Factors Shaping Contemporary Architecture: Case Study Karlin, Prague

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**PAPER ABSTRACT** In the last 25 years, cities in the post-socialist countries have undergone significant changes. The countries have transformed their economies from the state-planned to the market driven model. Global corporations have got the opportunities to expand to the territories that were previously beyond their reach. Changes of socio-economical conditions have impact on the development of cities. Many industries have been closed or moved to countries with lower taxes and regulations. Cities were gradually deindustrialized; manufacturing was replaced by services. Unused industrial premises were reconstructed to offices and flats, others were torn down and the plots were used to build new residential houses and office parks. The changed economic conditions in the post-socialist countries gave rise to a new role - the developer operating on the global scale. Developers often follow their prominent clients - global corporations - to new destinations and cooperate with architects, who interact with the existing urban tissue. This paper describes the transformation of original urban structures to new office and residential complexes on the case study of Karlin, the former industrial suburb of Prague. The qualitative data used in this paper are based on the in-depth interviews with eight developers and architects engaged in the Karlin development, on the analysis of urban maps and layouts of new office buildings. The paper investigates the main forces that influence the urban and architectural forms of the new developments. The forces and processes are compared with the Open Building principles to see if the new or reconstructed buildings in Karlin comply with the Open Building concept. The paper proposes measures that would encourage developers, investors and architects to use Open Building principles in the design process.

**KEYWORDS:** post-socialist cities, global developer, architecture practice, global corporations, herding behaviour.

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1 *Introduction*

In the last 25 years, post-socialist cities have undergone significant changes. On one hand a massive suburbanisation has increased the area of cities. On the other hand businesses and corporation headquarters tend to move into the historical parts of cities. The new development in the historical parts of cities often replaces the objects that no longer serve their original purpose. In Prague, the sites available for reconstruction or new development were situated in former industrial suburbs founded in the nineteenth century.
In the second half of the 20th century, the socialist city authorities prioritized the construction of large blocks of flats built on the outskirts of Prague, to solve the shortage of housing. The industrial suburbs suffered from the lack of investment and gradually deteriorated (Musil, 1993; Sykora, 2005, 2007).

Until 1990, the whole country had a centrally planned economy with the state-owned industry. After 1990, the economy was transformed according to a market-driven model. The changes of socio-economic conditions found their reflection in the city development. Many industries have been shut down or moved to countries with lower taxes and regulations (Wallerstein, 2013). Cities were deindustrialized, new large residential suburban areas were built, and the old industrial quarters considerably changed. A large number of houses underwent renovation or were demolished and new objects were built on the empty plots. The former industrial buildings were transformed into offices or housing.

From the urban viewpoint the residential houses and industrial premises built in the nineteenth century have similar properties. The transition from the private space of objects to the public space of streets forms a primary boundary (Hanson and Zako, 2007). Usually, it is a solid wall with windows, doors or gateways at the ground level and windows at higher levels. Similarly to historical examples from Paris, Frankfurt or Amsterdam, the socio-economic change brings with it also a change in the spatial solution of urban forms (Panerai, Castex, Depaule, Samuels, 2004). The new or reconstructed objects use a different transition between private and public space. The transition is often formed by a secondary boundary, which means that there is an additional space between the street and the entrance to the house. This space can include landscape features such as lawns or flowerbeds. Transforming the former factories to a new use often results in turning the private courtyards into publicly accessible open spaces. These spaces may include decorative elements such as water pools, fountains; they can use exceptional materials such as wood to make their design exclusive. In comparison to the surrounding streets, they are usually designed with the great care for details.

Even though the new or renovated objects exhibit unique architectural features and each of them is a distinctive piece of architecture, they solve the public-private transition in a similar way (Zdrahalova, 2014). They all subscribe to the international style of architecture (Guggenheim and Söderström, 2010, p. 10). We may assume that there are common principles that drive architecture to create similar spatial solutions and building programs regardless of their locations.

2 Objectives

The aim of this paper is to investigate the main forces that influence the urban and architectural forms of the new developments built in the post-socialist period in Prague. As a case study we use the redevelopment of Karlin, a quarter of Prague. The forces and processes are compared with the Open Building principles to see if the new or reconstructed buildings in Karlin comply with the Open Building concept. In the next chapter we introduce the Open Building concept and summarise various views on the position of cities and their development in the global economy and the role of architects in the process (Guggenheim and Söderström, 2010; Harvey, 2008; Mitchell, 2003; Owen, 2009; Van Kempen and Marcuse, 2000).

3 Theoretical framework

3.1 Open Building concept

The Open Building concept presents a design approach formulated in the nineteen sixties by John Habraken (www.habraken.com). Habraken - architect and theorist who subscribed to the structuralist movement, studied different urban patterns and analysed the forces that shape the built environment (Habraken and Teicher, 2000).

The Open Building philosophy stems from understanding that different stakeholders such as real estate developers, architects, tenants or sustainability advocates enter the process of the building construction and its lifecycle at different levels and different time (Kendall and Teicher, 2000, p. 4). Their mutual interests should be to improve the responsiveness of buildings to the end-user needs, increase efficiency, sustainability and possibility to change and adapt the building to new uses. The Open Building approach should help to extend the lifespan of the buildings.
Habraken also emphasises the importance of participation of those who use the environment in the design process and the idea of change and transformation of a built environment (see www.habraken.com).

3.2 Global cities

Every built environment is created in specific socio-economic conditions. At present the important factor that affects these conditions is globalization. It is a constant process that gives rise to interconnected multinational companies and international networks. In the globalized world the power of welfare state is declining and the international corporations are gaining more influence. Cities as the potential seats of corporation headquarters compete among themselves for capital to increase their economic, cultural and symbolic importance (King, 2010, p. 29; Mitchell, 2003). Architecture is an ideal instrument to materialize the abstract economic forces and demonstrate the position of a city within the global city network. Architecture of international financial institutions, hotels or high-rise office buildings bears a significant symbolic meaning (King, 2010, p. 22).

Typically it is a signature architecture designed by the worldwide famous “star architects” (Owen 2009, p. 99) with exclusive design (Mitchell, 2003) and visually strong form. This architecture points to the “global control capacity” of the city (Sassen, 2001) with interconnectedness at the global level and demonstrates that the city belongs to the Global city “club”. The exclusive architecture is used to attract new investors, companies and influential people.

3.3 Socio-economic dimensions of urbanisation

Urbanisation is traditionally understood as a process of meeting local social demands for housing, offices, cultural amenities, etc. Harvey offers an additional view. He claims that it is an efficient way, how to invest economical surpluses in order to generate financial profit (Harvey, 2008).

In the nineteenth century when Karlin was built, the investor remained the owner of the property and used it for renting. The owners were individual people or local housing cooperatives founded by railway workers, clerks or post office employees. Since the owners lived in the area, they participated in the community life of the neighbourhood.

Since 1980’s, capital acquired significant power through financial innovations. Developers became transnationally operating corporations. Their global character makes the companies more robust and resistant to local imbalances. The concentration of such power causes the delocalization of property (Beauregard and Haila, 2000, p. 31). Compared to the nineteenth century, the investors and developers are displaced from the property. At the same time architecture has become commodified. It is understood more as a stock on a market than as city making element with a social meaning (Beauregard and Haila, 2000, p. 31). The goal of global developers is to build a property and sell it for profit. Their financial robustness enables them to invest large financial resources. Spatially, that is reflected in the size of plots selected for development. Usually, these are not areas for single buildings but much larger spatial units (King, 2010, p. 22).

In order to make a project successful, the developer takes into account the requirements of prospective client communities. In the case of office buildings the users are typically international companies in media, banking, real estate, advertising, law or ICT. Due to their international experiences where high technical and aesthetic solutions are the standard, their expectations are also high.

3.4 Architectural practice

The development process holds many risks. To minimize this risk, the developer looks for a star architect – a worldwide known architect who creates distinct and often not interchangeable designs (Owen 2009, p. 99). The star architects are believed to increase the chances of the project to succeed. Architectural practices that operate on a global scale create urban entrepreneurship (Knox and Taylor 2005) or megapractices (McNeill, 2009) that symbolize the architectural capital.

In order to increase its impact, the architecture is given English names (e.g. The Danube House, The Petronas Twin Towers, The Dancing House, etc.) and is communicated globally to the potential users and general public through visual media such as web portals, TV, magazines, photographs, etc. Branding is a part of the successful strategy for selling buildings and increasing the visibility of the city (Hoeger, 2011; King, 2010, p. 26;
4 Case study - Karlin

In the nineteenth century many new industrial quarters started to grow just outside the city walls of Prague. The first one, founded in 1818, was Karlin. It was planned as a regular street grid. The urban blocks that it created were the largest in Prague. The blocks were gradually filled in by industrial premises and residential houses. During the second half of twentieth century, Karlin, similarly to the other industrial suburbs, suffered from a lack of investment. After 1990, the industry could not compete on the global market and was gradually shut down or moved away. The abandoned industrial quarters attracted attention of developers and potential users. These locations offered a short distance to the historic city centre, closeness to the river, rich supply of services and the fashionable industrial footprint. Gradually, the quarters become gentrified. Many of the new developments or reconstructions started in Karlin already in 1990’s. In 2002 a massive flood interrupted the process of reconstruction. It destroyed or significantly damaged a large number of the original buildings. As a consequence, new large empty areas next to the river and industrial objects inside the city blocks became available for development.

5 Data and Methods

The case study is based on the spatial analysis of the environment and on interviews with 8 developers and architects responsible for the development in Karlin. The spatial analysis compares the new construction with the nineteenth century buildings in Karlin according to their size and their spatial relationship to the public space, articulated by the character of the boundary between the interior and exterior of the buildings (Hanson and Zako, 2007). Interviews with 8 developers and architects engaged in the Karlin projects provided the qualitative data. The interviews were audio recorded and subsequently verbatim transcribed. Data from the in-depth interviews were used for the qualitative content analysis (Denzin and Lincoln, 2011). Additional source of information included the web pages of the projects and their presentations in media.

6 Transformation of Karlin in the post-socialist period

In 1990s, the transformation from state planned economy to market-oriented one enabled the expansion of global markets to new territories. Consequently, foreign companies needed new places for their offices. At the beginning, there were no buildings that would meet the standards the companies were accustomed to in western countries.

The development first concentrated on the renovations of existing office buildings and on the reconstruction of residential units or whole buildings to offices. This strategy produced results quickly because the legislative process required for reconstruction was much simpler than approval for the development of new large office complexes.

At about 1996, the construction of new category A offices started. These are modern office buildings with low energy consumption. During the subsequent 10 years, the office development was very intensive and a great number of high quality offices have been built. Compared to other western cities where the buildings get constructed gradually, in Prague the core office buildings were built within a relatively short period of time. In 1990s, the demand for office spaces was immense, the corporations were prepared to pay large sums of money and the return of investment was very quick. The accession of the Czech Republic into the European Union in 2004 lowered the interest rates, which as a consequence resulted in the boost of development activities in 2004 - 2008. After the crisis in 2008 a number of international developers and global companies re-evaluated their business plans and left the Czech Republic for more promising markets. The volume of construction activities decreased, the global developers responded by withdrawing from the city. Now the local market is dominated by the Czech and Slovak financial groups such as PPF or J&T. One of the respondents comments on the importance of global clients for the Czech market as follows:

“... I think they cultivate the market. It all works on the principle of a “loop of confidence”. The companies, which rent the offices, believe that the building is well built. The institutions, which buy the offices - banks and their funds - also believe that it is well designed and well built. Together with the international companies the foreign capital arrives. It works as a chain of confidence. It creates...”
relations that attract others. And when they leave, for some clients and investors, the Czech Republic becomes a country with a ‘question mark’ and they will not come over here in such numbers. Because they will not find similarly attuned partners.”

The development projects in the inner city represent above all an investment plan. The private developers try to promote their properties on the market, minimise the risk and maximise the profit. The project success depends among other things on a good market analysis and the estimate of the project type that may attract the attention of buyers in the given locality. In addition to the concept of trust, the interviewees often mentioned uncertainty and the risk associated with the decision-making processes that influences the development in the Czech Republic.

The conduct of investors can be explained using the behavioral economics. According to Kahneman and Tversky, the decisions made under risk and uncertainty depend on decision-makers’ conceptualization of the problem and on the way that this conceptualization affect their attitude toward risk (Kahneman and Tversky, 1979).

In a market context, the risk aversion of market actors can generate psychological mechanisms called herding behaviour or information cascade (Banerjee, 1992; Bikhchandani, Hirshleifer, Welch, 1992). These phenomena occur, when market actors manifest conformity of behaviour. They try to minimise their uncertainty by following the behaviour of others who are believed to be better informed. According to the interviewees, the pattern of herding behaviour can be found in the developer’s practice and in the real estate market.

The interviewees say:

“... one looks what the other does and as long as it works, he does the same. Somebody has the pain threshold higher, somebody lower. Someone is more conservative, and therefore prefers to wait, somebody tries as long as it works. There are no guidelines.”

“... I myself have got a theory of herding because the behaviour is a lot like herding. Simply, when others do it, I do it as well. Then always somebody crashes and so everybody starts doing it differently...”

6.1 Architectural practice in Karlin

After 1990, large state-directed architectural practices were privatised and converted into a number of small architectural studios. Since these studios did not have enough experience with large developments and were not organised into global architectural practices the developers commissioned the projects to foreign architects.

The global developers selected famous foreign architectural studios to minimize the risk. The experienced studio provides the developer with greater confidence and the guarantee of the required quality, as one respondent says:

“It is a matter of business, it is a matter of trust. That does not say anything about them being better or worse. But they are the brand.”

Gradually, through their integration with foreign companies, the Czech architects became interconnected with world known architects and started to work on large-scale projects for international investors.

In Karlin, the international architectural enterprises included Ricardo Bofill, EM2N or Baumschlager Eberle. The Czech architectural studios participating on the construction were Pavel Hnilicka on Cornlofts Saldova, studio DaM, Safer Hajek Architekti, ADNS or Qarta Architektura. Often the description of the project in the media explicitly refers to the global scope of the architectural practise:

“Forum Karlin, 2012 - Ricardo Bofill – world known architect that understands the industrial soul of Karlin
Karlin as formal industrial suburb still offers attractive possibilities for transformation of former industrial complexes into modern office and cultural centres. Moreover, if the investor allies with an architect of such a format as Ricardo Bofill, the outcome is contemporary and functional architecture that fully withstands the comparison with similar realization elsewhere in the world.” (Archiweb, 2014)
interconnectivity of the companies and their employees. The developers use English names to attract foreign clients such as banks, German, Swiss, Dutch or American investment funds who promise higher profit.

6.2 The Office Buildings in Karlin

The largest project developed in Karlin is at the river bank and is called the “The River City”. It is an office and residential complex that at present consists of six new objects, see figure 1. Architecturally distinct reconstructions are the Corso Karlin by Ricardo Bofill built in 2000 or the Cornlofts Saldova by Baumschlager Eberle built in 2009. The Keystone - a new office building by Mathias Müller and Daniel Niggli of EM2N was built in 2012. Figure 1. shows the map of Karlin and the new development.


Compared to the original blocks from nineteenth century, the new development starts to open up. The relationship between private and public spaces has changed. Architectural and natural elements such as pavements, trees, flowerbeds, entrances to the objects or position of services are used to structure the space in a novel way, which is not typical for their use.

For example, figure 2. shows the paved strip that leads to the façade of Amazon House. There is no door in the façade; the strip ends at a wall. It is not intended to be used for walking. Instead, it creates part of the secondary boundary between the facade of the Amazon House and the pathway.
A great attention is paid to the design of public space. The space surrounding the buildings is understood as the integral part of the complex and is designed with great care. It is not only the effort to satisfy the city authorities but it has also practical consequences. An interesting and well-maintained location gives the developers competitive advantage: companies prefer to have their seat in an exclusive environment.

In the urban scale, the Danube House and the Nile House consist of one large massive volume in the size of a single block. If viewed as an object of residential typology of nineteenth century, the buildings would have a private courtyard in the middle, accessible only for the people working in the office complex. However, the Danube House and the Nile House use a different solution. The inner courtyard becomes a part of the public space - the public space passes through the building. The interior and exterior are separated only by the large glass wall, see figure 3.

To increase the feeling of “openness”, the pavement outside and inside the buildings use the same material. This design enhances the impression of continuity. The courtyard is roofed and hosts cafés and a post office –
the services that are typically placed on the boundary of a private and public space. There are trees planted in the courtyard, another example of a feature typically used outside. The real boundary between the private office spaces at the higher levels of the building and the passers-by is created by turnstiles and chip cards.

While the Danube House and the Nile House show how the openness of the ground level is expressed in the new constructions, the Forum Karlin represents a similar approach in a transformed industrial premise. It changes the original private courtyard into a communication and leisure space, open to the general public.

One of the principles of Open Building approach – the possibility of flexible use is in the Nile House implemented by the use of frame structures, see figure 4. These construction elements create an open plan. Such spatial solution gives sufficient freedom to the potential users and enables them to split the floor space according to their requirements and actual needs.

![Fig. 4. The frame structure in the Nile House viewed from the courtyard](image)

This design has been made possible by the advances in building technologies. The nineteenth century houses have a structural wall system that cannot easily implement the current open plan requirements. According to the projects' presentation, flexibility and free plan are important concepts considered by the design.

7 Conclusion

Karlin in its post-industrial period has the potential to attract strong developers and transform to modern, exclusive quarter of the city. Based on the analysis of Internet advertisements of office projects in Karlin and the interviews with the developers, Karlin exploits Prague's position as an important city in Central Europe to draw attention of potential clients and developers (Nile House Prague, 2015).

The interviews also revealed other important forces, which shape the current office architecture in Karlin in the post-socialist period. All the developers operating in Karlin are financially strong multinational companies that, through their presence in Prague, help to establish the position of Prague as an important, if not global, city. The global developers try to insure their business success by cooperation with global, worldwide known architects. These were - at least in the first period of the post-socialist transformation - foreign architectural enterprises. Gradually local architectural studios started to cooperate with foreign architects and eventually autonomously worked on the projects. The unique architecture helps to attract prospective clients to the architects and to the developers. They both expose their achievements to consolidate their position in the professional environment. The last of the forces that the interviews revealed are the unknown or incompletely specified requirements of prospective users of the buildings at the time of the design process. On the case study of Karlin we have shown that these factors together with new construction technologies result in a distinctive architecture compared to the surrounding nineteenth century buildings.
In the context of post-socialist Prague, only some aspects of the Open Building approach are implemented. Standard design of office buildings allows flexibility of interior space and its customization by the end-users. New objects pay a great attention to sustainable technologies and low operating costs (Nile House environment, 2015). The spatial analysis in Karlin has shown a high permeability and openness of the office complexes but also high degree of space hierarchy and control. This means that though the design of building complexes wants to create a feeling of “openness” (the glass facades and publicly accessible courtyards), they are highly controlled and surveyed by private corporations.

The Prague real estate market does not produce buildings that implement the core Open Building principles, such as distribution of control or the participation of prospective users in shaping the design of buildings. The qualitative research based on the interviews with the developers and architects shows that the effort of investors to reduce uncertainty is the most important factor that leads to the limited use of Open Building principles. As a consequence, this is reflected in repeating already known solutions instead of trying innovative approaches. The behaviour of investors and developers on the real estate market is mainly driven by risk aversion and herding. According to the behavioural economic theory, to overcome the herding and risk aversion behaviour it is necessary to reduce the high-risk factors and decrease the uncertainty in the process of planning and design.

In order to change their rather cautious behaviour, and to encourage the implementation of all principles of Open Building approach, the following possibilities are recommended: implementation of diverse private public partnership (PPP), establishment of specific form of governance for projects that would simplify the building process or support of participation in the design process.

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