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THE CONTRIBUTION OF INDUSTRIAL HERITAGE REVITALISATION TO THE URBAN REGENERATION: THE EXPERIENCE OF THE WARSAW REGION

Abstract

In Poland since the 1989, the process of deindustrialization has been commenced. [Misztal, 1998; Niezabitowska, 2005]. The first urban regeneration projects, implementing new values to the post-industrial compounds, have been already completed in many cities of strong, dominating industrial function in the past (Silesia Region, Łódz). Interestingly, these projects were mostly aimed to meet the growing needs of local community such as culture, education, leisure and rarely became an arena of purely commercial investments activities [Nappi-Choulet, 2006].

Using the example of Warsaw's industrial heritage revitalization projects, we examined already modernized historic buildings, which were aimed to respond the tourist and leisure needs (museums, art galleries, cultural centers). We were interested in their new functions and meanings for urban space quality. We wanted to consider how much revitalized architecture help to change (socially, culturally, economically) declining areas and their painful image of "inner city". [Thorns, 2001]. Our research (carried in 2005-2006) covered nine historic industrial compounds, already converted and having new functions.

Results of our inquiry polls (taken in 2005-2006) confirmed the thesis, that revitalized historic industrial architecture might enrich urban space with values visible in many dimensions: social, historical, aesthetical and economic. [Evans, 2005]. Although selected and studied cases in Warsaw were not completed equally successfully, due to the objective barriers or carelessness at the planning process, all show good results in space quality and cultural services improvement, appreciated by the local community members and visitors relevantly.

Once neglected run-down Warsaw's districts (Wola, Praga) now take benefits of new identity meanings, attracting tourists and enhancing local community sense of belonging and well-being. Similar cases were described by scholars after studies in other European cities [Jones, 2006].

Unfortunately recent debates over Warsaw Master Spatial Plan (2006) revealed that the further governance of the subsequent projects might be difficult. Although formally are recommended mainly cultural/education functions for the revitalized historic industrial compounds, due to the rapid rise of real estate prices in Warsaw and developers strong pressure, many investors are interested in the purely commercial projects, neglecting the social-cultural functions these historic buildings might have. Significant is the case of the 19c. industrial compound in Warsaw ("Koneser Factory"), which is an example of purely commercial approach to the urban regeneration performance. There are doubts, if so mono-functional and only free-market determined urban development might have been a good contribution to the sustainable, competitive city shaping. [Evans, 2006; Turok, 1992].

Key words: industrial heritage, urban space quality, tourism

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Introduction

In East Europe a generation ago industrial heritage was mainly unknown. Industrial landscape (mills, factories with chimneys emitting all-blackening smoke, poverty stricken worker's houses); have been regarded with dislike and grim. Attitudes towards industrial history have changed during the last two decades and industrial civilization has become something to conjure with — in many terms woven into spatial policy issues and research demands: regeneration devastated areas, conservatory, and tourism development. Now tourists in Poland are fascinated and often awestruck by the monumental sights of 19c Silesian mines, Łódz's cotton mills and Warsaw's historic public services infrastructure. Growing awareness of the Polish industrial history together with observed tourist's willingness to visit ancient water-plants, mill, ironwork plants, old public services buildings — are all clear examples that industrial heritage is regarded by contemporary tourists just as attractive as gothic cathedral. These changes also affected social environment and are important for local community, as most of what is today protected or celebrated as industrial heritage had been not so long ago considered as ugly and even shameful part of the city space.

In Poland deep transformations of industrial structure and visible changes (ownership, organization, branch structure, spatial structure and size of plants) have been observed since 1990. These changes were initiated to meet new economic requirements and to shape efficient model of industrial branches. As a result of deindustrialization process, many plants, due to the collapse of certain branches, have been closed. Among many negative consequences we can see large urban areas petrified in decline, job losses, general impoverishment, demographic changes (depopulation). In Poland built-up and no longer used post-industrial areas make thousands of hectares, mainly in Silesia Region. The process of the new land use and also adaptation's projects of historical structures into new functions, have been carried on resulting in many transformation projects of industrial premises.[Misztal, 1998; Niezabitowska, 2005]. The first urban regeneration projects, implementing new values to the post-industrial compounds, have been already completed in many cities of strong, dominating industrial function in the past (Silesia Region, Łódz). Interestingly, these projects were mostly aimed to meet the growing needs of local community such as culture, education, leisure and rarely became an arena of purely commercial investments activities [Nappi-Choulet, 2006].

One of the contemporary urban planning policy assumptions in Warsaw is an idea to procure a new town environment quality on the base which rejects distinguishing the "better, decent" and "worse, poor" town districts [Warsaw Spatial Master Plan, 2006]. It is a revolutionary approach as for centuries, traditionally in Polish towns the "industrial" districts were recognized in many cases as "not respectful" (ugly, dirty, chaotically planned, dangerous for local community) and as such - not deserving the necessary care and further investments, any improvements. Today these districts are very often "re-discovered" and treated as "new chance" of town development by local community members, tourists, city authority and planners [Pawlikowska-Piechotka, 1999]

This tendency, already known in Western European towns since several decades, is considerably new challenge for Polish architects and town planners, as caused only by the recent political and economy changes [Misztal, 1998; Niezabitowska, 1995]:

- a) technological revolution in telecommunication, computer science
- b) Recession in many industry sectors (heavy industry)

As a consequence, now there is a need to propose and create for the Warsaw's post-industrial areas new forms and functions of urban space to be implemented, which can answer the contemporary society's expectations and aspirations. These designs must very often seek possibilities to resolve different wishes of future users, problems of construction costs and quality of good architecture, building regulations normative and conservatory requirements.

Obviously, to achieve the satisfactory function and aesthetic quality it is necessary to combine the various, often conflicting, needs [Evans, 2006; Hemphill, 2004; Turok, 1992; Thorns, 1992]:

- -economic, as developers mostly desire to achieve profitable utilization of area and buildings as quick, cheap and effortless as possible
- -members of local community, as the new functions of the area (school, shopping centre) and new working places might be created
- -environmental, as project should include aesthetic and ecological rehabilitation of post-industrial area
- -cultural and education, as the new functions of industrial heritage are often connected with sectors of education (school, museum) or culture (theatre, art gallery)
- -tourist, as converted into new function historic factory might be an important tourist attraction

The very special attention must be paid to these post-industrial landscapes which have historic values. Recognized as significant part of the national heritage closed factories, mills or public services buildings can serve for new functions (museum, cultural centre, art gallery) being an attraction for both tourist and local community members.[Davies,1992; Miles, 2005; Murphy, 2005; Wowrzeczka, 2005] A nation unable to recognize its identity, history and tradition would be an alarming thing. Industrial heritage is one of the important aspects of Warsaw's traditional landscape and this heritage new use have to satisfy local community demand for access.

Could tourism development provide Warsaw and its citizens with alternative means for creating new socio-cultural activities and help alleviate the bitter effects of decline by developing new space quality? This paper argues (on the base of case study in Warsaw) that with careful planning, and realistic, not overoptimistic expectations - there is a chance for a positive role for new tourism options for sustainable transformation areas in decline.

Developing industrial heritage tourism: Context of a case study in Warsaw

If we define industrial heritage as "man-made sites, buildings and landscapes that originated with industrial process from the past", by no means Warsaw can be described as a part of Poland which is rich of considerable wide range and large numbers of industrial heritage sites

(comparing to Silesia). [Misztal, 1998; Niezabitowska, 1995]. Although the industrial tradition of the region reaches the 1st century BC (Pruszków, extraction sites and steel works relics), Warsaw became an "industrialized town" not earlier than in 19 and 20 centuries (achieving the average industrialization degree, typical for most of the East European cities).

Due to political and technological changes during the past two decades, we have been able to observe in Warsaw, and generally in all Mazovia Region, collapse of many traditional heavy industries and as a result deterioration of many structures, compounds and even cities (Żyrardów). Government, regional and local authorities are aware that programs of urban renewal are necessary, with a special goal to adapt post-industrial structures of historical values, being under the protection of law. Actions taken up by those have already resulted in several projects' implementation (Warsaw, Konstancin-Jeziorna, Żyrardów).

In Warsaw there is tradition of projects dealing with issues concerning post-industrial areas transformation, much older than process of reconstructing economies into service-oriented system. One of the earliest projects of conversion, commissioned and completed in the middle of 60's, was the old Community Boiler-House, which had been constructed for WSM Housing Estate in Warsaw in 1930. However successfully adapted for cultural centre ("Tecza Cultural Centre") to serve as such to the local community, unfortunately had a very short career. It is a really regretful failure of a project, as finding a new function for this building, designed in modernist style (arch B. Brukalska, 1930), was one of the most interesting projects and "Tecza Cultural Centre" for a couple of years was famous for numerous and highly ambitious "off" theatrical productions and "open" artistic actions, cultural events and workshops. Much later, in the late 70's, the old Central Railway Station in Warsaw (constructed about 1931) was converted into the Museum of Railway Network System. It has been serving successfully having such a function until today.

Next was one of the certainly most interesting Warsaw's projects of converting post-industrial historic buildings into new functions, which was completed in the middle of 80's. It was an adaptation 19-century Norblin Metallurgic Plant, in the past located outside the city, but these days already surrounded by numerous housing estates and simply being part of city centre. One could describe this project also as probably the oldest attempt, in our tradition of town planning in Poland, to implement rehabilitation project through giving new quality to "brown fields", formerly devastated industrial area. Since more than twenty years in the old "Norblin Metallurgic Plant" have been successfully located museum and two "off" theatres together with restaurant and café [Table 1,2]. The next converted in Warsaw post-industrial building was a 19-century Municipal Water Plant. After adaptation in the late 90's for Warsaw Museum of City Infrastructure, it serves not only as tourist attraction but, what should be underlined, still has its historical function, being also used for public service as Warsaw Water Plant. About the same time, in the middle of 90's another example of historic municipal infrastructure has been converted into new function. It was another example of 19-century municipal infrastructure, the Old Gas Plant, which is used today as Warsaw Museum of Gas Managing.

Among projects, which have been implemented in the years 2000-2005, we can list numerous examples of Warsaw's 19-century industrial buildings and city municipal plants, adapted for cultural clubs ("CDQ", "Le Madame"), theatres, art galleries ("Otwocka Centre"), shopping canters ("Stara Papiernia"), tea and coffee-shops, restaurants ("Old Jung's Brewery") and museums (Old Warsaw's Mint). As a new attraction we can mention also some, abandoned post-industrial buildings designed in 50's in the already forgotten "soc-realist" style, which have often a very unique architectural character. These sites are popular now as romantic and unique scenery for the theatre performances and rock concerts, which there are often organized ("The Tempest" by Shakespeare in the old Warynski's Factory in 2005). The recently completed project, in August

2005, is connected with the Second World War history: in the 19-century Warsaw Power Station has been organized the Museum of Warsaw's Resurrection (1944). [Table 1, 2]

Research study (2005-2006) and its first results

The aim of our study (AWF-DS I 24), undertaken in the years 2005-2006, was to recognize the problems of the new use of industrial heritage with a special interest paid to those structures which have historical values. The survey was focused on the new tourist functions of these historic structures and their role for urban environmental renewal.

The nature of research objective meant that several different approaches were required. Finally our study was based on:

- A literature review
- More detailed examination of seven case studies to cover a range of different projects and locations (we selected 7 sites out of total 10 of converted into new functions historical industrial plants in Warsaw); our survey was aimed to include: structured interviews with local authorities representatives, managers of converted buildings and questionnaire polls of tourists (visitors)
- -Analysis of existing survey data on industrial heritage in Warsaw (spatial and architectural plans): identification and review a number of initiatives and projects in each of Warsaw's districts, having projects of land-use changes on the post-industrial areas

As we believed, the successful conversion of industrial heritage projects should be visitors friendly, physically and economically accessible, also meet needs of tourists and local community members and market requirements and these questions were the bottom line of our research.[Fig. 1,2] All statistical evaluations in this study reflect tendencies in the new use of cultural heritage (function, management, popularity, disabled person access possibility) and were based either on data obtained from local authority offices or information found during fieldworks undertaken by graduate course students (workshop sessions in the Institute of Tourism and Recreation AWF in Warsaw and field studies in Warsaw), who participated at this study project (2005-2006). All surveyed examples of industrial heritage were located in Warsaw or its neighbourhood and had been already converted into new (mainly tourist's) functions.

Particularly we were interested in the answers for the following problems:

- -historical value of post-industrial building and its primary function
- -date of conversion, present owner (management), contemporary main function and cultural activities programmed
- -number of visitors per year, accessibility for disabled
- -future plans for development (and its special context: tension between the heritage conservatory office and commercial part)

Our questionnaire investigations covered the below listed sites and these case studies were chosen in aim to complete there further and more detailed survey, focused on the problem of the present use of the industrial cultural heritage, its new function and its new meaning for the local community members [Table 1, 2]:

- -Old Jung's Brewery in Warsaw (Art gallery, restaurant)
- -Old Gas Plant in Warsaw (Museum of Gas Managing)
- -Old Main Railway Station in Warsaw (Museum of Railway Network)
- -Norblin's Metal Plant in Warsaw (Museum of Technology, two theatres, art gallery, cafe and restaurant)
- -Old Mint in Warsaw (Museum of Technology, Art Gallery)

- -Old Paper Mill in Konstancin-Jeziorna (shopping centre, art gallery, Museum of Paper Technology)
- -Old Power Plant in Warsaw (Museum of Warsaw's Resurrection)
- -Old Textile Factory at Burakowska Street (Cultural Club "CDQ" and art gallery)
- -Old Textile Factory in Żyrardów (shopping centre)

Above listed, selected examples of already implemented projects of rehabilitation post-industrial town "brown fields" and attempts to convert historical buildings into new functions, are the proof that the effort from the part of local authorities and planners often repaid as a significant help to improve living conditions of local community members. New, society demanded, functions have been created as: shops, restaurants, theatres, cultural centers, museums and art galleries. One of the clear signs to support this statement is a visible popularity of these sites, measured by number of visitors per year. Only in the case of Museum of Warsaw's Resurrection, organized in the converted old Municipal Power Plant, was last year as big as 400 000 visitors. [Table 2]

It is necessary to underline that some of presented above examples of historic buildings of past factories or plants were converted thoughtfully, after months of careful architectural studies. Some of the projects have been very highly awarded (as for example Old Paper Mill in Konstancin -Jeziorna, design commissioned by arch. arch. M.Bulanda, A.Mucha and Associates) was distinguished by Association of Polish Architects in 2002 (SARP), due to the recognized there certain exceptional high quality achievements as good function, aesthetic values and outstanding interior arrangement. Moreover, the value of this project can be measured not only as a very unique architectural character which creates a special atmosphere in these sites, not only as reinforcement of crucial functions directed to nearby located housing estates inhabitants (shopping centre, schools), always enthusiastically welcomed by the local community members – but also as a chance for significant cultural activities programs. Both tourist and local community can enjoy a numerous proposals of theatre performances, concerts, art exhibitions performed there and it seems significant, that mostly the cultural offer is either free of charge or priced very reasonably. It means that there are no financial barriers to participate in most of these events. Also in this project the crucial problem of disabled accessibility was successfully solved. Unfortunately this question is a painful problem and most of the historic monuments, due to the conservatory requirements and restrictions, are not easily accessible for disabled [Table 2].

However, what is visibly missed in some of the reviewed projects is a quality of authenticity. One should be certainly aware that some changes are inevitable, due to the newfunctions, building law requirements, new building technologies and materials. Unfortunately, the material of our research shows that sometimes process of transformation the industrial heritage into new function (cultural, commercial, public services, education, office) results in unrecognizable form, very different from the past appearance and character. Some designers treat the postindustrial environment simply as a "row material" for the new functions. It is true, that implementation of new functions into industrial heritage is a new challenge for Polish urban planners and architects. Deep and broad historical studies concerning industrial heritage have not had a long tradition in East Europe (no more than two decades). Therefore government, local authorities together with architects and urban planners have not got help so far from the academic world. Hopefully architects, historian of art, urban planners, geographers, sociologists who do study now on industrial culture in Poland will soon produce a material, which could obviously serve to better understanding heritage resources and became an important help for future projects in Warsaw and other sites. Without such a base, as we are afraid, it is too easy to overlook the complexity and contradictions of heritage resources, it is very difficult to consider appropriate new function and form; hard to select suitable technology and building materials for future development [Niezabitowska, 1995; Wowrzeczka, 2005].

Although it is probably never possible to get optimum level in shaping the industrial cultural heritage, it seems that the following principles, as a good reason to try such a task, could be mentioned as desired policy direction of coherent environment management:

- -environmental question: important attempt of rehabilitation the devastated post-industrial area
- -revitalization of town "brown fields", converting into new functions and providing new meanings for local community members
- -urban regeneration policy as a response to needs and expectations of local community for crime prevention
- -multi-functional, flexible solutions of future functions, considered in architectural projects dealing with problems of industrial heritage programs
- -special events, cultural activities, school workshops as an important part of cultural/education program, helping to enhance local (regional) identity
- -tourism promotion (seen as a part of commercial networks to support costs of reconstruction and later management and maintenance of historic buildings)

The outcome of good management is sustainable environment creation: for visitors (tourists) and for the local community. It is necessary to underline that the industrial heritage displayed to tourists is also the heritage of the local people, a symbol of their identity. It is important to enable them to have an effective voice in how the site is managed and to receive benefits from sharing it with visitors [EESC, 2005; Evans, 2005].

Therefore, local community's more effective participation, in industrial heritage reconstruction and rehabilitation projects, seems to be another important task to be gained. It is obvious that local people should be the heart of such a process, as one of the most important participants of the project. In other words, community involvement in all planning stages (first presentations, later involving several discussions with local authorities and planners) is essential [Hemphril, 2004; Thorns, 2001; Turok, 1992]. Simply they are the future beneficent of social, cultural and physical changes carried in the industrial heritage areas in their neighborhood. Furthermore, without their support, any terms of sustainable, balanced development could not be achieved (Fig. 4).

A SWOT analysis revealed a strong demand and expectation showed for this type of industrial heritage use (from the part of polled tourists and local community members). Although strengths were (in 2005) greater than weaknesses still there were some threads noticeable over the opportunities for this sector of city development, what should be considered in the future urban spatial planning policy [Table 3]. We are convinced that there is a need for multilevel cooperation between parts: both external (Town Municipality decisions) and internal (management) to overcome problems and possible traps. Despite the remarkable popularity of renewed industrial sites, there are serious challenges facing sector of post-industrial areas resurgent process and sites like Warsaw located Old Power Plant, Old Paper Mill, Old Water Plant, "Norblin Metallurgic Plant, Old Gas Plant and others, must deal with reality of peripheral locations, troubles with funds, problems of conservatory plans requirements (issued on the base of uniqueness and important aspect of city heritage).

Fig. 1 A typology of industrial and communal infrastructure heritage attractions in Warsaw Source: Field studies, II45/ITiR AWF, Warsaw (2005-2006)

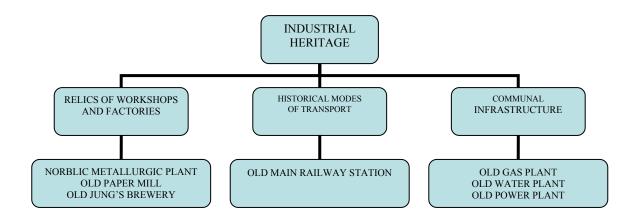


Table 1 Characteristic of selected examples of historic post-industrial buildings in Warsaw (comparison of old and new function in order of conversion chronology)

Name	Date of construction Location	Original function	New function
Old Power Plant	1904-1908 Warsaw	Power Plant for Municipal Public Transport (Tramways)	Museum of Warsaw's Resurrection (2005)
Old Paper Mill	About 1879 Konstancin-Jeziorna	Paper Mill	Shopping centre (2004)
Old Jung's Brewery	1854 Warsaw	Jung's Brewery in Warsaw	Numismatic Gallery (2002)
Municipal Water Plant	About 1864 Warsaw	Municipal Water Plant	Museum of City Infrastructure (2000)
Old Gas Plant	About 1870 Warsaw	Gas Plant	Museum of Gas Managing (2000)
Norblin Metallurgic Plant	1851 Warsaw	Metallurgic Plant	Museum of Science and Technology (1980)
Old Main Railway Station	1931 Warsaw	Main Railway Station	Museum of Railways Network (1970)

Source: Field studies,II45/ITiR AWF, Warsaw (2005-2006)

Table 2. Present main function and supplementary functions of selected examples of historic post-industrial buildings in Warsaw

Name	Supplementary function	Number of visitors/ per	Accessibility:
and main function		year	ticket price/
		, and the second	barriers for disabled
Municipal Transport	Museum, concerts,	400 000	Adult entrance: 1 euro
Power Plant:	school courses,		Facilities for disabled:
Museum of Warsaw's	conferences, gift shops,		toilets, lift services and
Resurrection	café		runways
Paper Mill in	Shopping centre, art	-	Adult entrance: free
Konstancin-Jeziorna:	gallery, cultural centre		Facilities for disabled:
Old Paper Mill			runways, lift services,
Shopping Centre			toilets
Warsaw's Jung Brewery:	Restaurant, museum of	-	Adult entrance: free
Restaurant "Landa"	traditional mint		Facilities for disabled:
	technology, art gallery		None
Warsaw Museum of City	City Water Plant	2 000	Adult entrance: 2 euro
Infrastructure			Facilities for disabled:
			None
Municipal Gas Plant:	Museum, conferences,	500	Adult entrance: free
Museum of Gas	seminars, concerts		Facilities for disabled:
Managing			None
Norblin Metallurgic	Museum, 2 "off"	22 440	Adult entrance: 2 euro
Plant:	theatres, concerts, art		Facilities for disabled:
Museum of Science and	gallery, café		runways, toilets
Technology			
Warsaw Main Railway	Museum, conferences,	23 000	Adult entrance: 2 euro
Station:	school courses,		Facilities for disabled:
Museum of Railways	workshops		None
Network	(MED AND III) (2005)		

Source: Field studies, II45/ITiR AWF, Warsaw (2005-2006)

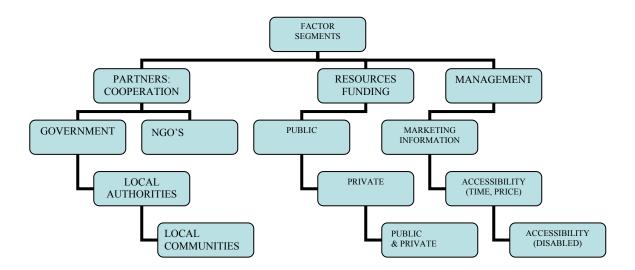
Table 3 SWOT analysis results for the industrial heritage tourism sector in Warsaw

Source: Field studies, II45/ITiR AWF, Warsaw (2005-2006)

Strengths	Weakness	Opportunities	Threats
Attractive conversions	Poor promotion;	More co-ordination of	Authenticity sacrificed to
programme (museum,	museum is not given	marketing activity [Old	commercial effects
art gallery, shopping	proper recognition;	Gas Plant]	[all]
centre, cultural	not enough advertising		
activities)	and exposure;	Special events and	Lack of support from the
[Old Power Plant, Old	lack of co-coordinated	themed activities,	government and local
Paper Mill, Old Railway	development initiatives;	festivals	authorities
Station, Norblin	[Old Gas Plant	[Old Gas Plant, Old	[Old Water Plant]
Metallurgic Plant]	Old Jung's Brewery	Jung's Brewery, Old	
	Old Water Plant]	Water Plant, Old Paper	Low profile of activities
Authenticity;		Mill]	leading to insufficient
[Old Gas Plant, Norblin		_	interest of visitors

Metallurgic Plant, Old		[Old Jung's Brewery]
Paper Mill, Old Water		
Plant]		Poor urban planning
		(property developers)
Excellent collections,		[Old Main Railway
resources of local		Station]
knowledge, identity and		[
tradition		
[Old Power Plant, Old		
Water Plant, Norblin		
Metallurgic Plant; Old		
Main Railway Station]		

Fig. 2 Diagram of the selected factors influencing the post-industrial heritage future possible development *Source: Field studies,II45/ITiR AWF, Warsaw (2005-2006)*



CONCLUSIONS

First, rough results of our research (taken in 2005-2006), confirmed the thesis, that revitalized historic industrial architecture might enrich urban space with values visible in many dimensions: social, historical, aesthetical and economic. Although selected and studied cases in Warsaw were not completed equally successfully, due to the objective barriers or carelessness at the planning process, all show good results in space quality and cultural services improvement, appreciated by the local community members and visitors relevantly. Once neglected run-down Warsaw's districts (Wola, Praga) now take benefits of new identity meanings, attracting tourists and enhancing local community sense of belonging and well-being. Similar cases were described by scholars after studies in other European cities [Jones, 2006; Miles, 2005; Thorns, 2001].

We are positive, that the significant potential resources for tourist development are deposited by Warsaw industrial civilization. The important question is how it can be better identified and exploit (with care for historical values and authenticity) in future. We have no doubts, that successful architect's project should consider special cultural values before specifying its future use. Later, heritage managers should be concerned with determining appropriate kinds and levels of use as their main objective is to enrich the cultural resources – not oriented only to gain commercial benefits [Davies, 1992; Nappi-Choulet, 2006; Turok, 1992].

Unfortunately recent debates over Warsaw Master Spatial Plan (2006) revealed that the further governance of the subsequent projects might be difficult. Although formally are recommended mainly cultural/education functions for the revitalized historic industrial compounds, due to the rapid rise of real estate prices in Warsaw and developers strong pressure, many investors are interested in the purely commercial projects, neglecting the social-cultural functions these historic buildings might have. Significant is the case of the 19c. industrial compound in Warsaw ("Koneser Factory"), which is an example of purely commercial approach to the urban regeneration performance. There are doubts, if so mono-functional and only free-market determined urban development might have been a good contribution to the sustainable, competitive city shaping.

Reviewing our research material of case studies, we were often astounded when realizing how deeply and intensively the renewal and transformation projects of post-industrial areas had changed the traditional environment, blurring deliberately "ugly and dirty" historic industrial landscape. The consequence of such "total rehabilitation" is a quite different image of landscape. It is less characteristic and the fragments of remained architectural relics are seldom representative of what there was before. To study this question from the broader perspective, we decided that one of our concerns in the next stage of survey will be a question of authenticity of place, as we believe that industrial heritage should document the place and people who worked in the past decades in Warsaw's factories and mills.

We could treat the below presented results only as our pilot survey, being aware that the world of industrial heritage, tourism and regeneration of urban areas is very sensitive and each case is unique. The culture and educative activities (museums, cultural centers), business-oriented services (gift shops, art galleries) - all developed in the post industrial heritage or disused historic communal infrastructure are a multifaceted problem. In this first stage of our study we intended to picture roughly the present state of the tourist function of the industrial heritage in the Mazovia Region.

In the next stage of our survey we plan to focus on other selected issues (types of heritage attractions, management of industrial heritage, tourist demands and comments, local community participation). We are convinced that there may be need to take a wider, more considered view of the industrial heritage and probably the longer-term observations of social changes.

Debates are still ongoing and the important questions are: what are the implications of all of this? How to test development and achievements? How to measure traps and failures? What criteria should be applied? How to verify set targets? – as we have some doubts if such single factor as "number of visitors per year induced" is enough to measure a highly complicated multi process of "culture regeneration" within the historic industrial landscape.

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