



Factors affecting brownfield regeneration in post-socialist space: The case of the Czech Republic



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ABSTRACT

Using an example of the Czech Republic, this explorative study attempts to answer the question of what factors have a significant influence on a successful regeneration of brownfields in a post-socialistic space. The study is based on a comparative analysis of two data files – the database of existing brownfields provided by the national CzechInvest agency, and the database of successfully regenerated brownfields compiled by the authors themselves. The paper consists of three interrelated parts, the first one dealing with an analysis of the structure of regenerated brownfields, the second one confronting this with the structure of the existing brownfields by means of a comparative analysis, and the third one analyzing the factors of brownfield regeneration. The main types of functional transformation of space were identified and the factors that appeared to be significant determinants of brownfields regeneration were classified as the result.

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1. Introduction

Spatial processes reflect the social processes within them, and at the same time social processes are imprinted onto space through policy and administration. The administration and management of space represent a concrete materialization of social values within space (Lefebvre, 1991). Just as the geographical imagination was transformed throughout history (Gregory, 1994), so also were the importance of space and its manipulation transformed (Soja, 1996, 2011). With the onset of postmodernism there has been a transformation in the meaning of space (Giddens, 1991; Warf and Arias, 2008), which might be identified in the social processes of demilitarization, deagriculturization, or deindustrialization. Such social processes thus transform both the value of current space and its present administration. While these processes appeared in Western Europe (Great Britain, France, the former West Germany) as early as the 1970s, thus being in progress a longer period of time and with consequences of less intensity, in post-socialist countries they started to appear as late as after 1989, and their progress has much more intensive (Frantál et al., 2013). One consequence of

these processes has been a huge increase in the amount of unused space, so-called brownfields.

Brownfields (underused, abandoned, derelict and often contaminated lands and premises), being products of mutual relations within the concrete locality, its history, social, legislative, and ecological processes (Bjelland, 2002), represent particular information about the state of the surrounding society. What is more interesting, though, from the analytical point of view, and what provides us with noticeably more critical material reflecting the contemporary society, are the issues driving discussion of the future of these unused spaces, the degree of attention that they attract, who is in charge of their management, what is happening in them, and what their transformations are.

Generally, brownfields have received increasing political credence in recent decades, since vacant agricultural or natural developable lands become less available, more expensive and more protected in densely populated areas. The increasing number of projects and research platforms demonstrates the increasing interest of policy makers, too (see the summary reports on activities, products and tools developed by previous brownfield projects by Tölle (2009) or Frantál et al., (2012). Many previous studies have investigated and conceptualized drivers and barriers of brownfields redevelopment – whether on the basis of stakeholder surveys or interviews with experts (Adair et al., 2002; Alberini et al., 2005; De Sousa, 2000; Letang and Taylor, 2012) or assessments of a limited number of local case studies (Coffin and Shepherd, 1998; Dixon, 2007; Dixon et al., 2011; Nijkamp et al., 2002).

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Although it is possible to get an international comparison of various attitudes toward brownfield management, such studies have compared merely two countries, their definitions, or related legislative documents (De Sousa, 2004; Oliver et al., 2005; Cobârzan, 2007; Dixon, 2007; Cheng et al., 2011; Otsuka et al., 2013).

Most previous projects also created some inventories of so called “best-practice projects” (examples of successfully regenerated brownfields, see Table 1). However, these examples comprised just few projects from specific regions or countries. More systematic, extensive and detailed database of regenerated brownfields covering whole country has not been created and analyzed so far.

This contribution joins the discussion with some experience of handling brownfields in the Czech Republic, or, more precisely, with the state of recycling space in one of the post-socialist countries (Sýkora and Bouzarovski, 2012). The study has an explorative character and attempts to identify (i) what are the most frequent new functions that brownfields obtain after they have been regenerated, and (ii) what are the factors that determine and drive the regeneration of brownfields in post-socialistic contexts.

2. The post-industrial era in post-socialist space

The most significant difference between capitalist and post-socialist countries regarding attitudes toward brownfield regeneration is a certain time delay. While in capitalist countries the major increase in the number of brownfields occurred during the 1970s, and became a relevant social topic in the 1990s, in post-socialist countries they started to appear only after the collapse of the Eastern Bloc, and became a publicly discussed topic only after 2010, a two-decade delay (Frantál et al., 2013). The formation and regeneration of brownfields in post-socialist space depends on utterly distinct conditions. The collapse of key economic entities was concentrated within a very short span of time at the beginning of the 1990s (Myant, 1995). In post-socialist space, unlike in capitalist countries, public facilities, retail business, and services above all are largely insufficient (Szczyrba, 2010). Brownfields within the inner parts of cities immediately became the subjects of competitive bidding, primarily between international supermarket companies. After the withdrawal of the Soviet Army, post-socialist space, unlike the capitalist, included a large number of newly abandoned military sites (Matlovič et al., 2001). Those situated centrally were regenerated into housing sites, those on the periphery into sport and recreational facilities (Klusáček et al., 2013). A great number of large areas, mainly in rural space, still remain unused (Hercik et al., 2011, 2012). A remarkable phenomenon of brownfield management in the post-socialist environment is the culture of democracy and negotiation. The process of regeneration is thus very often accompanied by a non-existence of functional communities and a lack of interest in public issues (Berki, 2012), an inability to lead a dialogue and reach a compromise (Myant and Smith, 2006), or varying notions of disadvantages and regeneration opportunities supported by experts and non-professionals (Loures, 2015). However, the active participation of local communities is considered one of the key pillars of a successful regeneration policy, especially in the case of less economically viable brownfields; the more economically viable a site, the less dependent its redevelopment will be on this factor (McCarthy, 2002).

Besides the temporal (historical) factors affecting the formation and evolution of brownfields in different European countries, it has been argued that internal geographical factors, too, affect the actual situation and patterns of redevelopment. The definition of brownfields as a whole refers to the significance that the chosen country attaches to its space (Alker et al., 2000). Oliver et al. (2005) made a comparative study that identified significant regional trends among European definitions, or rather concepts,

of brownfields, reflecting national policy strategies regarding land regeneration and development. The authors documented how two (not indisputable) indicators (population density and economic competitiveness) at a country level determine the perception of what brownfields and derived regeneration priorities are. Thus shifts in perception of the brownfield issue from being purely a contamination problem to being areas of development potential are obvious (for more detailed analysis see Oliver et al., 2005).

The factors used by Oliver et al. (2005) to compare European countries show how the policy of centrally directed economies materialized into their social and spacial dimensions. All post-socialist European countries belong to the third group of countries with a medium population density and a low level of competitiveness, where competitiveness is measured as a percentage of the most competitive nation (the USA in 2004). Such a distinct socio-spatial context of post-socialist countries (Sýkora and Bouzarovski, 2012) demonstrates the importance of studying brownfield management in these countries separately. The experience with regeneration of unused sites in the Czech Republic thus represents a more detailed insight into the more general issues of how post-socialist spatial management works.

3. Geographical context of the study: the example of the Czech Republic

Developed countries such as the US, Great Britain, France or Germany have long-term experience with the problems of brownfields, which had emerged already during the 1970's as a result of massively declining mining, heavy industries and textiles. In comparison, in post-socialistic countries such as the Czech Republic, Poland or Romania, brownfields appeared in large quantities only after the collapse of socialism and the return to a market economy, with the restructuring of traditional industries, and following globalization trends during the last decade of the 20th century. The evolution of brownfields in post-socialist countries, their spatial distribution and functional structure are characterized by some specific factors, such as the large occurrence of agricultural brownfields resulting from the decline of socialist agricultural cooperatives (Skála et al., 2013), and military brownfields as relics of the military sector restructuring (Hercik et al., 2014). Industrial brownfields, however, are considered the most pressing problem to be resolved within the urban context (Kunc et al., 2014).

The Czech Republic is regarded one of the most developed, industrialized and prosperous (according to the gross domestic product at purchasing power parity per capita) economies of the countries in Central and Eastern Europe (World Bank, 2014). The Czech Republic is also one of the most successful transition economies in terms of attracting foreign direct investment, which is one of significant drivers of the brownfields redevelopment.

A definition of brownfield that is widely accepted in the Czech Republic is provided by the Business and Investment Development Agency CzechInvest (hereinafter CzechInvest), the agency of the Ministry of Industry and Trade, which has been quoted and reflected in several legislative documents. Brownfield is defined here as “Property (land, building, area), that is underused, derelict and may be contaminated. It occurs as reminder of industrial, agricultural, residential, military or other activity. It is not possible to use such site suitably and effectively without regeneration process” (CzechInvest, 2008). For the purpose of this contribution, we have adopted this definition of brownfield, which originates from the internationally most widely used Cabernet definition, since most of the relevant institutions dealing with the brownfields management (such as regional authorities, regional development agencies, city councils, etc.) accept and use it. Few other existing alternatives of brownfield conceptualizations have been used for specific intra-

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