

8 The evolution of industrial areas in Budapest after 1989

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8.1 Introduction

The growth and transformation of cities and their place in the urban hierarchy are closely connected with the development of their economy and, especially, with advances in their industrial activities. The industrial revolution brought sweeping changes in the development of European cities. Since the end of the eighteenth century, the processes of industrialization and urbanization fueled the transformation of the European urban landscapes. Most settlements increased their size, villages grew into towns, and cities became metropolitan areas bearing the physical marks of the industrialized society. The end of the twentieth century marked another turning point in the development of European cities, which could be traced back to the crisis of the Fordist methods of production, the rise of the “knowledge economy,” and the acceleration of the processes of globalization and internationalization of production and trade (Rodriguez and Martinez, 2003). Due to these processes, enormous socio-economic changes have taken place, which have been reflected in the characteristics of the built environment.

This latest restructuring of the European cities is taking place differentially in time and space. It began much earlier in Western Europe than in the eastern half of the continent, where an opportunity for radical socio-economic transformations presented itself only after 1989. Thus, in Central and Eastern Europe the industrial transformation has been closely connected with a change of the political system. These two processes have been condensed in time, resulting in a much more profound and dynamic restructuring of the CEE cities compared to their Western neighbors. Another notable distinction is that in the Western European countries the industrial restructuring was concentrated in certain branches of the economy, while in the CEE countries the entire economic system had to be overhauled. The impacts of this profound socio-economic transformation can be clearly observed in the industrial areas of many post-socialist cities (Kiss, 2002). The decline of their industrial zones, once salient pieces in the fabric of the socialist city, has become one of the most recognizable signs of the transition period.

The main determinants of the industrial decline in the CEE countries can be summarized as follows:

- In spite of a considerable delay, the global transition to the post-industrial era finally reached Central and Eastern Europe. The tide of industrial restructuring began to be felt in the region in the 1980s, but its impact was artificially delayed by state policies placing priority on extensive industrialization.
- The dismantling of the socialist system and its economic policies initiated a correction of the disproportionately large role that the industrial sector played in Eastern European economies.
- The economic crisis that hit CEE countries in the early 1990s played also a significant role in downsizing their industrial output. The subsequent recovery never reached some industrial branches of the economy.
- Unleashing the forces of the real estate market spurred the redevelopment of industrial land to other, more profitable uses in attractive urban locations.

The main aim of this paper is to examine the spatial patterns of post-socialist transformation in Budapest with particular regard to the changes taking place in its industrial areas. The study is primarily based on research carried out in the end of the 1990s and in the spring of 2006. Greater attention is paid to the analysis of three districts in Budapest (the 9th, 10th, and 13th), which exemplify most clearly recent trends in the area of brownfield redevelopment. In addition, interviews taken in 2006 with chief city and district architects are used to clarify the plans and ideas of local authorities concerning the future of these industrial areas.¹ The chapter consists of three major parts. The first section discusses briefly the history of industrialization in Budapest, the second one provides a summary of the post-1989 changes taking place in the industrial sectors of the city, and the third one describes the spatial consequences of the contemporary industrial transformation.

The changes taking place in the industrial areas of Budapest exert a strong impact on the spatial development of the city. Thus, they present both great challenges and great possibilities for the future of Budapest. The issue at stake is to what extent the Hungarian capital can take advantage of this in a key period of its urban evolution.

8.2 Historical background

For centuries, the economy of Budapest was characterized by small handcraft industries. Even in the beginning of the nineteenth century, the significance of industrial manufacturing was modest compared to the position of trade in city's economic life. Most of the small industrial plants were engaged in the production of textile, food, and leather, though the harbingers of modern factory operations had already appeared in the machinery and milling industries (Bácskai et al., 2000). The second half of the nineteenth century ushered in the era of capitalism. After 1873,

when the three ancient towns of Buda, Óbuda, and Pest were united in one city under the name Budapest, the city began to develop at a rapid pace. Industrialization and urbanization became the two inseparable processes determining the shape of the new city. From that time onwards, most modern factories within the country began to concentrate in Budapest, and the economic development of the city became synonymous with that of Hungary.

The accelerated growth of industrial development in Budapest in the end of the nineteenth century was due to a variety of factors including its favorable geographic location on the Danube River, the rise in demand for industrial products, and the concentration in the city of large amounts of capital and skilled labor force. New production plants were established first in the food industry (milling, brewing, distilling, and canning), followed by machine and chemical manufacturing. In 1890, 365 factories with a minimum of 20 employees operated in the city. Twenty years later, their number reached 1,300 (Kardoss, 1999). The newly established factories were rather modern and some sectors of the industry positioned Budapest as a leader in the region and beyond. By the end of the nineteenth century, for instance, the milling industry in Budapest was the second largest in the world. Foreign investments, mainly Austrian, German, and French, played a great role in this economic success. As a consequence of this rapid industrialization, by 1910 the number of industrial employees increased to over 200,000 (Kardoss, 1999). Thus, by the beginning of the twentieth century, Budapest established itself as one of the largest and most dynamically developing industrial centers of East Central Europe.

By that time, the most important industrial areas of the city began to take shape. Their location was determined by several factors such as topography, the course of the Danube River, the development of the railroads and other transportation networks, the price of land, the extension of public utilities, and urban planning regulations² (Bernát and Vízkei, 1972). The first industrial areas appeared along the Danube River, in the northern part of the city. Later, mainly due to extensions of the railway network, more industrial areas developed on the left bank (the Pest side) of the river and in the eastern 10th and southern 11th, 20th, and 21st districts of the city (Bencze, 1972). The spatial pattern formed by the three industrial clusters determined the location of the main industrial zones in Budapest for a long time (Figure 8.1.)

After World War I, Budapest became a capital of a much smaller country as Hungary lost 67 percent of its area and roughly 33 percent of its population. The subsequent decline in demand affected negatively industrial production. Thus, during the inter-war period, industrial development focused on modernization of existing plants while relatively few new factories were established. As a result, neither the location nor the structure of industrial activities changed significantly during that time.

The post-World War II era presented an immense opportunity for the establishment of a new spatial structure of industrial activities as the country's socio-economic system was drastically reshaped following the tenets of socialist

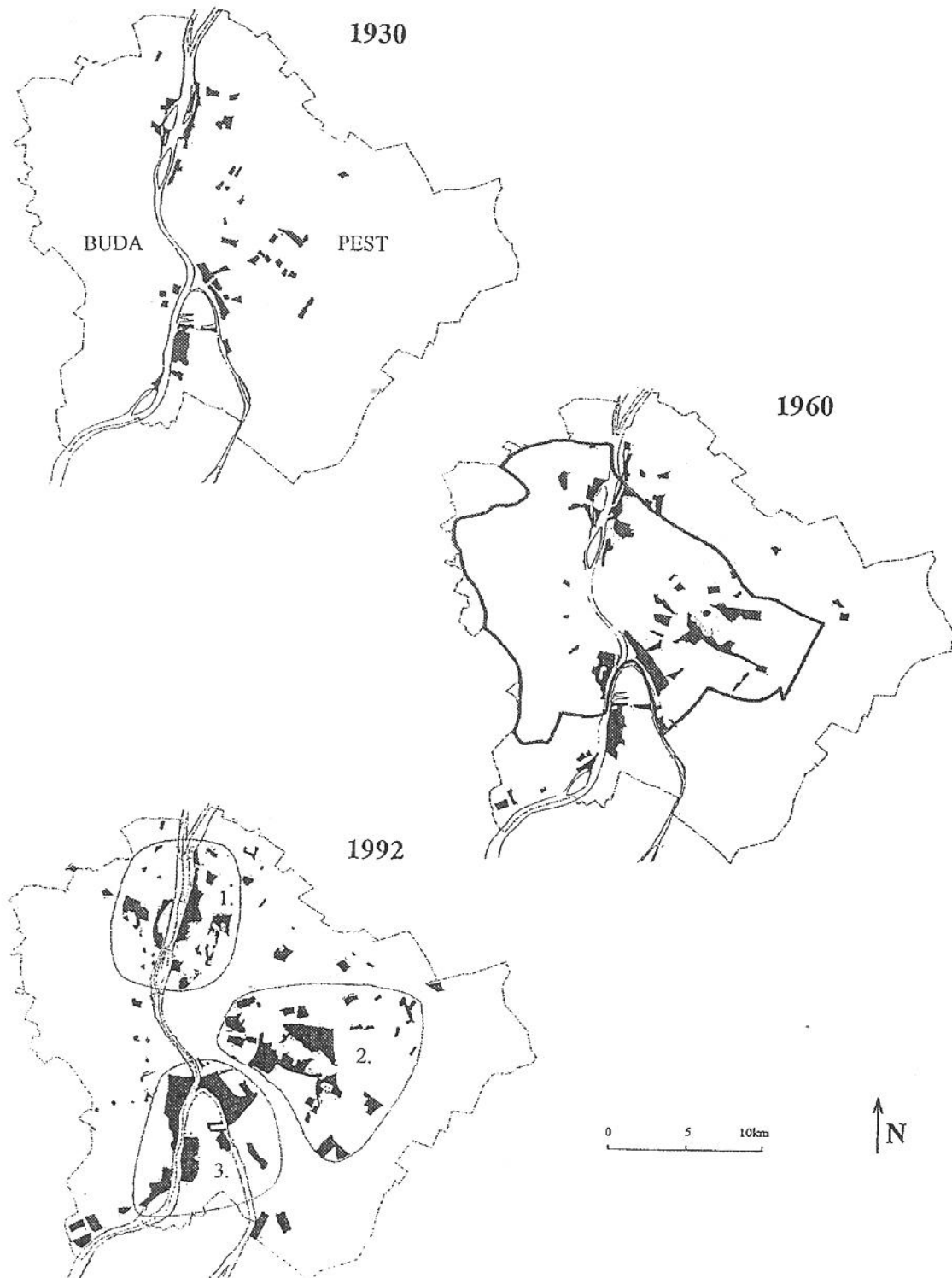


Fig. 8.1 Industrial areas of Budapest, 1930–1992

Source: Based on Budapest városépítésének története, 1919–1969, Szakági tanulmányok, 1992

ideology. However, the former spatial pattern of industrial zones within the city did not change much, as most of the factories were rebuilt on their existing sites. Yet the overall pattern of industrial activity changed significantly as a result of the expansion of the administrative boundaries of the capital. In 1950, 23 settlements (7 towns and 16 villages) were annexed by the city of Budapest and thus Greater Budapest was established.³ As a result of this territorial expansion, industrial areas situated earlier at the periphery of the old city “shifted” their location to the middle of the expanded capital. Later, this new spatial pattern became a source of tension and problems that had to be faced by other socialist capital cities as well (Korec, 1997; Potrykowska, 1995).

During the socialist period, and particularly between 1950 and 1970, the policy of extensive industrialization dominated the development of the country. Many new companies were established, mostly in the heavy industrial sector. The growing concentration of industrial facilities in Budapest, the intense development of the existing industrial areas, and the increasing environmental pollution led in the second half of the 1960s to the imposition of certain restrictions on industrial development in the capital and in its surroundings. This effort did not have much impact besides the relocation of a few factories outside of the city boundaries. Budapest was already the citadel of socialist industry hosting, at the end of the 1960s, 40 percent of the national industrial workforce and producing 48 percent of all industrial output (Preisich, 1969). The share of industrial land, close to 4,800 hectares, exceeded 9 percent of the total area of Greater Budapest.

During the 1970s the emphasis of industrial development policies shifted to modernization. This change intended to intensify production processes, substituting quantity with quality and efficiency. The number of industrial plants in Budapest slightly decreased. More significant decreases were felt in industrial employment, where the share of Budapest in this sector of the national workforce dropped from 27.5 to 20.8 percent. The extent of industrial areas also decreased slowly, and in 1985 they were covering approximately 4,600 hectares, or 8.6 percent of Budapest’s territory. This area was still two times larger than the size of Warsaw’s industrial zones measuring 2,300 hectares at that time (Miształ, 1997).

At the end of the 1980s, the patterns of industrial activities in Budapest were still dominated by the three traditional industrial zones developed earlier in the century. These included:

- The Northern district, shaped by the industrial areas in the northern parts of Buda and Pest, along the River Danube.
- The Eastern district, located in the 10th and the 14th districts of Budapest.
- The Southern district, including the industrial areas along the River Danube in the south of Buda and Pest. This was the youngest industrial district, developed mostly in the second half of the twentieth century (Enyedi and Szirmai, 1992).

These three districts created a crescent around the city center, forming part of a transition zone where other large-area facilities such as sports stadiums, arenas, and large stores can be found. This zone, known also as the second employment zone,

comprised the third ring in the radial-concentric structure of Budapest, following the two rings formed by the city center and the inner residential zone.

8.3 Changes in the industrial sector after 1989

By the end of the 1980s, the crisis of the socialist economy in Hungary had become obvious as the modest efforts to introduce some market principles in the 1970s and 1980s quickly exhausted their range. Radical economic reforms took place only after the political system was overthrown in 1989. Of the post-socialist countries entering a period of transition in the early 1990s, Hungary was a leader in the implementation of economic reforms, and by the beginning of the twenty-first century the process was assessed to be generally completed (Kiss, 2003). Although the significance of the industrial sector in the economy of Budapest has considerably decreased, the capital is still the nation's most important industrial center (Tables 8.1 and 8.2).

The introduction of the Act on Economic Association was the first and one of the most important initiatives of the post-socialist Hungarian government. It made possible for industrial firms to choose the organizational form most suitable for their business. For a number of reasons, Ltds have become the most popular company type (they could be established by a single person, responsibility is limited, and only about 15,000 USD are required for registration). Nowadays, 95 percent of the

Table 8.1 The share of Budapest in the national economy, 1990–2004

	Share of Budapest in %	
	1990	2004
Population	19.5	16.8
Employment	21.6	27.9
Employment in service sector	31.0	34.5
Employment in industrial sector	21.7	15.0
Industrial plants	30.5	20.7**
Investments in all sectors	30.8	24.3
Industrial investments	19.0	13.0
Enterprises with foreign interest	54.0	53.3
Enterprises with foreign interest in industry	33.4	28.6
Gross Domestic Product	52.8*	35.1
Unemployed	7.1	5.7
Retail units	13.9	23.8
Dwelling units	20.5	20.2

*1992.

**1997.

Source: Hungarian Central Statistical Office, 1990, 1992, 2004.

Table 8.2 Social and economic changes in Budapest, 1990–2004

	1990	2004
Population	2,016,774	1,697,343
Total employment in industrial sectors	277,851	117,017
Share of industrial employment	42.8%	15.2%
Total employment in service sector	360,953	649,953
Share of employment in service sector	56.0%	84.4%
Number of enterprises	30,334	95,940
Share of Ltds.	86.8*	94.2
Share of enterprises with less than 50 employees	91.2*	99.0
Number of industrial enterprises	5,260*	10,429
Share of industrial enterprises	17.7*	10.9
Share of industrial investments	24.3	21.7
Number of enterprises with foreign interest in industry	1,463	1,004
Share of enterprises with foreign interest in industry	13.2	7.4
Number of all enterprises with foreign interest	8,907*	13,583
Number of retail units	4,694	31,962
Number of dwelling units	789,177	844,469

*1992.

**1996.

Source: Hungarian Central Statistical Office, 1990, 1992, 1996, 2004.

industrial firms of Budapest are Ltds. Most of them are completely new enterprises, but some are also derivative of former large state companies, which had become independent units during the 1990s. Among the companies limited by share, the rate of firms established by reorganization of former large state companies or cooperatives is considerable.

The appearance of new organizational forms has had a favorable impact on the increase of industrial firms. During the socialist era, only a few hundred companies operated in Budapest, dominated by large state enterprises with a few thousand employees. After 1989, a relevant shift took place in favor of small and medium-sized firms, and the number of industrial enterprises mushroomed, exceeding 17,000 in 2004. The share of firms with less than 20 employees increased dramatically, reaching 89 percent by 2004. These companies can be found mostly within the existing industrial areas. Thus, a more proportionate and balanced size-structure emerged in the transition period.

Although the number of industrial firms in Budapest increased more than three-fold between 1990 and 2004, the number of industrial employees during that period decreased by more than a half – from 278,000 to 117,000.⁴ Such decreases of industrial employment, considered a classic indicator of deindustrialization (Cheshire, 1991), proceeded at a faster rate in the capital compared to the rest of the country. While in 1985 a quarter of the national industrial workforce was employed in Budapest, by 2004 this share dropped to only 13 percent. The decrease was especially intensive during the big crisis in the beginning of the 1990s, when

many industrial firms were closed down. In Budapest, deindustrialization affected particularly strongly the traditional industrial sectors of textile, mining, metallurgy, and certain branches of machine manufacturing.

The reorganization of the ownership structure was one of the most important consequences of the transformations in the political system. As a result of intense privatization carried out during the initial years of the transition period, the majority of industrial firms are nowadays in private ownership. Generally, Hungarians proprietors prevail among the owners of smaller enterprises while foreign companies tend to dominate the other end of the industrial sector as Hungarian investors were not so well provided with capital during the period of intense privatization (Kiss, 2003). These foreign investors have played an important role promoting the modernization of the Hungarian industrial sector and its integration into the world economy.

The establishment of joint-venture enterprises has been possible in Hungary since 1972, but the number of these companies skyrocketed after 1989. Within the country, Budapest has always been the most important target for foreign investments due to its relatively well-developed infrastructure, skilled labor force, and the good quality of its built environment. In 2004, 53 percent of over 25,000 enterprises with foreign interest could be found here, of which a little over 1,000 were in the industrial sector. Foreigners have mostly chosen those firms which were proven profitable and operated well during the socialist period.

A large part of the foreign investments in the Hungarian industry has been concentrated in Budapest. In 2004, this share reached close to 40 percent.⁵ In 1995, American, German, Austrian, and Dutch investors were the most prominent players in Budapest, and this order has not changed significantly during the last ten years. About 60 to 90 percent of the capital has been invested in manufacturing – mainly in machine production, as well as in the food, chemical, and pharmaceutical industries. Lately, the emphasis is shifting to the development of the knowledge-intensive industrial branches, and this trend has also contributed to the transformation of the traditional industrial landscape.

8.4 Changes in industrial areas after 1989

The period of fordist mass production, stretching over most of the twentieth century, exerted decisive influence on the formation of industrial zones and the spatial structure of Budapest and other Central and Eastern European cities (Weclawowicz, 1992). In the CEE region, Budapest is among the metropolitan centers that inherited the largest amount of industrial lands. The decrease in industrial activities after 1989 has left many of them in a state of decay, creating a number of dead zones in the urban fabric. These areas, however, could be considered “the golden reserves” for the future growth of the city.

Various terms have been used to describe the industrial areas in Budapest. The individual industrial sites are known as brownfields while the area surrounding the

city center, where most of them are located, is referred to as “transition zone,” “brown zone,” or sometimes also as “rust zone.” The latter designation carries a more specific meaning applied primarily to underutilized or derelict industrial areas (Beluszky and Györi, 2004).

During the last 16 years, both the extent and the utilization of the industrial areas in Budapest have significantly changed. Until the end of the 1990s, with few exceptions, these changes had taken place relatively slowly, but around the turn of the millennium the processes of transformation accelerated as the spontaneous initiatives by private investors were followed by a much more conscious urban policy regarding brownfield sites. The proactive attitude of the municipal government is seizing the opportunity for redevelopment of the massive industrial zones, aiming to achieve a more rational and efficient urban structure.

The pace of renewal and the degree of change varies in different parts of the city based on factors such as the size and location of the industrial area, the size and type of its constituent firms, their branch structure, and other pertinent characteristics of the redevelopment process. Some areas remain largely unchanged, while others are restructured or renewed. These changes are a natural consequence of the evolution of industrial areas (Chapman and Walker, 1988), and the transformations taking place in Budapest are far from unique for cities in developed countries (Moulaert et al., 2003; Cohen, 1998; Doling et al., 1994; Takeuchi, 1985). Nevertheless, each city has its own special features characterizing the process of industrial restructuring depending on city’s historical background, economic base, and the quality of its socio-cultural environment (Ernst et al., 1996).

The amount of industrial land in Budapest reached its largest extent in the 1960s and since then it has continuously declined. The sharpest decrease occurred in the second half of the 1990s when, according to the survey carried out in 1998, industrial areas shrunk by about 40 percent (Figure 8.2).

The decrease was especially pronounced in the northern industrial zone, mainly in the 13th district, where the process of redevelopment of industrial sites to other uses was initiated in the middle of the 1990s (Kiss, 2002.) Several factors contributed to the quick transformation of this area – its high accessibility (this zone is fairly close to the city center, with a metro line running under its main road); its low level of pollution (relative to some of the other districts); and the flexible attitude of the districts’ authorities willing to accommodate investors’ initiatives. These factors continue to work in favor of this area, which is one of the fastest developing zones in the capital. The expansion of the inner city in this direction has been another major contributing factor. The crowded CBD, struggling from a chronic lack of developable space, has penetrated into the former industrial district by expanding along the main transportation corridors.

This pattern underlines the importance of accessibility in setting up the pace of industrial redevelopment. Where transport connections are weaker and the distance from the city center longer, as in the eastern and southern industrial zones, industrial areas tend to remain more stagnant. However, after the turn of millennium,

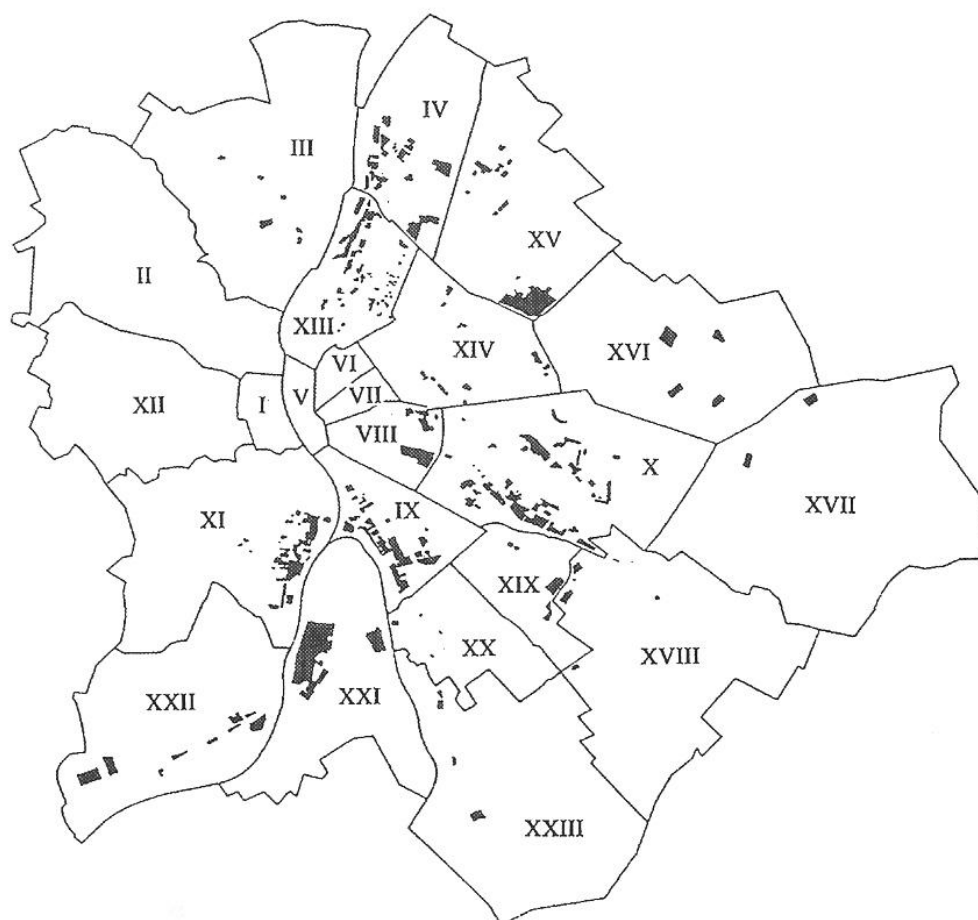


Fig. 8.2 Industrial areas of Budapest, 1998

Source: Kiss, 2002

the increase in the demand for sites available for development in Budapest in general, and the saturation of the redevelopment potential of the northern industrial zone in particular, have led to an increase in the pace of redevelopment in the other industrial areas. This process is accelerated by the adoption of local urban development policies stimulating the renewal of these areas through the provision of tax breaks and other development incentives.

It should be noted that with regard to the impact of foreign investment on the patterns of industrial development, the spatial distribution of industrial firms with foreign interest rather closely follows the historically established industrial belt of Budapest. This could be explained with the fact that foreign companies have invested primarily in already existing firms situated in the industrial belt. Thus, it could be said that foreign investments have not modified considerably the spatial patterns of industrial activities in Budapest. This is also related to the fact that greenfield industrial development is not typical in the capital due to the lack of undeveloped properties and the high land prices of properties in the urban periphery. Under these circumstances, brownfield sites have become

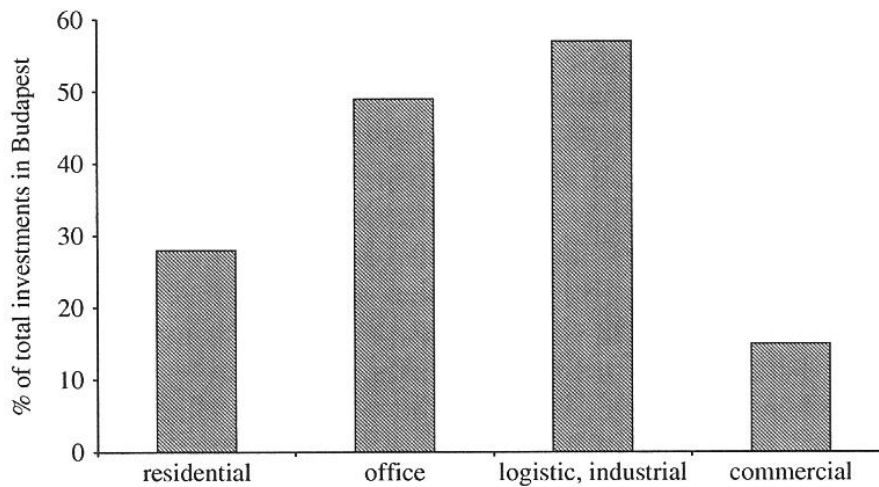


Fig. 8.3 Share of investments in the rust-zone of Budapest, 2002

Source: Ongerth, 2003

the most logical areas of interest for industrial investors. Thus, a relatively high share of new logistic, industrial, and office parks, typically developed in suburban locations throughout the world, can be found in the former rustbelt of Budapest⁶ (Figure 8.3).

In this respect, it is hard to predict what the spatial impacts would be of the ambitious municipal strategy to establish Budapest as a European regional center in research and development. Such new types of industrial enterprises are more closely associated with the location of universities and research institutes than with old industrial areas. So far, no discernable pattern in the location of such firms in Budapest has emerged. For example, the regional centers of Nokia and Sony-Ericsson were situated in a new industrial park on a greenfield site, while the headquarters of GE-Tungstram were erected in an old industrial area.

Overall, the redevelopment of industrial areas in Budapest has been rather dynamic compared to other cities in the CEE region. Several types of redevelopment schemes have emerged since the beginning of the 1990s. Their general characteristics can be summarized in the following classification.

8.4.1

Industrial redevelopment

8.4.1.1

Fragmented industrial redevelopment

Such redevelopment pattern is characteristic for those industrial areas where, seemingly, little change has taken place, at least judged by the exterior of the buildings. These areas are found scattered in the capital, but they occur more often in the

eastern and southern industrial districts. The former Csepel Művek or Élgép site is one of the classic examples of this type (Figure 8.4). Such industrial areas were once occupied by one big state company, which after 1989 let or sold parts of its areas or buildings to smaller enterprises. This survival strategy was beneficial for both old and new owners alike, especially in the beginning of the transition period. The old industrial buildings operated as “incubators” for a new breed of owners, spurring the start-up of small and medium sized enterprises. The old industrial establishments provided cheap premises with relatively good transport links and adequate infrastructure. Under this set-up, the owners of the former state company and the new smaller enterprises share the costs of public utilities. This “symbiotic existence” has created several problems. The main one is that the privatization of these industrial firms took place spontaneously (particularly in the 1990s) when there were no urban planning conceptions about the development of these industrial zones. Thus, a chaotic system emerged in which decisions about the utilization of these areas were made in an ad hoc fashion by those who inherited ownership of the state enterprises. As a result, it has become very difficult to carry out plans for large-scale improvements on these sites due to their disjointed ownership pattern coupled with a mosaic of various (industrial and non-industrial) activities taking place within their boundaries.



Fig. 8.4 The Élgép machine factory. Inscriptions at the entrance indicate that numerous enterprises with different activities operate in the old industrial establishment

Source: Photo by E. Kiss

The problems of these industrial areas are compounded by the fact that changes in the ownership of their constituent firms are quite frequent, as are changes in their activities. Many of them (about 10 to 20 percent) do not operate at all, due to a variety of reasons. In addition, small owners or tenants, by default, do not have enough cash for capital improvements. As a consequence of all these issues, these industrial areas cannot break out on their own from their state of borderline existence, which in turn impacts unfavorably the development of their surroundings.

8.4.1.2

Large-scale industrial renewal

Large-scale industrial redevelopment can be observed mainly in those areas where companies that operated relatively well during the socialist period are located. To this group, one can also add the sites of former socialist firms that were not heavy environmental polluters. Due to privatization, many of them have fallen partly or completely into foreign hands. In these industrial areas, modernization and renewal of the old industrial enterprises has taken place much faster than in those owned by Hungarian proprietors. The renewal of these areas is mostly carried out “within the factory gates,” therefore such projects are not very notable as transformations in the urban landscape. At the same time, the modernization of these areas and the renewal of their buildings have favorably affected the development of their surrounding communities. Generally, these renewed enterprises continue the same industrial activity as before their reconstruction, but with a more modern, efficient, and less polluting technology. In some cases, production on the premises has been replaced with management, marketing, research and development activities while the actual production or its main components have been relocated to the interior of the country. In each industrial district, there are several examples of this industrial redevelopment type (Stollwerck, Zwack, Herz, etc.). Some of them are single-site enterprises wedged into residential districts while others form continuous clusters in the old industrial zones (Figure 8.5).

8.4.2

Redevelopment to non-industrial uses

This type is comprised of the former industrial areas where functional changes have taken place. These are the sites where old industrial firms were closed down and industrial activity discontinued. Since 1989, numerous industrial areas have become inactive due to the sharp reduction of industrial activities described above. The reutilization of such abandoned sites depends on many factors including their size, location, accessibility, ownership structure, condition of their building stock and infrastructure, level of pollution, existing development regulations, the quality of their surroundings, etc. This type of redevelopment has become very popular lately as the supply of land for new development projects is getting scarcer with each year.



Fig. 8.5 The Herz meat factory. One of the largest food processing factories in Hungary is situated in the southern industrial district of the city. Within the old factory gates, significant redevelopment took place in the 1990s

Source: Photo by E. Kiss

Thus, the old, under-utilized industrial areas have become some of the most important pieces in the urban fabric of Budapest, with enormous potential for the management of future urban development and planning activities. In spite of this, local authorities and urban planners have exercised little control over brownfield redevelopment and most of the transformations of this type have been shaped by private initiative. The fragmentation of Budapest's territory into rather autonomous administrative districts has also made the coordination of various development proposals for the larger brownfield areas a difficult task. A big disadvantage (partially due to this same reason) was the fact that in the beginning of the 1990s Budapest did not have a city-wide long-term development plan. Thus, urban development was taking place spontaneously as a result of many individual investment decisions with little (if any) overall coordination. The quick privatization of industry, which turned these areas in private ownership at the very beginning of the transition period, further limited the influence of urban planners. "The sanctity of private ownership" doctrine became quickly a philosophy defended more passionately in Central and Eastern Europe than in the countries of the West. In the spirit of the neo-liberal thinking, which quickly took over the post-socialist states (of which Hungary was recognized as the undisputed leader in privatization),

the decisive factors in urban development became the forces of the market, almost to the exclusion of any other concerns.

The redevelopment of brownfields to other uses started on those sites which had a favorable location, good transport links, and little pollution, even if the prices of those properties were relatively high. Not surprisingly, it turned out of those properties that investors preferred to pay more for a clean, non-polluted industrial property as the costs of a clean-up (which typically have to be paid by the owners) run usually much higher than the price of the land itself, not to mention the extra time required to decontaminate the area. As of today, there are no local development policies encouraging brownfield development of the less attractive industrial areas. When brownfield development is left to market forces, it is clear that foreign investors do not want to waste their money on “difficult” sites. Hungarians, on the other hand (including local authorities, firms, and private investors), simply do not have the money for such endeavors, which often require significant funding.⁷

The reutilization of former industrial sites for non-industrial uses is carried out in two different ways, which can be described as adaptive reuse and urban renewal.

8.4.2.1

Adaptive reuse

The first method preserves the actual structures and through renovation and reconstruction infuses new uses into the old industrial buildings – hence, the term *adaptive reuse*, which signifies this type of building recycling (Cohen, 1998). Such brownfield redevelopment schemes usually take place on sites with well preserved structures, often with distinct historical character used as a major marketing point after redevelopment (Figure 8.6). The problems with this redevelopment approach are related to the costs of upgrading the structures, which, particularly on contaminated sites, could be more expensive than building the entire project from scratch.

8.4.2.2

Urban renewal

The second method of industrial site reutilization takes the more radical approach of cleaning up the site entirely and starting redevelopment on a clean slate. Occasional buildings in good condition or some infrastructure elements could be preserved, but most often these sites are in such dilapidated state that it is much easier to wipe them clean in a manner reminiscent of some notorious post-World War II urban renewal projects. In such cases, it is the site that is of great value and not its dispensable structures. Developers show a propensity to resort to this approach more often than to adaptive reuse as a simpler and cheaper way of construction and often valuable tissues of the historical urban fabric become victims of such rationale. The results are more drastic transformations of the urban landscape, which under certain

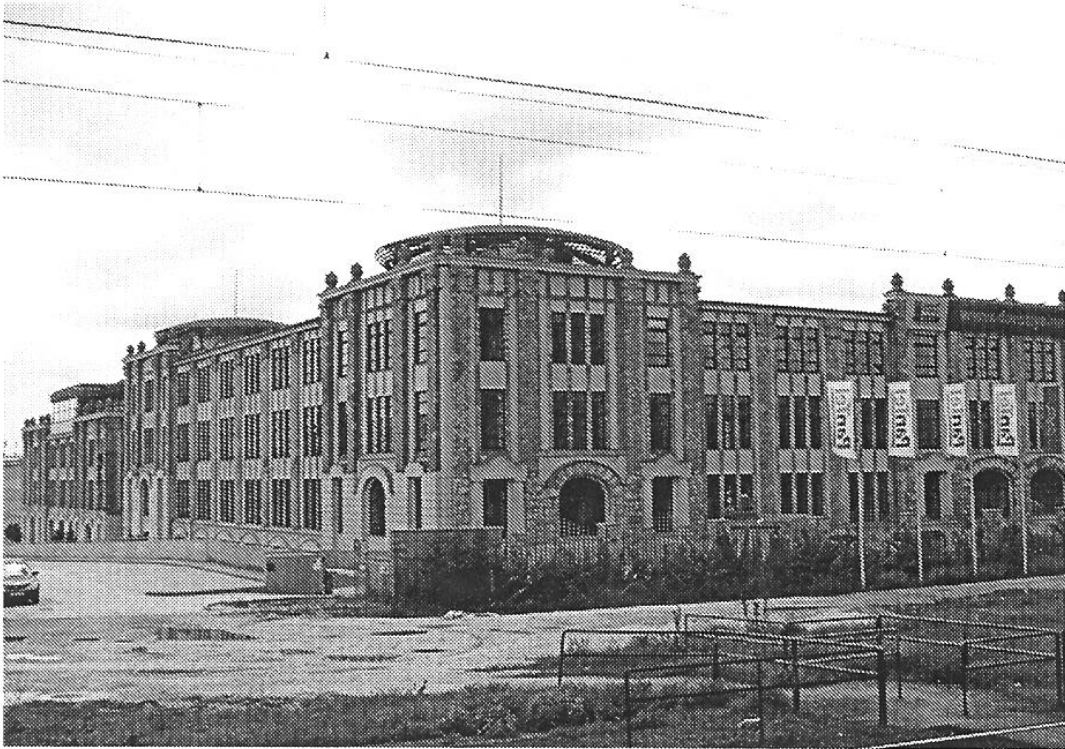


Fig. 8.6 The Dorottya udvar office building. This former industrial building, situated in the southern industrial district, has been “adaptively reused” as office space, maintaining the historical character of the old industrial structure

Source: Photo by E. Kiss

conditions may be desirable (Figure 8.7). Usually, the reutilization of smaller industrial sites takes place faster than the redevelopment of larger industrial areas.

The most popular uses to which industrial sites are converted in Budapest are commercial, service, residential, office, warehousing, and logistic functions. Conversions to these types of urban activities show different patterns in time and space. During the 1990s, mainly commercial, service, and office functions dominated the redevelopment of industrial areas (Kiss, 2002). Similar trends were observed in Warsaw as well (Misztal, 1997). These processes were connected with the fast development of these sectors of the real estate market due to the lack of adequate stock of modern shopping and office space. The housing market began to develop more vigorously only at the end of the 1990s with the stabilization of the economy, the increase in household incomes, and the subsequent rise in the demand for quality dwellings. After the turn of the millennium, warehousing and logistics functions have begun to come to the fore of industrial area conversions. This wave of urban redevelopment was driven by the rising demands of the expanding retail and industrial sectors for modern storage facilities.

Lately, the commercial and office markets have shown signs of saturation, and investments in these sectors have declined. Commercial developments have been



Fig. 8.7 The MOM Park. These modern office buildings, called MOM Irodaházak, are located not far from the city center, on the Buda side in the 12th district. They are part of the MOM Park, which has office, residential, and commercial components. This park is a good example for a complex utilization of an old industrial area

Source: Photo by E. Kiss

carried out primarily on brownfield sites with good transport links. The size of each project is quite different, but these redevelopment schemes are, generally, under 10,000 sq m. Usually, those projects requiring larger areas are established further away from the city center in the form of very simple buildings, as far as their architectural appearance is concerned, while the shopping and entertainment centers are situated in the inner city areas, constructed as very modern, high-tech buildings. One of the earliest commercial and service centers, Csavargyári épület, was established as a renovation of an old screw factory in the northern part of the city (Figure 8.8). The first completely new, Western style shopping and entertainment mall, called Duna Plaza, was also established in this vicinity (Figure 8.9). Since then, the number of commercial centers on old industrial sites has increased considerably. Foreign investments have played an important role in the development of this commercial expansion as more than half of all commercial enterprises with foreign interest in the country are registered in Budapest.

After the initial boom in office construction, the demand for office space subsided by the end of the 1990s. Thus, in 2003, only a few such investments



Fig. 8.8 Csavargyári épület shopping center. It was established in the old industrial building of a screw factory. Nowadays, several shops and different services operate in it

Source: Photo by E. Kiss

were registered (Ongert, 2003). Although the demand for quality office space is still relatively high, the supply has, by and large, caught up with the demand (Figure 8.10). In the spring of 2006, the vacancy rate for Class A office space was 11.7 percent, the lowest value after the turn of the millennium. Among the office conversions on industrial sites, both types (renovated and new office buildings) can be found. The renovated buildings are generally located in the inner city. New construction prevails in outlying areas with good accessibility and well-built infrastructure. The rental rates in those peripheral developments are lower, which attracts many start-up businesses. In the beginning of the 1990s, quite frequently old industrial buildings were converted to office uses without any significant reconstruction. Later, as the office market matured, this kind of “immediate utilization” was pushed to background (Figure 8.10).

Recently, a “home-building fever” is spreading to the former industrial areas, especially on those sites which are not polluted and have good transportation links. A 1998 survey concluded that conversions to residential uses were not a frequent industrial reutilization type (Kiss, 2002). In the northern industrial district some attempts for such conversions were made but those investments had little commercial success. The dwelling units could not be sold in advance, although they



Fig. 8.9 Duna Plaza. The first shopping and entertainment center in Budapest opened its gates in 1996 on the site of a former shipyard. The project has had a very favorable effect on the development of its surroundings

Source: Photo by E. Kiss

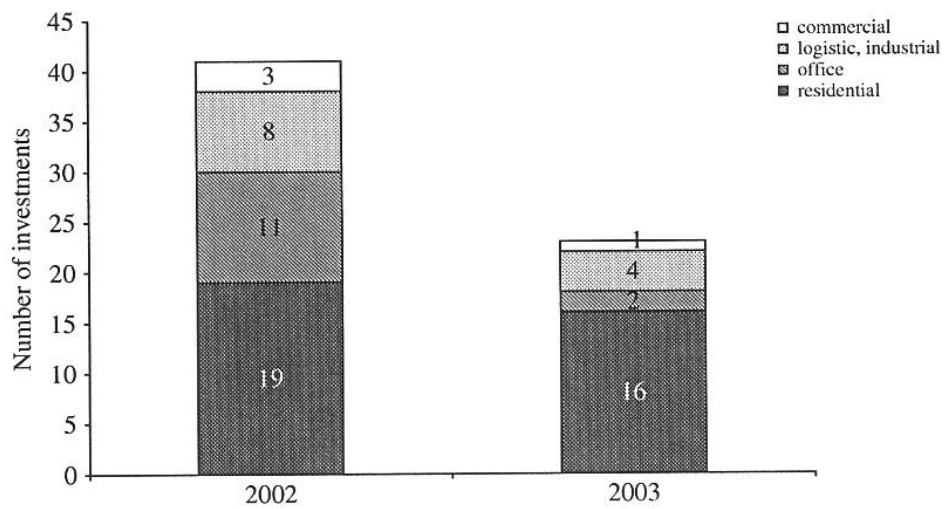


Fig. 8.10 Investments by functional type in the rust zone of Budapest, 2002–2003

Source: Adapted from Ongerth, 2003

were planned and constructed as very modern, high-standard, spacious residences. The main reason for the difficulties in selling the units was the low prestige of the 13th district gained during the socialist period as an industrial quarter with simple working-class residences. Changing this perception took several years. At the same time, in the 12th district there were no such problems as it was perceived as a high-prestige area of wealthy residents. Here, the prices of flats built on former industrial areas were much higher (about 2,000 USD per sq m vs. only 1,000 USD per sq m in the 13th district) (Figure 8.11).

Today, the 13th district is the former industrial area with the highest number of newly built flats per year. In 1995, only 54 new dwelling units were completed here. By 2004, the number of residential units added annually reached 2,130. In the last few years, considerable housing construction took place in the eastern and southern industrial districts of Budapest as well. Between 1995 and 2004, the number of dwelling units built annually increased from 88 to 987 in the 9th district, and from 25 to 451 in the 10th district (Hungarian Central Statistical Office, 1996, 2005). These new flats are often grouped in residential parks. Hungarian, German, English, and Austrian investors are responsible for the largest share of



Fig. 8.11 The MOM residential park. This prestigious development was built on the site of a former optical factory in 2002

Source: Photo by E. Kiss

this construction. Lately, a number of Spanish, Irish, and Israeli investors have joined their ranks.

Most of this residential construction is done in an urban renewal fashion by clearing up the old industrial sites from any vestiges of the past. Lately, however, there are a few examples of adaptive reuse of old industrial buildings converted into attractive residences with unique architectural flavor. In many cases, these units are taken up by artist (painters, sculptors, musicians). As these loft-apartments become more fashionable, they have began to attract a more diverse range of buyers, a process familiar from cities in the US and Western Europe (Cohen, 1998). The few examples of this type of housing in Budapest are situated in the eastern and the southern industrial districts (Sütő et al., 2004). Usually, these projects are scattered into residential districts or appear close to residential areas in existing industrial zones.

In the last few years, more and more former industrial areas are reutilized for warehousing and logistic functions. In 2006, a total of 800,000 sq m were offered for rent at about 5 USD per square meter per month (Mester, 2006). The competition is very strong in this segment of the market and Slovakian and southern Polish towns have emerged as serious rivals of Budapest. In the spring of 2006, eight projects of this type were under constructions along the main transport roads in the 3rd, 8th, 9th, and 23rd districts. This segment of the real estate market is dominated by speculative development and, although it is very typical in the Western European cities, in Hungary such development schemes made their first appearance only in the last few years (Szirmai et al., 2003).

Conversions of industrial areas to other uses, such as parking and recreation, have not been typical and to date only a very small proportion of old derelict industrial areas has been reutilized for such purposes. This share is not very likely to increase considerably in the near future given the relatively low rate of return on projects of this type.

8.5

Conclusions

The redevelopment of brownfield sites in Budapest has been quite dynamic, absorbing the fluctuations of the market demand for certain types of uses. In some cases, various functions replaced each other in a quick succession before the “final” function was set in place. Such consecutive conversions, for example, occurred on industrial sites which were first redeveloped as commercial or warehousing centers, later to be replaced by more profitable residential projects. The expectation today is that future changes in the use of redeveloped brownfield sites can occur anytime. A pattern is difficult to construe as each of the industrial areas seems to follow its own development path.

The past 16 years could be considered one of the most dynamic periods in Budapest’s history. In the beginning of the twenty-first century, industrial production plays a much smaller role in the capital’s economic life. Radical reforms

had taken place relatively fast in the city's economy and particularly in its industrial sector, but the physical changes in the industrial areas of Budapest progressed at a relatively slower pace as transformations of the urban structure take more time to develop. In the last few years, however, the transformation of the industrial areas of Budapest has been accelerating, becoming more diverse and less spontaneous than in the 1990s. The redevelopment of the industrial areas has progressed from the districts located closer to the center, with highest accessibility, and better quality of their built environment to the more remote areas with greater development potential. The former industrial areas have been reutilized for different purposes, but retail, office, industrial, and logistics are the most common uses that have replaced the old production facilities.

Due to these changes, the once declining industrial areas have become more compact, revitalized, and heterogeneous places. This transformation has had a positive effect on Budapest's urban landscape, healing and reinvigorating the decaying tissue of some urban parts. This new spatial development has led to significant improvements in the quality of the built environment, advancing the chances of the Hungarian capital to become one of the most vibrant and attractive cities in Central Europe, firmly integrated into the European urban network.

Notes

¹ This research is part of a four-year project (T46014) supported by OTKA (National Scientific Research Fund).

² Budapest adopted two master plans during the nineteenth century – the first one in 1805 and a second one in 1872.

³ The attached settlements were located mostly in the areas of present-day districts 4, 14, 16, 17, 18, 19, 20, 21, 22, and 23.

⁴ Only a few decades earlier, in 1966, this number was 611,000.

⁵ It should be noted that in many cases the real utilization of the capital invested takes place in plants outside of Budapest. The reason for this discrepancy is that the Central Statistical Office collects data on foreign investments by the location of the company's headquarters.

⁶ It should be noted that a significant amount of development of suburban office and industrial parks is also taking place in Budapest. The observation above is referring to those logistics, industrial, or office investments targeting the city and not its suburbs.

⁷ Hungary has adopted the same environmental standards as the other EU-members and brownfield clean-up is as costly as in any other EU state. An entirely different matter, outside of the scope of this paper, is how stringently these environmental regulations are enforced in the country.

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