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RECONQUERING THE POST-INDUSTRIAL SITE - LANDSCAPING IN BYTOM, POLAND

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ABSTRACT

The main focus of this paper is to discuss creative approaches towards action in territories undergoing transformation. This will be conducted through the presentation of a conceptual design for transforming a post-industrial site in the Polish city of Bytom in the region of Upper Silesia followed by a reflection on and discussion of the used method and approach.

Bytom is, like many other parts of the Upper Silesia region, suffering from a decline in population and economy, and, with reference to the term 'shrinking cities,' it can be labelled a shrinking territory. This shrinking condition with its decaying urban structures makes it difficult to imagine a future urban development and, thus, challenges the professions of urban design and architecture. Through a landscape urbanism approach, this paper will try to search for ways of acting that use the potential of the given site to initiate a transformation process from left-over post-industrial void to an active part of the city and its everyday life.

The post-industrial void is being *landscaped* - meaning understood and worked with as an urban landscape. The site gains new interpretations and functions through the understanding of its identity, landscape potential and ecological situation. These elements are turned into a landscape strategy for the post-industrial void in order to re-conquer the site into the urban structure.

Key words

Landscape urbanism, place-based potential, urban transformation, post-industrial sites, Upper Silesia Region, shrinking cities

1. INTRODUCTION – - URBAN SHRINKAGE IN BYTOM

The contemporary urbanity can, in the words of Graham and Marvin, generally be described as a set of “*complex patchworks of growth and decline, concentration and decentralization, poverty and extreme wealth...*” [Graham and Marvin, 2001:115]. The interrelation of these extremely different development factors thus frames the development setting of all sites – in some places urban growth is present whereas others are in decline.

The Polish region of Upper Silesiaⁱ is such a complex patchwork of growth and decline; concentration and de-concentration. The changes in Poland and Eastern Europe after the 1990s have significantly influenced the economic and social structure of the Upper Silesian cities. There, many areas are suffering from deindustrialization resulting in urban shrinkageⁱⁱ, and cities are characterized by a significant amount of post-industrial voids.

There is an urgent need for working and re-defining the post-industrial voids in the region. Architects and planners in Poland have been discussing this, and e.g. scholar Bolesław Domański has been strongly underlining the need of focusing even more attention on such areas (Domański, 2003). The main issues are the degradation process of the leftover structures; the location of the voids inside the city, which makes them edges of disuse and spatial segregation; as well as the recently emerging problem of green field development in Upper Silesia. According to Domán-

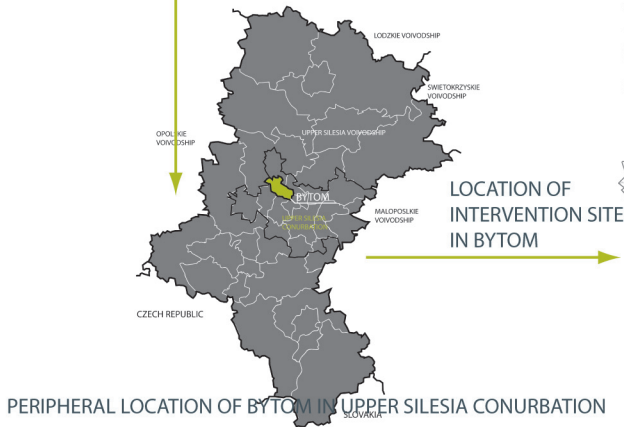
ski, sites of a post-industrial character could become catalysts for development as they are potentially attractive places for investment and habitation.

The question is, then, whether there are any development strategies, which could enable those voids/cities/regions to regenerate? In this paper, one possible strategy will be presented and discussed; exploring a landscape urbanism strategy in the Upper Silesian city of Bytom. Here, the post-industrial site is being *landscaped* - meaning understood and worked with as an urban landscape. The site gains new interpretations and functions through the understanding of its identity, landscape potential and ecological and economical situation. These elements are turned into a landscape strategy for the post-industrial void in order to re-conquer the site into the urban structure. Therefore, the focus of this paper is to test whether an approach, which deals with the city as an urban landscape, can bring new interpretations and meanings to a shrinking territory and specifically to a post-industrial void.

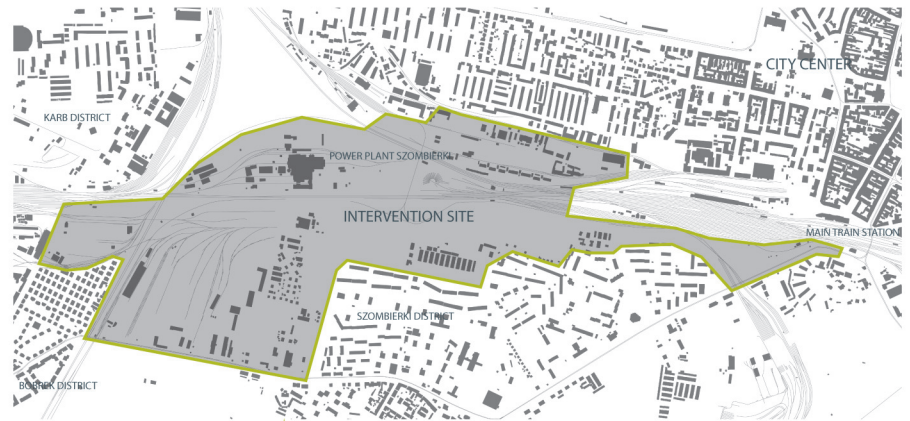
2. DESCRIBING BYTOM

The city of Bytom is located in the southern part of Poland and can be characterized as a peripheral city of the Upper Silesia regionⁱⁱⁱ. The city is a former industrial area, established around industrial production like coal mining, metallurgy, steel fabrication, as well electricity production. In the 1990s, an accelerated change of the economic situation occurred all over Poland. Bytom was one of many cit-

LOCATION OF UPPER SILESIA IN POLAND



PERIPHERAL LOCATION OF BYTOM IN UPPER SILESIA CONURBATION



INTERVENTION SITE - POSTINDUSTRIAL VOID



BYTOM CITY
AREA: 6930 km²

ⁱ The region of Upper Silesia is an old industrial area and one of the biggest urban concentrations in Poland with 4.9 million inhabitants [Lobatch 2004, 1]

ⁱⁱ In this paper, urban shrinkage is defined as decline in both population and economy resulting in large vacant areas and physical decline. The term 'shrinking cities' derives from the German term schrumpfende Städte. In recent years, the concept of shrinking cities has been used e.g. by a group of researchers working under the leadership of Philipp Oswald. This team studied German cities facing negative development in the Federal Cultural Foundation project 'Shrinking Cities'. [Philipp Oswald and Tim Rieniets, 2006]

ies to face a rapid and harmful de-industrialization process (Domański, 2001). However, the city, like the rest of Upper Silesia, had been facing difficulties since the 1980s where the first signs of the economic and social change in the eastern block began to occur.

Population and employment patterns

Due to the processes of de-industrialization, the city is suffering from a very high unemployment rate – peaking in the period 2000-2004 with 25.6% (gus_demography). According to the Statistic Office, Bytom is facing a negative population growth and a negative out-migration ratio. Such out-migration is now mostly oriented towards other cities in Poland, where the labor market is in better condition; for example the other cities of the Upper Silesia conurbation. There is, however, also a strong European emigration factor, which became significant after 2004 when Poland joined the European Union (Raport, 2007:9). Therefore, the significantly lower unemployment ratio in 2007 can be seen not as much as a signal of growth in the city, but rather as the result of a combination of interventions in Bytom, which have adversely influenced the out-migration and birth rates.

The urban structure of the city

The rapid industrial growth in the 1950s took its toll on the city causing irreversible destruction to the city’s structure. The development of new coal mines, steelworks, and mono-functional islands of housing, has strongly influenced the image of the city. The growing demand for

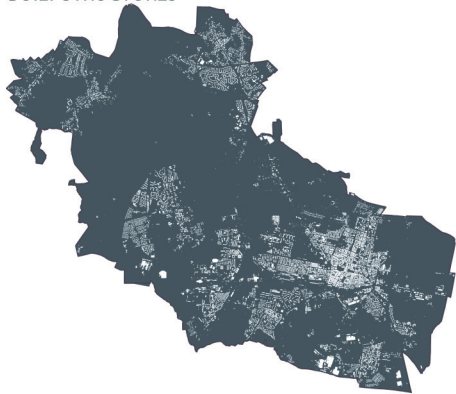
coal has lead to the decision to mine under the city, the consequences of which are still felt (Bytom_history).

Due to the processes of industrialization, the city center is disconnected from the surrounding districts, and the contemporary structure is consequently highly divided and complex, which makes it difficult to organize and plan for a coherent development. This is supported by a very inefficient infrastructural system. The transit network needs to be updated, extended and combined with the Trans European infrastructural system.

The intervention site

The site, which is developed in the project, is located in close proximity to the city centre; a 10 minutes’ walk from the main square. This former energy production and railway disposition facility area can be described as a 2.85 km² void in the city. This void creates a strong edge between the centre and the other districts of the city. The analysis revealed the site’s lack of coherence and quality compared to the rest of the city. The central location of the site is a significant feature characterizing it as an important city part, which, until now, has been left over and forgotten. Therefore, the idea of re-conquering the post-industrial void into the urban structure is seen as the main concept.

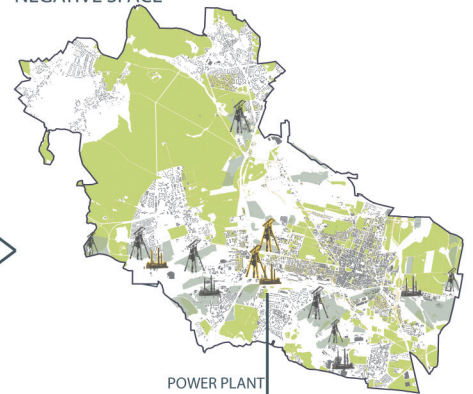
BUILT STRUCTURES



INFRASTRUCTURE



NEGATIVE SPACE



MIGRATION ON EMPLOYMENT CHARACTERISTICS

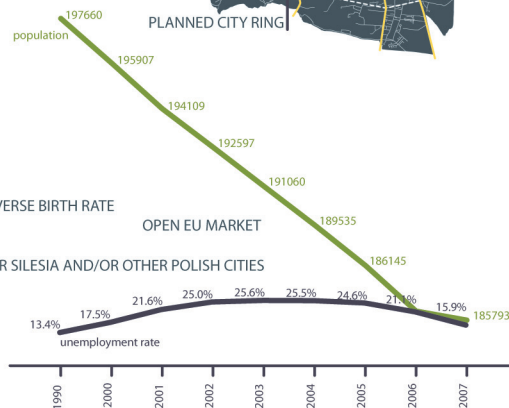
MAIN FACTORS FRAMING THE DYNAMICS OF POPULATION CHANGE AS WELL AS EMPLOYMENT IN BYTOM:

POSITIVE ECONOMIC SITUATION IN OTHER CITIES OF UPPER SILESIA AND/OR OTHER POLISH CITIES

ADVERSE BIRTH RATE

OPEN EU MARKET

unemployment rate



iii The city of Bytom was founded in 1254 on German location laws, which has strongly influenced the urban structure and development of the city. The location of the city has influenced its ownership over the time when Bytom was Polish, Czech, Austrian and finally, and for the longest period, German, before it once again became Polish. In the 19th century, the city became the third most important industrial area of Germany. The industrial growth of that time is still seen in the central

part of the city, where the urban form and many of the heritage buildings are witnessing the rapid development [bytom_history]

3. THEORY– LANDSCAPE URBANISM AND URBAN ACUPUNCTURE

As previously mentioned, the method of landscape urbanism^{iv} is investigated as a possible strategy for post-industrial sites in shrinking territories. This method is chosen because main theorists within landscape urbanism are discussing the transformation and reclamation of sites in general with leftover voids, especially post-industrial ones, being the focal point. Charles Waldheim argues that the “[l]andscape is a medium /.../ uniquely capable of responding to temporal change, transformation, adaptation and succession – which are all characteristic factors in the contemporary.” (Waldheim, 2005: 390) Thus, the approach of landscape urbanism, it seems, is usable in declining territories.

The understanding of the urban landscape corresponds with the ideas of scholar Graham Shane in his book *Recombinant Urbanism* (2005). Shane talks about the increased role of landscape urbanism, suggesting that “*Landscape Urbanists could accommodate both growth and shrinkage across city-territory in their view of urban systems, giving their work particular relevance to shrinking post-industrial cities...*” (Shane, 2005: 10). The reason that the landscape urbanism approach can be applied in growing and declining areas is that it looks at the city as a dynamic and changeable process, where it is important to incorporate social, cultural and economical aspects into the planning of the city, among other things. Thereby, there is no unambiguous and general answer to how to intervene in the contemporary urbanity; on the contrary, several suggestions are explored (Laursen, 2009).

Moreover, in cases where the integration of the built, infrastructure and open spaces is in focus, the landscape operates as the integrator and creator of these hybrid structures. The possibility of a “*fluid exchange between (natural) environment and (engineered) infrastructural systems*” (Waldheim, 2005: 43) is a quality, which stands out, especially in comparison with other approaches. Alongside the hybrid approach of landscape and infrastructure, the understanding of the landscape as the creator and location of new cultural settings is raised by James Corner (Corner, 1999: 1), whose argumentation is based on the possibility of creative re-use and re-imagination of spaces and structures, e.g. in the form of old industrial arrangements or landscape features.

Other scholars not connected to landscape urbanism have similar reflections when discussing the design and the common perception of the place. Professor at Columbia University Robert Beauregard states: “[p]laces are never empty” [Beauregard, 2005: 39], meaning that areas always exist in the common understanding of the people using or just living in the vicinity of the intervention site. It is very important to relate to such associations between people and place; meaning that the perception of space is

important in the overall procedure of re-development. German landscape architect Klaus Overmeyer states: “[w]hen intensive participatory procedures accompany planning processes, as is the case on urban redevelopment or construction projects for example; there is always a direct link between the people and the sites involved.” (Overmeyer, 2007: 120). A way of incorporating this is by operating with temporary use. Temporary use can be a way of acupunctural intervention in the spaces in order to improve their livability, quality and recognition. Therefore, the need for new urban catalysts is urgent, and it is evident that people participating in the temporary use of the voids, leftover buildings, or different forgotten spaces are enhancing the spin-off of the urban development in such areas (Overmeyer, 2007) and strongly contributing to the creation of the cultural landscape of the place.

4. RE-CONQUERING THE POST INDUSTRIAL SITE - TESTING LANDSCAPE URBANISM

The concept of the intervention is to open up the site towards the city and make the site an active part of the city again. The site becomes an integral part of the city's commuting and recreation patterns - re-linking the void to the urban fabric once again. The re-linkage is to happen both physically as well as in the users' perception whereby connectors (physical, visual and mental) become important. Due to its ability to structure, the landscape is seen as having an important role, and a carpet of landscape is rolled over the site within which strategic dynamos of built structures are placed, applying new functions and identities. Further, the landscape can accommodate railroad tracks from the site's industrial past, using these tracks in the development of the site. Finally, the means are not present in Bytom to revitalize the entire site, and therefore a design of an overall landscape structure with punctual hotspots seems relevant.

The project operates with a threefold concept containing the following themes: links, hotspots and landscape. Links represent the connection of the site into the city. The physical connections are seen as two interrelating paths in the area; the landscape path and the urban path, which will lead different user groups across the site. The hotspots are areas of an especially attractive and nodal character where the intervention is to strengthen the specific points and to make them function as dynamos influencing the rest of the area. The hotspots are placed as needles in an acupunctural strategy. The hubs are places where different types of exchange take place. The main hotspots are the power plant Szombierki becoming the Cultural and Recreational Hub and the artificial landscape-infrastructure building being the Transit, Recreation and Work Hub, placed where the urban path and the landscape path interact. Finally, landscape is the construction of new outdoor spaces with a strong industrial character which combines

^{iv} Landscape urbanism is a term that combines architecture and landscape architecture. The approach of working with landscape urbanism is first of all the understanding of the contemporary city as an urban landscape where the boundary of what is built, meaning urban, and what is unbuilt, meaning landscape, is no longer relevant [Shannon in Waldheim 2005,143]. Secondly, landscape urbanism approaches the design of urbanity as a flexible and unpredictable process where the flexibility is enabled by the strategic process-oriented work with the urban landscape.

An example could be Rem Koolhaas' and OMA's design of the Parc de la Villette, which “... proposed landscape as the basic framework for an urban transformation of what has been a part of the working city, left derelict by shift in economies of production and consumption.” [Waldheim 2005,40].

the layers of linkage, meeting, recreation, inhabiting and cultural happenings. The landscape becomes a hybrid of 'natural green' and infrastructure. This urban concept is realized in a five step implementation plan. Over time, these five steps prepare and form the site whereby the project is gently fitted into the urban fabric.

1. Staging

The staging is important from an economic point of view where the understanding of the shrinking territory, in our opinion, does not allow planning for a master plan with a large starting budget. In the case of the landscape method, staging is also an essential element. The recognition of the place and the biological, green structures is constructed over time. The site is to regenerate from the postindustrial pollution; it is also to house new plantations, which need time to grow and create the desired image of the 're-greened' site in the middle of the 'black' postindustrial Silesian landscape.

STAGE '00' – PREPARING The legal and technical issues are addressed. The organization of the temporary uses as well as the postindustrial cleaning processes are to be started in this stage.

STAGE '01' – GREEN BELT The new landscape and light transit links over the railway tracks are established. The temporary use of different leftover buildings and spaces is planned; for example the use of the power plant Szombierki as well as the establishment of the allotments and playgrounds in the void.

STAGE '02' – HYBRID The creation of the landscape-

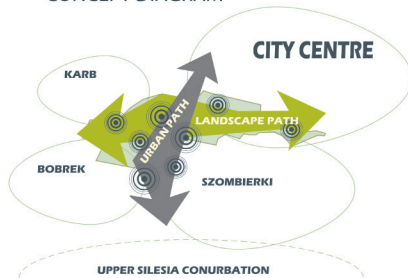
infrastructure node is to be finalized. The roads and the structures supporting the pedestrians' and cyclists' flow, hosting also the transit and shopping facilities are built. The new development aims to attract investors and thus start the process of building up the south-eastern part of the site.

STAGE '03' – COMPLETING The area is to gain most of its housing and mixed-use facilities in the south-western part. Also, the urban structure is to be connected to the green structure in the north, thus creating a coherent setting filling up the present void in Bytom.

2. Physical re-linkage

The intervention site is spatially and infrastructure-wise disconnected from the city and therefore not attractive for use. This influences the areas surrounding it negatively as they become dead-ends in the city's structure. Therefore, the overall linkage is the key intervention in the case of the spatial rehabilitation of the void. The area will thus gain new access points and routes – making the city emerge in the new hybrid landscapes. The infrastructure is always located in relation to the landscape, and therefore the landscape is seen as the main medium of re-linkage. First, the pedestrian and bicyclist access is to be provided through simple and light construction bridges, leading the transit over the railway tracks. The second stage of investment is to establish a north-south road connection, which will release the city centre from the inter-conurbation traffic in addition to providing access to and life in the new, attractively located area. The infrastructure is to be related to a new Transit, Recreation and Work Hub in the form of a hybrid landscape building/hill.

CONCEPT DIAGRAM



STAGIN PRINCIPLE FOR DEVELOPMENT IN LANDSCAPE METHOD



MOOD ILLUSTRATION FOR NEW LANDSCAPE



3. Re-conquering the site in the common perception

The leftover postindustrial space is not perceived as a common area for use and spending time. The solution is to bring people to the site and to start the process of redefining the space in the minds of the inhabitants. The citizens' involvement is seen as a dynamic process where all possible ideas can be brought into the discussion and consideration. In relation to the site, the formation of the network of interested people in the self-creation of spaces is an example. The groups could work with establishing gardens and playgrounds in the postindustrial landscape. Introducing temporary use of leftover buildings and spaces is also proposed.

4. Promotion of the site qualities

Following the idea of Danish landscape architect Steen Høyer, the thorough study of the landscape and the heritage leftovers is seen as the way of finding the special features of the site, and frame the identity of the space (Høyer, 1999). In the case of Bytom, the main elements are the heritage power plant, heat distribution pipes and the leftover railway tracks spread throughout the area. The building is to be transformed into a culture and recreation hub with multifunctional facilities for all citizens. The railway tracks and the pipes are to be incorporated into the design of the new open spaces and the definition of the new district in the south-western part of the site, which is set to fill and combine with the fragmented forms of the suburban areas located south of the site.

5. Acupuncture – hotspots

The approach of urban acupuncture is "...neither a discipline, nor a project technique, but a philosophy of approach to a few territorial and social problems." (Marzi & Ancona, 2004: 1) It is a strategy working with small but effective urban interventions in order to immediately improve the quality of an urban space. The method is applicable in declining areas or, more generally, areas that find themselves in a difficult situation which disables a typical master planning of the re-development (Marzi & Ancona, 2004).

The main hotspots of the area in Bytom are the power plant and the hybrid landscape hill, as well as the small natural and industrial elements set in the landscape, which are to attract different user groups. The small elements are the heat pipes transformed into playing arrangements as well as the allotments or semi-private gardens on the rooftops of the parking houses. The re-use of the small elements placed in the landscape can be seen as an acupuncture intervention that can facilitate the use of the area.

5. CLOSING REMARK - FLEXIBLE & COHERENT LANDSCAPE METHOD

The superfluous land of the postindustrial spaces in the Silesia region is in desperate need of a re-definition. The region is in need of new planning approaches, which take into consideration the urgent need for balanced visions for re-using the postindustrial voids. In this paper, post-industrial sites are handled through a landscape urbanism approach – the post-industrial void in the south-western part



of Bytom is being landscaped. Thus, the site is handled as an urban landscape into which different hotspots are placed, like acupuncture needles, yielding an interesting way of handling a huge post-industrial site in areas suffering from decline in population and economy.

This design proposal indicates that a possible and suitable method of working with the post-industrial areas is the landscaping method. The main defining feature is the flexibility and holistic approach of such a method.

“In the urban landscape there are always areas undergoing transformation and it is a dynamic field. Urban areas never stop changing but will transform over time and this transformative landscape can accommodate both growth and decline.” (Laurson, 2009;184)

The work with landscape urbanism brought up solutions which seem able to counter most of the problems of the territory and enable the application of one landscaping method. With the mindset of an urban landscaper, it is possible to perceive the territories as mutating organisms (Laurson, 2008: 183) where the place for dualities is preserved; meaning that it is important to incorporate the understanding of the site's dynamics. The landscaping optics enables operational action at the declining sites.

The landscape method, with its dynamic understanding of development in general, brings up new and more open approaches to planning. Planning which looks very far into the future whilst also being flexible to many alterations in the process, as it happens in nature. The long term landscaping allows the users, investors and nature to establish the needed economic state, social and spatial connections as well as the biological growth of the new landscape element into the urban landscape. Such an approach is very strongly expressed in the five-step implementation plan for Bytom's post-industrial void where the time is given to establish the space and to stimulate possible stabilization or even growth in the area.

Moreover, it should be mentioned that landscaping can be important in the contemporary world as ecological awareness is a development issue. Postindustrial voids are often polluted and uninhabitable from the onset. The landscape method brings about a better understanding of the places, nature and their long term changeability. It is definitely seen as the advantage of a method that it is able to cover also ecological sustainability within the framework of the interventions.

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