
Case Study Report

Integrated change planning in the historic post-industrial area in the centre of the city.

A case study of riverside industrial complexes in Lodz.

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Abstract

This case study presents the planning and implementation of the regeneration of a post-industrial area in Lodz, a city in central Poland. In the 19th c. Lodz became a European textile empire with numerous factories the architecture of which largely determines the city's present-day urban structure. The past development of Lodz was driven by the so-called Riverside Industrial Complexes (RIC), so massive that they became to be known as "a city within the city". As factory walls were rising, residential buildings were built and public and technical facilities were constructed. In the early 20th c., however, the RIC area, occupying 280 ha in the centre of Lodz, was affected by depopulation processes and its spaces started falling into dilapidation.

This article presents the land-use plans for the RIC area and investment projects resulting from them. The main goal of spatial changes was to regenerate the area and bring a new quality of life into it. New land-use rules defined the degree and forms of protection of the rich historic, post-industrial urban fabric from the 19th c., consisting of factories, villas, tenement buildings, and service establishments, and green spaces. They also emphasised the need to maintain a balance between new development projects and the conservation of the city's post-industrial heritage for future generations.

Keywords

Poland – Lodz, regeneration of post-industrial areas, integrated change planning, compact city

1. Introduction

Lodz is a post-industrial city in central Poland that over several decades in the 19th c. expanded from a small town to a textile industry empire (Ginsbert A. 1962).¹ In population terms, it is today the third-largest city in the country. The spatial expansion of Lodz caused that many post-industrial areas sit now

¹ When, in 1821, the government made a decision to establish a textile industry centre in the town of Lodz, its population was estimated at 799 residents. Following industrialisation processes, the number increased by 1913 to 506,000, i.e., by over 2006% (Ginsbert A. 1962, p. 27).

in its centre. One of them is the area of the Riverside Industrial Complexes (RIC) called “a city within the city”, which looks today much as it did in the 19th c. The factory buildings erected during the Lodz golden days are accompanied by housing estates, brick buildings used as social, educational and healthcare facilities, technical infrastructure and green spaces surrounding the factory owners’ villas and palaces (Liszewski S. 2009). All these features make the RIC area one of the most valuable urban systems that can still be seen (Koter M. 1969). With an area of 280 ha, the RIC is also the largest post-industrial complex from the 19th c. in central Poland.

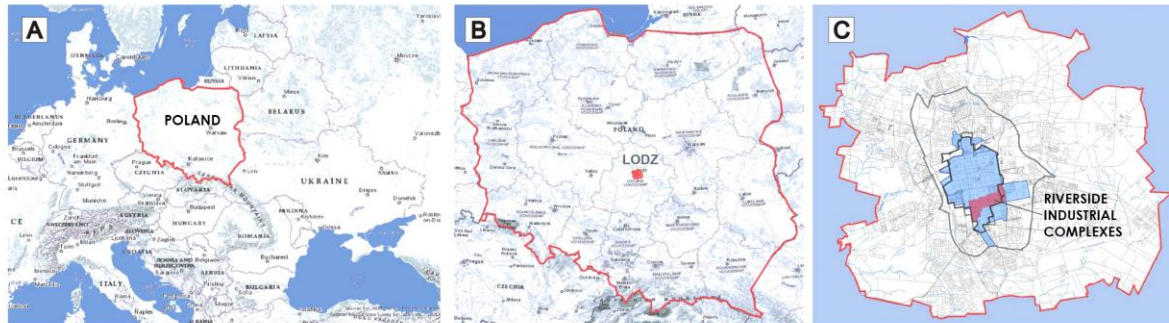


Fig. 1. A – Poland in Europe; B – Lodz in Poland; C – the RIC area in Lodz, Source: Lodz Planning Office.

2. The past and the present

2.1 The industrial history of Lodz

The main reason for establishing the so-called Riverside Industrial Complexes in Lodz was the valley of the Jasień river with its watermills. In 1827, the land along the river was parcelled out and a new spatial system was designed around St. Emilia St. (now Tymienieckiego St.). The historic layout of the streets and the river’s valley are can still be seen in the fabric of the city. In the space of the 19th c. the RIC area was developed with 11 factory complexes of different sizes comprising weaving mills, spinning mills, warehouses and plants, as well as the factory owners’ residences, workers’ housing, schools, kindergartens, hospitals, cultural facilities, and even a fire-house. The RIC area was, therefore, a self-sufficient urban organism providing its residents with access to a wide range of services, including jobs, housing and entertainment.

Under the communist rule spanning the second half of the 20th c., the RIC area struggled with major economic, social, and spatial problems. A dramatic decline in the quality of the urban structure was especially clear to see. In addition to a large number of vacant parcels, many buildings, including those of historic value, fell into disrepair. The unused industrial sites were increasingly overgrown by vegetation and the water resources of the area, including the Jasień and Lamus rivers flowing in channels, were left unexploited. Having realised how big a problem the RIC area was, in the early 21st c. the city’s authorities decided that intervention and integrated revitalization of its spaces were necessary. The decision was followed by concrete planning activities and actions. Land-use plans² were enacted, which enabled the implementation of spatial solutions addressing the area characteristics and exploiting its cultural and natural potential.

² In Poland, land-use plans are part of the local law.



Fig. 2. The photographs illustrate the rapid **expansion** of the RIC area in the 19th c., its current state, and **proposed redevelopment**; A – K. Scheibler's spinning mill (now converted into lofts) and workers' housing in Księży Młyn ; B – L. Geyer's factory (now the Textile Industry Museum of the City of Łódź).

Source: A – Kalendarium historii Łodzi (1821–1918) (the Timeline of the History of Lodz, 1821-1918), <https://www.wikiwand.com/pl> ; B – Lodz Planning Office.

2.2 The potential of modern Lodz

A major asset of the city of Lodz is historic, post-industrial structures that occupy an area of 280 ha inside the densely developed metropolitan zone. The RIC area features 11 massive factory complexes made of brick that were shut down in the last decade of the 20th c. The witnesses of its industrial past are also the elements of paving (e.g., cast-iron slabs), of the railway infrastructure (e.g., track, semaphores), and historic fencing. The RIC area is rich in parks and greenery surrounding the villas and palaces of bygone industrialists. It also includes two water tanks, the Jasień river flowing in an underground channel, and a section of Scheibler's siding railway. The built environment displays a variety of architectural styles and the blocks of streets vary in development density.

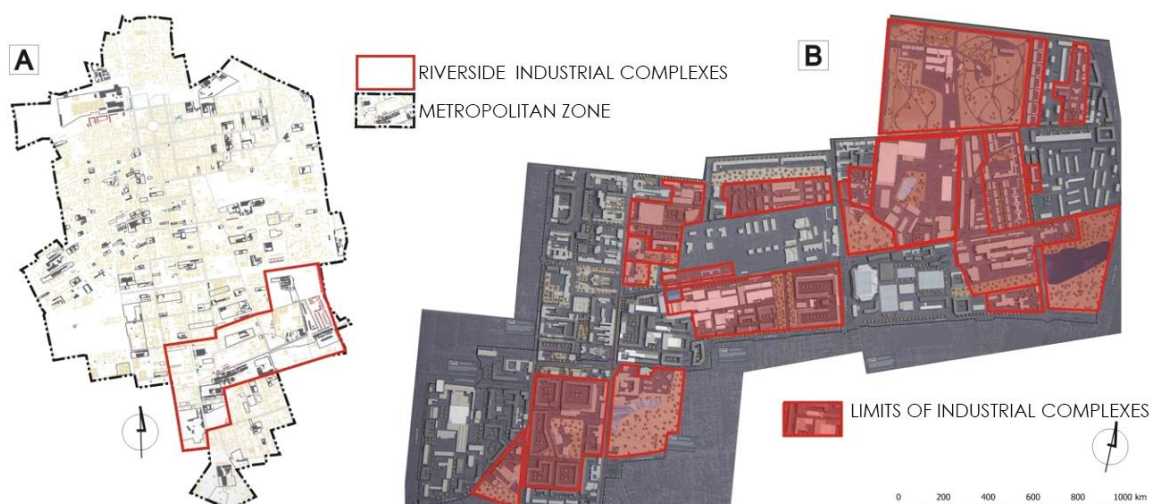


Fig. 3. A. The RIC area inside the metropolitan zone. B – post-industrial complexes in the RIC area. Source: Lodz Planning Office.

3. New design

3.1 Redevelopment models

Spatial solutions were varied depending on the nature of historical development and elements of the industrial heritage. Changes were designed with the maximum protection of the historical value of the existing structures in mind. Physical interventions into heritage structures were made dependent on the degree to which they respected their urban and architectural value. Accordingly, three models of redevelopment were established:

1. conservative: emphasising the need to preserve the existing assets (the urban layout, the boundaries of the parcels, the parameters of the buildings, architectural details) to the maximum extent possible;
2. balanced: imposing symmetry between redevelopment and the preservation of the existing development;
3. creative: permitting spatial changes redefining the forms and quality of spaces.

The RIC area was divided into sites in which the three models were to be applied (Tomczak A. 2008). Most of them were covered by conservation activities because of their historical value. However, because the paramount goal of the intervention was to infuse economic life into the RIC area, in some sites compromises had to be made between conservation and redevelopment. The creative approach was mainly utilised to design a system of public spaces and areas of greenery.

Based on the draft planning concepts, a physical model of the RIC area was created to visualise them and to indicate the boundaries of future development projects. The model proved very useful during participatory consultations with local residents, as it clearly showed them how the area might develop in the future.

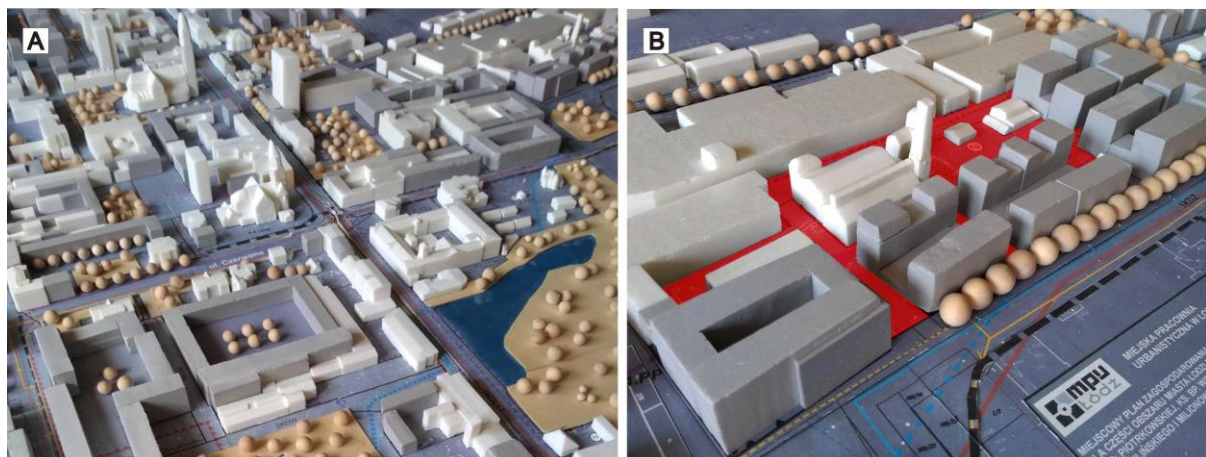


Fig. 4. Spatial development models for the RIC area. The white, grey and red colours denote the current buildings, new buildings, and new public spaces, respectively. A – the western section of the RIC area along the main axis of Piotrkowska St.; B – a section of K. Scheibler's and L. Geyer's post-industrial complex in Tymienieckiego St. Source: Lodz Planning Office.

3.2. Local land-use plans

The whole of the RIC area was covered by local-land-use plans which provided for an integrated change process, thus allowing a linear system of public spaces to be created and preventing the fragmentation of the city's historic built environment. The plans, prepared based on the findings of an urban inventory, the review of cultural heritage values, and the analysis of natural assets, significantly enriched the existing urban fabric. They introduced new public spaces, including 14.4 ha of greenery, 7.0 ha of roads and pedestrian-mainly routes, and 5.1 ha of spaces dedicated to pedestrians and cyclists. All these changes increased the area of public spaces by 9.7% compared with baseline.

The level of protection and the scope of changes to historic buildings is an example of good practice, having been agreed collaboratively by the Voivodeship Heritage Protection Office, developers, and the Lodz Planning Office as the author of the land-use plans and the ways of implementing them. In the planning work, reports were used from earlier studies of the city's morphology, cultural heritage protection and natural assets conducted by entities such as the Technical University of Lodz, the University of Lodz, the European Regional Centre for Ecohydrology of the Polish Academy of Sciences, and the Voivodeship Heritage Protection Office. The authors of the land-use plans made sure that they were aligned with the "inward development" concept that Lodz had adopted as a principle to guide its spatial development. The focus of the concept is on improving the quality of residents' lives and on providing areas in the city centre with new spatial values (Strategia 2013). The land-use plans were also coordinated with the revitalisation process carried out under the Revitalisation Programme for Lodz (GPR 2016).

3.2. Spatial solutions

The land-use plans were designed around the concept of a compact city as defined in the strategic documents of the city of Lodz. They identified gaps in the existing built environment that needed to be filled and indicated better land uses, including uses increasing the economic value of sites. A mixture of functions was emphasised, especially the combination of residential and service functions, and changes improving the residents' access to services, jobs, and social infrastructure.

The plans also specified permitted changes to RIC spaces and set parameters for new developments. Before, the blocks of streets corresponded in size to the industrial parcels that ranged from 10 to 24 ha. This resulted in an extensive use of spaces inside the blocks of streets and made access to properties problematic. The plans reduced the blocks to make room for new public spaces. As well as enabling easier access to the sites undergoing improvement and increasing the mobility of pedestrians and cyclists, the newly designed streets created more development opportunities, attracting the interest of potential investors. A special role was predicted for the tract of land once used by Scheibler's railway, which was to be converted into a 2.2 km long straight boulevard for pedestrians and cyclists connecting the revitalised industrial complexes. The plans provided for extending it in the future, so that it linked two railway stations in the centre of Lodz.

A new system of public spaces was designed taking account of historic urban structures. The historically most valuable of them were integrated with the system, and protection areas were established to ensure an unobstructed view of them.

The RIC area has many green spaces, many of which were not used. In the land-use plans, they were designated as parks or spaces connecting the existing areas of greenery. The largest green public space will be situated along the Jasień river, next to Scheibler's spinning mill converted into lofts.

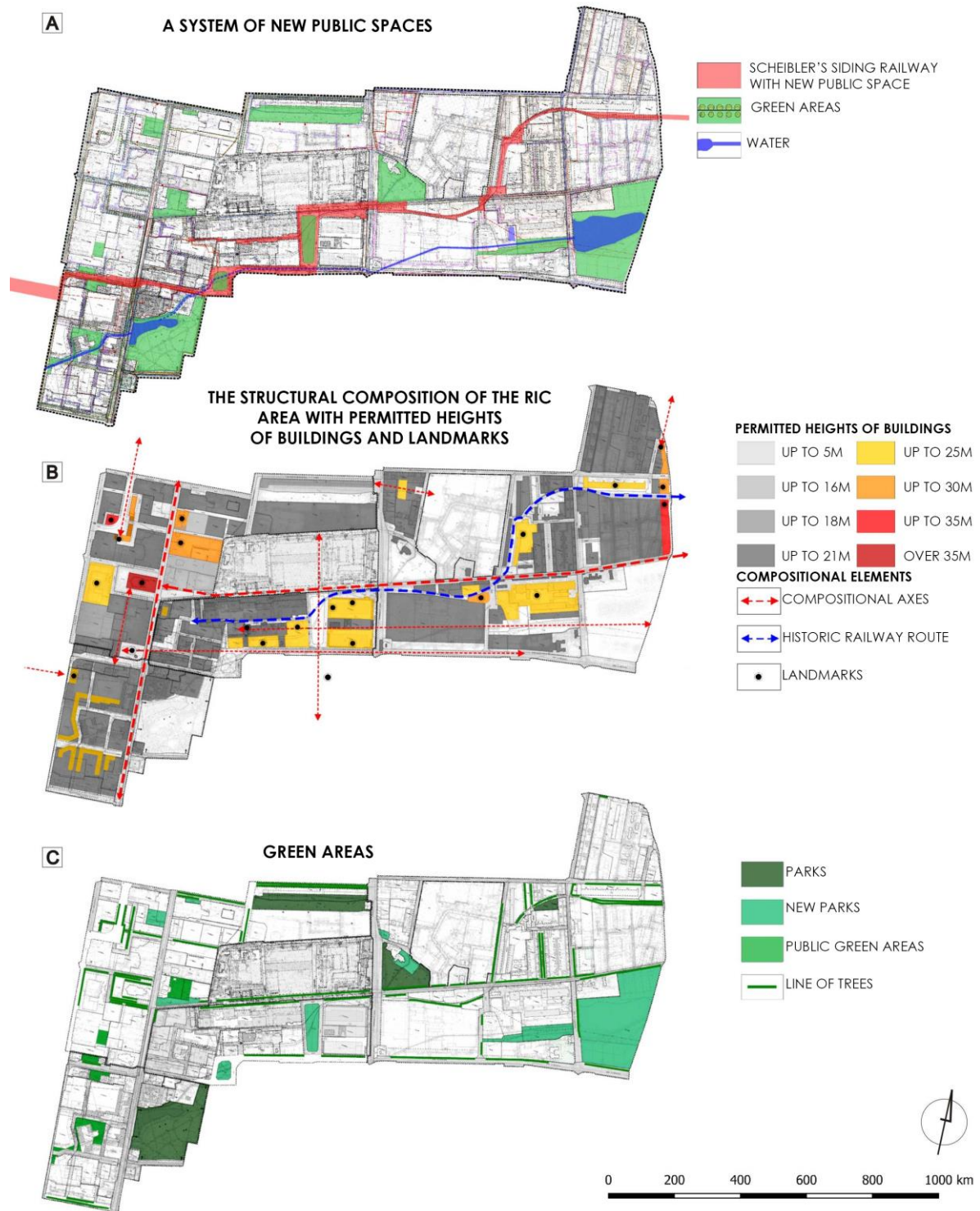


Fig. 5 A – the system of new public spaces. B – the structural composition of the RIC area with permitted heights of buildings and landmarks. C – the green areas. Source: Lodz Planning Office.



Fig. 6. A – the proposed integration of Scheibler's siding railway (the red line) with the new public space stretching between two railway stations in Lodz. B – a pedestrian and bike route cutting across the RIC area. Source: A – E. Janiszewska, B – Lodz Planning Office.

3.3. Architectural requirements

The land-use plans allow new architecture to be constructed in the RIC area provided that it respects the forms and dimensions of the historic industrial complexes. The height limit for new buildings has been set at 25 meters. Taller buildings can only be located at the ends of the composition axes or in sites adjoining public squares. Limited physical intervention into historic buildings is permitted, but its form and the building materials to be used must contrast with the historic fabric. Because the architectural requirements for new development stress balance between conservation and creation, “the identity of place” has been preserved and new projects and functions are integrated with the historic fabric of the city.

4. Implementation

4.1 Programme outcomes

The RIC redevelopment programme has positively changed its area in many ways, turning around its perception among residents and investors alike. In the last dozen or so years many projects have been completed and several new ones are ready to go. A synergy and complementarity can be observed between the building projects of private investors and the municipal projects: the former industrial realm ruled by K. Scheibler and L. Geyer has become a new residential district, L. Grohman's factory is now the administrative centre of the Lodz Industrial Zone, the school buildings from the 19th c. have been converted to educational and cultural functions, and the old warehouses and cotton and flax mills serve today as offices and administrative spaces. The noticeable increase in investment activity in the RIC area convincingly shows that a well-thought-out spatial policy has the potential of revitalizing the post-industrial areas of cities. The results of the land-use plans implemented in Lodz support the thesis that the historic, post-industrial assets of a city can become one of the key factors driving its development.



Fig. 7. A. – lofts in Scheibler' spinning mill; B – the former fire station converted into an office building; C – Grohman's school, now an office building.

5. Conclusion

The primary result of the revitalisation programme for the RIC area is its steady development based on respect for the cultural heritage of the city and sustaining the historical authenticity of its post-industrial complexes. Spatial changes in the area are easy to see, as well as continued efforts to restore the complexes. The land-use plans provide for the establishment of a linear system of green spaces utilising the RIC area's natural assets, which will increase the amount and will improve access to urban greenery: parks and garden squares. The potential of the local rivers has also been appreciated and built into regeneration processes. The main axis of an industrial Lodz, Tymienieckiego St., is regaining the prestige it once enjoyed. New east-west roads are being constructed and new spaces are being designed for pedestrians to connect the existing streets and facilitate traffic inside the industrial complexes. New investment opportunities offered by the land-use plans have been coordinated with the parameters of the existing historic buildings. The new system of public spaces has been designed as "a vital organ" of the RIC area, where housing estates and services will coexist with new and current structures of importance for the city and region.

The revitalisation of the RIC area is going on, slowly but steadily improving the quality of spaces and of residents' lives. After long years, Lodz is regaining the area that witnessed the birth of its industrial history in the 19th c.

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