48	Ph.D. of economics	University lecturer	R38	Female	54	Master of monument protection	Architect
R16	Female	37	Master of Culture Studies	Freelancer	R39	Female	80	Secondary education	Retired/former worker at the textile factory
R17	Male	52	Ph.D. of city and regional management	University lecturer	R40	Male	76	Bachelor of Textile Engineering	Retired/former engineer at the textile factory
R18	Male	50	Master of Culture Studies	Tour guide	R41	Female	75	Bachelor of Design	Retired/former designer at the textile factory
R19	Male	45	Ph.D. of economics	University lecturer	R42	Female	79	Secondary education	Retired/former worker at the textile factory
R20	Male	43	Master of Tourism Geography	University lecturer /director of tour and education company	R43	Female	83	Associated degree	Retired/former supervisor at the textile factory
R21	Male	41	Master of law and administration	Consulting expert	R44	Female	81	Secondary education	Retired/former worker at the textile factory
R22	Male	34	Ph.D. in urban and regional socio-economic planning	University lecturer	R45	Male	77	Secondary education	Retired/former worker at the textile factory
R23	Male	34	Ph.D. in Architecture and Urban planning	University lecturer/architect	R46	Male	84	Associated degree	Retired/former supervisor at the textile factory

Source: Authors.

Data availability

The data that has been used is confidential.

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signature:

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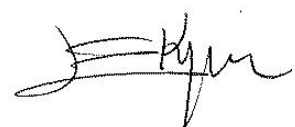
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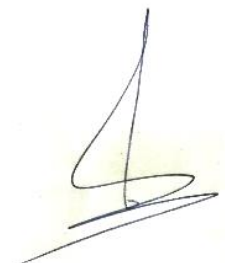
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A handwritten signature in blue ink, consisting of a stylized 'M' followed by a horizontal line and a small flourish.

Global Vietnam: Across Time, Space and Community

V. Dao Truong
David W. Knight *Editors*

Heritage Tourism

Vietnam and Asia



Chapter 9

Reviving the Past: Unveiling Urban Industrial Heritage in Yazd, Iran



Mohammadhossein Dehghan Pour Farashah and Maryam Pourzakarya

9.1 Introduction

Since the mid-twentieth century, the concept of industrial heritage has been introduced as a result of demolishing numerous industrial buildings and urban landscapes (Dehghan Pour Farashah et al. 2019). Industrial heritage encompasses material remains of industry, including sites, buildings, architecture, plants, machinery, equipment, housing, settlements, landscapes, products, and processes. These kinds of heritage involve the documentation of the industrial society (Xie 2006) as they give identity and uniqueness to society, consequently protecting its origin and memory (Alanen et al. 2000). They are also significant in terms of local, regional, and national culture and history. Therefore, appropriate maintenance and promotion of this heritage, in addition to enhancing an area's appeal to tourists, can have a favourable indirect effect on the growth of business and investment prospects (Timothy 2016).

Substantial research has examined the potential of industrial heritage sites for the future development of cities (Berger et al. 2018; Berkenbosch et al. 2022; Harfst et al. 2021; Mendez 2013; Nepravishhta et al. 2017). For example, Harfst (2015) explored the evolving dynamics of small and medium-sized mining regions, revealing that these regions have substantial potential to positively contribute to transformation. Particularly, the changes in inward and outward perceptions are a key positive aspect. Firth (2011) believes industrial heritage sites in deindustrialised cities in many countries are being conserved and transformed into valuable assets for regeneration due

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to the growing concept of industrial heritage. Currently, there is a recognition of existing and active industrial resources for tourism use (Otgaar et al. 2016), which has contributed significantly to the contemporary trend of factories opening to the public (Guerra et al. 2022). For communities experiencing the abrupt termination of a long-term job source, the continuity that reusing implies can offer psychological stability (TICCIH 2003). This suggests a higher appreciation of their value and a desire to preserve these sites as fewer people in the region are employed in the industry where these factories are rooted (Harfst et al. 2021).

According to the United Nations World Tourism Organisation (UNWTO), the concept of tourism has evolved considerably. A growing variety of new destinations are being included in modern tourism, which differ from traditional ones (Rezaei et al. 2020). Since heritage tourists are interested in a broad spectrum of urban culture, heritage assets may be used as tourism resources regardless of their size or location (Lak et al. 2020). Well-educated tourists with increasingly sophisticated tastes are becoming more dissatisfied with visiting typical mega destinations that satisfy the needs of mass tourists (Pourzakarya 2022). As a result, there is a growing trend to expand the heritage offering to incorporate other aspects that were not previously considered to be appealing to large numbers of visitors. One of these tendencies is visiting disused industrial heritage sites and landscapes (Timothy 2014).

Concentrating on heritage tourism in deteriorating traditional industries could lead to the redevelopment and regeneration of abandoned industrial sites and buildings (Meethan 2004). In other words, there are urban cultural tourists whose main interests lie in regenerated industrial cities (Smith 2015). Edwards and i Coit (1996) identified industrial heritage tourism as a subset of cultural tourism, focusing on the development of touristic activities and industries on man-made sites, buildings, and landscapes that have their beginnings in previous industrial processes. Industrial heritage tourism showcases a location's industrial heritage, including mines, factories, administrative buildings, workshops, housing, communications infrastructure, heavy machinery, commercial products, business documentation, tools, vehicles, clothing, and everyday foods. This form of tourism highlights the value of the past in terms of socioeconomics and identity, justifying its resurrection and reinterpretation in the present (Somoza-Medina and Monteserín-Abella 2021).

Numerous derelict mines and factories have found new uses, following the successful examples of Ironbridge, Zollverein, New Lanark, Geselkirchen, and Wieliczka in Europe, or Lowell and Birmingham in the United States (Alonso et al. 2010; Chmielewska 2015). However, industrial heritage is a new concept in the Middle East, and Iran is one of the leading countries in this scope (Dehghan Pour Farashah 2023b). With the formation of the "Qajar" dynasty (1795–1925) in the late eighteenth century, the process of industrialisation was founded in Iran. In this era, multiple factories were constructed, but they soon became deteriorated. In the "Pahlavi" era (1925–1978), the process of industrialisation developed significantly by building many factories, which were all signs of an industrial society (Samadzadehyazdi et al. 2020). Due to the importation of industrial machinery from Europe and the United States at the start of the twentieth century, industrial forms predominated in textiles. Yazd's economy benefited greatly from the establishment of large

factories, which made the city regarded as one of Iran's major centres for textile manufacturing for more than 50 years (Ramazankhani 2016). However, most textile factories have been shut down since the 1990s in Yazd, due to the territorial development of cities and the absorption of industrial sites (Dehghan Pour Farashah 2023a). Accordingly, ample consideration of these abandoned textile manufacturing sites began at the beginning of the 2000s (Dehghan Pour Farashah 2023c). Because of the obsolescence of the original function, there have been new spaces that are able to meet the needs of Yazd for different uses. Being primarily informed by Dehghan Pour Farashah et al. (2019) on the importance of industrial heritage conservation for tourism in Yazd, this chapter investigates the potential of textile heritage sites for developing industrial heritage tourism in Iran. It particularly attempts to answer the question: *what are the industrial heritage tourism levers to creatively reuse and preserve industrial heritage sites in Yazd, Iran?* It also aims to develop a model for promotion strategies in the context of industrial heritage tourism in textile factories in Iran based on the findings of this study.

9.2 Commencement of Industrial Heritage and Its Tourism Prospects

The importance of tourism has grown significantly in cities over the last 50 years, leading to serious competition amongst regions to attract more domestic and international tourists (Rezaei et al. 2020). According to the European Commission, there is an increasing interest in the local cultures of urban destinations because of the desire to learn about different cultural heritage and improve one's educational and economic standing. Additionally, the popularity of "Sea Sand Sun" tourism has significantly declined (European Commission 2000). Destinations with distinctive and marketable cultural heritage have long had a competitive edge in the tourism industry, depending on their heritage resources that attract large segments of tourists (Lak et al. 2020). Heritage tourism enhances cultural assets, protects a region's legacy, breathes new life into old cities, and fosters a sense of community and solidarity. This type of tourism also promotes economic growth in novel ways compared to what other tourism forms could provide (Chen and Chen 2010; Timothy 2011).

One of the remarkable heritage resources is industrial heritage sites, which are referred to as landscapes of nostalgic memory since they provided thousands of jobs and the development of the economy throughout the industrial period (Oevermann et al. 2016). From grassroots groups to governments, the importance of industrial heritage and its tourism role has drawn increased attention, being recognised as a major socio-economic phenomenon (Xie 2006). It is also turning into a valuable resource for creating new social identities and growing industrial heritage tourism in industrial cities (Caffyn and Lutz 1999). Typically, these cities were formerly major industrial hubs but faced difficulties when conventional manufacturing declined. While there are several approaches to revitalising urban economies, industrial

heritage tourism is assumed to be an intriguing “new combination” (Hospers 2002). The urban environment could be enhanced through finding new tourism uses for abandoned structures. Infrastructure and transportation facilities can also be frequently enhanced as the revitalisation of historic structures involves major adaptive reuse, such as tourism (Craig-Smith and Fagence 1995).

The idea of industrial heritage tourism includes factories and industrial facilities, museums and eco-museums, industrial routes, and interpretation centres in addition to other conceptual meanings of industrial heritage tourism (Somoza-Medina and Monteserín-Abella 2021). Industrial heritage has been primarily discussed in relation to its impact on tourism. However, it is notable that industrial heritage plays a crucial role in identity formation, place attachment, and regional awareness; it is a vital component of tourism and image creation (Görmär et al. 2019). There are several definitions of industrial tourism and industrial heritage tourism in the literature. Typically, the former is mostly concentrated on factory tours. Although this is not as widespread, active industries are also included as a tourism element (Otgaar et al. 2016). With the inclusion of heritage, the latter is a much-discussed issue and represents a more expansive meaning. For instance, as regards to Europe’s depleted coal mines, there is a need to create a new form of tourism that may help improve perceptions of industrial regions which can have a significant impact on the term’s inception (Hospers 2002; Xie 2015).

Tourism and industrial heritage are closely related. A growing number of studies have explored the complexity of this relationship (Aas et al. 2005; du Cros 2001; McKercher et al. 2005; Prideaux 2002; Prideaux and Kininmont 1999). Vargas-Sánchez (2015) asserts that industrial tourism, also known as industrial heritage tourism, is not a new phenomenon, but is becoming more and more significant as a component of the cultural offerings that an increasing number of places are presenting. Harfst et al. (2021) explore the connection between cultural heritage and sustainable development in Austria, focusing on the relationship between industrial heritage tourism and sustainable development in peripheral, old industrial areas across Europe. Through another case study, Vargas-Sánchez et al. (2007) explain that industrial heritage tourism involves visiting industrial centres to enhance tourists’ cultural experiences by learning about the economic activity of other people in the past and present. They also determine that this segment is closely related to tourists, seeking new experiences and emotions, particularly interested in the technology on display and the social and economic history of the visited places. On the other hand, two significant studies have referred to the new concept of tourism in post-industrial cities. Global capital-driven changes are transforming post-industrial and industrialising cities, shaping new urban consumption and production geographies. The development of leisure economies, including tourism and cultural industries, shapes new forms of urban tourism and leisure activity (Ashworth and Page 2011). In this regard, Murphy and Boyle (2006) examined European cities like Antwerp, Bilbao, Genoa, and Rotterdam, as well as Glasgow, Liverpool, Manchester, and Newcastle in the UK, focusing on developing their tourism products and highlighting the role of industrial heritage in urban regeneration, which was evident in the 2008 European Cultural Capital event bid process.

9.2.1 A Necessity for Industrial Heritage Regeneration

Industrial buildings are crucial heritage structures that should be protected to preserve traditional values and cultural continuity. The International Committee for the Conservation of Industrial Heritage (TICCIH) emphasises the universal value of industrial heritage over unique sites. Adapting and using these buildings help conserve energy, contributing to sustainable development and playing a significant role in the economic regeneration of decayed or declining regions (Nepravishta et al. 2017). Along with increasing unemployment in the areas that had previously been industrialised, the closure of industrial sites also undermined place meanings, collective identity, and everyday social life (Linkon and Russo 2002; Nettleingham 2019; Wray 2012). Hence, regeneration has emerged as a central concern for urban policy and planning during the past three decades in most industrialised countries (Hall 2004). Regeneration and the conservation of heritage need a variety of efforts and activities at many levels, and they often take a long time (Daher 2005).

The notion of regeneration has two aspects: the physical, which pertains to architecture and image, and the socio-cultural, which is concerned with promoting local cultural values and enhancing the standard of living for the residents of the targeted neighbourhoods (Page and Hall 2003; Pourzakarya 2022). Heritage regeneration aims to create new business centres, conserve resources, reuse former industrial areas, and clean up slums or deteriorated neighbourhoods (Uysal 2015). Culture and heritage play a crucial role in the regeneration of historic built environments, especially industrial sites. Urban regeneration and industrial heritage are often depicted in local press, visitor guides, policy documents, and tourism websites. By transforming deindustrialised areas and encouraging cultural and creative industries to reclaim former industrial spaces, post-industrial cities can attract new residents and businesses, enhance their image, and develop tourism (Caignet 2020). Post-industrial cities are utilising these methods as a crucial component of urban regeneration, aiming to enhance their economic and physical structures and transform their image (Pourzakarya and Fadaei Nezhad Bahramjerdi 2019). Consequently, urban regeneration as a means of addressing the social, environmental, and economic issues has grown in importance in these old industrial cities (Lee 2007).

In line with the current study, some researchers have examined the regeneration of industrial heritage sites. Tovar et al. (2011) explore the relationship between conflict and cooperation in industrial and community relations and how social practices contribute to the formation of common cultural heritage, whether it be workers' heritage or civil heritage. They also examine how industrial relations in the textile and shoe manufacturing sectors have shaped the cultural heritage of two declining industrial cities in Eastern Spain: Alcoy (textile) and Elda (shoes). Bystrova and Pevnaya (2021) use examples from three remarkable projects in Germany, Italy, and Argentina to identify the challenges in the regeneration of industrial heritage. They found that specialists are shifting their approach towards industrial heritage, moving

from conservation and *museification* in industrial areas to actualising industrial architecture objects by strengthening their ties with urban regeneration, primarily socio-cultural ones. This shift is largely driven by the institutional or non-institutional understanding of culture by project authors, experts, administrations, and society. Oevermann and Jones (2022) study forty years of experience in Northwest England and the Rhine region of Germany. The findings indicated that the best practice criteria for heritage conservation in textile mills are slightly different between England and Germany. For instance, the discussion in England emphasises long-term use and effective management, acknowledging the influence of key stakeholders with economic interests. The revitalisation of textile mills is a crucial task for regional mills, smaller textile towns, and areas of deprivation. Therefore, a “one size fits all” approach is not applicable to all practices; instead, they need a variety of motivations, stakeholders, and concepts (Oevermann and Jones 2022).

9.2.2 *Re-positioning Industrial Heritage in Iran*

In Iran, the term “industry” initially referred to all small-scale crafts like weaving cloth, pottery, and carpet, as well as structures like windmills and watermills that used renewable energy sources. This was before the industrial revolution in the West in the nineteenth century (Ebrahimi and Eslami 2010). According to research findings, Iran’s industrial heritage is divided into two categories: sites and buildings. Wharves, oil wells, brick furnaces, lighthouses, dams, energy production sites, transmission sites, road tunnels, and bridges represent industrial heritage sites. Industrial heritage buildings include factories, workshops, reservoirs, wheat silos, slaughter houses, airports, train stations, mills, fire stations, and customs buildings (Samadzadehyazdi et al. 2020). Industrial heritage buildings in Iran are a part of the heritage of modern architecture and serve as a testament to the industrial achievements of the Pahlavi era (1925–1978). The combination of the significance of traditional Iranian architecture with the industrial architecture of the West produced these valuable buildings. They possess a certain level of simplicity, coherence, and a direct relationship between form and user without exaggeration (Porkar et al. 2023).

During the Pahlavi era, industry advanced considerably. The construction of numerous roads, railroads, bridges, factories, and government buildings was indicative of an industrial civilisation. It should be noted that the construction of the national railway, which the Parliament had suggested to be built in 1926, was the government’s most significant action during this period (Farahbakhsh and Hanachi 2016). Due to the construction of nearly 270 factories during this time, the country achieved up to 70% industrial product self-sufficiency. The government established additional facilities in 1952 to assist the growth of the manufacturing sector. As a result, these establishments played a significant role in the development of the industry, with up to 346 factories (Bani Masoud 2009).

Due to urban development, environmental concerns, recessions, and economic shifts towards the service-based and heavy manufacturing sectors in Iran, several

factories have been closed (Esfahani and Pesaran 2009; Yousefi et al. 2013). These abandoned factories are outstanding historical heritage because of their lengthy history. Because of their rich social and cultural history, these buildings have considerable architectural and aesthetic importance in modern history (Ghabouli et al. 2023). The scale of the structures is suitable for their intended use, and the façades and decorations are a reflection of Iran's climate and culture, resulting in a striking blend of modern and traditional architectural design (Kiani 2014; Pahlevanzadeh 2013). In addition to their architectural value, these places' associated civic society and activities shed light on an important period in the history of a city or entire country. They offer evidence of socio-cultural and economic changes that attest to significant values for urban heritage (Haghighat bin and Bidarbakht 2019). Approximately 8% of these buildings and sites are renovated through the adaptive reuse approach. It is crucial to preserve them since over 24% of Iranian industrial heritage is at risk of being demolished (that is, it is either vacant, partially vacant, or partly destroyed) (Samadzadehyazdi et al. 2020). Institutions such as the Ministry of Cultural Heritage, Tourism, and Handicrafts have not made enough efforts yet to promote awareness regarding these places among Iranians, who seem to know very little about this heritage. This knowledge gap has important ramifications for assets, potentially resulting in the loss of a large portion of Iranian industrial heritage (Navratil et al. 2018; Samadzadehyazdi et al. 2020).

9.3 The Research Context and Methods

9.3.1 *Introducing the Context*

The province of Yazd, according to archaeological research, is a significant prehistoric civilisation centre, with some villages and towns dating back to 5000 years (Dehghan Pour Farashah et al. 2018). It is situated near the Silk and Spice Roads in the heart of Iran (Fig. 9.1). This demonstrates how people in the desert have survived with few resources throughout history. However, over the years, Yazd's cultural heritage has not changed significantly.

The historic city of Yazd, with an area of 195 hectares (Fig. 9.2), was listed as a World Heritage Site at the 41st session of the UNESCO World Heritage Committee, which took place in Kraków, Poland, on July 2–12, 2017. Previously, in 2011 and 2016, respectively, Yazd's Zarch Qanat and Dolat Abad Garden were also inscribed (UNESCO 2024).

The industrial revolution and its consequences became the basis for the formation of modern civil societies and created major changes in the way and process of human life in this era. One of the most fundamental changes is the process of organising the bodies of cities. Along with these developments, Yazd, which was considered part of Isfahan province until a few decades ago, has seen many changes socially, economically, and culturally. The fruitful background of Yazd in textile industries



Fig. 9.1 Location of Yazd province in Iran. *Source* UNESCO (2024)

and the presence of skilled craftsmen in it were effective factors in the establishment of modern industrial institutions in the city.

9.3.2 Research Methods

The study adopts a qualitative, interpretive research approach. Exploratory ethnographic methods were used, consisting of observational fieldwork and semi-structured interviews. In the first stage, by evaluating the conditions of textile heritage factories in Yazd alongside informal conversations with locals, we gained a deeper understanding of their potential for tourism. At present, the surrounding areas of these factories are occupied by workers who worked in the factories when they were in operation. Thus, the purpose of informal interviews was to explore their evaluation of this kind of heritage. In this phase, eight textile factories were recognised as industrial heritage sites that cover more than one hectare each. This observational fieldwork was conducted during June and July 2023.

In the second stage, semi-structured interviews were conducted to obtain insights into participants' understandings of industrial heritage tourism. We identified relevant stakeholders and experts related to the industrial heritage and tourism in Yazd. The

the researcher's reflective approach by organising codes into basic thematic portions that were interpreted from the data (Culleton 2022).

9.4 Findings

9.4.1 Respondents' Profiles

Of the 24 interviewees, 11 were female and 13 were male (Table 9.1). The youngest respondent was 29 years while the eldest was 67 at the time of interview. In terms of education, they were highly educated. A majority of respondents reported having achieved a Master's degree level, while some even possessed a doctoral degree. They worked in different fields, including tourism, conservation, education, architecture, and design.

9.4.2 Current Situation of Textile Factories in Yazd

Our interviews offer useful insights into the development of the textile industry in Yazd, as illustrated in the following excerpt:

As one of the master craftsmen in this field, master *Gholam Sanati* established the robe weaving factories in Karbala, Iraq. Since returning to Yazd, he has increased the production and quality of the products by converting old weaving looms to new ones. In 1921, with the help of *Amir Khan Kor Oghli*, he brought a textile machine weaving along with an electricity generator to Yazd from Germany. In 1931, with the help of *Hossein Ali Herati*, he established the first modern textile factory in Yazd, named *Dorakhshan*, and in this way, it became the basis for the formation of industrial institutions. (R06)

In line with the informal conversations with locals, we found that over the centuries, women, along with spinning wheels and men in traditional workshops, produced a variety of invaluable textiles. However, the local textile handicrafts in Yazd have significantly transformed with the advent of knitting machines. This led to the closure of most hand knitting workshops due to a lack of competition and adequate support since 1963. As a result, people who worked in the workshops relocated to newly established factories. One interviewee, who is a historian, reflected on the number of textile factories in Yazd:

In those times, when factories and new industries had attracted the attention of the people, the capitalists of Yazd thought of establishing and strengthening modern textile industries and creating factories, and within a few years, they succeeded in operating three large new factories. Therefore, three other big factories were added from 1949 to 1955 to the total number of factories before this date. So, we can consider the city of Yazd to be the second city in Iran in the field of textile industry. (R15)

Table 9.1 Respondents' profiles

Respondents	Gender	Age	Education	Occupation
R01	Male	45	Master	Interior designer
R02	Female	40	Bachelor	Conservation architect
R03	Female	33	Master	Conservation architect
R04	Female	33	Master	Conservation architect
R05	Male	31	Ph.D.	Consulting firm
R06	Male	29	Master	Tour guide
R07	Male	57	Master	Consulting firm
R08	Male	35	Master	University lecturer
R09	Female	32	Master	Architect
R10	Male	44	Ph.D.	University lecturer
R11	Female	56	Ph.D.	Urban planner
R12	Male	53	Master	Consulting firm
R13	Male	37	Master	Architect
R14	Female	39	Master	Architect
R15	Male	35	Master	Historian
R16	Female	54	Master	Urban engineer
R17	Female	42	Bachelor	Tour guide
R18	Male	67	Master	Conservation architect
R19	Male	56	Ph.D.	University lecturer
R20	Female	38	Master	Hotelier
R21	Female	35	Bachelor	Urban engineer
R22	Male	46	Master	Museum curator
R23	Male	57	Master	Travel agency manager
R24	Female	34	Master	Tour guide

Based on the information about the number of textile factories in Yazd provided by the historian along with the fieldwork conducted, we found the location of eight textile factories in Yazd (Table 9.2). These factories span over one hectare each, and only one of them is currently operating as a textile factory. An architect who was engaged in the documentation of one textile factory explained:

One of the reasons why factories in the city got closed was their pollution, and I think it was a good thing because they were extremely harmful. But on the other hand, many people who worked there became unemployed. In the past, these factories had social, economic, and livelihood values, however, at the moment, their economy is more prominent because it can be a money-maker, and being utilised by the tourism industry. (R09)

Apart from the large area of these factories, their distribution at the urban level could also meet the needs of people for different uses (Fig. 9.3). However, it is interesting to note that during the construction of these factories, they were located

Table 9.2 List of textile factories in Yazd

No	Factory name	Established	Current condition	Area (ha)
1	Eghbal	1931	Reused (Yazd Science and Technology Park)	3.65
2	Saadat Nasadjan	1934	Under restoration (Hotel since 2020)	10
3	Dorakhshan and Herati	1935	Reused (Innovation Factory)	4.1
4	Seyed Moahammad Agha	1948	Abandoned	8.47
5	Dastbafan	1948	Abandoned and school	1.16
6	Yazdbaf	1956	Active	14
7	Jonub	1959	Reused as seasonal exhibitions and museum	5.37
8	Afshar	1963	Abandoned	12.1

Source Authors

outside of the city border. An 80-year-old man who worked in one of these factories stated:

In my opinion, the factory was built at a time when people went to work, had a salary, and the factories were far from the city. Now the factories are located inside the city, so they should be part of the city, and their potential should be used by the people.

9.4.3 Reviving Textile Factories for Tourism Purposes

When asked about the potential of the textile factories for tourism development, most of the interviewees mentioned the income- and job-creating opportunities that might be generated. For example, an interior designer who undertook Agha's regeneration plan expressed the potential of this factory in a very clear manner:

In factories, play and entertainment spaces work very well. In Agha's factory, we considered that people could stay with their children riding bicycles, but two owners had different opinions and could not agree. Now, young people need a place to enjoy themselves, go out at night, and come back during the day, and factories can exactly meet these needs. (R01)

Some respondents mentioned the values of textile heritage sites as the primary reasons for their revitalisation. For instance, respondent (02) said:

It is completely special in the field of architectural values. Whenever I go inside the Eghbal factory or pass by it, I feel very proud. In my opinion, factories have more heritage value than other heritage buildings. One is that its scale is large, and you can use it as a big hotel because we have few hotels of this scale, and they are something different.

The architectural values have been mentioned as an effective element in attracting tourists. According to the field observation, although the spatial organisation of these

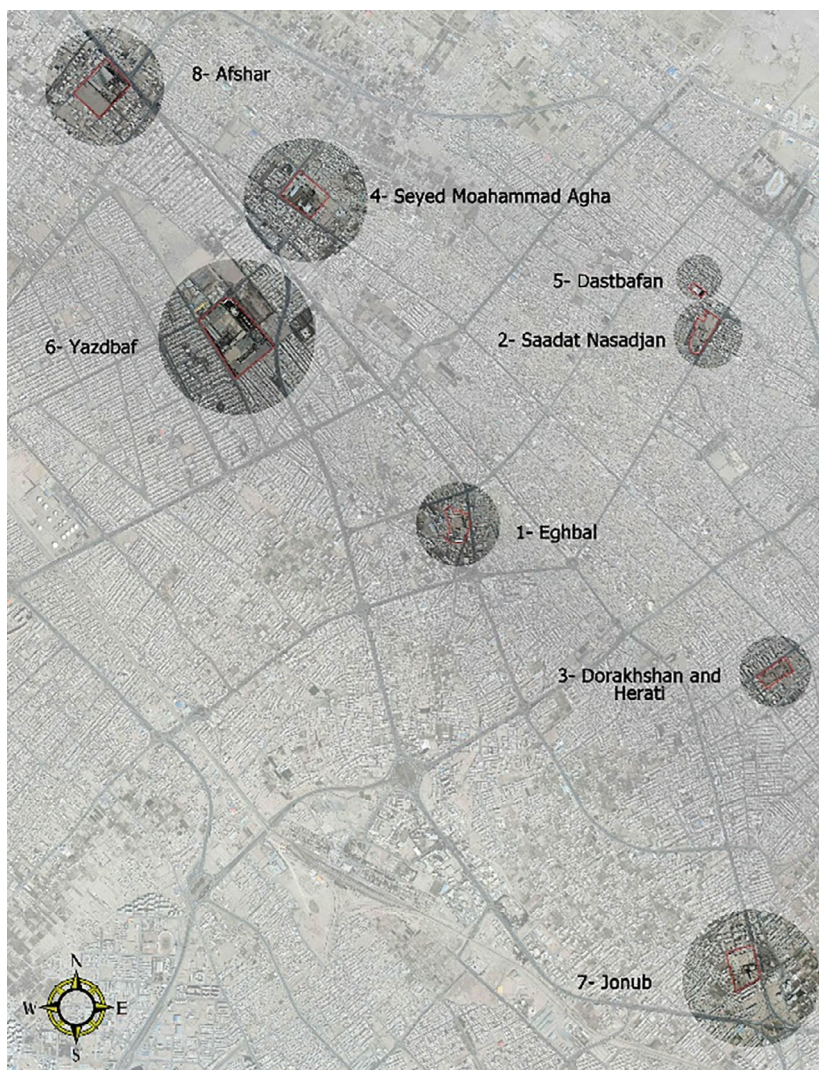


Fig. 9.3 The distribution of textile factories in Yazd. *Source* Authors

buildings was influenced by the industrial production method and modern technology, traditional Iranian architecture still had an obvious presence in their body and space (Fig. 9.4). As the owner of a long-term consulting firm with nearly 25 years of experience stated:

If the use is going to be developed, it should be one that is open to public, and people should come to see the architecture of the factory through a close contact. Maybe many people have not seen the architecture of the factory until now. The space can have multiple uses to attract different groups of people; it may be a space for shopping, an entertainment section, and a



Fig. 9.4 Exterior and interior view of textile factories. *Source* Authors

coffee shop or a restaurant. According to my experience, this use model will work very well in Yazd. (R07)

In turn, a conservation architect (R03) confirmed the possibility of adaptive reuse of textile factories:

Factories have flexible spaces for changing uses and the ability to allocate multiple uses. Due to the open form of its architecture, it can become a creative tourism center with minimal intervention in its architecture. Due to the open space of the factory, it has the potential to be used for design purposes such as cinema. Moreover, the green space of the factories has the ability to become a recreational space for Yazdi families.

In addition, the factories that are currently operating could be considered textile manufacturing heritage. In this regard, one academic who is expert in the fields of architecture and heritage tourism argued:

Not only the old factories, but also the new factories that are alive and working now could be considered textile heritage because they were created in the past and continue now. In my opinion, new factories can be considered a part of industrial heritage tourism and a part of the textile heritage process. (R10)

Another consulting firm, whose manager had experience in the field of adaptive reuse of heritage buildings, stated:

In addition to the architecture of the factories, the inside machinery elements can also be attractive to tourists. One of the halls of the factory can become a museum space, which has

machines that were one time actively working. In the field of industrial heritage, it is very important that the factory machines are converted into a factory museum. (R12)

Despite the existence of textile factories in Yazd as the national representatives of Iranian industrial heritage, especially abandoned sites, some dilemmas were raised by the interviewees. A 46-year-old museum curator explained to us the paucity of attention to the industrial heritage in Yazd at the local level:

We have no such thing as industrial heritage tourism. Because there are so many other historical buildings in Yazd, less attention has been paid to changing the use of industrial heritage factories. Factories have not been considered in the master plan. A space of several thousand meters with a series of buildings that can be used for many purposes. (R22)

In this regard, a travel agency CEO (R23), who also owns a private museum, confessed:

No, it has not been used, and even a tour has not been defined for it. Except for the Jonub factory, which has become a museum, the rest of the factories have not used their potential for tourism infrastructure. The Saadat Nasadjan Factory is going to be a hotel and entertainment centre. Industrial tourism is not specific to heritage tourism and can involve existing factories as well. The formation of contemporary architecture occurs in some factories in Yazd.

Furthermore, the current economic crises have added fuel to the fire and turned down the entire tourism industry in Iran. In this context, a manager of a hotel complained that:

Political and economic crises and foresight are also very important. Because the condition is not open for tourists to enter, it is not possible to change the use of all the factories. If these factories were in Turkey, all the factories would be rehabilitated. Considering that Yazd is an industrial city, there are many factories. Now factories have a lot of room for attention and reflection of ideas. (R20)

Despite the positive benefits that tourism development brings, it should be noted that the adaptive reuse of industrial heritage sites from production centres to places of consumption will undoubtedly depend on other factors in Iran.

9.5 Discussion and Conclusion

This study has shown divergent interpretations of heritage with regard to the regeneration of industrial heritage for tourism purposes in Yazd, Iran. It is in line with many previous studies arguing that industrial heritage has the capacity to develop tourism (Caffyn and Lutz 1999; Craig-Smith and Fagence 1995; Hospers 2002; Vargas-Sánchez 2015; Xie 2006, 2015). Yet our research indicated that, in addition to the current significance of industrial heritage for its society, the previous values of active factories and their image play the most important role in the process of regeneration for tourism purposes. It also revealed that the factories which were once an economic centre in the city should be highlighted as an important element in tourism development strategies. Accordingly, income and job-creating opportunities should

be considered in the adaptive reuse of these sites in relation to tourism and recreational uses. These findings are in tandem with the discussions of Pourzakarya and Fadaei Nezhad Bahramjerdi (2019) and Lee (2007) who noted that the old industrial sites are utilising regeneration methods to enhance their economic structures and rebirth the tourism industry in post-industrial cities.

Our findings showed that the architectural values of these buildings may be attractive to tourists. Despite their modern industrial production methods influencing their spatial organisation, traditional Iranian architecture remains evident in their body and space. Apart from the aesthetic aspects which give a sense of pride to visitors, due to the scale of these factories compared to other heritage buildings and the deficiency of hotels at the national level in Iran, they pave the way for the allocation of tourism facilities and accommodations. In this sense, Görmär et al. (2019) noted that industrial heritage is not only about its impact on tourism but it also plays a crucial role in identity formation, place attachment, regional awareness, and image creation. Likewise, Timothy (2016) pointed out that industrial heritage preservation and promotion can positively impact local, regional, and national culture and history, enhancing an area's tourist appeal and indirectly boosting business growth and investment prospects.

In Yazd, the potential of industrial heritage has not been appropriately utilised for tourism purposes because of the presence of various other heritage buildings. Hence, the inscription of *Industrial Heritage of Textiles in the Central Plateau of Iran* as a UNESCO World Heritage Site, which is now on the "Tentative Lists", could bring a strong socio-economic transformation at both regional and local levels. Of the nominations, the textile manufacturing heritage of Yazd is the leader. The UNESCO World Heritage Site designation seems to be a distinctive and marketable value that could have a competitive edge in the tourism industry, attracting more tourists (Lak et al. 2020). In addition, the findings highlighted the need for underlining tourism and multiple uses as key factors in involving different target groups in visiting these textile heritage sites. Interviewees believed that the adaptive reuse of these sites could contribute to resolving the lack of recreational spaces in Yazd. This is consistent with the results of Chen and Chen (2010) and Timothy (2011) that suggest that heritage tourism enhances cultural assets, preserves a region's legacy, revitalises old cities, and promotes community and solidarity while also fostering economic growth in unique ways compared to other forms of tourism.

Another line of investigation was the possibility to convert the textile factories into creative tourism centres with the least intervention in their architecture. Furthermore, the greenery of these sites has a great capacity to increase citizen participation in green spaces. Similar studies, such as Murphy and Boyle (2006), highlighted European cities' efforts to promote tourism through industrial heritage regeneration. In Yazd, the textile manufacturing heritage could be attributed to the current active factories rather than only the abandoned or reused ones. Workplace spaces such as machines, dust, and water towers have great attraction in terms of their touristification, which is of substantial museification interest. These findings should be taken into account by local authorities, who should organise tours for visitors and tour guides to familiarise them with the concept of industrial heritage tourism.

As previous studies illustrated, industrial relations and the economic activity of other people should be particularly interesting for tourists seeking to learn about the technology on display and the history of the places (Tovar et al. 2011; Vargas-Sánchez et al. 2007). There are serious challenges facing Yazd, such as the lack of awareness of the industrial heritage due to the variety of other heritage buildings and the lack of consideration of textile heritage sites in development planning. These resonate with the concerns of the stakeholders and experts interviewed, calling on planning authorities to protect the heritage while at the same time developing tourism in the city. Specialists are shifting their approach to industrial heritage, focusing on actualising industrial heritage sites and strengthening ties with urban regeneration, driven by institutional or non-institutional understanding of heritage by project authors, experts, administrations, and society (Bystrova and Pevnaya 2021). Figure 9.5 shows a model for developing industrial heritage tourism based on the textile factories in Yazd. Although tourism growth has numerous benefits, cities that choose to develop industrial heritage tourism will likely see various cultural and social changes as a result of the revitalisation of textile manufacturing sites from production centres to places of consumption. Conflicts and opposition appear when different investors pursue dissimilar goals and policies by means of tourism in order to achieve economic development. Therefore, in the development of industrial heritage, the establishment of a comprehensive tourism strategy or programme which involves local communities seems vital.

The findings of this study also provide practical and theoretical implications. Firstly, it contributes to generating empirically grounded knowledge on the development of urban industrial heritage in Iran as a developing country through conceptualising a new model. According to this model, the importance of heritage value is the primary factor in developing tourism and promoting industrial heritage, which leads to the feasibility of sites. Secondly, it unveils the potential of industrial heritage for tourism in Yazd, a leading Iranian city characterised by textile manufacturing heritage. Thirdly, it avoids the presentation of exclusively quantitative data that often fails to shed light on the underlying aspects of urban industrial heritage that underlines industrial heritage tourism. Yet this study has limitations that must be acknowledged. Since its concentration was on the textile heritage sites of Yazd, future research may identify and examine other industrial heritage sites and their tourism

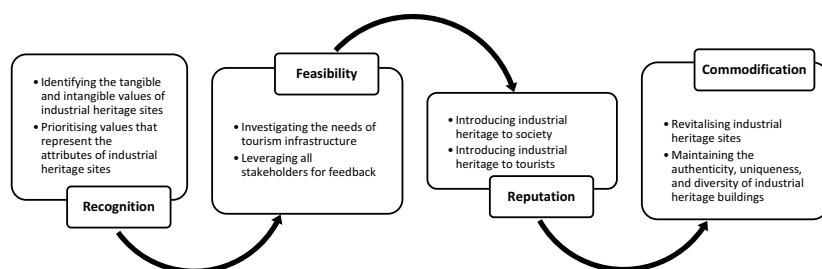


Fig. 9.5 A model for industrial heritage tourism development in Yazd. *Source* Authors

potential in Iran. This study focused on the views of conservation experts and tourism stakeholders, but not the viewpoints of tourists and local people. Thus, future studies could examine the opinions of these people regarding industrial heritage and tourism development as well as with respect to the impacts of community dynamics on this process. The perspectives of local and national governments on critical issues such as funding also deserve greater attention. Such research may help provide a more comprehensive understanding of the benefits and challenges of industrial heritage tourism development in Yazd and Iran as a whole.

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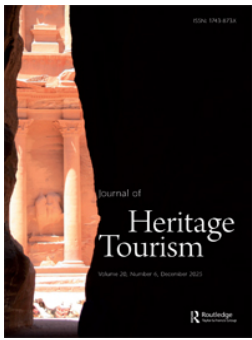
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Unraveling the industrial heritage values: a stakeholder-driven heritage tourism model for Łódź, Poland

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ABSTRACT

Łódź, Poland, possesses a notable industrial heritage, evidenced by the operation of nearly 400 textile factories by the early twentieth century. In the 2000s, some factories were preserved and repurposed for alternative uses. However, limited empirical research has been conducted to investigate stakeholders' perceptions regarding the significance of this heritage and its impact on heritage tourism. This study explores the values associated with Łódź's industrial heritage through in-depth interviews with 40 stakeholders and participant observation during heritage tours from a critical heritage studies perspective. The findings demonstrate a complex relationship of personal, social, and cultural values that shape the significance of Łódź's industrial past. Furthermore, this study assesses the integration of these sites into the city's tourism landscape, identifying gaps and opportunities for further development. Consequently, the paper proposes a stakeholder-driven heritage tourism model for Łódź to enhance engagement with diverse community identities within the tourism experience. This model not only seeks to preserve the city's industrial heritage but also to promote sustainable tourism practices that resonate with both locals and visitors. This research contributes to broader discussions on how industrial cities like Łódź can leverage their industrial heritage assets in an inclusive, equitable, and culturally enriching manner.

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Introduction

Industrial heritage is a significant aspect of cultural heritage, often described as landscapes of nostalgia (Cheng & Bowring, 2024; Zwegers, 2022). This term reflects the significant role these sites played during the industrial era, providing employment and driving economic growth (Oevermann et al., 2016). It encompasses both tangible elements, such as sites, buildings, architecture, machinery, and equipment (ICOMOS-TICCIH, 2011; Xie, 2006), and intangible aspects, including historical, social, cultural, technical, commercial, and aesthetic legacies (Douet, 2016). These remnants of industrialization challenge traditional heritage narratives, highlighting the socio-economic and cultural transformations associated with industrial and post-industrial periods (Dehghan Pour Farashah, 2023). Industrial heritage, particularly in relation to its role in tourism, has predominantly emphasized narratives that prioritize economic development and aesthetic appeal (Xie, 2006). This focus often overlooks its significant contributions to identity formation, place attachment, and image creation (Görmär et al., 2019). In Łódź, the selective preservation and

revitalization of textile heritage sites that align with economic benefits is prominent, while certain lesser-known or marginalized sites are overlooked (Boryczka, 2008). Furthermore, decision-making models in heritage tourism have generally adopted a top-down, professional-led approach, primarily controlled by policymakers, with limited involvement from stakeholders and local communities (Timothy & Boyd, 2003; Wijayanto et al., 2023). This exclusionary approach not only jeopardizes the inclusion of diverse viewpoints but also underestimates the potential of heritage to foster social cohesion and cultural identity (Harrison, 2013).

Despite the importance of industrial heritage values in developing a stakeholder-driven heritage tourism model, this concept has received surprisingly limited attention and has not been extensively researched in the heritage tourism literature (Navratil et al., 2018). Previous studies have concentrated on the challenges associated with the transformation of industrial heritage sites into tourism attractions (Alonso et al., 2010), the role of industrial heritage in tourism marketing (Berkenbosch et al., 2022), and the conservation of industrial heritage through a tourism-focused approach (Dehghan Pour Farashah et al., 2019). Nonetheless, heritage values within a stakeholder-driven heritage tourism model, particularly those related to industrial heritage, have yet to be thoroughly examined. In the context of Poland, Szromek and Butler (2024) examined the restructuring of the Industrial Monuments Route in Upper Silesia, emphasizing the preservation of the region's industrial heritage. A study conducted in Łódź examined how city guides are innovatively using post-industrial spaces. The analysis centered on the motivational resources available to respondents, the conditions they face, the barriers to action, and their specific needs (Mokras-Grabowska & Mroczek-Żulicka, 2024). It would be beneficial to examine stakeholders' perspectives regarding the value of industrial heritage in the context of urban regeneration and tourism development.

In this perspective, the city of Łódź, represents a compelling case study. By the 19th and early 20th centuries, this flourishing textile manufacturing center earned the designation 'Manchester of Poland', reflecting the presence of 264 textile enterprises operating 525,000 spindles and 11,000 looms (Walczak, 2015). Łódź's textile factories, workers' housing, cultural activities, social gathering spaces, and familial structures played a central role in shaping the city's identity (Bentz, 2021). However, the political and economic transition of 1989 eliminated the protected Soviet market, while the emergence of cheaper textile production in Asia, coupled with outdated infrastructure, contributed to the collapse of the textile industry. This sequence of events resulted in a landscape marked by abandoned industrial sites and socio-economic decline (Walczak, 2015). As a result of these transformations, Łódź has repurposed its textile heritage sites to serve as catalysts for urban regeneration and tourism development. The former textile factories, particularly the complex associated with Izrael Poznanski, which now houses Manufaktura, a multifunctional commercial and cultural center, exemplify this transformation (Wojnarowska, 2013). Nevertheless, urban regeneration and tourism development are not without critique, as they raise significant questions regarding the interpretation and commodification of industrial heritage, as well as the inclusivity of local communities in shaping heritage narratives.

Therefore, by embracing the perspective of critical heritage studies (CHS), it is essential to examine the power relations, memory politics, and valuation processes that shape the heritage tourism associated with industrial heritage in Łódź. This research is positioned within the framework of CHS, which encompasses discussions regarding the production of legacy, memory, and identity in post-industrial cities (Harrison, 2013; Smith, 2006). Moreover, Social Identity Theory (SIT) is employed in this research. SIT is a social psychological theory that aims to elucidate group processes and intergroup relations (Tajfel & Turner, 2000). This theory facilitates an exploration of how various stakeholder groups perceive Łódź's industrial heritage. It investigates the extent to which this heritage is regarded as a symbol of group identity, pride, or belonging. The study further emphasizes the significance of inclusivity, social justice, and community engagement in developing sustainable tourism practices (Logan & Reeves, 2008).

Accordingly, this study is novel for three reasons. First, it contributes to urban regeneration by positioning industrial heritage as a cultural and economic asset, cultivating a sense of place and

belonging among inhabitants. Second, by foregrounding the voices of local communities and former industrial workers, it challenges hegemonic narratives in industrial heritage tourism. Finally, it proposes a stakeholder-driven model that acknowledges the plurality of voices and values inherent in textile manufacturing heritage, ensuring balanced and sustainable heritage tourism strategies. Therefore, this study aims to rigorously examine the contested values of industrial heritage in Łódź and develop a stakeholder-driven tourism model that challenges prevailing narratives and integrates diverse viewpoints. Additionally, it aims to address the following questions:

- (1) How do stakeholders perceive the value of Łódź's textile manufacturing heritage?
- (2) How can stakeholders' perspectives be leveraged in integrating industrial heritage sites into Łódź's tourism landscape?
- (3) What gaps and opportunities exist in integrating industrial heritage sites into Łódź's tourism landscape?

From a practical perspective, the findings provide significant insights for heritage managers, policymakers, and community leaders in Łódź and other post-industrial cities. By developing a stakeholder-driven tourism model, this research seeks to enhance Łódź's cultural identity, foster a sense of place and belonging among residents, and promote the city's industrial heritage as a dynamic and inclusive resource for urban regeneration.

Literature review

Industrial heritage: memory, identity, and value

Industrial heritage reflects the traces of an industrial past that have contributed to a place's economic development and represents a distinctive category of heritage that encompasses a region's industrial legacy (Kaya, 2020; Szromek et al., 2021). Industrial heritage is arguably an uncommon cultural discourse that advocates the preservation of redundant industrial sites. It differs from traditional heritage values that look attractive to local communities (Cossons, 2016). Industrial heritage is not widely appealing due to its association with working-class life and working-class heritage. The authorized heritage discourse (AHD) definition, 'the great and the good, the beautiful and the old' (p. 2), both under-represents industrial heritage and reinforces misinterpretation. Aesthetic value has been considered in terms of built heritage deemed worthy of adoration by cultural elites (Smith et al., 2011), whereas, in relative terms, industrial heritage is seen as misunderstood (Cossons, 2016) and has received less attention (Xie, 2015). In this sense, industrial and working-class heritage represent complex, often underrepresented cultural aspects beyond physical sites and artifacts. Smith et al. (2011) highlight that industrial heritage sites, while recognized through programs like UNESCO's World Heritage List, often focus more on technological and architectural elements rather than the social relations, labor processes, and class struggles that define these spaces. Liu et al. (2025) evaluated the value of silk industrial heritage, specifying artistic and technological value, while identifying economic and cultural value as relatively hidden attributes. However, the pursuit of economic prosperity undermines the value of industrial heritage (Chen & Judd, 2021). Industrial heritage is often a site of competing narratives and interpretations. It represents industrial communities' collective memory and identity and embodies working-class histories, labor movements, and community experiences (Berger & High, 2019).

Industrial heritage sites serve as complex spaces where memory, identity, and values intersect meaningfully, challenging traditional heritage frameworks. These sites are not simply repositories of the past, but active spaces where visitors engage in critical memory work and identity formation (Smith, 2006). The concept of memory is central to how industrial heritage operates. Rather than passive nostalgia, these sites facilitate active processes of remembering and commemoration that connect personal and collective experiences. These sites help preserve collective

memory while acknowledging both hardships and achievements (Smith & Campbell, 2017). Visitors use these spaces as cultural tools to remember where memories are triggered, validated, and affirmed, while contextualizing them within broader narratives about working-class experience (Smith, 2006).

Identity formation emerges as another crucial function of industrial heritage sites. While family memories often serve as an entry point, these personal narratives become interwoven with collective class identities and experiences. This process involves ‘links of “Kinship and comradeship with the past” that are ‘forged through the emotions engendered both by the sense of place and the memories it provokes and affirms’ (Smith, 2006, p. 228). The identities and references to industrial heritage and working culture serve as evidence of the retained significance of these industries for social structures, even after the absence of these industries themselves. Therefore, these industries’ value can be verified by examining how they have been safeguarded in collective memory (Garcia, 2018). This value is inherent to the site, encompassing its building, elements, machinery, and location within the industrial landscape. Buildings, areas, and infrastructures are tangible reminders of an industrial history while embodying obsolete uses and reference points within the contemporary urban landscape and region (Oevermann et al., 2016). The value of certain industries is reflected in written documentation and in the intangible records imprinted in human memories, traditions, and customs. Industrial heritage can offer a sense of place within a community or serve as a distinctive characteristic of a place (Douet, 2016). The deficiencies in planning, however, have precipitated uncertainty in the heritage policy-making and place-making processes, leading to a devaluation of industrial heritage (Chen, 2023).

However, there is value in retaining symbolic material remains from the recent industrial past (Skrede & Andersen, 2021). Sun and Chen (2023) assert that the distinctive value of the industrial area lies in its historical and contemporary roles as a cluster for the furniture and building materials industries. Many reactions that evoke the industrial past stem from the perception that this collective memory and its associated identity are under threat (Garcia, 2018). Retired workers, unions, and communities whose lives and industrial livelihoods have become heritage are now facing the challenge of remembering industrial heritage, as these sites evoke complex emotional connections involving loss and pride (Smith & Campbell, 2017). Industrial heritage encompasses more than just aspects of identity, memory, traditions, and labor movements; it also encompasses the cities, sites, and transformations. Beyond simply being a form of cultural heritage, industrial heritage has significant implications for planning. The recognition and management of industrial heritage sites, whether through preservation, repurposing, or selective demolition, are deeply intertwined with the conflicts that arise in planning practices (Oevermann & Mieg, 2014b). Therefore, the recognition, management, utilization, and reuse of industrial heritage are intricately intertwined with initiatives in urban and regional planning, as well as the conflicts that arise in remembering heritage (Douet, 2016; Oevermann & Mieg, 2014a). Smith (2006) posits that the built environments associated with industrial history primarily exhibit a mundane character characterized by intricate, extensive, polluted, or otherwise devastated landscapes. The value of industrial heritage is now understood in a broader context, influenced by a range of factors, such as urban regeneration initiatives, rather than being assessed solely through the standards and norms established in normative heritage discourses and their various adjuncts (Lu et al., 2020). Adapting industrial heritage buildings as creative hubs through a holistic approach enhances the appreciation and value of industrial heritage (Babutsalı Alpler et al., 2020).

Industrial heritage tourism and urban regeneration

As a distinctive form of heritage tourism, industrial heritage tourism is a significant economic and social phenomenon, focusing on sites and landscapes that represent the historical evolution of manufacturing and industrial processes (Xie, 2015). It contributes to eliminating prejudices against abandoned industrial zones, providing employment, opening local service areas, and enhancing

regional identity by making them functional. In contemporary society, industrial heritage tourism remains a spatial symbol of emotional and collective memory (Garaca et al., 2014). The theoretical foundations of industrial heritage tourism are rooted in both heritage studies and tourism management, emphasizing the intersection between the preservation and commodification of the industrial past (Otgaar et al., 2016). Industrial heritage tourism encompasses the physical remnants of industrial activity and the social and cultural narratives embedded within these spaces. Successful integration of industrial heritage into tourism development requires a comprehensive approach that maintains authenticity and creates meaningful experiences for visitors by balancing conservation and tourism goals, considering both tangible and intangible heritage values with effective community involvement (Berkenbosch et al., 2022; Firth, 2011; Syafrini et al., 2022). Industrial heritage is often used to describe and attribute value to physical artifacts or socio-cultural phenomena associated with historical industries (Gleave, 2025). This includes the physical structures, stories, skills, and traditions associated with industrial activities. Indeed, industrial heritage tourism can serve as a source of profitable differentiation, enabling destinations to harness specific historical and contemporary industrial assets to create distinctive and memorable visitor experiences. These industrial resources constitute an integral element of a destination's cultural identity, reflecting the locality's past, present, and potential future character (Vargas-Sánchez, 2015). This perspective has been further developed by Cossons (2016), who argues that industrial heritage sites serve as repositories of collective memory and technological innovation.

Undoubtedly, the redevelopment of the disused industrial building contributes to urban regeneration (Dell'Anna, 2022). The revitalization of industrial heritage fabric has the potential to catalyze sustainable urban regeneration when executed through an integrated development model that encompasses the physical, economic, social, and cultural dimensions in alignment with the existing policy and institutional framework (Sun & Chen, 2023). Industrial heritage has the potential to create a high value-added cultural economy, particularly through avenues such as industrial heritage tourism, which plays a significant role in urban regeneration efforts in economically declining cities (Han & Zhang, 2025). Meanwhile, the cultural debate has heightened awareness regarding the issue and underscored the strategic role that decommissioned industrial areas can fulfill in addressing society's evolving needs (Adelaja et al., 2010; Dell'Ovo et al., 2021). Moreover, feasibility studies should be conducted for adaptable urban use to improve living standards and achieve a balance between quality of life and urban development (Dehghan Pour Farashah, 2024). The conversion of industrial heritage sites into innovative spaces has the potential to enhance cultural events, recreational activities, and tourism attractions (Ghabouli et al., 2023; Lee et al., 2022; Navratil et al., 2018). The mode of industrial heritage regeneration encompasses a variety of approaches, including the transformation of industrial heritage into museums, tourist sites, parks, cultural and creative industrial enclaves, and other uses (Mo et al., 2022).

Industrial heritage tourism represents a complex intersection of historic preservation, economic development, and community identity. Xie et al. (2020) describe it as a broad 'nostalgia industry' that showcases the passage of time through multilayers of cultural activities, bringing 'industrial romance' to factories and creating new leisure and recreational spaces. However, industrial heritage tourism faces unique challenges that distinguish it from other forms of heritage tourism. While industrial heritage tourism can provide economic opportunities and preserve historical identity, local residents often express concerns about privacy invasion, disruption of daily life, and loss of authenticity due to the anthropogenic pressure (Han & Zhang, 2022). Therefore, the discourse surrounding industrial heritage is frequently articulated through the lens of various values and interests within the broader context of urban development (Lu et al., 2020).

The development of industrial heritage tourism aims to create comprehensive tourist experiences while maintaining the historical identity and the spirit of the past. This dual objective contains both opportunities and challenges. On the positive side, tourism can act as the impetus for urban cultural heritage conservation by using urban heritage as cultural capital to maintain sites on a self-funding basis (Firth, 2011). Therefore, industrial heritage tourism transforms former industrial sites

into visitor attractions while preserving historical structures and cultural values (Syafri et al., 2022) and can enhance residents' identity and encourage localization in an increasingly globalized world (Hospers, 2002; Xie, 2006; Xie et al., 2020). It can also serve as a public relations tool to counter prejudice against declining industrial areas (Hospers, 2002; Xie et al., 2020). Industrial heritage tourism represents a type of 'new tourism' focused on 'sustained value creation' (Xie et al., 2020) that aims to benefit multiple stakeholders: communities, environments, businesses, and tourists. However, success depends heavily on the ability to represent a simplified narrative of history that makes tourism viable while maintaining authenticity. This balance is particularly crucial as industrial heritage sites must overcome what (Xie et al., 2020) term 'terra nullius' – a perception among local residents that can be detrimental to tourism development. Therefore, public perception is important for the success of industrial heritage tourism projects.

The stakeholder perspective on heritage tourism

Heritage discourse has experienced a conceptual evolution from a predominantly retrospective orientation to a more dynamic understanding of the relationship between past and future temporalities. This theoretical shift suggests that heritage should not be confined to the mere preservation of historical artifacts but should be understood as an active, contemporary process that reflects present values and aspirations for future generations (Harrison, 2013). Meanwhile, the industrial heritage is not only required to demonstrate its historical and cultural value but is also expected to provide public benefits, particularly economic gains (Li, 2017). Dragin et al. (2023) assert that the tourism sector must honor the values of industrial heritage recognized by all members of the local community. Significantly, Harrison (2013) emphasizes the importance of inclusive participation in this process, advocating for the engagement of multiple stakeholders, including governmental bodies, non-governmental organizations (NGOs), local communities, and individual actors.

There has been an increase in recognition of community participation in heritage tourism planning over recent decades. Despite this growing consensus, top-down, non-participatory approaches still prevail (Timothy & Boyd, 2003; Wijayanto et al., 2023), in which decisions are made exclusively by traditional 'power-holders' such as state-elected and appointed officials (Dragouni et al., 2018; van Knippenberg et al., 2022). The shift toward more participatory approaches stems from the recognition that heritage tourism development requires balancing growth with social equity and environmental quality – both ecological and cultural (Dragouni et al., 2018).

The application of stakeholder theory in heritage tourism provides a framework for understanding the complex relationships between various actors involved in heritage management and tourism development (Lin, 2021). Successful heritage tourism development requires the active participation and collaboration of multiple stakeholders, including local communities, heritage professionals, tourism operators, and government agencies (Liu et al., 2024). Clear communication channels between all parties, recognition of mutual benefits, and equal opportunities for participation in decision-making are the three critical elements for effective stakeholder collaboration in heritage tourism (Aas et al., 2005; Vargas-Sánchez, 2015). Xie (2015) emphasizes that successful industrial heritage management requires understanding the different motivations and interests of heritage professionals focused on preservation and authenticity, local communities concerned with identity and economic benefits, tourism operators prioritizing visitor experience and commercial viability, and government stakeholders balancing development with conservation. Smith's (2006) concept of AHD, which critically examines how heritage values are constructed and legitimized by different stakeholders, has been particularly relevant in understanding how industrial heritage values are negotiated and contested. Fredheim and Khalaf (2016) propose a comprehensive framework for heritage value assessment that includes intrinsic, instrumental, and institutional values. Their work highlights the importance of considering multiple value perspectives when evaluating heritage significance. The characteristics of industrial heritage assets and the value ascribed to them by various communities can collaboratively contribute to the successful regeneration and development of tourism (Lu et al., 2020).

Heritage tourism presents unique challenges in balancing economic development with sociocultural and heritage preservation concerns. Despite widespread agreement on the importance of community involvement, heritage tourism planning continues to be dominated by hierarchical, non-participatory decision-making processes, in which authority remains concentrated in conventional power structures, particularly government officials and appointees (Dragouni et al., 2018). Xie and Shi (2018) highlight the significance of co-creation in the development of industrial heritage tourism, where residents view themselves as essential stakeholders rather than passive observers. Co-creation in tourism is not a fixed entity but rather a flexible notion that must be continuously negotiated to achieve common priorities.

Material and methods

The study context

Łódź is the third-most populous area in Poland and the fourth-largest area in Łódź (Figure 1). The city of Łódź is situated in the center of the Łódź region and the country (Brzezińska et al., 2016). Despite receiving a city charter in the fifteenth century, Łódź did not grow significantly until the nineteenth century, when the structures in the city's center began to take shape (Bochenek & Klemm, 2020). Due to the influx of immigrants, particularly Germans and Jews, the textile industry and population saw tremendous expansion during the Second Industrial Revolution (starting in 1870). In addition, Łódź experienced a massive influx of new citizens in response to the rapid growth of the textile industry (Lamprecht, 2020). The city of Łódź is proud of its long history as a textile production center. Industrialists and commercial tycoons, especially Karl Wilhelm Scheibler and Izrael Poznaski, funded the construction of public buildings, including schools, hospitals,

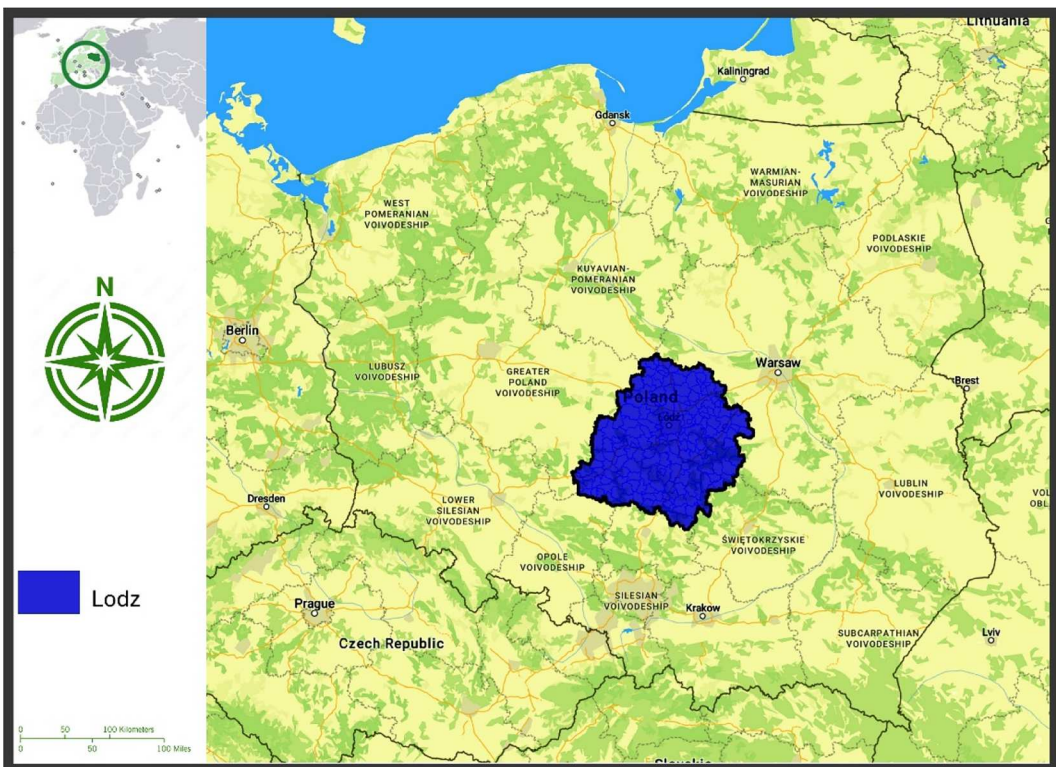


Figure 1. Location of Łódź in Poland. Source: Author(s).

orphanages, and houses of worship. The factories have been conserved and put to other purposes even though they are no longer operating due to globalization (Bentz, 2021). Large-scale adaptive reuse was essential to Łódź's urban regeneration. Adaptive reuse significantly impacts the revitalization and regeneration of deteriorated regions by enabling a variety of potential transformations that satisfy modern needs. These procedures are especially crucial in post-industrial cities like Łódź, where the rapid loss of traditional industries and economic changes have left large portions of the city devoid of their original function and subject to rapid deterioration (Sowińska-Heim, 2020).

Data collection and sample

This research involved two years of fieldwork in Łódź, between 2022 and 2024. Accordingly, this paper employs a case study method to examine the industrial heritage value and various factors involved in developing a stakeholder-driven tourism model for heritage tourism in Łódź. In this context, the study used ethnographic research, complemented by fieldwork and the observational analysis of the city's industrial heritage, which encompassed revitalized textile manufacturing sites and guided tours of Łódź. To examine the position of textile heritage sites within the context of tours presented by tour guides, the authors participated in several tours as tourists over the course of two years. According to Figure 2, 20 textile factories in Łódź occupy areas exceeding 1 hectare. Most tourism activities are located near these sites.

These tours were primarily conducted in English; however, some were offered in Polish. Table 1 and Figure 2 provide a detailed overview of these tours during this period. The tours were selected based on the following criteria: (i) the tours focused on the heritage of Łódź, (ii) the tours were



Figure 2. Location of textile factories and walking tours. Source: Author(s).

Table 1. Overview of observed tours by author(s). Source: Author(s).

Tour. No	Year	Month	Tour information
1	2022	September	Light Move Festival
2	2022	October	City Tour – Industrial heritage sites
3	2022	November	City Tour – Textile manufacturing heritage
4	2023	March	Łódź through history
5	2023	May	Post-industrial landscape
6	2023	September	Light Move Festival
7	2023	November	City Tour – Geyer’s factory (Museum of Textiles)
8	2024	May	City Tour – Piotrkowska Street
9	2024	June	Łódź Textile Barons: a walk through Scheibler’s Empire

conducted as walking tours, (iii) the tours were community-led or grassroots initiatives, and (iv) the tours included both underrepresented sites and iconic landmarks. These criteria facilitated a comprehensive selection of tours that reflect the diversity of industrial heritage offerings in Łódź. The fieldwork and observational analysis conducted during the tours were documented using photography and note-taking as primary methods. Subsequently, the notes were expanded and detailed after each tour for data analysis, with reference to related photographs. The observations encompass a comprehensive examination of the conditions of industrial heritage sites and their contexts, as well as the interactions between users and these heritage spaces. The narratives and values articulated by the tour guides were the most significant aspect of the observation, as they represented the textile manufacturing heritage in Łódź. Moreover, the utilization of textile factories for tourism purposes and the engagement of local communities were observed, and some follow-up questions were posed to the tour guide. Regarding the relationship between two distinct data sets (observations and semi-structured interviews), identifying contradictions among statements highlights issues of falsification. Furthermore, observations provide supplementary insights into the findings derived from semi-structured interviews.

As part of the research, semi-structured interviews were conducted with stakeholders using snowball sampling. The interviews incorporated a series of open-ended questions informed by existing literature and aligned with the research questions and objectives of the study (Table 2).

The face-to-face interviews were conducted between November 2023 and March 2024. The stakeholders were invited to interviews via email, and the interview questions were sent to them in advance (Table 3). Subsequently, meetings were scheduled. The interviews with participants were held either in their offices or in a nearby café. Interviews were recorded with participants’ consent and subsequently transcribed. On average, each interview lasted approximately 45 minutes. The first participant completed an extensive interview, after which data gathering persisted until saturation was reached (Ghaderi et al., 2022). After completing 34 interviews, it was determined that the following respondents essentially restated the perspectives articulated by the initial participants (Patten & Newhart, 2023). Six further interviews were undertaken, raising the total number of respondents to 40 to ensure thorough data collection and reduce the possibility of any remaining unknown material.

Data analysis

To analyze the results of both interviews and observations, content analysis and thematic analysis were employed. The systematic process of coding, analyzing meanings, and providing descriptions and interpretations constitutes a fundamental characteristic of these techniques

Table 2. Interview guidelines. Source: Author(s).

What are the values of industrial heritage, particularly in textile manufacturing heritage sites?
How should the utilization of textile factories be organized to optimize benefits for local communities?
What is the role of textile factories in urban regeneration in conjunction with tourism development, and who are the stakeholders involved in this process?
Discuss the potential of tourism as a focus for the city authorities.

Table 3. Characteristics of participants. Source: Author(s).

Respondents	Gender	Age	Educational level	Occupation
R01	Male	45	Master of architecture and town planning	Urban planner
R02	Male	45	Master of History	CEO watch tourism organization
R03	Female	29	Master of Architecture	City architect's bureau
R04	Female	26	Master of History	Central Museum of Textile
R05	Male	54	Ph.D. in history	Central Museum of Textile
R06	Male	40	Ph.D. in urban revitalization	University Lecturer
R07	Male	50	Master of architecture and urban planning	Architect and urban planner/consulting firm
R08	Male	41	Master of ethnology	Tour guide
R09	Male	49	Master of History	Customer experience manager
R10	Male	39	Master of architecture and urban planning	Architect/consulting firm
R11	Female	42	Master of history and psychology	Teacher/tour guide
R12	Male	38	Ph.D. in history	University Lecturer
R13	Male	50	Master of Film Studies	Director of Cultural Center
R14	Female	43	Master of Marketing	Expert in heritage marketing
R15	Male	48	Ph.D. in economics	University lecturer
R16	Female	37	Master of Culture Studies	Freelancer
R17	Male	52	Ph.D. in city and regional management	University lecturer
R18	Male	50	Master of Culture Studies	Tour guide
R19	Male	45	Ph.D. in economics	University lecturer
R20	Male	43	Master of Tourism Geography	University lecturer /director of tour and education company
R21	Male	41	Master of Laws and Administration	Consulting expert
R22	Male	34	Ph.D. in urban and regional socio-economic planning	University lecturer
R23	Male	34	Ph.D. in Architecture and Urban Planning	University lecturer/architect
R24	Female	39	Ph.D. in Architecture and Urban Planning	Freelancer designer
R25	Male	42	Ph.D. in Architecture and Urban Planning	University lecturer
R26	Male	40	Master of Architecture and Urban Planning	Architect/consulting firm
R27	Female	60	Master of Monument Protection	Planner in the regional planning office
R28	Female	43	Master of Geography	Regional planner in the regional planning office
R29	Male	54	Master of Geography	Regional planner in the regional planning office
R30	Female	50	Ph.D. in Architecture and Urban Planning	University lecturer/architect
R31	Male	67	Master of restoration and conservation of urban complexes	Architect
R32	Female	38	Ph.D. in architecture and urban planning	Freelancer designer
R33	Male	39	Ph.D. in history	University lecturer
R34	Female	66	Ph.D. in Architecture and Urban Planning	University lecturer
R35	Male	56	Master of Management	Hotel Manager
R36	Male	32	Master of Tourism Geography	Tour guide
R37	Female	41	Ph.D. of history	University lecturer
R38	Female	54	Master of monument protection	Architect
R39	Female	80	Secondary education	Retired/former worker at the textile factory
R40	Male	76	Bachelor of Textile Engineering	Retired/former engineer at the textile factory

(Vaismoradi et al., 2016). The research used the six-phase method of thematic analysis, encompassing the subsequent steps: (1) familiarization with the data; (2) generation of preliminary codes; (3) identification of themes; (4) review of themes; (5) definition of themes; and (6) preparation of the report (Braun & Clarke, 2013). Consequently, this coding process yields themes that encapsulate collective patterns of meaning (Braun et al., 2019). The computer software program Atlas.ti version 8 was utilized for data analysis through a systematic coding process. The open coding phase was initiated, during which the data were coded in accordance with the research inquiries to identify significant aspects of the dataset. Subsequently, the codes were organized into categories based on their semantic and conceptual relationships, with each category being assigned a specific designation. Based on this categorization, a network of code categories was constructed, and a primary theme was assigned to each network. Sub-codes or sub-themes were subsequently linked to the main themes to facilitate a deeper understanding of the interconnections among the concepts (Ghaderi et al., 2022).

Findings

Based on thematic analysis, six primary themes were identified. Within these themes, various codes were discerned that provide insights into the processes associated with contested values of industrial heritage in Łódź and their contribution to a stakeholder-driven tourism model. Furthermore, these themes align with the research objectives and research questions. Table 4 presents the number of codes allocated to each theme.

1. Industrial heritage significance and identity

The cultural, historical, and symbolic significance of Łódź’s textile manufacturing heritage is encapsulated in this theme. This theme comprises 172 codes, of which the 28 most frequent codes are depicted in Figure 3. It illustrates how industrial heritage informs local pride and collective memory by emphasizing the city’s identity as an industrial hub. The legacy value extends beyond immovable heritage buildings to include the narratives of workers, the socio-economic impact of textile manufacturing, and Łódź’s distinctive position within Poland and Europe. Preserving and celebrating this heritage is instrumental in cultivating a sense of place and belonging among residents.

The majority of respondents asserted that Łódź exemplifies both Polish and Russian domination, the developments of the nineteenth century, and the influences of capitalism and communism. However, they noted that this city lacks medieval markets or castles, which are prevalent in many other European cities. Respondent 18 explained, ‘You can see the whole history, like even European history, through these old factories. So, it’s a compelling narrative. Like, you can really tell many interesting stories. It is interesting for the tourists, especially since it’s something unusual’. As previously indicated, some respondents attributed narratives and stories to the textile factories, particularly regarding the laborers, framing these narratives as integral to the history of Łódź and, by extension, to the history of Poland. Respondents asserted that there has been a lack of knowledge regarding individuals such as servants, workers, and slaves, as well as others who have significantly contributed to the construction and transformation of society. For instance, an experienced tour guide (11) explained, ‘Other heritage is generated by well-known and famous people. But textile manufacturing heritage is for some common people’. Hence, these post-industrial buildings may not be the quintessential showcase of Łódź, but they can contribute to the city’s urban identity. They have the potential to distinguish themselves from their surroundings and to promote both personal and collective memory.

Conversely, some interviewees who were employed in these factories expressed a notion of ‘memory and trauma in heritage’. This ‘memory of hatred’ worsened in the 1990s, particularly after the closure of most factories, which had previously employed a significant number of individuals who subsequently found themselves without employment opportunities. One interviewee (09), whose father-in-law worked in these factories, explained, ‘Some individuals did not prefer to discuss this aspect of their heritage, as it represents a form of suffering for them. It serves as a dark memory, as they were in a precarious position and experienced significant poverty’. However, respondents indicated that the pivotal shift toward this attitude occurred in 2006, when ‘Manufaktura’, a shopping mall in Łódź, was introduced as the first textile factory repurposed for new uses.

Table 4. Number of codes associated with each theme. Source: Author(s).

Themes	Number of codes for each theme
Industrial heritage significance and identity	172
Tourism development and integration	122
Community engagement and equity	73
Economic and social sustainability	47
Urban regeneration and functional diversity	112
Private and public partnership	55
Total	581

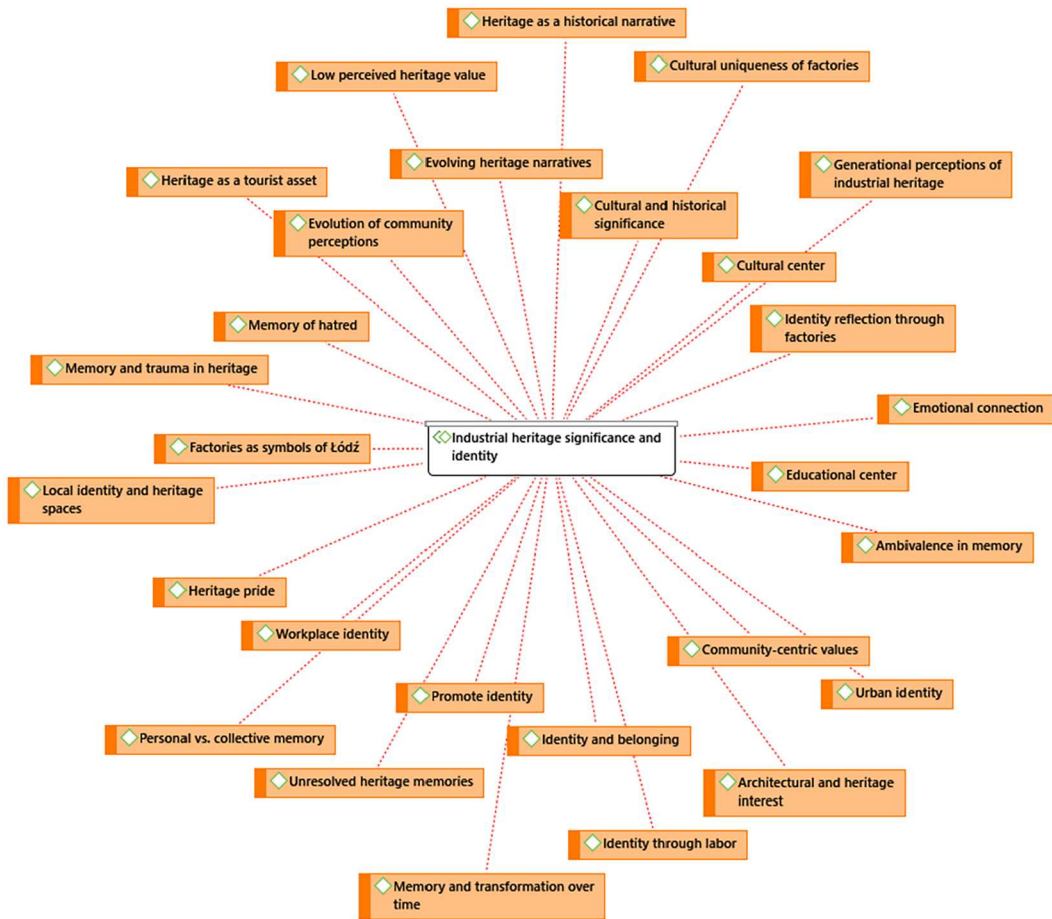


Figure 3. The most prevalent codes for the first theme (Industrial heritage significance and identity). Source: Author(s).

2. Tourism development and integration

This theme emphasizes efforts to integrate industrial heritage into Łódź's tourism landscape. It encompasses strategies to engage diverse audiences, including converting textile factories into museums, hotels, and cultural venues. Additionally, it examines the challenges and opportunities associated with promoting Łódź as a distinctive destination for industrial heritage tourism. Preserving authenticity, marketing initiatives, and catering to tourists are focal points of this theme. A total of 122 codes are associated with this theme, of which 28 frequently occurring codes are illustrated in [Figure 4](#). A group of respondents proclaimed that although the Central Museum of Textiles, situated within Ludwik Geyer's White Factory, is recognized as the city's inaugural tourist attraction, the Manufaktura is a prominent tourist destination. This development represents a significant milestone for tourism in Łódź. The 30-hectare area encompasses all the requisite components of a tourist center, including shopping, cultural amenities, cinema, and theater. In this regard, one respondent (15) said, 'If you want just to use the zip line, you can go zip line, whatever there is, just hang around, just go to the pub, or just for pinball, all the things you've got'. Integrating modern facilities with historic amenities can attract a diverse audience, particularly given that the Manufaktura arena is accessible 24 hours a day.

In addition to specific factories that have been revitalized for tourism and hospitality, there is potential for urban explorers to visit factories that have yet to undergo revitalization. For example,

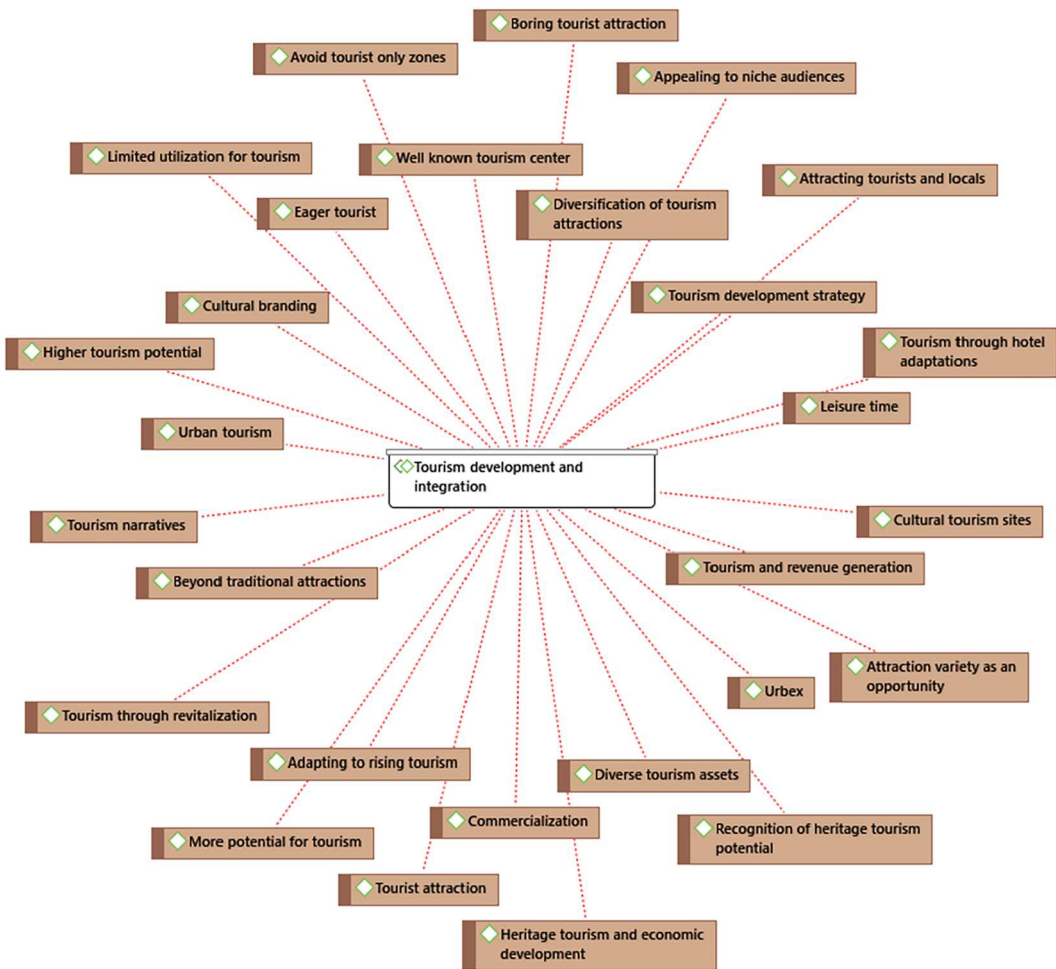


Figure 4. The most prevalent codes for the second theme (Tourism development and integration). Source: Author(s).

one respondent (12) noted, ‘Some factories like Adam Osser are very popular for tourists. They go to the ruined houses and factories to take photos and see what’s inside. It’s a tourist attraction for urban explorers’. The interviews and fieldwork observations show that attracting tourists and locals to industrial heritage has emerged as a potential strategy for Łódź. However, some stakeholders expressed no plan for utilizing textile factories as a tourism component. For instance, respondent 19 observed,

In fact, I don’t really see any coordinated plan by the city council regarding using the textile factories for tourism. I think it’s rather an accident that the APSYS company bought Manufaktura and revitalized this textile site. Well, it’s a great, vibrant revitalization, as you know. And it attracts people.

3. Community engagement and equity

This theme focuses on equitable access to repurposed industrial heritage sites and the community’s involvement. It analyzes the role of local stakeholders in developing revitalization projects and assesses the impact of these initiatives on social inequalities. Enhancing inclusion necessitates ensuring that revitalized spaces benefit tourists and local residents. Furthermore, this theme explores how these projects can foster social cohesion and empower historically marginalized

communities linked to the industrial heritage sites. Figure 5 presents the 23 prevalent codes associated with the theme; however, a total of 73 codes were ultimately assigned. Following the closure of textile factories in the 1990s, Łódź experienced a population decline and is recognized as a shrinking city in Poland. Retaining young residents after they complete their studies is critical to the city's future. Hence, most interviewees confessed that the overall utilization of the textile factories could be more oriented towards community purposes. One informant (20) explained,

But the problem is also that you have to create a suitable space, not only for tourists but also for society. What is good for tourists need not be good for the local community. Good for the tourists, but also for the local community.

The respondents predominantly mentioned the codes of public engagement and stakeholder contributions in their efforts to involve individuals who were previously closely connected to textile manufacturing in Łódź. The prevailing sentiment was that community-centric heritage reuse within their revitalization projects distinguishes them as unique for local residents and contributes to a more equitable urban environment. One respondent (19) said, 'I think it would be nice, when it comes to Manufaktura, there's a factory museum and it is working really nicely. And, it has a community of former textile workers around it. So, this is a way, I think, to engage the local community'. Another respondent noted,

If it would be a workplace again, a different one, I think it should be decent. And somehow, maybe those owners could hire people from around those sites. And this is somehow the area of equality, maybe. And I don't

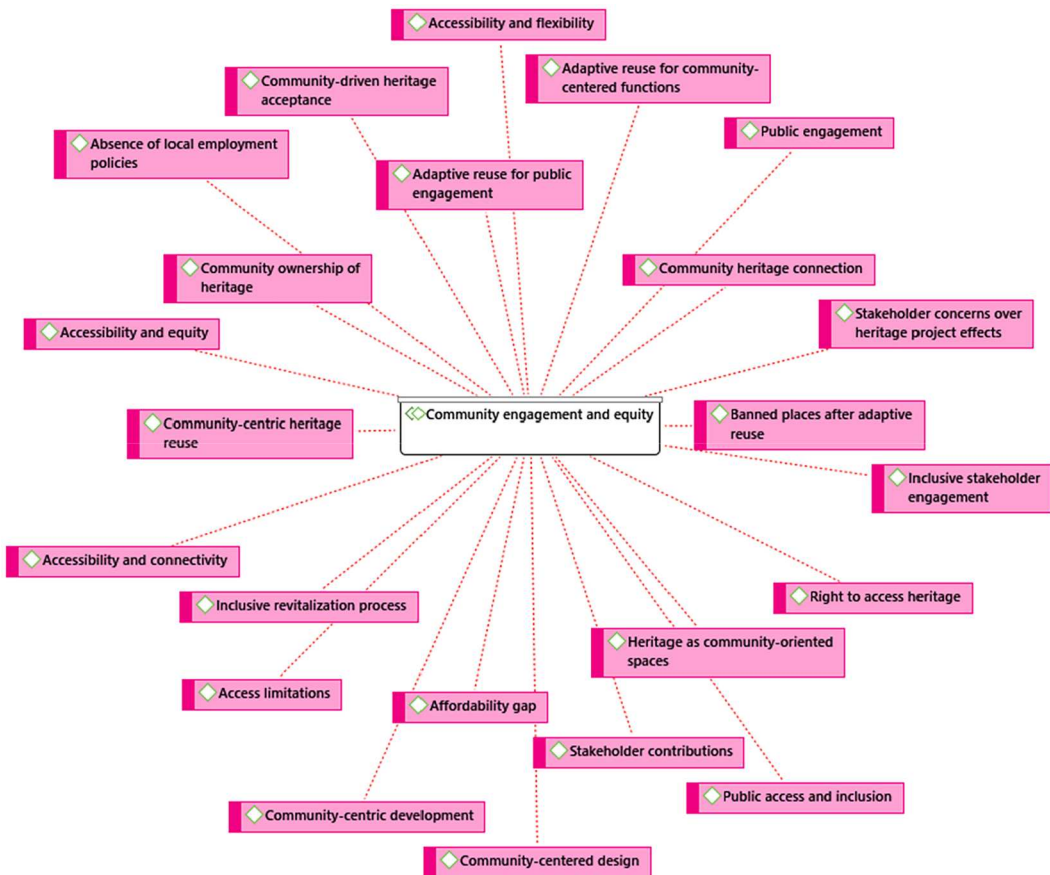


Figure 5. The most prevalent codes for the third theme (Community engagement and equity). Source: Author(s).

know what it looks like. I don't really know if there's any policy. However, those sites were places where many people worked before.

A group of respondents further emphasized the importance of revitalizing these areas for public use, highlighting the significance of maintaining not only memories but also the availability and accessibility of various spaces for all local residents.

4. Economic and social sustainability

This theme examines the economic and social benefits of revitalizing industrial heritage. It includes 47 codes; Figure 6 illustrates the 22 most frequently occurring. It highlights the potential of heritage sites to generate employment, support local businesses, and promote sustainable urban development. The ongoing challenge of balancing business interests with cultural preservation is also addressed. Additionally, the analysis considers long-term viability, funding models, and the role of industrial heritage in mitigating socio-economic disparities in Łódź. Respondents claimed that the revitalization of textile factories cannot focus solely on business objectives; it must also incorporate cultural elements. Without cultural offerings such as theater, music, and film screenings, these spaces are unlikely to attract visitors, mainly after 6 pm, when they tend to become inactive. One commentator (23) explained, 'If I were an idealistic person for five minutes, they should be turned into something like community centers and even some, I don't know, sporting facilities,

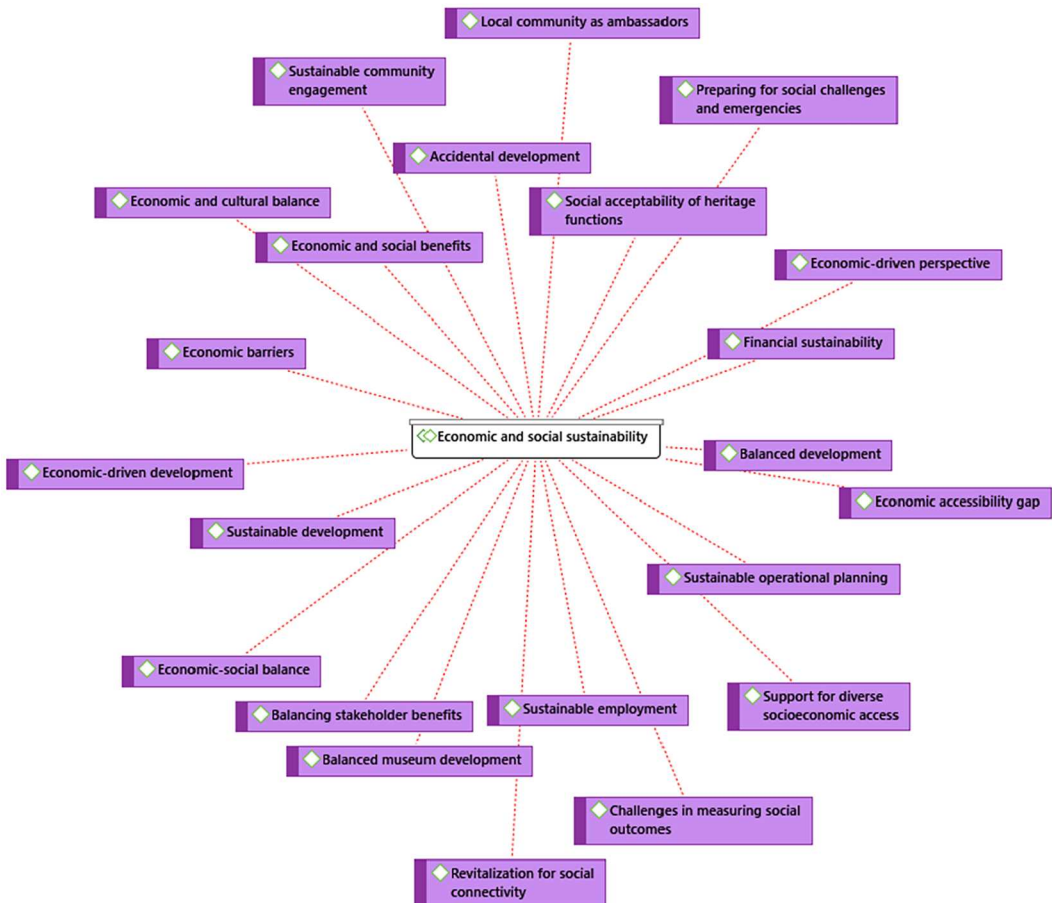


Figure 6. The most prevalent codes for the fourth theme (Economic and social sustainability). Source: Author(s).

but not only commercial'. Another participant explained, 'Even if it is partially adopted for production in certain industrial functions, all areas must consist of distinct components of the activity'.

Respondents indicated that without 'sustainable employment' and 'sustainable operational planning', the revitalization projects do not achieve long-term viability. In this sense, a planner in the regional planning office of Łódź (27) explained:

One of the biggest problems with revitalization in Poland as a whole is that we have public funds for the new institutions, for the revitalization, for the new museums, for the beginning. Then there is no money to promote it. There is no money for employees' salaries. There is no money to make it operate permanently.

Sustainable development emerged as a central theme among the interviewees, particularly among architects, as many textile factories were incorporated into green spaces. For example, one respondent (32) said,

In terms of the quality of the space and interesting places, I would say that this revitalization next to Manufaktura, the revitalization of the park area, will also contribute to the attractiveness of the whole space. So, again, parks and green areas are important for the city and its attractiveness.

5. Urban regeneration and functional diversity

This theme investigates the role of industrial heritage sites in facilitating broader urban regeneration initiatives. It emphasizes the functional diversity of revitalized spaces, including their utilization for cultural, commercial, residential, and recreational purposes. Central to this theme are adaptive reuse strategies that integrate historic preservation with contemporary requirements. Additionally, it evaluates how these projects transform the urban landscape, improve infrastructure, and enhance residents' quality of life. This theme encompasses 112 codes; [Figure 7](#) illustrates the 31 most frequently cited. The interviews identified a mixture of uses as the most effective solution for the adaptive reuse of textile factories. Respondents indicated that assigning a single function to these spaces is insufficient, as they previously served as industrial areas. Consequently, when working hours conclude, these areas become vacant. One interviewee (11) said, 'What we can do now is make those areas mixed-use. So, we have apartments, shops, restaurants, and many cultural centers, including educational centers. So, those places, they live 24-7'. Another respondent (38) pointed to the combination of attractions for people and stated, 'Various attractions like shops are Multifunctional. I think this is the desired model because everybody could find something attractive for them'.

In addition, most architects and urban planners noted innovative practices and novel perspectives on urban regeneration. They posited that designing heritage initiatives with inclusivity at their core offers opportunities for sustainable, community-driven tourism models. Respondent 15 noted, 'You can spend all day there, just as you go to the playground in your estate or whatever. And now take a look, another factory [Monopolis] has been revitalized with a completely different attitude'. The inclusion of examples of creative applications in the adaptive reuse process, as highlighted by the interviewees, is significant. The integration of artistic and cultural activities within revitalized spaces aligns with historical and local opportunities. One respondent (16) explained, 'The place where an artist operates, such as Estadio, serves a specific purpose. Numerous coffee shops are situated in the vicinity, along with organized fairs and various events, particularly during the summer'. Some participants indicated that the lack of low-cost accommodations in textile factories highlights a gap in providing affordable, heritage-centered lodging within accessible heritage experiences. In this regard, one interviewee (17) stated, 'I think we should have less-priced hotels for students or for[...] With these textile factories. And then everybody can feel or touch this textile factory'. These factories were organized according to the processes involved in textile production; additionally, the site included housing, hospitals for factory workers, the owner's palace, and other facilities. Consequently, owing to the extensive



Figure 7. The most prevalent codes for the fifth theme (Urban regeneration and functional diversity). Source: Author(s).

scale of these textile factories, some participants characterized them as a ‘city within a city’. Therefore, they proposed implementing a 15-minute city model as a strategy for heritage revitalization. One interviewee highlighted,

It’s like, all we need is there, again, galleries, but also not that far from all the other aspects. For example, if you want to go to the cinema, it’s relatively near, so you can go to the cinema somewhere, but it’s compact at one point, but at the same time not that far from the center.

6. Private and public partnership

This theme examines the interplay between private investors and public authorities in revitalizing industrial heritage. It investigates how collaboration, policy-making, and funding influence the redevelopment process. Although private investors typically prioritize profitability, public authorities emphasize community needs and heritage preservation. Achieving a balance between these interests is crucial for ensuring sustainable outcomes. Furthermore, this theme underscores the potential for partnerships and innovative governance models to enhance the success of such projects. A total of 55 codes were assigned to this theme, while [Figure 8](#) illustrates the 24 most frequently repeated codes. Public-private partnerships or public-private synergy are considered essential to the success of urban regeneration and tourism development. In this study, most experts and stakeholders acknowledged that Łódź lacks a balanced integration of public and private sectors in

urban regeneration and tourism development. They noted that the goals of the private and public sectors are pursued independently. One respondent (25) explained,

It would be great to have a kind of combination between public and private cooperation because neither is ideal. And when we have private investment, we have just like this huge commercialization and gentrification and other stuff. With the public, it's not so efficient. And sometimes it takes so much time. And also, sometimes it's just like spending money without any result.

In addition, the tension between public and private interests leads to the exclusion of visitors from certain revitalization projects. For instance, one informant (13) explained,

It's a pity that some revitalization sites are closed areas. Okay. We could have security, we could have some borders, but why it is closed? When people cannot observe the history, how it was, how it's changed, they don't accept this area.

Respondents noted that the city hall has a duty to protect heritage, whereas private investors primarily focused on their own benefits; as one commentator (31) explained,

This cooperation is important. Therefore, we have two different roles here. First, the city hall has this role in protecting the building and ... Yes, to think not only about the economic role but also about society, etc. On the other hand, we have private investors with money to think about this return.

Hence, interviewees specifically noted that a mixed investment model could facilitate the advancement of projects in Łódź, where the private sector invests, and the public sector monitors these initiatives to address the needs of society and visitors.

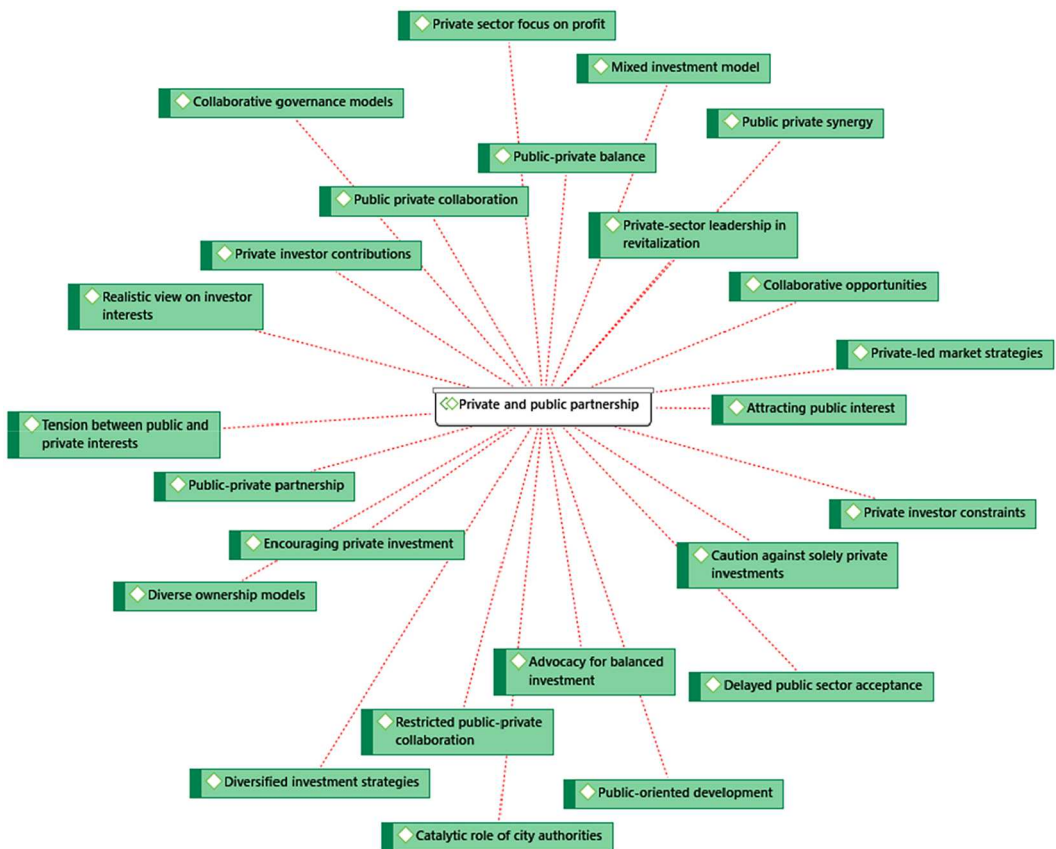


Figure 8. The most prevalent codes for the sixth theme (Private and public partnership). Source: Author(s).

Discussion, conclusion, and implications

This study aimed to investigate the contested values of industrial heritage in Łódź and develop a stakeholder-driven tourism model that critically examines prevailing narratives while integrating diverse perspectives (Figure 9). The results show that revitalizing Łódź’s industrial heritage involves a complex interplay among cultural heritage preservation, tourism development, and socio-economic transformation. These preliminary investigations align with prior studies (Alonso et al., 2010; Berkenbosch et al., 2022; Dehghan Pour Farashah et al., 2019). The identified themes demonstrate how Łódź’s textile manufacturing legacy continues to shape its contemporary tourism development through multiple dimensions.

The results found that the cultural, historical, and symbolic significance of Łódź’s textile manufacturing heritage is encapsulated in industrial heritage significance and identity. It illustrated how this heritage informs local pride and collective memory by emphasizing the city’s identity as an industrial hub. Industrial heritage sites validate working-class experiences and history and serve as vital community spaces where people remember and commemorate what it was like to go to work and the harsh conditions (Smith & Campbell, 2017). The legacy value extends beyond immovable heritage buildings to include the narratives of workers, the socio-economic impact of textile manufacturing, and Łódź’s distinctive position within Poland and Europe. The preservation and celebration of industrial heritage are instrumental in cultivating a sense of place and belonging among residents. This heritage foundation influences tourism development and integration efforts as the city works to transform its industrial past into tourism assets. Effective interpretation is key to

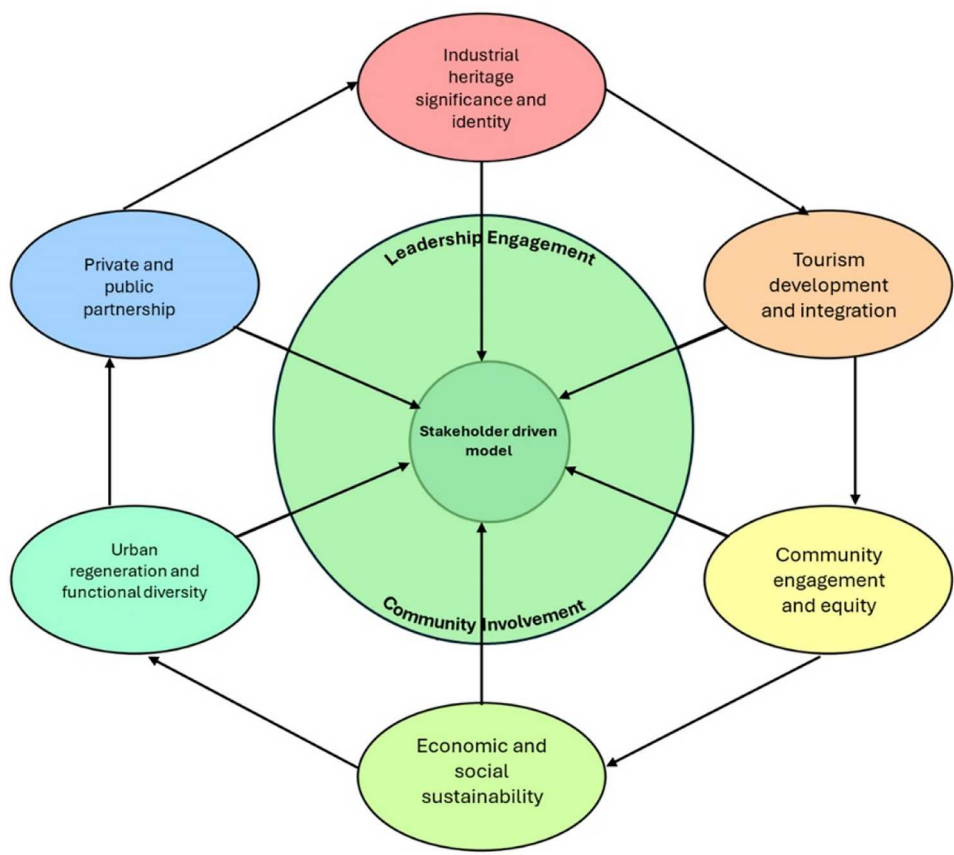


Figure 9. The stakeholder-driven heritage tourism model for Łódź. Source: Author(s).

creating meaningful visitor experiences that connect with the site's cultural and historical significance (Firth, 2011). The conversion of textile factories into cultural venues, hotels, and museums exemplifies this transformation, though it presents ongoing challenges in maintaining authenticity while meeting modern tourism demands.

Heritage tourism that preserves buildings, structures, cultural values, and community identity (Firth, 2011) can help overcome economic depression in post-industrial regions (Syafrini et al., 2022). These adaptive reuse strategies demonstrate how industrial heritage can be preserved while serving contemporary needs. Developing industrial heritage initiatives is deeply intertwined with broader economic and political processes. Heritage projects often reflect tensions between commercial development, historical preservation, and community interests. The success or failure of heritage initiatives frequently depends on institutional support and economic contexts (Berger & High, 2019).

Theoretical contribution

This empirical study makes significant theoretical contributions by advancing our understanding of industrial heritage tourism through a critical lens. It applies the Critical Heritage Studies (CHS) framework to emphasize the pluralistic values of Łódź's textile manufacturing legacy, challenging the dominant Authorized Heritage Discourse (AHD) that often prioritizes economic and aesthetic narratives over socio-cultural dimensions. Industrial heritage values extend beyond the appreciation of cultural elites and encompass more than merely physical sites and artifacts (Smith et al., 2011). Highlighting the perspectives of marginalized groups – including local workers, stakeholders, and community members – this study underscores the importance of inclusivity and social equity in heritage tourism. Accordingly, it is imperative for all members of the local community to acknowledge the significance of industrial heritage within the tourism sector (Dragin et al., 2023). Additionally, it integrates Social Identity Theory (SIT) to explore how industrial heritage fosters a sense of place, belonging, and identity among diverse stakeholders. This social psychological theory illuminates group processes and intergroup relations (Tajfel & Turner, 2000). This approach signifies the role of heritage as a symbol of group pride and collective memory. Consequently, these characteristics can collectively contribute to the successful regeneration and development of the tourism sector (Lu et al., 2020). The study further proposes a stakeholder-driven heritage tourism model that prioritizes co-creation and collaboration among local communities, policymakers, private investors, and cultural institutions, addressing the shortcomings of traditional top-down decision-making. This model further revitalizes the industrial heritage fabric, thereby catalyzing sustainable urban regeneration (Sun & Chen, 2023). It extends the discourse on the value of industrial heritage by examining tangible elements, such as buildings and artifacts, as well as intangible aspects, including community narratives, social practices, and cultural expressions. Consequently, this discourse could be integrated into urban regeneration initiatives that critique the standards and norms established in normative heritage discourses and their various adjuncts (Lu et al., 2020). The research further explores how adaptive reuse and functional diversity in the post-industrial era can contribute to urban regeneration, creating vibrant mixed-use spaces that cater to cultural, residential, and recreational needs.

Moreover, by examining the interconnections between the public and private sectors, this research underscores the significance of innovative governance models that balance profitability, community needs, and heritage preservation, thereby facilitating the successful integration of industrial heritage into tourism development (Syafrini et al., 2022). It critiques oversimplified, commodified representations of industrial heritage in tourism marketing and advocates for more authentic, inclusive narratives that reflect the complex socio-economic histories of post-industrial cities, such as Łódź (Berkenbosch et al., 2022). Furthermore, the study integrates sustainability principles, emphasizing the need for cultural preservation, economic viability, and social equity in heritage tourism development. These contributions provide a comprehensive framework for understanding

how industrial heritage can be leveraged as a dynamic resource for urban regeneration, social cohesion, and culturally enriching tourism experiences (Berkenbosch et al., 2022; Firth, 2011; Syafrini et al., 2022). Beyond Łódź, the findings offer scalable insights for other post-industrial cities seeking to preserve their heritage while fostering inclusive and sustainable development.

Practical implications

The study offers significant practical implications. The results found that community engagement and equity, alongside economic and social sustainability, are intrinsically linked. The success of heritage revitalization projects depends on their ability to benefit both tourists and local residents, particularly historically marginalized communities connected to these industrial sites. Therefore, working-class communities should actively participate in preserving and interpreting their heritage, challenging the typical 'heritage industry' critiques that see industrial heritage presentations as merely nostalgic or commercialized versions of the past. Moreover, working-class heritage is a vital resource for communities to maintain identity, build solidarity, and navigate economic and social changes, particularly in the context of deindustrialization (Smith et al., 2011).

Community participation in heritage tourism development serves multiple critical functions: it ensures equitable outcomes, mediates conflicting interests, establishes legitimate policy frameworks, enhances heritage interpretation, improves visitor experiences, and maintains a sustained commitment to sustainability objectives. This participatory approach can be conceptualized as a pluralistic power structure or, more dynamically, as a process that empowers the broader public through meaningful involvement in decision-making (Dragouni et al., 2018). Successful co-creation empowers residents to become active collaborators, enabling them to participate in managing and conserving their industrial heritage. This collaborative approach is fundamental because many residents, especially former industrial workers, possess invaluable historical knowledge and connections to these sites (Xie & Shi, 2018). This emphasis on co-creation helps address the power disparity between local residents and tourism developers while ensuring that development projects remain authentic and respectful of community values. The significance of co-creation thus lies in its ability to balance tourism development with community needs, leading to more sustainable and culturally sensitive heritage tourism projects. The potential for heritage sites to generate employment and support local businesses must be balanced against the need for equitable access and social cohesion. However, this appears to pose a challenge for Łódź, as Logan and Reeves (2008) assert that developing sustainable tourism practices requires attention to inclusivity, social justice, and community engagement. This is significant for local authorities, who must balance tourism development and community needs to foster sustainability. Responsible agencies should also create employment opportunities and support local businesses to ensure equitable access and promote social cohesion.

Urban regeneration and functional diversity emerge as practical manifestations of these broader goals. The transformation of industrial heritage sites into mixed-use spaces supporting cultural, commercial, residential, and recreational activities demonstrates how historic preservation can contribute to contemporary urban development. These projects preserve historical significance and address modern urban needs through improved infrastructure and enhanced quality of life.

The tension between private investors' focus on profitability and public authorities' emphasis on community needs and heritage preservation requires careful balance. The success of revitalization projects depends on effective collaboration and innovative governance models that can reconcile these potentially competing interests. Heritage tourism is specialized tourism focused on visitor interactions with historical elements, including archaeological sites, architecture, and cultural traditions. Incorporating heritage into tourism experiences has become a significant strategy for increasing destination appeal, particularly in rural areas, while promoting conservation efforts. However, the sustainable development of heritage tourism destinations extends beyond mere financial investment, requiring crucial community support and engagement (Dragouni et al., 2018). In

conclusion, this research illustrates how Łódź's industrial heritage revitalization encompasses multiple interconnected challenges and opportunities. The city's approach to preserving and repurposing its industrial legacy demonstrates the complexity of balancing historical preservation, economic development, social equity, and urban regeneration. The success of these efforts relies on careful consideration of all these aspects, supported by effective collaboration between public and private stakeholders. The interrelation of results suggests that successful industrial heritage revitalization requires a holistic approach that considers cultural, economic, social, and urban development factors simultaneously. This comprehensive perspective enables the creation of sustainable solutions that preserve historical significance while meeting contemporary needs and promoting equitable development for all stakeholders involved.

Research limitations and directions for future research

This study has several limitations that must be acknowledged. First, the research relies primarily on qualitative data collected through stakeholder interviews and participant observations. While this approach allows for an in-depth exploration of stakeholder perspectives, it limits the generalizability of the findings to other contexts. Future research could incorporate quantitative methods, such as surveys or econometric analyses, to examine broader trends and validate the findings across different industrial heritage sites and cities. Second, the study is geographically limited to Łódź, a city with a unique textile heritage and post-industrial context. Although the findings offer valuable insights into the interplay among industrial heritage, tourism, and urban regeneration, their applicability to other post-industrial cities with distinct socio-economic, cultural, or historical backgrounds may be limited. Comparative studies of industrial heritage tourism in diverse global contexts could provide a more comprehensive understanding of how different cities leverage their industrial pasts for tourism and urban development. Third, the study focuses on the perspectives of 40 stakeholders, including local professionals, community representatives, and cultural institutions. While this provides a well-rounded understanding of stakeholder-driven heritage tourism, it excludes other potential stakeholders, such as tourists, international investors, or policymakers from outside Łódź. Future research should explore the perspectives of these groups to develop a more holistic view of industrial heritage tourism and its broader implications. Fourth, while the research addresses the socio-cultural dimensions of industrial heritage, it does not deeply investigate environmental sustainability concerns associated with the revitalization of post-industrial spaces. Future studies could examine how adaptive reuse and heritage tourism can incorporate green practices to ensure that urban regeneration initiatives align with sustainable development goals. Finally, the temporal scope of the research, conducted over two years, may not fully capture the long-term impacts of industrial heritage revitalization projects on local communities and urban development. Longitudinal studies could track changes in stakeholder perceptions, tourism patterns, and socio-economic outcomes over time, providing a deeper understanding of the sustainability and adaptability of stakeholder-driven models in heritage tourism.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Description of contribution:

Zahed Ghaderi contributed to the following roles: Writing – review & editing, Validation, Supervision, Investigation, Conceptualization.

Place and date: 1/16/2026- Muscat-Oman

A handwritten signature in blue ink, consisting of stylized, overlapping loops and strokes, likely representing the initials 'ZG'.

Signature:

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Authors of publications (in the order indicated in the article):

Mohammadhossein Dehghan Pour Farashah, Zahed Ghaderi, Ece Kaya

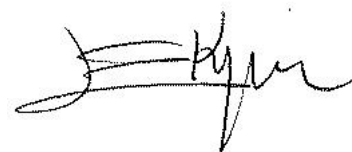
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Description of contribution:

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Place and date:

3 February 2026

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A handwritten signature in blue ink, consisting of a stylized 'M' followed by a horizontal line and a small flourish.

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Research Article

Exploring the Effectiveness of Urban Regeneration: The Comparative Study of the Industrial Heritage Sites of Łódź (Poland) and Yazd (Iran)

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Abstract: To establish appropriate strategies for the urban regeneration of districts with industrial heritage, it is essential to consider the factors that may influence the effectiveness of any regeneration. This study compares the revitalisation of industrial heritage sites in Łódź, Poland, as a European regeneration model, and Yazd, Iran, as an Asian counterpart—two cities that share similar textile manufacturing histories but possess distinct political, cultural, and socio-economic factors. The study examines the challenges associated with achieving effective urban regeneration in the setting of industrial heritage sites. The study employed semi-structured interviews with experts and professionals, complemented by fieldwork and observational analyses of textile manufacturing heritage sites, with a particular emphasis on revitalisation projects. The originality of this paper lies in the application of a synthetic approach to the analysis of qualitative data for comparing typologies of urban regeneration strategies within the contexts of two socio-culturally and economically distinct countries. The results indicate that for effective urban regeneration within industrial heritage sites it necessitates the attainment of socio-economic outcomes through a balanced approach to public-private financing, while mitigating the undue influence of private investments. Furthermore, projects that enhance accessibility and infrastructure, as well as promote the adaptive reuse of historical resources, should be prioritised. Such initiatives not only generate financial income but also yield social benefits and contribute to the preservation of cultural heritage values. The paper provides valuable insights for urban planners regarding the effectiveness of urban regeneration processes in districts characterised by industrial heritage.

Keywords: Effective urban regeneration; industrial heritage; sustainability; revitalisation; adaptive reuse; Poland; Iran

Highlights:

- The revitalisation project must be designed to align with both material and non-material values.
- Shifts from private investments to collaboration highlight the industrial heritage in Łódź.
- Substantial evidence underscores the impact of religious values on urban management in Yazd.

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1. Introduction

In the post-industrial era, abandoned locations within urban centres or suburban areas constitute an integral component of the urban landscape (Kazimierczak & Kosmowski, 2018). Since these sites no longer fulfil their original purpose and have contributed to the degradation of the urban landscape, decision-makers are confronted with the challenging task of determining an appropriate course of action for such locations (Della Lucia & Pashkevich, 2023). Consequently, they may choose to maintain the status quo, demolish the existing structures and redevelop the land, or renovate the current buildings to provide them with a new functional purpose (van Duijn et al., 2016). Buildings of historical or architectural significance may undergo processes of conservation, preservation, revitalisation, and adaptive reuse (Vafaie et al., 2023; Wilkinson et al., 2014). These processes are fundamental to the management and sustainability of heritage buildings, which are crucial for the effectiveness of urban regeneration. According to ICOMOS, conservation refers to the processes of maintaining and managing changes to heritage buildings in a manner that sustains and enhances their heritage significance. This may involve actions aimed at safeguarding the value of heritage assets through minimal intervention (ICOMOS, 2013). Preservation, in contrast, focuses more narrowly on protecting a heritage building from deterioration, destruction, or inappropriate change, often by freezing it in its current state. Preservation represents a more static process than conservation, -prioritizing the retention of the original fabric and form (Venice Charter, 1964). In practice, preservation is frequently applied to buildings of high

significance or when historical authenticity is of paramount importance. Revitalisation refers to the reintegration of heritage buildings into the social and economic fabric of a community, often involving community engagement and urban renewal strategies. Pendlebury (2008) characterises revitalisation as a dynamic process that seeks to reanimate a heritage site through investment and renewed use, frequently linked to urban regeneration. It amalgamates cultural, social, and economic objectives, fostering both the preservation of the building and its reintegration into contemporary life. Adaptive reuse is the process of repurposing buildings for new uses while retaining their heritage values. Bullen and Love (2011) contend that adaptive reuse is a sustainable approach that enables buildings to meet contemporary needs without resorting to complete demolition or excessive alteration.

The authors of this paper took into account almost all of these activities with an emphasis on revitalisation activities, because they were mostly undertaken in this research case studies and they were included in the broader process of urban regeneration of districts with industrial heritage according to a process defined by Roberts (2000, p. 17) as a “comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change”. Other similar definitions have been used, such as the one from Hulsbergen et al. (2005) that refers to urban regeneration as an effective and beneficial multidimensional process that influences the socio-economic development of cities by modernising industry, creating new jobs, strengthening social networks and promoting the active participation of city residents in decision-making processes. Urban regeneration of industrial heritage districts is crucial for preserving heritage resources and historical values for future generations, as well as for economic, social, and environmental improvements (Zhang et al., 2019). The effectiveness of urban regeneration can be evaluated through a combination of expert assessments, which include the attainment of established objectives, community and stakeholder satisfaction, and dimensions of long-term sustainability. Additionally, effectiveness may be assessed using a benchmarking approach that incorporates both quantitative indicators (e.g., visitor numbers, jobs created, property values) and qualitative measures (e.g., place identity, cultural vitality, inclusivity), typically analyzed comparatively over time. This study adopts expert assessments, specifically focusing on the achievement of established goals and the satisfaction of community and stakeholder perspectives.

Existing research has primarily concentrated on assessing the effectiveness of urban regeneration (Ploegmakers & Beckers, 2014; van Duijn et al., 2016), yet it fails to analyse the factors that influence this effectiveness. The studies that have considered such factors in some respects tended to use quantitative spatial and non-spatial data (Dell’Anna, 2022; Guo et al., 2021; Jarczewski & Koj, 2023; Vardopoulos, 2023). The novelty of this paper lies in the application of qualitative data analysis, specifically through semi-structured interviews, within a comparative typology of urban regeneration approaches. The objective is to identify the factors influencing the effective regeneration of districts characterised by industrial heritage and to examine how this effectiveness is defined within the context of industrial heritage sites. Additionally, previous studies (Cysek-Pawlak et al., 2023; Della Lucia & Pashkevich, 2023; Konior & Pokojnska, 2020; Martinović & Ifko, 2018) have focused on one or multiple locations within a single country. This paper contributes to research on the effectiveness of urban regeneration processes utilising industrial heritage, exemplified by the case studies of Yazd, Iran, and Łódź, Poland. These case studies exemplify industrial heritage cities situated in Central Europe and West Asia, each characterised by distinct socio-economic, socio-cultural, and physical conditions. These two cities served as central hubs for textile manufacturing; however, the majority of textile factories have been closed since the 1990s, largely due to urban development and wasteful textile imports (Dehghan Pour Farashah et al., 2019; Walczak, 2015). Beginning in the 2000s, certain buildings have undergone transformations in usage as a result of the obsolescence of their original functions (Dehghan Pour Farashah, 2023; Walczak & Kępczyńska-Walczak, 2024). The conducted study serves a cognitive purpose and empirically investigates the challenges associated with effective urban regeneration in the context of industrial heritage sites. This allows us to address the following questions:

1. What socio-economic, socio-cultural, and physical factors influence the revitalisation of industrial heritage sites in Łódź and Yazd?
2. How is effective urban regeneration defined within the context of industrial heritage sites in Yazd and Łódź?

The outcomes of the study yield critical insights for local policymakers responsible for the regeneration of districts possessing industrial heritage, informing the relevant factors that must be considered in the decision-making process. Conclusions drawn from this research may also contribute to further academic exploration of regeneration strategies, as they cover important issues regarding the factors influencing the urban regeneration of industrial heritage districts in the context of two socio-culturally and economically different countries. The research objectives and methodology are illustrated in Figure 1.

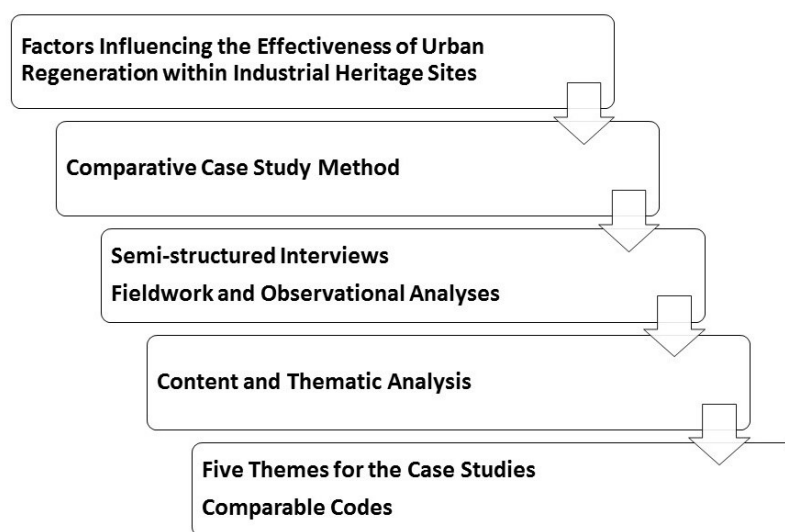


Figure 1. Research plan (Source: Authors).

2. Theoretical Background and Current State of Research

Post-industrial sites, rich in local history, knowledge, manufacturing traditions, and intangible heritage, are revitalised to strengthen social bonds and residents' identification with their surroundings (Dehghan Pour Farashah, 2023). Examples of successful urban regeneration with revitalisation and adaptive reuse have been presented in numerous case studies, for example, those described by Martinović and Ifko (2018) ; van Duijn et al. (2016); and Cysek-Pawlak et al. (2023) which show the success in many cities where industrial buildings have been transformed into cultural centres, offices and apartments. The revitalisation and adaptive reuse of industrial heritage buildings have contributed not only to the stimulating of the local economy but also to the increase in the tourist attractiveness of these places and social and spatial benefits (Baumgartner, 2025; Konior & Pokojńska, 2020; Kuzior et al., 2022).

Regarding the socio-economic aspects of urban regeneration, (Martinović & Ifko, 2018) indicates that the revitalisation of post-industrial facilities fosters job creation and stimulates the local market; however, it also results in phenomena such as gentrification, inadequate public facilities, diminished local community involvement, and the erosion of the sense of place. Similarly, Walczak and Kępczyńska-Walczak (2024) demonstrated in their research that the industrial heritage facilities of Łódź, Poland, predominantly serve retail and service functions at present. However, several studies appear to contradict these perspectives. Ploegmakers and Beckers (2014) assert that the revitalisation of industrial sites has a negligible effect on economic outcomes. These outcomes include public participation in revitalisation initiatives, housing availability, and the provision of public transportation (Zhao et al., 2023). Furthermore, Pollard (2004) asserts that certain urban regeneration plans for post-industrial sites may also result in adverse consequences, including the displacement of traditional manufacturing communities.

The cultural and social factors of the regeneration of industrial heritage sites have been articulated by various scholars, including Kuzior et al. (2022). As indicated by Cysek-Pawlak et al. (2023), the regeneration of historical districts encompasses the incorporation of new connections, passageways, and green spaces that serve recreational purposes. According to Hwang (2014), plans for urban regeneration must be meticulously developed, taking into account the distinctive characteristics and needs of the local community. The successful and comprehensive urban regeneration plan should actively consider the cultural activities and historical context of these sites (Chondrogianni & Stephanedes, 2022; Ferilli et al., 2017). As indicated by other researchers (Nocca et al., 2024), regeneration processes should encompass a socio-cultural dimension that reflects the social and cultural values inherent to a specific area and its context. It is essential to consider the alignment of the revitalisation project with both tangible and intangible values. However, research conducted by various authors (Wrona, 2020) indicates that the transformation of industrial sites may lead to gentrification, which, in certain instances, poses a threat to local communities. Consequently, it is imperative for designers and planners to consider the needs of diverse social groups during the regeneration process. Numerous case studies have documented both successful and unsuccessful outcomes of urban regeneration in districts characterised by industrial heritage. Selected examples are summarized in Table 1.

Table 1. Successful and unsuccessful outcomes of urban regeneration (Source: Authors).

Successful outcomes of urban regenerations	Sources
- Transformation into cultural centres, offices, and residential apartments. - Incorporation of new connections, pathways, and green spaces that facilitate recreational activities.	van Duijn et al. (2016); Cysek-Pawlak et al. (2023)
- Stimulating the local economy. - Increase in the tourist appeal of these locations. - Social and spatial advantages. - Fostering employment generation. - Stimulation of the local economy.	Konior and Pokojńska (2020); Kuzior et al. (2022)
- Public participation in revitalisation initiatives - Housing availability. - Provision of public transportation services.	Martinović and Ifko (2018)
	Zhao et al. (2023)
Unsuccessful outcomes of urban regenerations	
- Gentrification - Insufficient public facilities - Diminished engagement of local community members - Erosion of the sense of place - Predominance of retail and service functions	Martinović and Ifko (2018)
	Walczak and Kępczyńska-Walczak (2024)
Negligible impact on economic outcomes.	Ploegmakers and Beckers (2014)
Displacement of traditional manufacturing communities	Pollard (2004)

The physical dimensions of urban regeneration and their associated challenges have been extensively documented in academic studies (Yin & Feng, 2024; Zhang & Ren, 2024). The critique of contemporary architectural interventions in urban regeneration is significant (El-Basha, 2021), highlighting the necessity for the thoughtful and well-planned integration of new functions into existing structures. Additionally, Liu et al. (2023) assert that effective urban regeneration can only be realised through a comprehensive understanding of the territorial context, as well as the identification of the specific aspects and components that require revitalisation in order to achieve sustainable development within urban areas. The implementation of urban regeneration must also consider the socio-economic status and physical conditions of the local context (Guimarães, 2017). Szmygin (2009) underscores the necessity of modernising historic buildings for utilitarian purposes; however, he contends that this process may result in a loss of authenticity, which is arguably the most valuable aspect of contemporary heritage preservation. Consequently, he highlights the significance of implementing small-scale architectural modifications to safeguard the historic fabric. Szymański (2017) shares a similar perspective, emphasising the importance of delineating the procedure for adaptive reuse in the development of plans for the regeneration of locations with industrial heritage sites. This step is crucial to avert degradation and adverse transformations.

Depending on the objectives outlined in the regeneration action plan, it is essential to select an appropriate strategy that aligns with the specific area and local conditions. Numerous strategies exist, and they can be tailored to meet the desired objectives of the regeneration actions. An extensive analysis of such strategies was conducted by Pulles et al. (2023). Some of these strategies propose the identification of key variables (factors) that determine the multi-dimensional content of urban regeneration. These variables include spatial data and non-spatial data, such as building density and land use patterns (Huang et al., 2020; Zheng et al., 2016), density of public transport stations (Huang et al., 2020), and road network density (Huang et al., 2020). Additionally, the economic dimension (Ren et al., 2018; Tang et al., 2019), population density in decision-making processes, as well as the density of heritage objects and the regeneration modes and strategies of such districts (Liu et al., 2023) are also considered. Table 2 presents several factors that should be considered when planning effective urban regeneration.

Table 2. Factors influencing urban regeneration (Source: Authors)

Factors influencing the successful urban regeneration	Sources
• Considering the specific characteristics and needs of the local community in the development of revitalization plans.	Hwang (2014)
• Consideration of the cultural activities and historical context of various sites.	Ferilli et al. (2017)
• Consideration of the socio-cultural dimension that reflects the social and cultural values inherent to a specific region and its context.	Nocca et al. (2024)
• Considering the needs of diverse social groups during the regeneration process.	Wrona (2020); Maghsoodi Tilaki and Farhad (2024)
• The imperative for the deliberate and strategically considered integration of new functions into established structures.	Yin & Feng (2024); Zhang and Ren (2024); El-Basha (2021)
• A comprehensive understanding of the territorial context and the identification of specific aspects that necessitate revitalisation are essential for the advancement of sustainable development within urban areas.	Liu et al. (2023)
• Consideration of the socio-economic status and physical conditions within the local context	Guimarães (2017)
• The modernisation of historic buildings for functional purposes, while striving to preserve their authenticity to the greatest extent feasible.	Szmygin (2009)
• Adaptive reuse strategies for industrial heritage regeneration to prevent degradation and detrimental transformations.	Szymański (2017)

3. Materials and Methods

This paper employs a comparative case study method to investigate the location of industrial heritage sites in Łódź and Yazd, along with the various factors that influence the effectiveness of urban regeneration. The comparative case studies augment the value of individual case studies by facilitating deeper insights through the contrast and comparison of multiple cases. This methodological approach aids in the identification of patterns, best practices, and causal relationships across diverse contexts, ultimately resulting in more robust conclusions and potentially - generalisable findings. In this context, the authors applied semi-structured interviews with experts and professionals, supplemented by fieldwork and observational analyses of the textile manufacturing heritage sites, particularly focusing on revitalisation projects within these two cities. The fieldwork and observational analysis encompass a comprehensive examination of the condition of industrial heritage sites and their contexts, employing photography and note-taking as primary methods. The authors documented the adaptation and modification of these sites for new uses, as well as the interactions between users and the heritage spaces. Several open-ended questions were posed during the interviews (See appendix 1). The interviews in Yazd were conducted from July 2023 to September 2023, and from November 2023 to March 2024 in Łódź. The study involved interviews with 54 experts who served as informants in the process of industrial heritage revitalisation in Yazd and Łódź. The interviewees were experts in the fields of architecture, urban planning, urban revitalisation, geography, economics, regional planning, and socio-economic planning. Additionally, they served as a professor at a university or held positions as experts in an engineering consulting firm, the city architect's bureau, and the regional planning office in Yazd and Łódź (See appendix 3 and 4). The participant selection strategy for the interviews was based on snowball sampling, ensuring a balanced representation between the public-private and academic-practitioner sectors. It excludes other pertinent stakeholders, including users, investors, and national policymakers. Initial invitation messages were dispatched to experts in Yazd, which were subsequently followed up with telephone calls, resulting in the participation of 24 experts in the interview process. Concerning Łódź, experts were solicited for interviews through email correspondence, and a total of 30 individuals participated in the interview process. Interviews with participants were conducted in their offices or in a nearby café in Persian in Yazd, and in Polish and English in Łódź, thereby ensuring compliance with

anonymity protocols. With the participants' consent, a voice recorder was used during the interviews, which were subsequently transcribed. Each interview lasted between 25 and 40 minutes, with the Polish and Persian interviews being translated into English transcription. The English transcribed data were transferred to Atlas.ti software (version 8). Content and thematic analysis techniques were employed to analyze the texts. The textual data were examined using these techniques to elucidate underlying themes (Ghaderi et al., 2020). The materials were reviewed up to four times to improve familiarity with the analysis process. Rereading facilitates the discovery of meanings, constructions, and patterns (Clarke & Braun, 2018). The open coding phase of the three-step data coding process in this analysis identified primary research themes. Data was coded according to research inquiries, classified based on semantic and conceptual relationships and named (See appendix 2). A network of coding groups was established, with a principal theme for each network and additional sub-codes/sub-themes to clarify interconnections among concepts (Ghaderi et al., 2024). In the results section, excerpts from the interviews will be incorporated throughout the text to illustrate or reinforce specific points.

3.1 Łódź

Łódź is situated in the central region of Poland (Figure 2). It was granted city rights in 1423 and remained a modest settlement until the eighteenth century. By a decision of the authorities in 1820, the city transformed into a rapidly developing centre of industry, particularly in the field of textile manufacturing. Immigrants from various regions of Europe, predominantly from southern Germany, Silesia, Bohemia, and Jewish communities, migrated to Łódź. Consequently, Łódź evolved into a multicultural city characterised by the coexistence of diverse groups, including Jewish, German, Russian, and Polish populations (Mokras-Grabowska & Mroczek-Żulicka, 2024). Łódź ranked as the third largest city in Poland by population in 2016. After experiencing rapid development in the 19th and early 20th centuries, the city underwent a relatively stable period of growth and expansion throughout the socialist era. This trend was subsequently followed by a decline following the political transformation that occurred in 1989 (Galuszka, 2022). This transformation also led to the collapse of the textile industry, which faced the necessity to reinvent itself and identify new uses for its abandoned industrial heritage sites. Consequently, there has been a growing acceptance and adaptive reuse of these sites, particularly former textile factories, since the early 2000s. These factories have been converted into educational facilities, shopping centres, cultural venues, and residential spaces (Walczak, 2015). Table 3 presents data regarding several textile factories that have been repurposed for new functions. The cluster of revitalization efforts in the early 2000s indicated a growing concern regarding the regeneration of former industrial sites, which emerged in conjunction with the transition to a more consumption-oriented society. These cases illustrate how Łódź has embraced its historical legacy and revitalised numerous former factory buildings and sites (Figure 3). This approach has facilitated the preservation of Łódź's distinctive character while concurrently adapting to the post-industrial economic landscape.

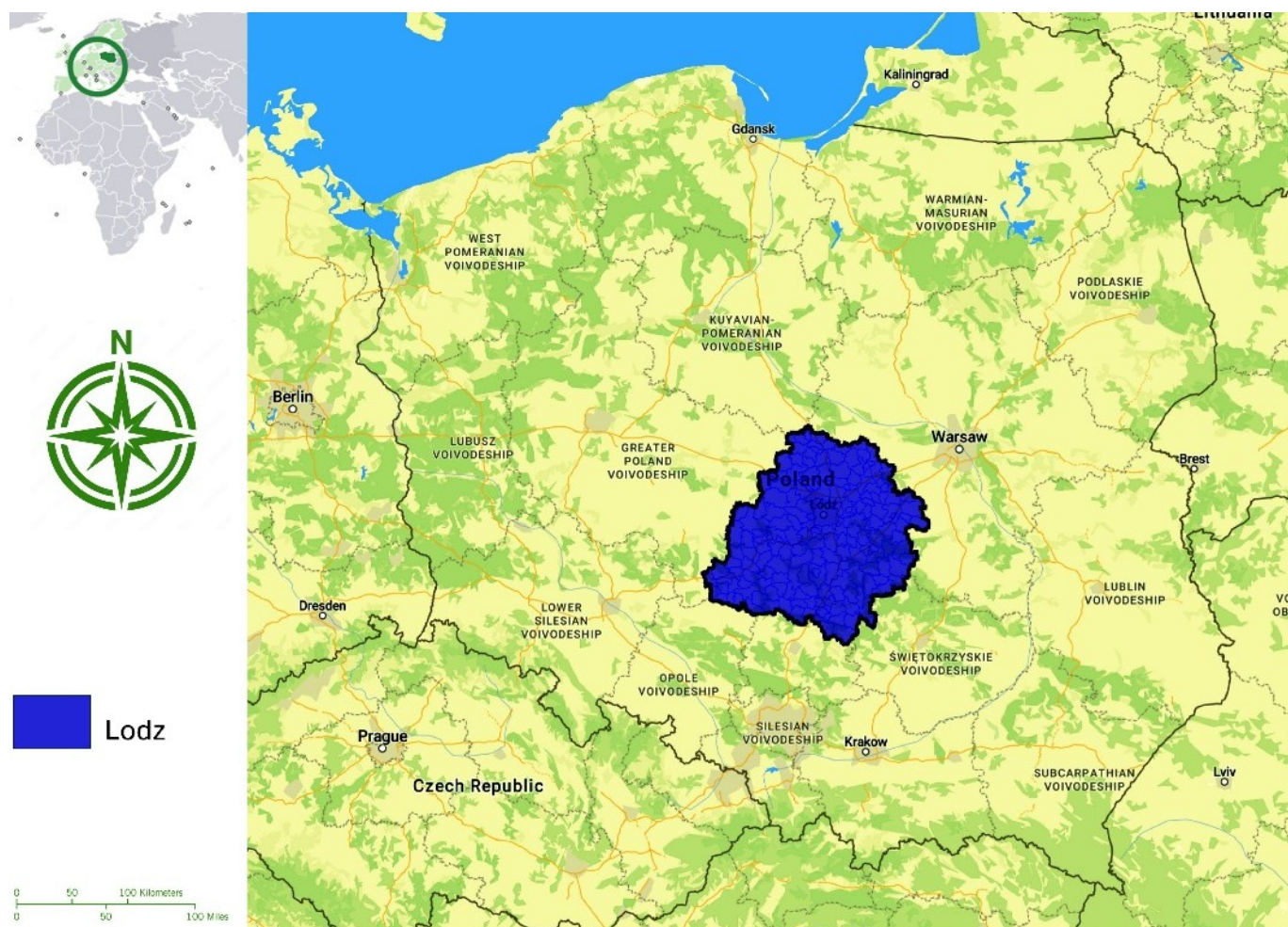


Figure 2. Location of Łódź province in Poland (Source: Authors).

Table 3. List of textile factories of Łódź (Source: Authors).

Factory. No	Name of Factory	Establishment Year	Year of Closure	Current Condition	Revitalisation Completion Date	Area (Hectare)
1	Geyer's White Factory	1837	1990	Museum	1960	2.88
2	Ferdinand Goldner's factory	1883 - 1896	1995	University	2001	1.1
3	Księży Młyn (Priest's Mill)	1824	2006	Offices and housing	2024	10
4	Scheibler's Factory (Western part – now "Fuzja")	1878	2003	Residential, offices and restaurant	2024	18.5
5	Grohman factory	1888	2003	Abandoned / office, conference, cultural and exhibition centre	2013	1.45
6	Biedermann factory	1863	1990	Destroyed and new factory	Not applicable	4.4
7	Allart, Rousseau & Cie.	1879	1989	Abandoned and destroyed / housing	Not applicable	8.8
8	Rosenblatt factory	1880	1934	Lodz University of Technology / Mostly new buildings	1945	7.6
9	Salomon Barciński factory	1884	2004	Residential Dental Medic / completely new buildings	Not applicable	4.8
10	F.W. Schweikert factory	1908	1994	Lodz University of Technology Library / partly new buildings	2002	8.7
11	Markus Silberstein Factory	1896	1980	Apartment rental agency / partly destroyed, partly abandoned, partly office	2000	2.4
12	J.Heinzel dyeing and printing house	1861	1925	Destroyed, buildings from 20th century	Not applicable	4
13	Teodor Finster factory	1881	1990s	Offices and Social Sciences Academy / labor Office	2000s	1.6
14	Jan Stüldt factory	1886	1937	Destroyed	Not applicable	1.8
15	Factory of Zygmunt Jarociński	1889	1995	Abandoned	Not applicable	1.5
16	Stiller and Bielszowski Factory	1876	1950s	Warehouses / Little factories	2000s	1.7
17	Izrael Poznański's factory	1872-1892	1992	Arts centre, shopping mall, and leisure complex	2006	27
18	Osser	1903	1995	Abandoned / workshops	Not applicable	4
19	Eisenbraun	1894	1950s	Workshops	Not applicable	2,8
20	Kretschmer	1880	1990s	Hotel, Apartments	2013	2

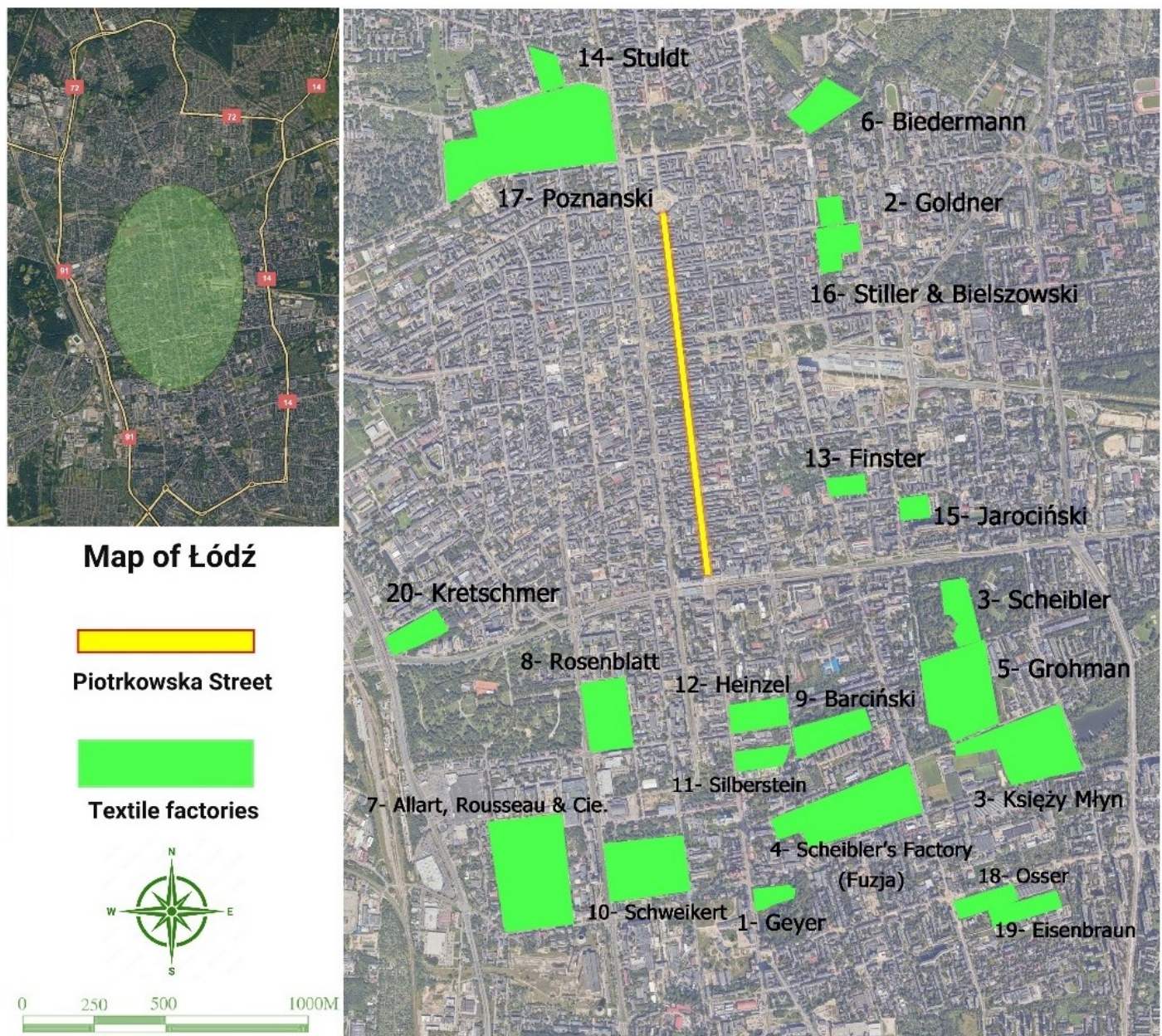


Figure 3. The distribution of textile factories in Łódź (Source: Authors).

3.2 Yazd

Yazd is in proximity to the Silk and Spice Roads on the Central Iranian plateau (Figure 4). The positioning illustrates the adaptation to and utilisation of limited resources for survival in a desert environment. The cultural heritage of Yazd has largely remained intact over the years. Consequently, the historic city of Yazd, encompassing an area of 195 hectares, was inscribed as a World Heritage Site during the 41st session of the UNESCO World Heritage Committee, convened in Kraków, Poland, from July 2 to July 12, 2017 (UNESCO, 2025). The rich history of Yazd in the textile industry, coupled with the presence of skilled artisans, significantly contributed to the establishment of modern industrial institutions within the city (Dehghan Pour Farashah & Pourzakarya, 2025). At the beginning of the 20th century, the importation of industrial machinery from Europe and the United States led to the predominance of industrial forms in the textile industry. Yazd emerged as a prominent centre for textile production in Iran following the establishment of large-scale factories, which contributed significantly to the city's economy for over fifty years (Ramazankhani, 2016). These factories (Table 4) were constructed as structures characterised by distinctive architectural patterns and designs reflective of their era (Dehghan Pour Farashah et al., 2019). Several factories have been closed as a result of urban development, environmental concerns, economic recessions, and shifts toward service-based and heavy manufacturing sectors in Yazd since the 1990s (Dehghan Pour Farashah & Pourzakarya, 2025; Esfahani & Pesaran, 2009). These buildings, owing to their substantial dimensions, advantageous urban locations (Figure 5), and the adaptability of their designs facilitated by a modular structure, possess significant potential for conversion into diverse uses, particularly for cultural purposes. However, insufficient efforts have been made to promote awareness of these sites among Iranians, who appear to have a limited understanding of this heritage (Samadzadehyazdi et al., 2020).

Table 4. List of textile factories of Yazd (Source: Authors).

Factory No	Name of Factory	Establishment Year	Year of Closure	Current Condition	Revitalisation Completion Date	Area (Hectare)
1	Eghbal	1931	1978	Reused (Yazd Science and Technology Park)	2006	3.65
2	Saadat Nasadjan	1934	2000s	Under revitalisation for hotel	2026	10
3	Dorakhshan and Herati	1935	1980s	Reused (Innovation Factory)	2022	4.1
4	Seyed Moammad Agha	1948	2000s	Abandoned	Not applicable	8.47
5	Dastbafan	1948	1980s	Abandoned and school	1990s	1.16
6	Yazdbaf	1956	Not applicable	Active (in its original function)	Not applicable	14
7	Jonub	1959	2003	Reused as seasonal exhibitions and museum	2017	5.37
8	Afshar	1963	2010s	Abandoned	Not applicable	12.1



Figure 4. Location of Yazd province in Iran (Source: Authors).

4. Results

The analysis of the interviews facilitated the identification of five themes for the case studies. These themes reflect analogous content in both cities; however, they vary in specificity based on the expressions, phrases, and concepts employed by respondents throughout the research. It is noteworthy that during the analysis of the interviews, a diverse array of terms associated with the expansive notion of urban regeneration emerged, including regeneration, revitalisation, adaptive reuse, reconstruction, conservation, preservation, and demolition. The initial three identified themes pertain to the first research question, while the subsequent two identified themes are related to the second research question.

4.1. Theme 1: Accessibility, connectivity, and strategic location of industrial heritage sites

As for Łódź, the results obtained from the study indicate that, with regard to the physical aspects, attention was focused on the spatial location of districts undergoing urban regeneration. The nine most frequently occurring codes identified during the data analysis are illustrated in Figure 6. In the case of Łódź, the strategic positioning of numerous textile factories, frequently located in central or well-connected areas, enhances their potential for revitalisation (Figure 3). In this regard, one urban planner explained that *“In Łódź, textile factories are situated within the urban area, which facilitates greater accessibility to the industrial sector of the city. This spatial arrangement is significant, as it has various implications for the regeneration of the entire city. Notable sites such as Izrael Poznański, Fuzja, and Księży Młyn (see Table 3) exert a considerable influence on the overall development and revitalisation of Łódź.”* However, several other respondents believed that inadequate public transport, limited pedestrian infrastructure, and a high dependency on private vehicles are significant drawbacks for accessibility to industrial heritage sites. One interviewee declared *“The significant challenge facing the city of Łódź in enhancing its walkability and accessibility for pedestrians is the limited number of streets. When comparing the urban structure of Łódź to other cities globally, particularly in Europe, this issue becomes evident. For instance, Różgrodzka Street is located on the western side, while Piotrkowska Street and Sienkiewicza Street are situated at considerable distances from one another. Additionally, there is a new street currently under construction that will connect these areas in a north-south orientation.”* In addition, the virtual accessibility was also mentioned by some of the experts. One of the informants said *“The accessibility of these buildings is commendable, not only for individuals traveling to Łódź but also for those seeking to explore the city virtually. Currently, we have access to 3D projections, which provide a virtual opportunity to visit these sites.”*

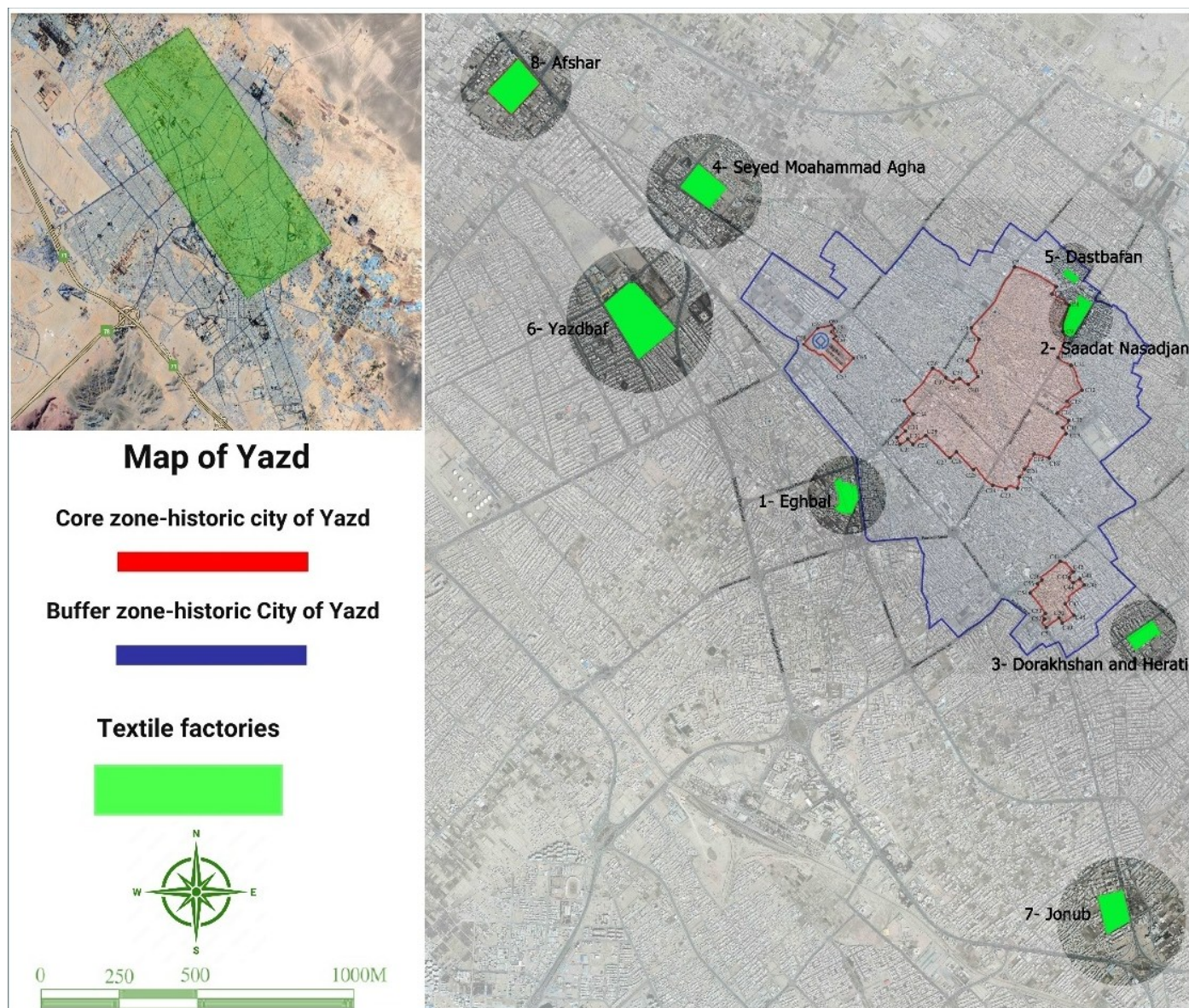


Figure 5. The distribution of textile factories in Yazd (Source: Authors).

Regarding Yazd, the 9 frequently occurring codes are illustrated in Figure 6. We can establish that the textile factories are evenly distributed across different parts of Yazd as socio-economic areas that lead to diverse opportunities for urban regeneration (Figure 5), unlike Łódź that textile

factories are heavily concentrated. The head of an engineering consulting firm currently involved in the process of revitalising one of the textile factories stated, *“There exists a variety of locations, and many of these factories under examination were constructed in alignment with the city's expansion. Each location holds significant potential and comprises expansive space within the urban context.”* The factories in Yazd were predominantly located within the historical city limits, though not in the core of the historical city itself. Despite concerns regarding their potential destruction, such an event did not occur. In this context, one architect claimed that *“proximity to the historic core facilitates potential connections with existing tourism infrastructure while simultaneously avoiding direct conflict with heritage conservation policies.”* Based on the interviews and observational analyses, accessibility emerges as a crucial and flexible factor in determining the potential for adaptive reuse. Certain factories benefit from their proximity to main streets and urban centres, whereas other factories encounter challenges related to traffic congestion. One of the municipal experts elucidated that *“the Seyed Moahammad Agha and Afshar factories (see Table 4) should be utilised at a local scale; the Jonub factory (see Table 4) is more advantageous for tourism, and the Saadat factory (see Table 4) could also be profitable if it is situated along the tourism route.”*

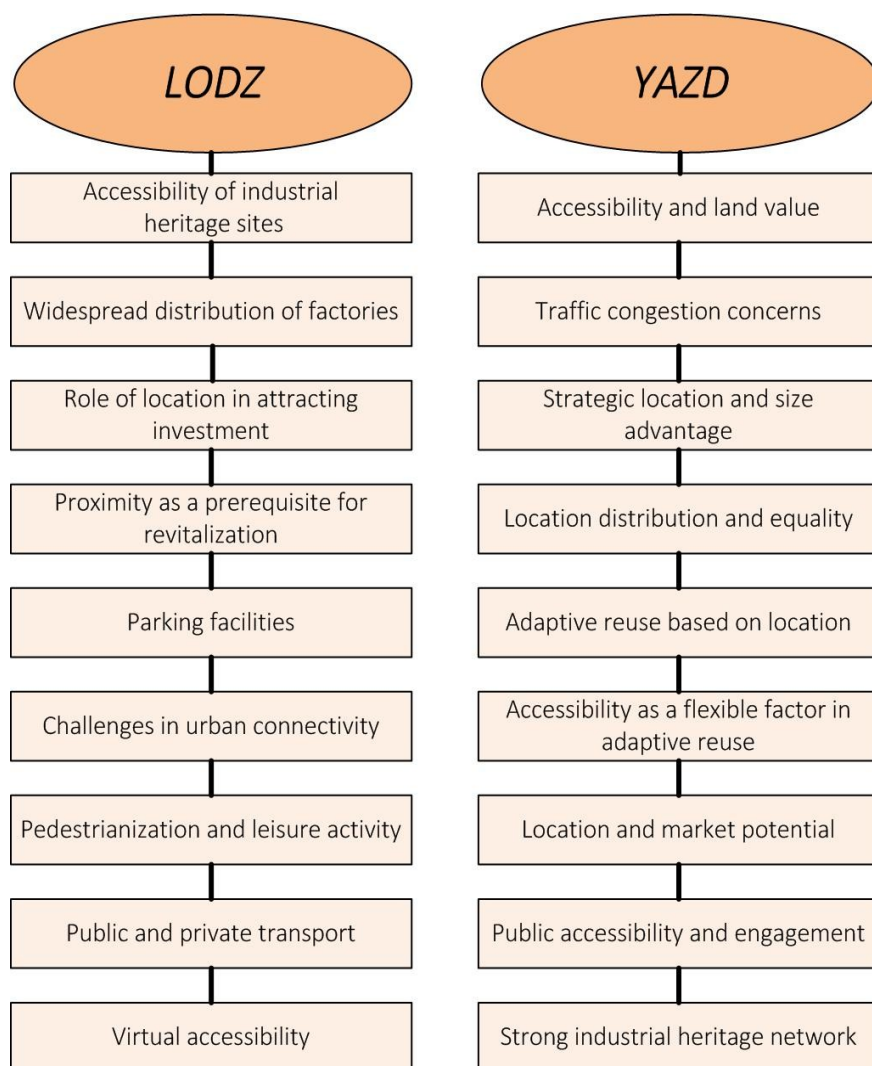


Figure 6. The most prevalent codes for the first theme (Source: Authors).

4.2. Theme 2: Economic drivers and investment challenges in industrial heritage revitalisation

This theme encompasses several codes, including elevated preservation costs, inconsistent investment patterns, and constrained municipal resources, which frequently impede large-scale revitalisation initiatives in Łódź. Figure 7 illustrates the most prevalent codes associated with Łódź. Some experts contend that, although Poland receives EU funding for urban regeneration activities and utilises public financing initiatives, selective revitalisation often prioritises profitability over social integration due to economic constraints. One economist stated, *“Following Poland's entry to the European Union, substantial European funding catalysed public investments in post-industrial sites. Municipalities began to utilise these resources to transform such areas, exemplified by the case of Science and Technology Centre, thereby demonstrating their active participation in regeneration initiatives.”* The participation of private investors in the revitalisation of public spaces exists; however, commercial competition occasionally overshadows local businesses. Another economist said *“Most of the public spaces were developed by private investors. In the context of Piotrkowska Street, for instance, this model has proven to be effective.”* The majority of respondents indicated that balancing financial feasibility with public-private partnerships presents a dilemma for local authorities in ensuring the long-term economic impact of these projects.

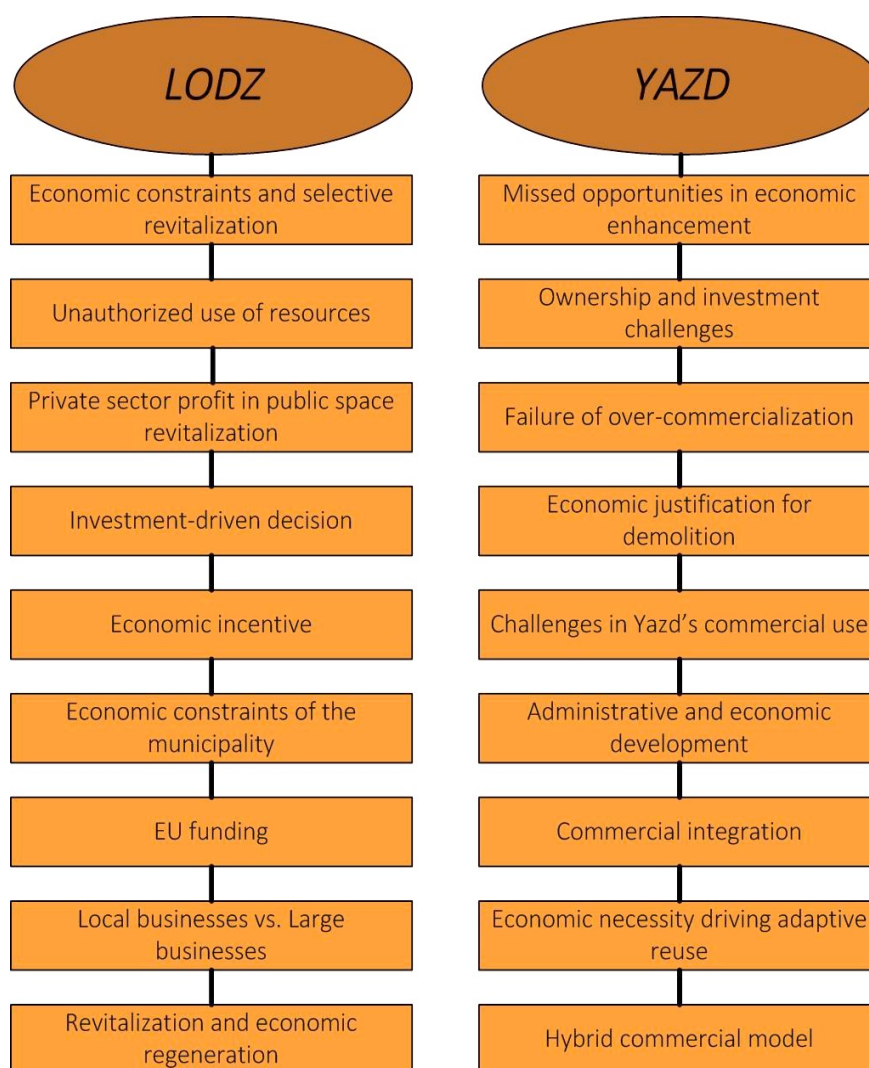


Figure 7. The most prevalent codes for the second theme (Source: Authors).

Concerning Yazd, this theme illustrates the economic factors that significantly influence the fate of industrial heritage sites. Figure 7 presents the most pertinent codes associated with this theme. According to expert opinions, the economic justification leads to the consideration of preservation, adaptive reuse, or demolition in Yazd. An urban planner within the municipality asserted that *“a portion of Dorakhshan (see Table 4) was lost due to the land's valuation. The rationale provided was to delineate the area in order to facilitate financial gains for certain stakeholders.”* Ownership and investment challenges constrain private investors and public initiatives in financing revitalisation projects. One of the experts involved in the preparation of the Agha factory (see Table 4) revitalisation plan, which ultimately failed, indicated that *“the ownership structure of factories plays a critical role in the revitalisation process. When a factory is subject to multiple ownership by both private entities and government, potential investors may be dissuaded from making substantial investments. This reluctance stems from the significant financial commitment required for such investments, thereby underscoring the importance of a clear and unified ownership structure for the factory.”* While there is potential for a hybrid commercial model encompassing retail, hospitality, and cultural spaces, excessive commercialisation presents a significant risk, ultimately resulting in a loss of authenticity. The director of an engineering consulting firm, who has experience in the transformation of the first factory in Yazd approximately two decades ago, elucidated that *“shopping malls in Iran, particularly in Yazd, have not succeeded due to the high commercial per capita in the region. However, it is noteworthy that mixed-use developments, which integrate commercial and other functions, have proven to be more effective.”*

4.3. Theme 3: Cultural sensitivity and community-driven regeneration

Regarding Łódź, Figure 8 illustrates the predominant codes associated with the cultural and social dimensions of urban regeneration within industrial heritage sites. The historical textile factories that once constituted the industrial identity of Łódź have been converted into cultural institutions and social spaces that align with contemporary community needs. One respondent indicated that *“there are numerous factories in the centre of the city, such as Scheibler's factory (see Table 3). Therefore, revitalisation efforts, including the establishment of restaurants, could attract individuals who reside in proximity to these buildings.”* However, respondents noted that the process of revitalisation has exhibited uneven community engagement, prioritising tourism and large-scale events over local needs. Additionally, the challenges of population decline, and youth retention significantly influence revitalisation efforts, necessitating the creation of spaces that address both cultural preservation and functional urban living. To support this, one respondent claimed *“There is a challenge associated with retaining young people in the area after they complete*

their studies. Furthermore, I believe that the utilisation of textile factories could be oriented more towards serving community purposes rather than solely focusing on market and entertainment objectives.” The collaborative efforts involving the public, private, and NGO sectors highlight the development of more socially integrated and community-driven urban spaces in Łódź.

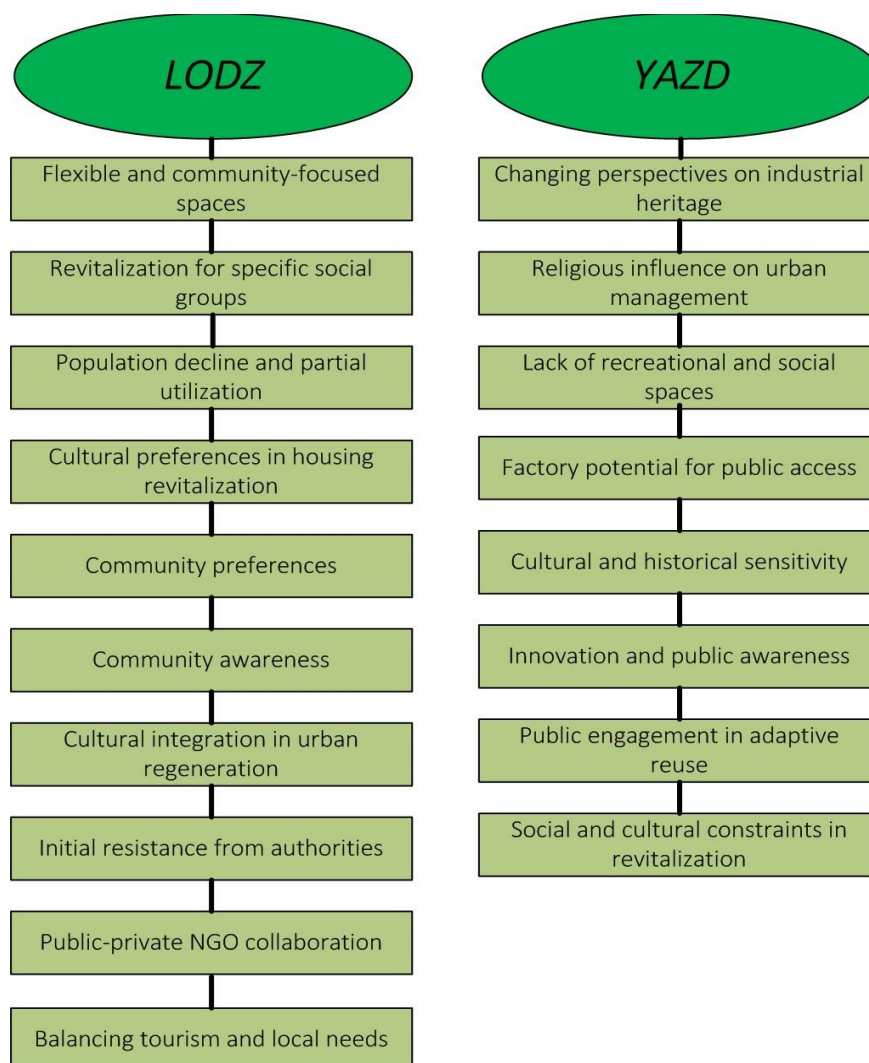


Figure 8. The most prevalent codes for the third theme (Source: Authors).

As for Yazd, this theme illustrates the social and cultural factors that influence the regeneration of industrial heritage in Yazd (Figure 8). The majority of respondents asserted that the limited involvement of local communities in the decision-making processes related to industrial heritage results in a deficiency of public engagement in revitalisation initiatives. In this regard, one respondent said “The involvement of individuals in the transformation of factory utilisation has not been effectively harnessed. Furthermore, it is feasible to leverage the capital of former factory workers as a form of investment, given their sense of affiliation with these establishments. However, the success of such initiatives is contingent upon comprehensive preliminary studies.” Another factor that plays a significant role in urban management is religious values, which influence the types of activities considered appropriate for industrial heritage sites. A former advisor to the city council explained “The primary cultural and social spaces have been the mosque and Husayniyya. Furthermore, due to the predominance of religious backgrounds in urban management, there has not been an automatic transition towards creating a vibrant atmosphere. Instead, the focus has shifted towards administrative and economic activities.” The same respondent added “Recently, the Saadat factory is being repurposed as a resort and hotel, while the Herati factory (see Table 4) is also set to enhance its lively activities. This transformation represents a departure from the initial conception of these factories.”

4.4 Theme 4: Balancing functional approaches in urban regeneration

The findings indicate that a complex interplay between heritage preservation and the demands of modern urban development has shaped urban regeneration in Łódź (Figure 9). Several respondents identified the Manufaktura (Poznański's factory) (see Table 3) as a landmark project resulting from revitalisation efforts; however, numerous sites continue to confront challenges stemming from economic constraints, fluctuating land values, and inconsistent preservation policies. The multifunctional urban vision has introduced a new strategy in Łódź, particularly for large-scale commercial projects. An experienced urban planner noted that “the multifunctionality observed in the designated area extends beyond mixed-use developments to encompass the entirety of the downtown area, reflecting a collaboration between municipal authorities and private

enterprises.” Respondents asserted that the demolition-driven strategies of the 1990s have evolved into more integrated regeneration efforts, which now incorporate green spaces, city zoning, and holistic urban planning, influenced by concepts such as the 15-minute city. One respondent from regional planning office explained, “Fuzja (see Table 3) is an inner city that provides essential amenities, such as grocery stores, in accordance with the concept of the 15-minute city design.” Some interviewees contended that the primary challenge for Łódź resides in ensuring the integration of historical and contemporary elements in revitalisation projects, while simultaneously preserving historical identity and promoting economic and social sustainability.

Figure 9 illustrates that the preservation of industrial heritage sites is critical for maintaining industrial identity in Yazd. Furthermore, adaptive reuse must extend beyond static conservation to guarantee long-term functionality and relevance. Based on the interviews and fieldwork, the revitalisation process necessitates a balance between heritage preservation, urban integration, and contemporary needs. Some of the interviewees believed that industrial heritage sites could serve as a platform for innovation in adaptive reuse and revitalisation. One conservation architect told us “In my assessment, although the number of converted factories is relatively limited, their quality is commendable. For instance, the Eghbal factory (see Table 4), identified as a technology centre, aligns well with the factory’s former function. Additionally, the establishment of startups and co-working spaces represents a significant innovation in the context of revitalisation and adaptive reuse.” The spatial value of industrial sites and novel concepts are additional themes identified by several experts. In this context, an individual affiliated with the civil and architecture commission of Yazd provided an explanation. “One proposed initiative for the Jonub factory (see Table 4) involved establishing a connection to the adjacent park through the construction of an overpass, thereby restoring the factory to its original configuration prior to the street developments in Yazd. However, this plan did not progress to the implementation stage.”

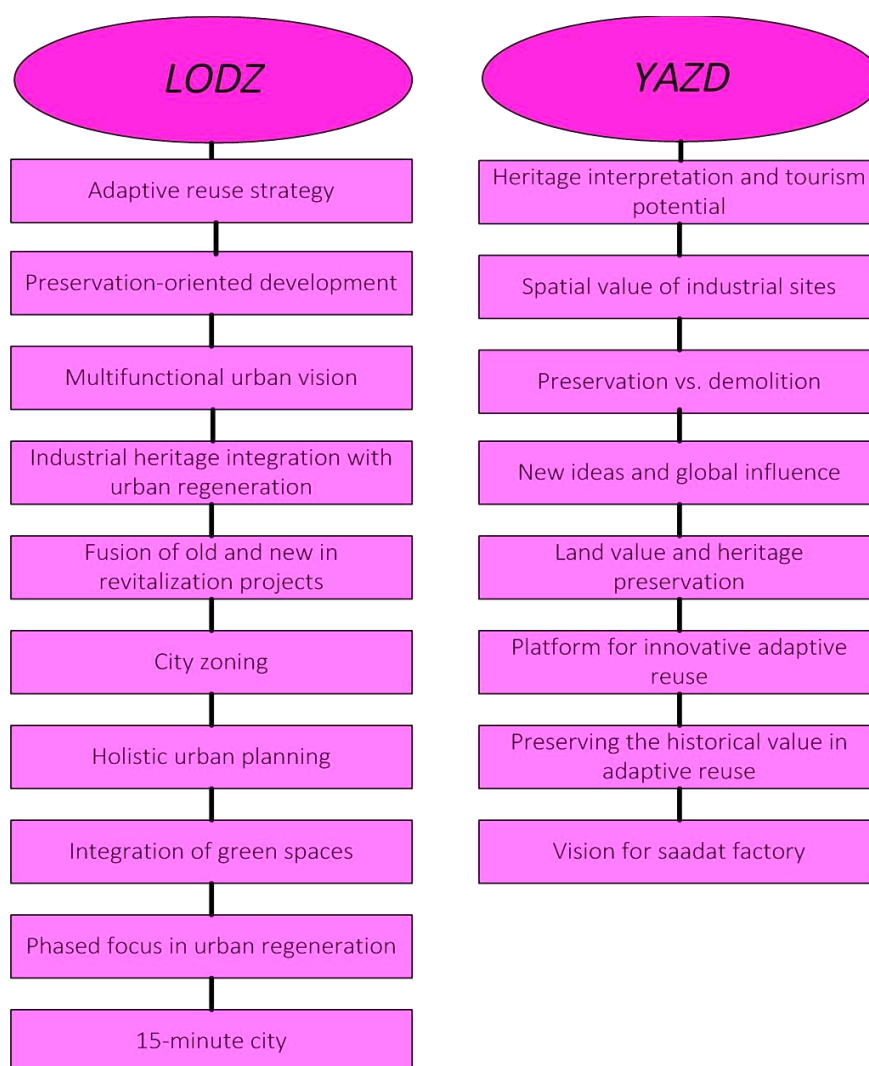


Figure 9. The most prevalent codes for the fourth theme (Source: Authors).

4.5 Theme 5: Success and challenges of industrial heritage in urban regeneration

The theme suggests that Łódź has been characterised by both significant successes and ongoing challenges in the revitalisation of its industrial heritage sites (Figure 10). Manufaktura (see Table 3) serves as a prominent example of how large-scale adaptive reuse can catalyse urban regeneration, attract investment, and enhance urban identity. A conservation architect from the city architect’s bureau asserted that “Manufaktura (see Table 3) was successful and that it fundamentally transformed the landscape. This approach, however, is markedly different in contemporary practice. It is my belief that we have already internalized this lesson.” However, some of the respondents provided a critical evaluation of

the success of the revitalisation efforts in comparison to other revitalisation projects. To substantiate this statement, one interviewee remarked “Not all revitalisation efforts have produced positive outcomes. Certain projects have encountered challenges due to unsuccessful attempts at heritage imitation, inadequate integration with surrounding areas, or excessive commercialisation that undermines historical value.” Thus, user-oriented success metrics and a multi-disciplinary approach to evaluation could comprehensively assess the full impact of revitalisation, ensuring that revitalisation efforts benefit both investors and local communities. The existence of large factories, coupled with the high costs associated with revitalised areas and the process of gentrification, has negatively impacted urban regeneration. This phenomenon can be attributed to the shortcomings of inauthentic revitalisation efforts.

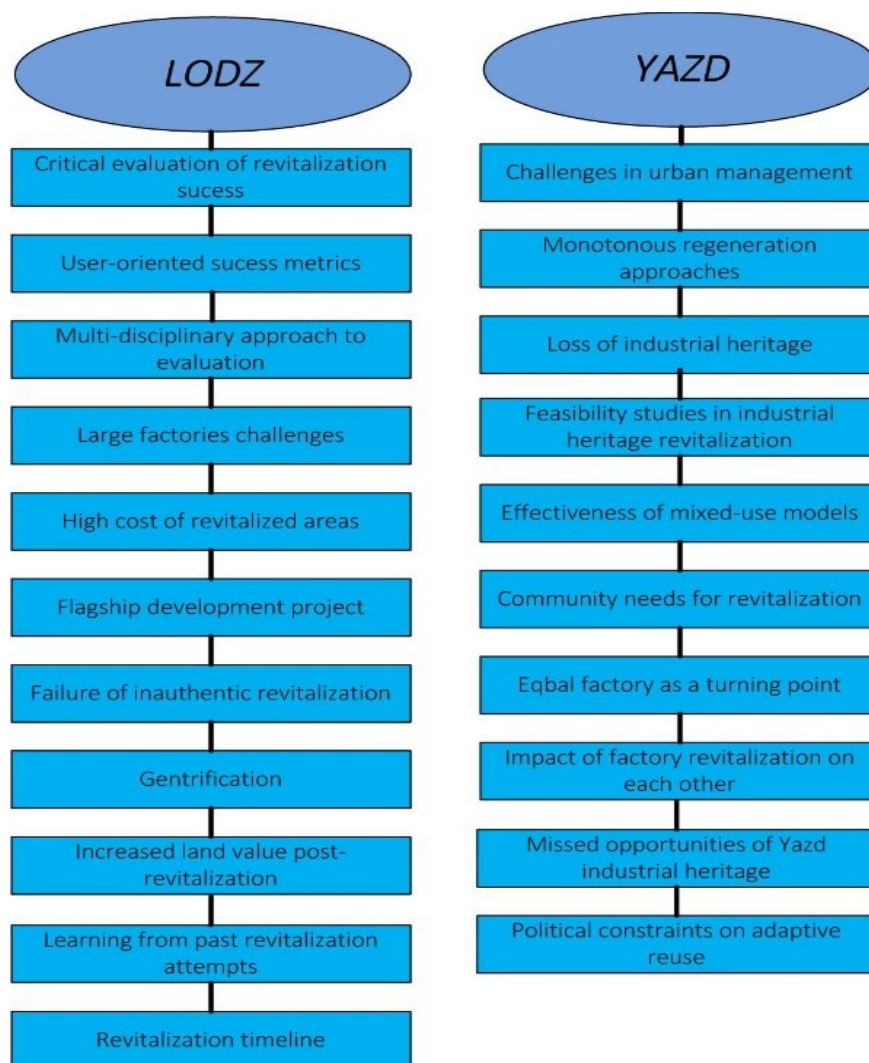


Figure 10. The most prevalent codes for the fifth theme (Source: Authors).

In alignment with this theme, the industrial heritage of Yazd possesses considerable potential for urban regeneration; however, its impact is constrained by a confluence of political limitations on adaptive reuse, homogeneous regeneration strategies, and an absence of comprehensive planning (Figure 10). Although certain revitalisation projects, such as the Eghbal Factory (see Table 4) and the Dorakhshan Factory (see Table 4), exemplify the potential for successful revitalisation, numerous other industrial heritage sites have either been neglected or revitalised without a coherent long-term vision. The head of the engineering consulting firm responsible for the revitalisation design of the Eghbal factory (see Table 4) asserted that “The Eghbal factory was initially slated for demolition, with plans for a shopping centre to be constructed in its stead. However, this demolition did not occur, leading to a change in use that has subsequently impacted the revitalisation of other factories in the area. Had the Eghbal factory (see Table 4) been demolished, it is likely that the other factories would have also faced demolition.” According to the majority of interviewees, there has been a notable deficiency in the feasibility studies conducted on the revitalisation of industrial heritage. This is particularly evident in the context following Yazd’s designation as a UNESCO World Heritage Site in 2017, which has resulted in missed opportunities for integrating industrial heritage into broader urban regeneration strategies.

5. Discussion

The research indicates that in two geographically and culturally distinct cases, various factors are perceived to influence the revitalisation of industrial heritage sites, and the concept of effective urban regeneration is defined differently. In the context of Łódź, several physical factors positively influence the revitalisation processes of the industrial heritage districts. These factors include a strategically advantageous location

characterised by well-connected areas, a compact distribution of facilities, initiatives aimed at enhancing access to key amenities, and proximity to primary roadways and urban centres. Factors that negatively influence revitalisation include inadequate pedestrian infrastructure and restricted spaces, which result in limited accessibility and contribute to the issue of gentrification. These elements are also discussed in the studies by Martinović and Ifko (2018) and Wrona (2020). In the case of Yazd, the spatial layout differs from that of Łódź. While numerous industrial sites are strategically located near the historic core, these facilities are generally evenly distributed across various socio-economic areas. This distribution is crucial for the planning of urban regeneration (Ren et al., 2018; Tang et al., 2019). There are also disparities in accessibility concerning proximity to primary thoroughfares and urban centres; however, certain areas experience traffic congestion and inadequate infrastructure. Numerous industrial sites remain under-utilised as a cohesive network, thereby limiting their collective impact on urban development. As indicated by Liu et al. (2023), these factors may be significant in the context of revitalisation modes and strategies for such districts. The identified physical factors in both Łódź and Yazd corroborate previous studies (Huang et al., 2020; Zheng et al., 2016) regarding the significance of these factors in revitalisation processes. Accordingly, the physical factors within this theme represent a preliminary consideration that can determine the feasibility of revitalizing industrial heritage sites, particularly in post-industrial cities.

Socio-economic factors exhibit significant variation between the two case studies. Considering the potential for financing urban regeneration projects that involve industrial heritage, Poland has the opportunity to access EU funds. However, this potential is often accompanied by negative factors that adversely affect the revitalisation processes, including financial challenges such as high maintenance costs, uneven investment patterns, and limited municipal resources. Economic constraints may lead to selective revitalisation that prioritises profitability (Walczak & Kępczyńska-Walczak, 2024) over social integration. Furthermore, the involvement of private investors may compromise the positive socio-economic outcomes associated with revitalisation processes (Ploegmakers & Beckers, 2014). In the context of Yazd, the tensions between economic necessity and heritage conservation have a substantial effect on the preservation of authenticity in heritage sites when evaluated from a purely economic standpoint. This may result in a reduction of the authenticity of industrial heritage sites (Szymgin, 2009; Szymański, 2017). In revitalisation processes, it is essential to delineate the procedures for sale and adaptive reuse to mitigate potential devastation or unfavorable transformations (Szymański, 2017). Favoring administrative and commercial development, while prioritising immediate economic returns and excessive commercialization, may diminish the potential for long-term cultural and tourism opportunities (Vardopoulos, 2023). This approach risks undermining Yazd's capacity to evolve into a compelling tourist destination and to serve as a foundation for new cultural activities (Baumgartner, 2025). The initial step of regeneration within industrial heritage sites is often driven by economic factors that compel the initiation of the project; however, the success of these projects may be largely influenced by social factors.

The positive social and cultural factors include the acknowledgment of cultural values derived from heritage as a significant social aspect. An implication of industrial values and the social and cultural outcomes resulting from the revitalisation of industrial heritage sites has also been indicated by Kuzior et al. (2022). In the case of Łódź, the transition from privately-led investments to collaborative efforts among diverse stakeholders may facilitate a community-driven vision for the urban future. In the case of Yazd, there is a significant indication of the role of cultural values in urban management, which influences the types of activities deemed appropriate for revitalised spaces. These factors are crucial to revitalisation processes, as they must encompass a socio-cultural dimension that reflects the social and cultural values inherent to a specific area and its context. Positive socio-cultural factors include the engagement of local communities in the planning processes of revitalisation activities and projects that promote not only economic profitability but also social inclusion. In both cities, a lack of such engagement was evident. The significance of public participation has also been highlighted by other researchers (Della Lucia & Pashkevich, 2023; Nocca et al., 2024; Zhao et al., 2023). As noted by several researchers, it is essential to consider the alignment of the revitalisation projects with both material and non-material values (Nocca et al., 2024). Such non-material values are deeply embedded in religious and cultural contexts, particularly regarding the cultural differences between the two cities. However, appropriate consideration of these values in revitalisation processes can yield positive outcomes. Within Iranian society, religious and cultural elements are more deeply ingrained in the collective consciousness than in Poland. Thus, religious and cultural conditions significantly influence the regeneration of industrial heritage by establishing a framework for community identity, promoting people-centered approaches to urban planning, and encouraging sustainable economic and social development. These elements contribute to the integration of heritage sites into local life, imbuing them with meaning and value that extends beyond mere economic utility, and facilitating community engagement in the decision-making process.

Effective urban regeneration in the case of Łódź is characterised by a shift in the city's strategy from a demolition-focused approach to more integrated regeneration efforts. This transformation incorporates green spaces, cultural hubs, and multifunctional urban planning. In both cases, the perception of industrial heritage value can significantly enhance the success of urban regeneration efforts (Martinović & Ifko, 2018; Vardopoulos, 2023). Other factors that should be considered in the context of effective urban regeneration include the balance between heritage protection and development. Adaptive reuse should ensure the preservation of heritage while also accounting for long-term economic and social impacts. The significance of high-quality design, multidisciplinary evaluation, and long-term planning in effective regeneration processes was also acknowledged (Dehghan Pour Farashah et al., 2019). It can be articulated that effective urban regeneration of districts characterised by industrial heritage entails the achievement of socio-economic outcomes through a balanced approach to public-private financing, while mitigating the excessive influence of private investments. Preferences should be given to projects that enhance accessibility and infrastructure, as well as promote the reuse of historical resources. Such initiatives not only generate financial income but also yield social benefits and contribute to the preservation of cultural heritage values. It is important to acknowledge that the reduction of negative factors significantly enhances the effectiveness of urban regeneration initiatives in districts characterised by industrial heritage. A summary of the explanations within the identified themes regarding urban regeneration in the context of industrial heritage sites, as articulated by the interviewees and informed by fieldwork, is presented in Figure 11. The findings of both case studies are indicative of the transition to post-industrial landscapes in Eastern European countries, as well as in other nations where the economic foundation of major cities was historically rooted in industrial manufacturing until the latter half of the twentieth century.

6. Conclusions

This study examined the various factors, both positive and negative, that influence the revitalisation of industrial heritage sites in Łódź and Yazd. Moreover, through a comparative analysis of Central Europe and West Asia with differing socio-economic, socio-cultural, and physical conditions, effective urban regeneration has been defined within the context of industrial heritage sites. Some of these factors existed, as illustrated by the physical factors such as the location of textile factories, as well as the socio-cultural contexts of Iran and Poland. However, other factors are

temporary, such as the legislative character and planning systems in both cities. Diagnosing these factors is crucial for the implementation and effectiveness of urban regeneration activities. Positive factors should be leveraged, while negative factors should be mitigated to the greatest extent possible.

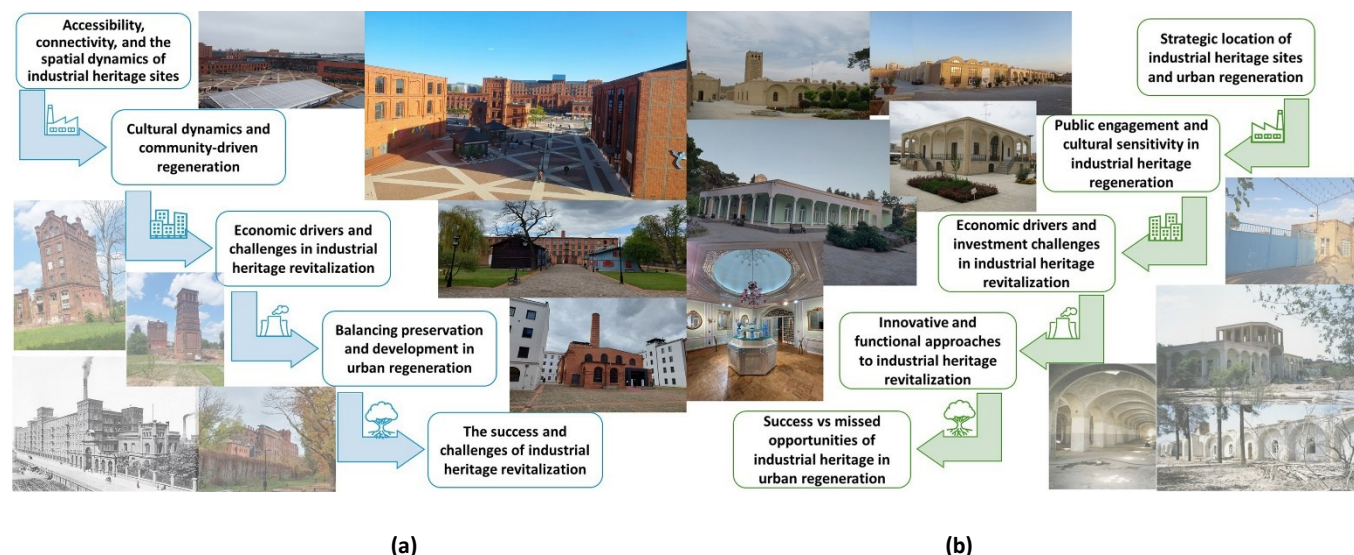


Figure 11. The identified themes pertaining to effective urban regeneration: **(a)** Łódź; **(b)** Yazd (Source: Authors).

This empirical study makes significant theoretical contributions by enhancing our understanding of industrial heritage revitalisation and promoting effective urban regeneration. Highlighting the role of location in attracting investment, adaptive reuse based on geographical context, spatial distribution, and equity, this study emphasizes the significance of the spatial dynamics of industrial heritage sites in the context of revitalisation. Additionally, it was defined that effective urban regeneration within industrial heritage sites should entail socio-economic outcomes that balance public and private financing while mitigating the excessive influence of private investments. Regarding urban planning literature, participatory planning, cultural sensitivity, and collaboration among public, private, and NGO create new concepts for community-driven regeneration.

The outcomes of this study offer significant practical implications. They underscore the importance of various categorical factors that should be considered during the urban regeneration planning stage involving industrial heritage. The results found that there is a correlation between multifunctional urban visions and large-scale commercial projects. The success of the 15-minute city depends on effective city zoning, holistic urban planning, and the integration of green spaces, particularly those connected to industrial sites. Therefore, the planning process should balance heritage preservation with contemporary urban needs, as it embraces this new concept of urban regeneration. Moreover, the spatial value of industrial sites facilitates the emergence of new ideas and platforms for innovative adaptive reuse within the context of urban regeneration planning. A large-scale adaptive reuse project that catalyses urban regeneration, attracts investment, and enhances urban identity can be considered a successful endeavor. To assess the effectiveness of urban regeneration, a multi-disciplinary approach and user-oriented success metrics should be employed to yield appropriate results. The significance of feasibility studies in the revitalisation of industrial heritage, particularly regarding the interrelated impacts of factory revitalisation, contributes to enhanced effective urban regeneration.

This study has several limitations that must be taken into account. Initially, the research predominantly utilises qualitative data obtained through a case study methodology, which includes semi-structured interviews with experts and professionals, supplemented by fieldwork and observational analyses. While this approach enables a comprehensive exploration of experts' perspectives, it restricts the generalisability of the findings to other contexts. Future research could incorporate quantitative spatial and non-spatial data to examine broader trends and validate findings related to urban regeneration within industrial heritage sites. Second, the study focuses on the perspectives of 54 experts, including academics, engineering consulting firms, and municipal institutions. While this provides a comprehensive examination of effective urban regeneration, it excludes other relevant stakeholders, such as users, investors, and national policymakers in Iran and Poland. Future research should investigate the perspectives of these groups to critically analyse the factors influencing the revitalisation of industrial heritage sites and the definition of effective urban regeneration. Third, future studies could undertake comparative analyses utilising data from cities across various country groups, considering their socio-economic and socio-cultural conditions.

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Appendix 1. Interview guidelines (Source: Authors).

- How do you think the use of textile factories should be organized so that it is of the best benefit to the local people?
- What is your view on the utilization of textile factories for urban regeneration?
- How do you evaluate the location and accessibility of the textile factories in relation to urban regeneration?
- What factors contribute to effective urban regeneration?

Appendix 2. Sample data from Atlas.ti (Source: Authors).

The image displays two screenshots of the Atlas.ti software interface, showing text analysis of urban regeneration effectiveness. The top screenshot shows a document with several paragraphs and a list of codes on the right. The bottom screenshot shows another document with similar text and a different list of codes.

Top Screenshot:

Document: Urban regeneration effectiveness - ATLAS.ti

Text:

the city, and it's absolutely closer to the eastern district of the city than it is to the center of the city.]

Our customers, we have the game about the transformation from the coal to the atomic energy. So it was a struggle sometimes for them. So they put, which is usually the way, so they put some creative industries there and they let them operate in the small locals there.

And it was interesting, you know, because it had been building some attention, awareness of the place. Yes, it was some kind of promotional activity, but also it had, I think, enormously maintenance of the site. It wasn't abandoned.]

There were people inside doing their things. And after some time, after the success of Manufaktura, after EC1, after R&D Incubator, and after Monopolis, some investors were interested to put their money in that project, and they did. So what was the first thing that they've done? Demolished it.

And they left just this frame, as I said, with the wall of bricks, and inside they are building something new. But it's still better than to, you know, completely abandon the idea and to leave these ruins. So I think that the localization is the vital thing.

Accessibility in the meaning that you are able to get there, to cancel this communication adventure, is really important. I think that it's, you know, somehow more important, I think, in my opinion, than the architectural objectiveness.] Thank you very much.

Codes:

- 6:16 Our customers, we have t...
 - Creative Industries as a Catalys...
- 6:17 There...
 - Gradual Investment Attraction...
 - viable centers of activity
- 6:18 So what was t...
 - adaptive reuse strategy
 - balances preservation with fun...
 - Preservation of Structural Fram...
- 6:19 So I think that the...
 - ease of transportation
 - Importance of Accessibility in...

Bottom Screenshot:

Document: Urban regeneration effectiveness - ATLAS.ti

Text:

and when you already allocate a function a new function You should already take into account all of the factors Especially regarding the Accessibility and location for example regarding the manufacturer.

I think it has a really I guess because I'm not so tips Like you but because of the accessibility location parking lot anything it was a really Great factor that helped to success this project.] Yes. Do you think how is there? Like if you look at this map, this is where we are basically looking for the historic urban core You can see that the factories are everywhere.

Yes, so those factory centers some revitalized project they They can be accessed from any part of this very city center. You don't have to only go to see the Industrial heritage you can go here here. There is some small factories everywhere.]

So And those changes those changes from the architectural view make it accessible so with people of With some moving disability. So those people are easily accept I mean accessed by anyone and If we talking about a Bit different scale when the factory is working only employees going there, right? And then it's closed and that it and now everyone can go there everyone can see it and It's increasing accessibility and increasing the interest and I don't know Okay, so you think that and Just lost my point. Okay, do you think that? The location and accessibility is quite good from the point of the urban regeneration Yeah, and it has a really great appropriateness that You can allocate Different or multifunctional uses.]

Codes:

- 1:3 the manufa...
 - Accessibility
 - Manufaktura role
 - Parking facilities
 - Strategic location
 - Success factors
- 1:4 this is where we are ba...
 - Accessibility to heritage
 - Factory distribution
 - Historic urban core
 - Revitalized projects
 - Small factories
- 1:5 So a...
 - Accessibility for people with di...
 - Architectural changes
 - Inclusive design
 - Universal accessibility
- 1:7 the loca...
 - Accessibility
 - Appropriateness for regenerati...
 - Multifunctional use
 - Strategic location
- 1:6 If we talking...
 - Functional transition
 - Increased interest
 - Industrial heritage transformat...
 - Public accessibility

Appendix 3. Respondents' profiles of Łódź (Source: Authors).

Respondents	Gender	Age	Educational level	Occupation
R01	Male	45	Master of architecture and town planning	Urban planner
R02	Female	29	Master of architecture	City architect's bureau
R03	Male	40	Ph.D. in urban revitalization	University lecturer
R04	Male	50	Master of architecture and urban planning	Architect and urban planner/consulting firm
R05	Male	39	Master of architecture and urban planning	Architect/consulting firm
R06	Male	48	Ph.D. in economics	University lecturer
R07	Male	52	Ph.D. in city and regional management	University lecturer
R08	Male	45	Ph.D. in economics	University lecturer
R09	Male	41	Master of law and administration	Consulting expert
R10	Male	34	Ph.D. in urban and regional socio-economic planning	University lecturer
R11	Male	34	Ph.D. in architecture and urban planning	University lecturer/architect
R12	Female	39	Ph.D. in architecture and urban planning	Freelancer designer
R13	Male	42	Ph.D. in architecture and urban planning	University lecturer
R14	Male	40	Master of architecture and urban planning	Architect/consulting firm
R15	Female	60	Master of monument protection	Planer in the regional planning office
R16	Female	43	Master of geography	Regional planer in the regional planning office
R17	Male	54	Master of geography	Regional planer in the regional planning office
R18	Female	50	Ph.D. in architecture and urban planning	University lecturer/architect
R19	Male	67	Master of restoration and conservation of urban complexes	Architect
R20	Female	38	Ph.D. in architecture and urban planning	Freelancer designer
R21	Female	66	Ph.D. in architecture and urban planning	University lecturer
R22	Female	54	Master of monument protection	Architect
R23	Male	45	Master of history	CEO watch tourism organization
R24	Female	43	Master of marketing	Expert in heritage marketing
R25	Female	37	Master of culture studies	Freelancer
R26	Male	50	Master of culture studies	Tour guide
R27	Female	26	Master of history	Central museum of textile
R28	Male	54	Ph.D. in history	Central museum of textile
R29	Male	38	Ph.D. in history	University lecturer
R30	Male	50	Master of heritage studies	Director of cultural centre

Appendix 4. Respondents' profiles of Yazd (Source: Authors).

Respondents	Gender	Age	Educational level	Occupation
R01	Male	45	Master of architecture	Interior designer
R02	Female	40	Bachelor of architecture	Conservation architect
R03	Female	33	Master of architecture	Conservation architect
R04	Female	33	Master of architecture	Conservation architect
R05	Male	31	Ph.D. in conservation and restoration of urban heritage	Consulting firm
R06	Male	29	Master of architecture	Tour guide
R07	Male	57	Master of architecture and urban planning	Consulting firm
R08	Male	35	Master of conservation and restoration of urban heritage	University lecturer
R09	Female	32	Master of architecture	Architect
R10	Male	44	Ph.D. in conservation and restoration of urban heritage	University lecturer/ consulting firm
R11	Female	56	Ph.D. urban planning	Urban planner at municipality
R12	Male	53	Master of architecture and urban planning	Consulting firm
R13	Male	37	Master of architecture	Architect at consulting firm
R14	Female	39	Master of architecture	Architect at municipality
R15	Male	35	Master of history	Historian at Cultural Heritage, Handicrafts and Tourism Organization of Yazd province
R16	Female	54	Master of urban planning	Urban planner at municipality
R17	Female	42	Bachelor of conservation and restoration of historical buildings	Tour guide
R18	Male	67	Master of architecture and urban planning	Conservation architect
R19	Male	56	Ph.D. in architecture and urban planning	University lecturer
R20	Female	38	Master of economics	Expert at municipality
R21	Female	35	Bachelor of urban planning	Urban planner at consulting firm
R22	Male	46	Master of conservation and restoration of urban heritage	Conservation architect at Cultural Heritage, Handicrafts and Tourism Organization of Yazd province
R23	Male	57	Master of economics	Expert at Cultural Heritage, Handicrafts and Tourism Organization of Yazd province
R24	Female	34	Master of conservation and restoration of urban heritage	Tour guide

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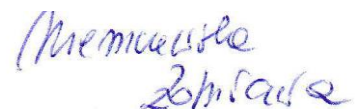
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A handwritten signature in blue ink, consisting of a stylized 'M' followed by a series of loops and a horizontal line at the bottom.