Discussion Papers 2007.
Regionality and/or Locality 143-155. p.

TRADITIONAL INDUSTRIAL AREAS OF LARGE CITIES IN THE POST-SOCIALIST ERA – THE CASE OF BUDAPEST AND WARSAW

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Introduction

In the development of post-socialist cities 1989 was a radical turning point as relevant reforms have begun in all fields of life. Enormous changes have taken place in economy, especially in industry, which have had a great impact on the extent of industrial areas and their (re)utilization. The main purposes of this study are to demonstrate the spatial consequences of the changes taken place in the industry of the Hungarian capital city, Budapest and – where it is possible – to compare them with those experienced in the Polish capital, Warsaw. The main issue is what kind of similarities and differences can be observed in the traditional industrial areas of the two post-socialist cities. The study is primarily based upon the results of the surveys carried out in the industrial areas of Budapest in the past decade. (This research was supported by OTKA, project number: T046014.) However, those experiences and impressions gained on a short study-tour in Warsaw in 2006 have been also used up. As the Polish experiences are based upon only observation, this is why parantheses are used in the title of the paper.

The transformation of industrial areas of post-socialist cities began much later than in developed western cities, and accelerated after 1989, when radical political turnabout opened the way for economic and social reforms. Since then, numerous studies have been published on Eastern European economic restructuring, on how the socialist industry and industrial areas of cities have been transformed, and on the kind of challenges cities have had to face (*Gritsai*, 1997a; *Kiss*, 1993; *Korcelli*, 1995; *Korec*, 1997; *Misztal*, 1997). Compared with developed western cities, those in the East face a much more difficult situation, because they had to cope simultaneously with the increasing pressure of globalisation, and with structural changes in all spheres of life. The other relevant difference between Eastern and Western cities is that the former need to restructure industry as a whole and each individual firm simultaneously. In the west only a small proportion of enterprises or of a particular sector need renewing at any given time (*Hillman*, 1992). For these reasons, the transformation in this part of Europe has claimed much higher economic and social costs, and takes longer, particularly in certain parts of the region.

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The changes were the most advanced in the capital cities, which are the most innovative areas of the countries and display the most immediate responses to challenges (*Gritsai*, 1997b; *Sleszynski*, 2005). These were the major reasons for having chosen Budapest and Warsaw, which are very dynamically developing cities of East Central Europe. Budapest and Warsaw are not only the political, social, cultural, financial and transport centres, but they are also very important industrial centres of the country. Although last decades have witnessed a decline in the significance of their industry for the economic life of the city (*Table 1*).

The study consists of three short parts. First, I demonstrate, very briefly, the major phases of the development of industry in each city. Then, I summarise the most important changes in the extent and function of industrial areas of the two cities. Finally, before conclusions, major types of redevelopment of old industrial areas are introduced.

Table 1

Some basic indicators of Budapest and Warsaw, 2005

Denomination	Budapest	Warsaw
Number of population	1,698,106	1697,596
Number of all enterprises	354,052	300,784
Share of industrial enterprises of all enterprises (%)	4.9	9.3
Number of economic organisations in industry	17,537	27,938
of which in mining and quarring	107	93
in manufacturing	17,227	27,696
in electricity, gas and water supply	203	149
Number of industrial employees	116,768	162,100
of which in manufacturing	107,377	134,300
of which in machinery industry	38,019	11,700
in chemical industry	18,345	…
in manufacture of other non-metallic products	2,545	5,700
in manufacture of wood and paper products, printing and reproduction of recorded media	6,728	25,600*
in manufacture of food products and bevarages	14,229	34,800
in manufacture of textiles, leather products	17,009	4,000
in manufacturing n. e.c.	3,544	…
Share of industrial employees of all employees (%)	15.2	18.8
Number of unemployed	37,700	57,955
Unemployment rate (%)	4.7	5.6
Number of all enterprises with foreign interest	14,147	14,306
of which in industry	965	…

… no data.
*Without the number of employees in manufacture of wood and paper products.
Source: Statistical Yearbook of Budapest, 2005., Statistical Review Warsaw, 2006.

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Development of industrial areas before 1989

The formation of industrial areas of Budapest began more than 140 years ago, when the industrialisation started. The location of industry was influenced by several factors, such as natural endowments, prices of land, location of residential areas, transport possibilities, the spatial pattern of public utilities and different town-planning measures (*Bernát–Viszkei,* 1972). Location and spatial distribution of each branch also began to develop at that time.

By the beginning of the twentieth century, Budapest had become a modern city with large and significant industrial areas, which formed a crescent around the city centre. Most of them are found on the left side of the city (as Budapest is divided into two parts, Buda and Pest, by the river Danube). Later this location considerably determined the urban structure, the land use and the urban landscape of the city.

Neither between World Wars, not after World War II. did any significant change not take place in this pattern of industrial areas, because new industrial areas did not emerge between the World Wars, only existing ones developed further, and because most companies were rebuilt on the former sites after 1945 (*Preisich,* 1969).

The industrialisation and the development of industrial areas of Warsaw also started at the end of the XIX. century. Before World War I. industry was concentrated in the city centre, mostly in the western bank of the River Vistula (as Warsaw is also divided into two parts by a river), where the structure of industry was more multicoloured. At the same time on the eastern bank of the river, mostly machinery industry dominated. In 1938 more than 224,000 people worked for the industry of Warsaw (*Misztal,* 1997). Between 1938 and 1945 about 85% of the industry of Warsaw was destroyed except for the industry located on the eastern bank of the river. Thus, after 1945 almost the whole industry had to be redeveloped.

During the socialist era the industry of both cities developed very fast. Lots of new firms were established, the number of employees increased and the industrial areas continued to expand. The soviet influence on the industrialisation and structure of industry was particularly strong in case of Warsaw, which had to follow the model of Russian capital, Moscow (*Misztal,* 1997). Its branch structure was primarily characterised by branches producing means of production. In the Polish capital mainly machinery industry, metallurgy, construction developed the fastest, while in Budapest machinery, chemical, food and textile industries. In the former one the number of industrial employees increased from 44,000 in 1946 up to 304,000 in 1975 and in the latter one from 348,886 to 544,971.

Due to the fast industrialisation the extent of industrial areas also increased. In 1960 they accounted for 3600ha (6.8%) of Budapest's area, and in 1986 for 4538ha (8.6%). In contrast, in Warsaw the industry occupied 2300ha (4,5%) in

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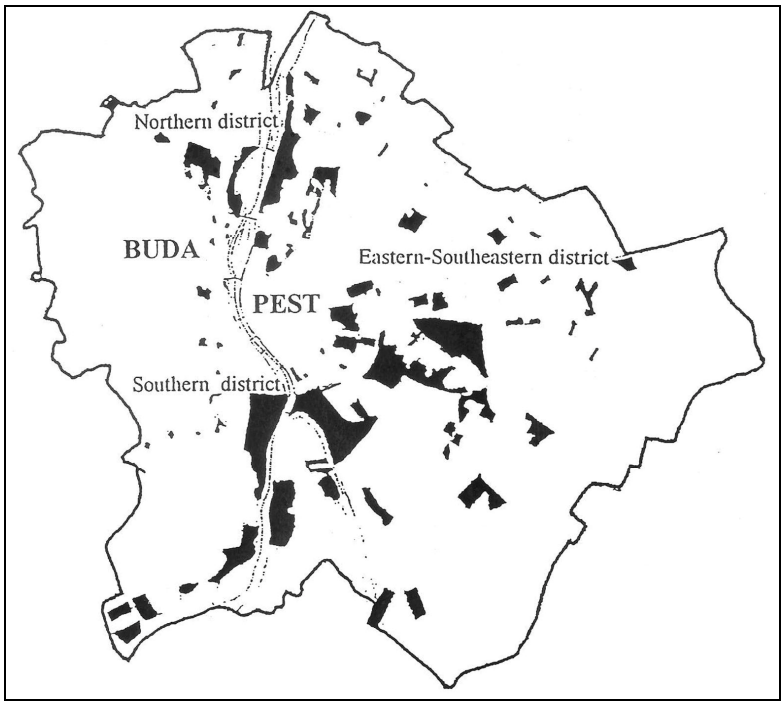
1985, which was ten times larger than in 1938, when the number of industrial employees was about 50% lower (*Misztal*, 1997).

The industrial areas of Budapest formed three main districts: the Northern district, the Eastern-southeastern district and the Southern district (*Bernát–Viszkei*, 1972). As more and more firms were established in these areas during the socialist era, they became increasingly crowded and polluted, and there was no more space for any further expansion. For these reasons, their situation within the city became the source of a lot of tension during the socialist period, which partly persists even today (*Figure 1*).

Warsaw had to face similar problems, because of the irrational, extensive utilization of industrial areas. In Warsaw about 80% of all industrial areas were concentrated in the ten large industrial zones. Most of them are located in the western bank of the River Vistula. In a certain sense they are scattered around the city centre, and this spatial pattern and associated large non-utilised areas have proved major obstacles to the forming a rational urban structure (*Misztal*, 1997; *Potrykowska*, 1995) (*Figure 2*).

Figure 1

Industrial districts of Budapest in the beginning of 1990s



Source: Based on the source edited by the author (Szakági tanulmányok 1992).

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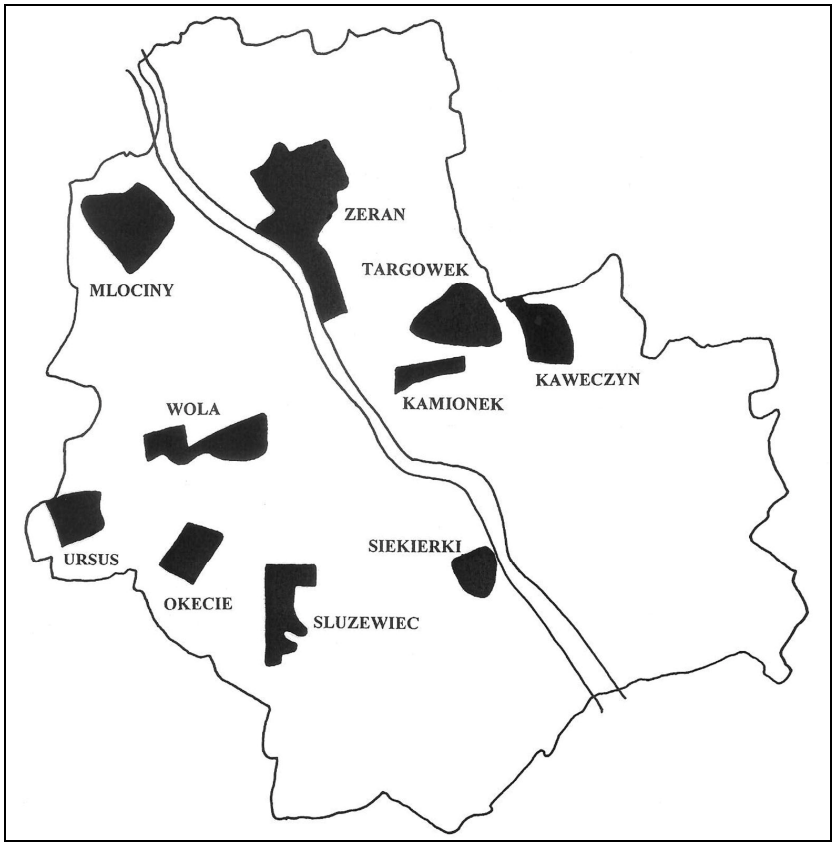
Figure 2

Main industrial zones of Warsaw in the second half of 1990s



Source: Misztal S. 1997.

Major trends in industrial areas after 1989

After the change in the political system in 1989 radial changes (organisational, structural renewal) began in the industry of both cities. Besides this, some other factors (e.g. privatisation, foreign direct investment, lack of space, increasing environment protection, impacts of globalisation, acceleration of tertiarisation) have also contributed, to a different degree, to the changes in traditional industrial areas, which have progressed differentially in time and space. In a certain sense they are the natural consequences of the evolution of industrial firms and areas (*Chapman–Walker,* 1988).

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The pace and the measure of change are quite different in each quarters of Budapest and Warsaw since industrial areas and industrial firms are in different phases of transformation or development. This can be traced back to numerous factors e.g. size and location of industrial areas or establishments, the branch structure and the size of the firms which are in the same industrial district. In part, these are also those elements that influence the fate of each firm and area in a certain region. There will be such areas in the future too, which will remain almost without change and there will be such areas too, where the industry will renew, but such ones will also occur where the industry will disappear and other functions replace them, even more new industrial regions can come into being.

In case of Budapest, during the almost last two decades, basically, two parallel, but opposite processes can be observed in the industrial areas. One of them is the vanishing and functional transformation of industrial areas while the other one refers to their entire or partial renewal. The former is rather typical of the northern, northeastern parts of the city, whereas the south, southeastern parts are characterised by the latter one. However, it is also doubtless that these trends can occur in the neighbouring industrial areas or within one industrial area. Changes of last years show as if this 'north-south division' followed by a 'radial' functional transformation depends on the distance from the city centre. This means, in fact, that functional change is more frequent in the industrial areas which are closer to the centre and have favourable location from other points of view, whereas the industrial renewal is much more typical of industrial areas with more 'peripheral' and distant location. Deindustrialization, rehabilitation of industry and/or reindustrialization takes place simultaneously, but these processes manifest themselves differently by industrial districts (*Kiss*, 2002) (*Figure 3*).

The functional transformation has begun the earliest in the northern and northeastern industrial areas of the city, and here it proceeds at a lively pace. Walking along the main road of the northern district, where both sides of the street once used to be flanked by different factories and workshops, today's visitor is faced by a completely different picture. Only a few old industrial plants are operating mostly on the right side of the road. On the left side, closer to the Danube, the changes are more striking. The industrial function is being replaced and today is dominated mostly by tertiary functions (e.g. commercial, repairing, service and storing functions). Deindustrialization is most advanced here, which is also manifested in the highest number of closed-down firms between 1990 and 1995. A considerable volume of investment in the non-producing sector in this region also confirmed this process (*Kiss*, 1993).

The rapid functional change in this part of Budapest and the relatively fast deindustrialization are also due to the fact that the inner city is getting crowded increasingly and is expanding mainly absorbing areas to be found not so far from the city centre and within an easy reach by transport. These industrial areas are very

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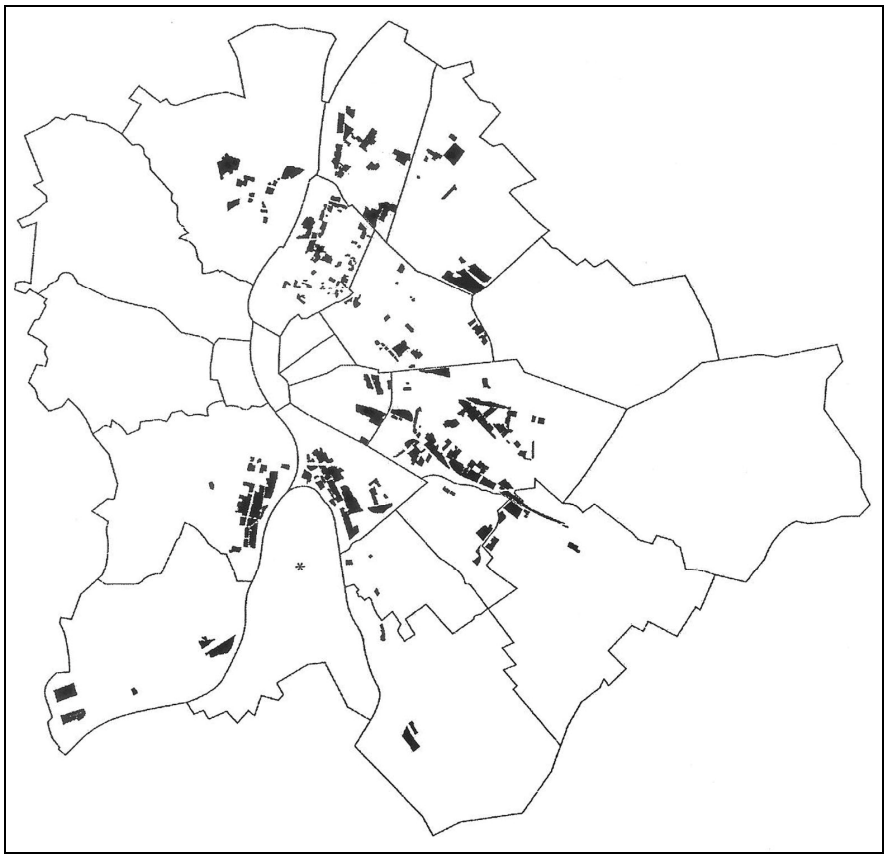
suitable to expand to, so the City penetrates into the former industrial districts along “feelers”, i.e. along the more important main roads while also transforming its surroundings to a more or less extent. Due to this process and to the reinforcement of City-functions, centre of Budapest is going to be similar to those of western cities (*Kluczka,* 1996). It was a general experience in Warsaw too, that functional change and the decrease of industrial areas have progressed faster in those industrial areas, which were located relatively close to the city centre.

The change in function and expansion of the central business district can also be observed in the southern, southeastern parts of Budapest, primarily along the River Danube. Here the transformation, however, is progressing much slower than in the north.

Figure 3

Industrial areas of Budapest in 2006



Source: Own elaboration.

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Basically, the main trend in this region is the rehabilitation of industry and old industrial areas. As a consequence the industry must be reckoned with in the long run. This fact is confirmed by the lower rate of closures of industrial firms between 1990–1995, and on the other industrial investments of greater size than in other parts of the city (*Kiss*, 1993). Statistical data for the years of the past two decades show that about 60–65% of the sum invested have been spent on purchasing machinery and equipment in the industry of Budapest, primarily imported from developed countries to raise the technical level, and in a wider sense, to reduce the lag.

During the past decade, owing basically, to the former processes the quality of the built environment in the traditional industrial areas has also changed for the better. Rapid and spectacular changes can be observed mostly in those firms where the owners (investors) were partly or fully foreign. In spite of the fact, that some new industrial buildings and halls were established in these old industrial areas, they, in fact have not affected the spatial structure of the industry, because this renewal process is primarily affected the existing traditional industrial areas. Because of the high prices of building sites and lack of space, not the capital is the primary target of 'greenfield industrial investments'. Taken as a whole, in this region there have been changes overwhelmingly 'within factory gates', within the area of industrial firms which cannot be seen well by the public, and which do not have any relevant effect on the spatial structure of industry. This is why they cannot contribute significantly to the transformation of the urban structure either.

Due to the changes mentioned above the extent of industrial areas in Budapest has decreased very considerably during the past two decades, especially in the second half of the 1990s. According to the survey carried out in 1998, the decrease was particularly spectacular between 1995 and 1998. Since then the decrease of old industrial areas have been continued. The latest survey carried out in 2006 has also proved this. Industrial areas of Budapest have further shrivelled, and nowadays they occupy only a few per cents of the area of the city. Deindustrialisation and functional transformation are closely connected, and they are the most advanced in the northern part of the city.

In the Polish capital similar trends can be observed as in Budapest. The former industrial areas have been shrivelled and split up. The most often commercial and service functions appear on their place. Functional change has also taken place faster in the industrial areas located close to the city centre. In Warsaw, owing to the changes taken place in its industry, the extent of its industrial areas has also decreased in the last two decades, but the decrease was not so spectacular as in Budapest. Within Warsaw the decrease of the extent of traditional industrial areas was especially fast in the western part of the city. It seems that industry will mainly remain in the eastern part of Warsaw and in the periphery of the western part, where the Ursus factory and the Steel factory (in Mlociny) are located. The reutilization of old and big industrial areas makes more difficult that very often they are

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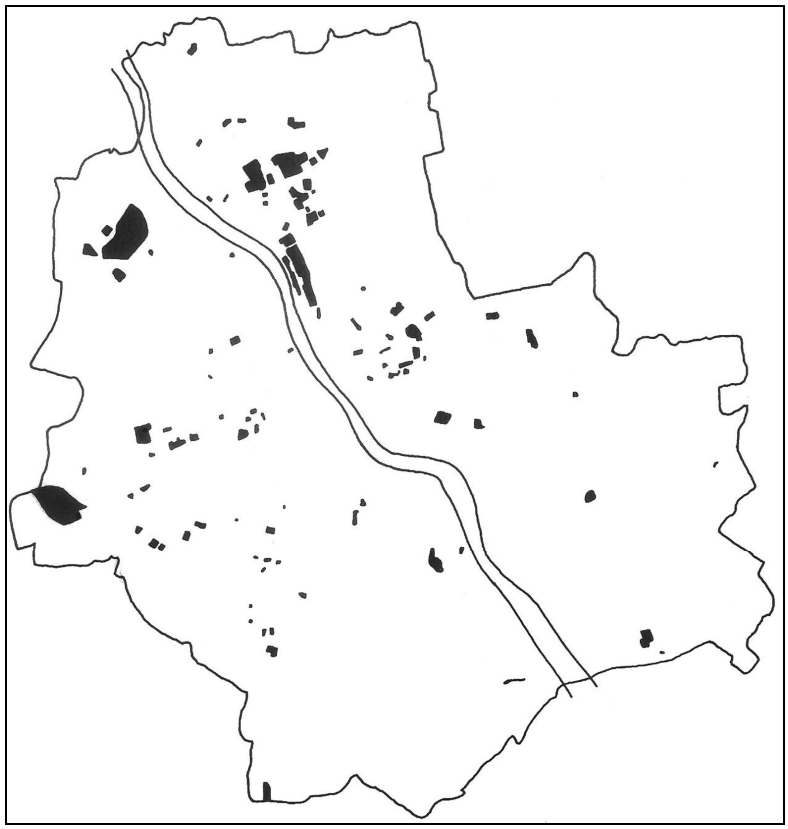
polluted. And to clean them is very costly, as a consequence it is very hard to find such investors who are willing to do that. In fact, the transformation of the industrial areas is a spontaneous process in Warsaw (*Figure 4*).

Figure 4

Industrial areas of Warsaw in 2004



Source: Sleszynski P. 2005

(Re)utilization of industrial areas

Derelict and/or redundant industrial areas and buildings have or are (re)utilized in quite different ways in both cities, which, however, show lots of similarities. The way of reutilization depends on the intricate relationship of different factors (size and location of the given industrial area, the number of firms accommodated and their sectoral structure, circle of owners and the volume of changes in the utiliza-

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tion of buildings and/or areas within each firm). Basically, there are two main types of reutilization or redevelopment:

1.original industrial functions remains partly or wholly, where change do not or hardly take place, at least in their outlook. The case of "Élgép" is the best example for this type. During the socialist era "Élgép" was a big state company, but after 1989 in order to survive the organisational and structural changes, it has let out or sold its redundant buildings and areas, which were occupied by new, mostly smaller enterprises. It is also worth mentioning that these kind of 'living together' are not free from tension and problems, because of different (e.g. unregulated ownership) reasons (*Figure 5*).

Figure 5

At the main entrance of „Élgép" located in the southern industrial district of Budapest some name-plates indicate the „new lodgers"

Source: Own elaboration.

2.original industrial function disappears partly or wholly, and new mostly non-industrial (commercial, administrative, office, residential etc.) activities appear. As there is no possibility to introduce all the possible ways of (re)utilization of traditional industrial areas, therefore only two main subtypes will be mentioned:

– functional change in an old industrial building: after renovation, reconstruction or repainting old industrial buildings are reutilized for non-industrial purposes, mostly for commercial and service functions. In Budapest the building of a former screw-factory located in the northern district has been reutilized in such a

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way. At the same time in Warsaw mostly office functions have appeared in old industrial buildings located relatively close to the city centre. Lots of financial establishments have occupied the renewed industrial buildings e.g. in Wola, along the street 'Kasprzaka' (*Figure 6*).

Figure 6

A special way of reutilization
(the original structure of old industrial buildings are kept
and hey are covered by modern glass-walls)

Source: Own elaboration.

Functional change in an old industrial area: former industrial areas are reutilized for different non-industrial purposes. In the Hungarian capital old industrial areas are reutilized very often for commercial and service functions. These are brownfield investments while in Warsaw shopping malls were generally established as greenfield investments, because there were much freer areas than in Budapest. In Budapest Duna Plaza is the best example. It was established on the place of a former shipyard (*Figure 7*).

In the 1990s mainly commercial and office functions have dominated, but later, from the turn of millennium other functions (e.g. residential, storing and logistics) have come to the front. For example: in Poland over 120 office buildings have been constructed, many of them in Warsaw, since 1989. Thus, Warsaw has become the largest market of commercial office space in Central Europe by the beginning of the 21st century (Weclawowicz, 2004). Last years, however, the reutilization for residential purposes became more and more common in both cities. In 2005 in Warsaw 2,755 dwellings have been built while in Budapest 12,303. It is also fre-

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quent that one homogeneous industrial area is reutilized for different purposes. Consequently, it will become an area with mixed, non-industrial functions.

Figure 7

The first shopping and entertainment center of Budapest called Duna Plaza was opened in 1996

Source: Own elaboration.

Conclusions

After 1989 relevant changes have taken place in the extent and function of former industrial areas in post-socialist cities. The functional transformation, however, is not so fast in Warsaw as in Budapest. This can be basically explained by the fact that in Warsaw there were and still are freer and/or unbuilt areas and because of this the transformation of industrial areas was not so urgent as in case of Budapest, where the lack of space was a very important factor. In Budapest the former compact and homogeneous industrial belt has become more heterogeneous and not so compact as it was before 1990. The decrease of the traditional industrial areas and their functional transformation will continue in the future too, although their pace will slow down.

It is also obvious that Budapest has not followed a new unique way. The main processes in the industrial areas of Budapest have shown clear similarities to the changes of the industrial areas in west-European cities, though in the case of the

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Hungarian capital this happened much later. At the same time similarities to the other East Central European cities (e.g. to Warsaw) can be revealed as well. Thus, the cities, which are developing in different parts of Europe are becoming more and more similar to each other (*Weclawowicz,* 1992).

The reutilization of the traditional industrial areas completely transform their surroundings and the former industrial landscape. Furthermore the whole urban landscape, atmosphere and image of the district have been transformed. Even more the structure of the local society has also changed.

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