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Transformation of Derelict Areas into Mixed-Use Urban Neighbourhoods – Case Studies in the Polish Cities

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1 ABSTRACT

The change from industrial age to knowledge economy resulted in several post industrial sites in the European cities, which needed regeneration and transformation for new functions. While this issue has been dealt with in the Western Europe for several decades now (Zollverein being one of the best examples), the issue emerged in Poland relatively later than in western countries, and remains current in many Polish cities, where brownfield sites still constitute a challenge for municipal authorities, land developers and designers. Transforming derelict areas for new functions and connecting them with the surrounding urban tissue is one of the main tasks of urban design and planning. The transformation processes are long and complex, and have been parallel to the countries economic transformation, and a move towards knowledge economy. While several brownfield areas have been re-used for commercial functions, the processes of transforming centrally located derelict sites into mixed-use neighborhoods and incorporating them within the urban structure (in accordance of the paradigm of the compact city) proves to be much complicated, than it had been anticipated. Following cases show ongoing projects, for which the initial regeneration vision was refined in masterplanning process and establishing legally binding land use (zoning) plans. The projects are on various stages of early implementation, and the outcome to date include some public buildings, new roads, partial commercial investments, as well as temporary art installations, which have acted as means to attract attention and culturally incorporate the derelict areas with the city.

2 INTRODUCTION

Since the change of the political system in 1989, urban development in Poland concentrated on downtown revitalisation, infrastructure works and greenfield development new housing estates. The changing economic conditions resulted in several abandoned sites (post-industrial, post-military, former railroad, etc.), but only recently has the re-use of such sites and incorporating them within the surrounding urban fabric become one of the main planning issues. While several sites have been subject to debates, competitions and consultations, recent conditions triggered synergic regeneration processes. An overall economic development increased the demand for housing and services. Joining the EU and the possibility of acquiring funding for urban development and regeneration has had a catalysing effect. While the political transformation in 1989 resulted in an expansion of individualism in residential developments and the dominance of suburban single family housing as a preferred model of living, currently the people - and thus the markets - have begun to acknowledge the value of mixed use, dense neighborhoods, where communities benefit from the range of local amenities, public open spaces and local connections. This has resulted in several new projects – from densifying existing developments, to the conversion of post-industrial, military and transportation land. An extra value of the success stories is related to heritage and historic values, such as the regeneration of Kazimierz in Kraków (Jewish heritage) or the Young City in Gdańsk (key waterfront location combined with the narrative of the shipyard where "Solidarity" originated).

3 CASE STUDIES

Several ongoing brownfield regeneration processes are currently at various stages of planning, design and implementation. Recent experiences show, that successful regeneration happens in those places, where several regeneration factors are present such as the location within the city, good transport infrastructure with surrounding areas, existing site amenities, as well as external factors such as a growing local economy of the city and demand for housing and commercial space. While in the presented cases most of the favorable spatial and cultural conditions exist, the projects have been delayed due to political and economic issues. The following paragraphs will discuss the problem area conditions in its urban context, and how the initial transformation vision has been developed into a refined masterplan and legally binding zoning plans (as required by Polish spatial planning regulations), as well as the ongoing implementation and the outcomes hitherto. The subjective selection of cases include representative big urban projects from major Polish cities, as well as two smaller town cases, where the author was involved in the process.

3.1 New districts on brownfield sites - heritage based narratives

Urban marketing has been playing a growing role in the transformation processes, and local heritage – such as industrial heritage – can act as a good "selling point". As Dennis Frenchman (2001) observed, narrative places - public spaces which transmit the multiplicity of stories of people and events that inhabit the city - play an important role in contemporary cities, in the "experience economy". Cities devote more and more of their energies to the management of information and transmitting their qualities and heritage, to present a unique spatial form and experience, relating to heritage and culture. Frenchman observes that "heritage development is an aspect of the information economy. The growth of heritage is not being pushed by a yearning for the past, but pulled by forces that are creating the future".

Poland is a nation of complex history and rich cultural heritage. The historical conditions have left their mark on Polish cities. A few examples show, that for brownfield sites in privileged locations, a combination of industrial heritage and historic cultural heritage worked as a catalyst in the regeneration process.

3.1.1 Gdańsk – Young City

The former Gdansk shipyard area of 50 hectares is located close to the city centre (some 500 m). The site remained industrial until 1995, when the first ideas were developed to reurbanize the site of the Gdansk Shipyard. Gdansk's former shipyard is recognized as a place of great historic significance. It was here that Lech Walesa worked and the Solidarity movement started. The initial overall vision plan was created by a team of Gdansk Technical University led by professor Kochanowski, with a subsequent masterplan in 2000 by Sasaki Architects. The plans proposed a framework for partitioning the post industrial site into urban blocks and creating a grid of streets, linking it with the surrounding urban structure. The plans emphasized also building on the history and culture of the place in creating its new brand. The municipal land use plans were approved in 2005. After changing the owners and operators, the site is now owned by Baltic Property Trust, which turned the vision of a urban district into detailed plans, design guidance and investment offers. The plans are to create a vibrant mixed use live environment which connects water and city, and which complements the existing Gdansk structures, buildings and environment with a variety of leisure facilities. The circulation structure is formed from a main collector street - Nowa Wałowa, and a network of service streets and pedestrian ways, as well as a waterfront promenade. New buildings shall be combined with refurbished historical structures. The outcomes so far include the European Solidarity Centre (currently operating in a temporary seat, and the new building by FORT Architects is under construction), the Solidarity Square and the Road to Freedom pedestrian public spaces. Several cultural events have been happening in the post shipyard site, initiated mainly by the Wyspa Art Institute operating in one of the post industrial buildings, such as art exhibitions, workshops, concerts and festivals. Successful public events on the ground of Young City attracted great public interest in this area, and are foreshadowing the prospective regeneration of the area and incorporating it within the urban structure.

3.1.2 Kraków – Zabłocie

Zabłocie is a derelict industrial part of Krakow located close to the old town, on the southern side of the Wisła river. The area has several advantages: proximity to the Old Town and Kazimierz district (across the river); location of Oskars Shindlers Emalia Factory (featured in Steven Spielberg's film) which became a tourist magnet and a cultural centre; proximity of the largest private university in Krakow; planned opening of the trade fair complex, etc. The preliminary regeneration plan was prepared by DDJM architecture firm for the key area of 44 hectares. It included redefining the public spaces (streets, boulevards and a piazza), building development concepts, and guidelines for public – private partnership in development. A subsequent Revitalization Program was prepared by The Institute of the Ecology of Industrial Areas. The Landuse Plan for the area was approved by the city council in 2006, and provided the binding framework for new roads structure. Today the Shindler factory has been transformed into an exposition of the Krakow Historic Museum, and a new Modern Art Museum has been built just next to it. First commercial mixed use blocks were raised by private developers at the most attractive location by the Wisła river. While cultural facilities and some commercial development has already been realized, the planned regeneration of public spaces – a main street and an urban square, as well as of the rail station, is due in the coming years.



3.2 Brownfield sites in city centers

A second group of interesting ongoing projects include post industrial sites located in the centers of cities. Given the privileged location, it is usually planned for the new structure to be interwoven within the surrounding urban fabric, but key new buildings should help to establish a new image and catalyse the transformation.

3.2.1 <u>Katowice – former "Katowice" coal mine area</u>

The site of former "Katowice" mine in the main city of Upper Silesian region is located north—east to the city centre, next to the landmark "Spodek" – a sports and events hall, and along an arterial road. The site has been developed for several new cultural public functions, and an ongoing construction of new roads shall divide the area into plots for further commercial development. The planned new functions include three public venues, commissioned after international architectural competitions: a new congress centre (project JEMS Architects), the building for the new home of the National Polish Radio Symphony Orchestra (Konior Studio), and the new Silesian Museum (Riegler Riewe Architekten ZT-Ges.m.b.H, Graz). In the latter project, most of the museum floors are situated below the ground level, in order to preserve and expose the historical buildings of the former coal-mine. The cultural venues will form a new "cultural axis", which is a major element of the urban development strategy, related to the candidature of Katowice becoming the European Capital of Culture in 2016. While the venues will occupy about a half of the former coal mine site, the rest will be divided into plots for commercial development. The city has prepared a project of new roads servicing the area, which are to be realized next year. This example shows a regeneration process which has happened without an overall masterplan for the area, led by three main public projects, which received substantial EU funding and are elements of Katowice metropolitan development strategy.

3.2.2 <u>Siemianowice Śląskie – former "Michał" coal mine area</u>

The 26 hectares site of the former coal mine in Siemianowice Śląskie (near Katowice) is located in the centre of the Michałkowice district, neighboring a local service centre, a sports hall, housing estates and a historic park. At the beginning of the 90s, the mine was liquidated due to the bad technical state of the buildings and facilities, and because the coal resources were running out. The site was a subject of an urban design competition for a vision of transformation into a mixed use urban neighborhood. The masterplan assumed that the terrain, located centrally between the surrounding built environment, was an ideal location for service buildings serving the whole city (sport, catering, entertainment, culture, commerce etc.), and for housing. The area has good technical infrastructure and transport connections as it is located on the main street, which connects it with the centre of the agglomeration. It is also useful that the area is located in the so called protection zone, as are all the main mining facilities. The area has an 'old town' of its own, composed of the post-industrial buildings complex. The competition winners (including the author) prepared a refined masterplan and a subsequent landuse (zoning) plan, which envisions the new spatial layout, by means of a quarter city structure and a sequence of public spaces, but the real estate stagnation postponed the implementation of the plan. Completed outcomes to date include some commercial buildings and a small shopping centre in the north of the area. One of the main industrial buildings (the pit shaft machinery) is currently being transformed into a multifunctional exposition and events hall.

3.2.3 Goleniów – post industrial site in the "heart of the city"

The 5 hectare site in Goleniów (Gollnow), a small city in north-western part of Poland (close to Szczecin) is smaller than the other sites mentioned in the article, but relative to the city size, it has a similar significance, and is mentioned as authors recent first hand design experience. Goleniów is a dynamic city with an advantageous location, an international Airport (Szczecin-Goleniów), and an Industrial Park with a Special Economic Zone. Since the middle ages Goleniów has been a member of the Hanseatic League, but in the end of World War II over 70% of the city was destroyed, and the historic center was never rebuilt. The development of the site, the so called "heart of the city" is located on the banks of the Ina River and is to be a chance of recreating a vibrant urban core with dense built form, pedestrian open spaces and a critical mass of amenities for citizens and tourists. One of the basic principles was to connect two parts of the site boundary with a pedestrian bridge which would become an iconic and unique spatial structure over Ina river. The masterplan, elaborated within a participatory process based on a winning competition design, forms a few urban blocks partially enclosed distinguishing public space outside and semi-public space inside the blocks.

Suggested road layout would provide circulation with car parking places along the roads and on the backyards of the plots. Existing substandard buildings would be removed. Existing greenery would be preserved and incorporated into detailed landscape architecture. It has been proposed that most of the new buildings would be of mixed use with commercial use on the ground floor and office or housing space above. The main idea for the newly built form was to incorporate architectural design into some of the historical building traditions such as: number of floors, the shape and roofing, proportions of walls and windows, individual character and ornament. Modern architectural interpretation of the local, hanseatic esthetics is to establish the unique character of the place and refer to local heritage. Within the project implementation local authorities begun the process of restructuring the plot ownership, and commissioned the design of new roads.

3.3 Reclaimed transportation areas

Another group of transformed derelict areas includes the development on land formerly used for transportation facilities. While not strictly "brownfield", just like the abandoned post industrial sites, such areas constitute large gaps in the urban tissue and a potential for spatial development under changing circumstances and economic demands.

3.3.1 Wrocław - Plac Społeczny ("Społeczny square")

A 30 hectare site in the centre of the city, next to the historic downtown and the Odra River is currently occupied by a major elevated road node. The city plans to reorganize the traffic and demolish the roads and overpasses, and to release the area for development. The 2007 winning competition design by Gottesman Szmelcman Architecture Sarl (Paris) envisioned a dense urban block structure paired by a network of roads, public spaces – a new square and a boulevard along the river, and design guidance for the massing of the future buildings, as to achieve landmarks in the visual axes. A subsequent refined masterplan and zoning plan was prepared by the municipal planning office, and together with the land use plan approved in 2010 makes the basis for further development.

3.3.2 Warsaw – Chopin Airport City

This project envisions developing a new, dense commercial district next to the Chopin Airport in Warsaw. The 28 hectare area is located about 10 km south east from the city centre. The largest Polish airport (8 million passengers annually, being the over 40% of total Polish air traffic) has been modernized and expanded in the last few years. Warsaw Airport City is an integrated real estate venture, following a worldwide common model of clustering airport-related commercial functions expanding beyond the terminal and landside zone of the airport. The area in front of the terminals is mostly occupied by car parks – multilevel short stay parking closer to the terminal buildings and long stay parking further away. In the middle of the area there is a four star hotel with conference facilities and the construction of another hotel is planned in the near future. A new rail link with the city center is being finished, with a station located underground, close to terminal A. The masterplan by JEMS architects foresees transforming the area into a dense, urban business and commercial district with recreation and entertainment facilities. The functions range from commercial and office space, a conference and exhibition centre, to sports and recreation.

The planned new urban structure provides clear spatial links to the existing terminal buildings, the new railway station and the surrounding areas. Circulation is based on the existing one way road loop serving the terminal, with additional connections to surrounding streets and service streets within the new buildings, formed into a modern variation of the urban block. The design creates the urban character of the site, giving close detail to public open spaces with well defined, "active edges" and landscaping, which include the creation of the Fryderyk Chopin Park. According to the authors description, the park shall be easily visible from the road leading to the Airport, and constitute a characteristic feature of the complex, establishing a new relationship between Chopin Airport City and the capital. The focal point of the park will be in a public square with service functions. The park will mainly serve recreational purposes and will also be open to the public. As planned by the architects, the park area will be designed so as to form a meadow with clusters of trees, a pond and a landscaped escarpment with accompanying facilities such as catering establishments, fitness clubs and galleries. Within the 28 masterplan area, Chopin Airport plans to develop the area of about 10 hectares and provide over 150 thousand square meters of usable space. The project is now in the stage of preparing a refined masterplan and a municipal zoning plan.



Site and	Former	Begining of	Highlights	Implementation Stage
location	(current) use	regeneration		
Young City,	Gdańsk	1995	Central location,	Zoning plan, urban development
Gdańsk	Shipyard		Waterfront, historic heritage (Solidarity), Europen Solidarity Centre, Wyspa Art Institute	plan, public spaces, European Solidarity Centre, Cultural Events
Zabłocie,	Various	2003	Central location,	Zoning plan, Local Regeneration
Kraków	Industrial and commercial		Waterfront, Historic heritage (Emalia Factory)	Program, Museum of Contemporary Art, Residential and commercial development in progress
Katowice	Coal Mine	2005	Central location, New	Construction of three new public
Coal Mine,			Silesian Museum, National Radio	buildings in progress, New road
Katowice (Silesia)			Symphony Orchestra	grid designed
(Silesia)			seat, Congress Centre	
Michal Coal Mine, Siemianowice (Silesia)	Coal Mine	2000	Central location, Listed industrial buildings, historic park	Vision plan, zoning plan, some commercial development, adaptation for events hall in progress
Heart of the	Various	2009	Central location,	Vision plan, land restructuring in
City,	Industrial and		Riverfront	progress
Goleniów	commercial			
Społeczny	Major road	2006	Central location,	Vision plan, zoning plan
Square, Wrocław	junction		Riverfront	
Airport City,	Terminal	2009	Central location,	Vision plan, urban development
Warsaw	parking lot		Chopin Airport, new	plan in progress
			railway station	

Table 1: Brief comparison of presented case studies of derelict areas in the process of regeneration

4 CONCLUSIONS

Revitalisation of derelict urban areas (industrial, post transportstion, post military, etc.) is one of the main challenges for urban planning and design in Poland. Ongoing examples show that urban regeneration processes are complex, interdisciplinary and take a long time from initial steps through planning and design, to realization. Foreseeing a new urban structure for a revitalized derelict urban site requires several subsequent stages: creating the transformation vision (organizational, political, and spatial), creating a delivery masterplan, which addresses all important issues and constitutes a consensus between options and stakeholders interests, approving a land use plan which gives the legal and operational basis for the partition of land and future construction, optional refining of the plans with a delivery plan and design codes. The presented examples of projects are at the stage of having the basis for creating the new urban structure, and have moved into detailed design of the elements of the development, such as buildings, public spaces and infrastructure, and in some cases actual delivery and implementation of some parts.

The processes are long, complex and political, and require cooperation of public and private partners. In most of the cases the city provided the zoning plan based on a refined initial vision plan. The cities also build major cultural venues in the areas, supported in large by EU funding, as well as new public spaces (including major roads providing access to the derelict areas). The main advantage of the masterplans and zoning plans is establishing conceptual and legal framework for the new urban structure, but private development has happened in most cases much slower than it had been anticipated. Thus while the new structure is established in the plans, "what will the structure be filled with" remains to some extend an open question for further implementation process. While commercial development has been postponed due to stagnation in real estate, the post industrial areas and buildings have been used for cultural events, which have acted as means to attract attention and functionally incorporate the derelict areas within the city.

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