

IS THE IDENTITY OF THE PLACE IMPORTANT IN SHAPING THE MODERN RESIDENTIAL ENVIRONMENT?

Abstract

This paper presents new housing units completed in post-industrial areas and old military areas, as examples of creating a modern housing environment, while maintaining the identity of the place. Building new urban structures, especially residential environments with regard to the heritage, historical, and spatial conditions in cities, affects the development of the quality of life of whole communities. It is also consistent with the demands of sustainable design. In addition to a new, attractive urban space, housing complexes presented in this paper create individualized social space, which allows interaction between its citizens and the identification of the inhabitants with the place of their residence.

Keywords: contemporary housing environment, post-industrial areas, identity of the housing environment

1. Introduction

The development of urban residential areas and the approach to their design has changed over the last 100 years. Planners and architects faced problems in residential developments at the beginning of the last century, ones stemming directly from the industrial revolution; this resulted in a large population migration from rural areas towards the cities. The character of the late nineteenth and early twentieth century's residential buildings consists primarily of tenement houses and buildings for workers associated with industrial plants (mills, mines, etc.). Nineteenth-century industrialization, however, did not contribute to the improvement of the quality of people's lives in urban centers, and even worsened it. The excessive concentration of the buildings and dwellings – and thus overcrowding, a lack of access to greenery, as well as a lack of basic sanitary facilities – caused the first demands associated with the formation of the housing environment to be related primarily to the enhancement of hygienic, sanitary buildings. It was reflected mainly in the improvement of the health of the residents of contemporary cities. Urban problems of the late nineteenth century cities became the impetus for the emergence of new, often utopian ideas of urban planning, which presented a variety of concepts of spatial development, and sought ideal solutions for urban areas.

Among the many ideas¹ that then arose, many remain only theories. Some, however, were used in practice, and had a significant impact on urban theories formulated in

the twentieth century. In all theoretical projects of the cities, special attention was given to the residential areas as well as the quality and conditions of residence. The space of human habitation has been recognized as the whole environment in which he functions outside working hours.

The model of housing units from the early twentieth century focused mainly on hygiene – sanitation conditions, sufficient space to live, contact with nature, and communication with the workplace. These guidelines were primarily answers to the problems of housing in the cities during the Industrial Revolution, and the disastrous condition of residential buildings from this period.

The Athens Charter, which was founded in 1933, contained the demands of modern urban design and emphasized the importance of the urban residential environment in the structures of the modern city. The postulates included in the Charter of Athens marked the standards of living for all the residents of the city – not just for a select and privileged class of citizens.

Access to nature, suitable living space for everyone, and above all, functionality – were leading guidelines that were meant to shape the housing environment of the modern city. Urban planning ideas were accompanied at that time by technological progress in construction. Building with concrete, mass production, and prefabrication, as well as the development of sewers and electricity, allowed the construction of residential buildings according to the standards and norms included in the Charter of Athens. Innovation in the modernist housing estates rejected references to the past and traditions that were synonymous with backwards, disastrous technical state of most cities in the nineteenth century.²

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¹ In the nineteenth century, utopian concepts of the future cities were developed, based mainly on socialist ideals of equality and social justice. Their authors include, among others, Charles Fourier and Robert Owen. Subsequent urban concepts such as Tony Garnier's functional city, the graden-city of Ebenezer Howard, or the modernist ideas of Le Corbusier were partly used in practice and had a significant impact on the shaping of cities during the first half of the twentieth century. According to: Gutowski B. *Przestrzeń marzycieli. Miasto jako projekt utopijny*, Warszawa 2007.

² One of the radical urban design was, inter alia, Plan Voisin by Le Corbusier (1925) – a project of rebuilding the historical district of Paris. It assumed the total demolition of the historic urban fabric and left an open, green space with a geometric grid of streets and evenly-appointed multi-storey residential buildings.

2. Ideas of Modernism and Sustainable Design

Modernist ideas of the functional city, the development of construction technologies, and historical conditions resulting from two world wars³ led, in the second half of the twentieth century, to the mass production of housing estates unvarying in form. For many years, the so-called, “modern housing estates” dominated the landscape of many European cities. Mass production reduced the quality of the buildings, and monotonous, versatile architecture that was aimed to cater to only basic needs led to the loss of social ties and neighborly relations. The post-war “modern housing estates” very often became tedious, multi-family “bedrooms” with which their residents did not identify.⁴

The beginning of the current century has brought rapid progress from digital technology and increased urbanization, especially the growth of the big resorts and urban areas. The largest population growth is recorded in the cities, and all projections suggest that it will become a permanent, global trend. You may even say that trends from the times of the Industrial Revolution are being repeated; however, now it’s on a global scale.

Uncontrolled urbanization brings many negative effects to the urban residential environment. It is associated with an excessive density in the population, environmental pollution; and also the loss of social ties; a sense of security; and degradation of public spaces for small, local communities.⁵

Problems of contemporary cities are phenomena that have grown through years, and the solution (if possible at all) will take several decades. Today, however, in retrospect, we can at least partially reduce the negative effects of urbanization. It now seems that the most versatile concept allowing harmonious development of large urban areas is the concept of sustainable development and sustainable design that’s associated with it.

Sustainable development policy, implemented in many countries (especially in the countries of the European Union) draws attention to the harmonious advancement of the community on many levels – economic, social, cultural, etc. The European Spatial Development Perspective for sustainable and balanced development of the European Union emphasizes the role of cities in European countries. Among the most important goals, it lists protection and maintenance not only of the environment, but also of cultural heritage and local identity.⁶ The model of sustainable development for today’s urban centers assumes the end

of uncontrolled spatial growth of built-up areas, so-called “urban sprawl”, for the benefit of the compact city. Such city has a diverse urban structure, with complementary functions, that harmoniously integrate areas of residential, service, and cultural character, as well as others. Contemporary sustainable urban planning is going away from the modernist conception of the twentieth century, which imposed on man the way he operated within the urban structure. Currently, the city should be perceived as a complicated structure, the value of which includes also its past and a local identity created over many years.

The implementation of the concept of the compact city preventing excessive urbanization draws attention to existing and unused urban areas, which may become areas for the new investment, especially in housing. Completion of the existing urban structure brings many benefits – rehabilitation of frequently neglected and unattractive sites, and transforming them into new, desirable urban neighborhoods.⁷ Such investments are carried out in many European cities in accordance with the policy of sustainable development; one of its main priorities is the economical use of existing terrain and urban spatial resources. New housing projects are often located in urban areas, which frequently have their own local “past” and sometimes interesting, but forgotten, history. The variety of historical themes in relation to the areas of investment (and ideas for a new housing development connected with it), often result in not only restoration of the degraded land, but also creation of a new, valuable urban-architectural structure, in which local history harmonizes with modern technological solutions.

2. Housing Environment on Post-Industrial and Old Military Areas

The economic development of European cities in recent decades caused many large areas related to the production, storage, transportation, military facilities, etc. – all previously located on the outskirts of the city – to grow closer to the center. Economic transformations in the late twentieth century associated with the collapse of the large manufacturing firms, the change of the political system in other European countries, modernization of production (including the transfer of production facilities outside urban areas, and to countries in the Far East) – as well as the introduction of new technologies – have led to the emergence of large urban areas of empty space left by the old warehouses, shipyards, factories, and military bases.

These areas were usually characterized by generally good locations within the city, but were also very neglected in terms of infrastructure and environmental quality.⁸

³ World Wars I and II caused immense devastation in the urban fabric of European cities, and huge residential demands resulting from the war losses were enhanced by the baby boom in Europe after 1945.

⁴ G. Schneider-Skalska, *Kształtowanie zdrowego środowiska mieszkaniowego. Wybrane zagadnienia*, Wydawnictwo Politechniki Krakowskiej, Kraków 2004, p. 34.

⁵ W. Seruga, *Architektura mieszkaniowa XXI wieku. Prognozy rozwoju*, [in:] *Czasopismo Techniczne – Architektura*, 1-A, pp. 209-239.

⁶ G. Schneider-Skalska, *Zrównoważone środowisko mieszkaniowe. Społeczne – oszczędne – piękne*, Wydawnictwo Politechniki Krakowskiej, Kraków 2012, p. 14.

⁷ J. Sylwestrzak, *Miasto przyszłości miastem zwartym*, [in:] *Kultura Miasta* 1 (4) 2009, pp. 6-13.

⁸ Many post-industrial sites required previous re-cultivation due to a very high soil contamination. This process was carried out, among others, during rehabilitation of the Greenwich Peninsula, where the South Metropolitan Gas Works – plants storing, processing, and shipping gas – were previously located. Today, there is,



Fig. 1. Housing buildings Seed Silo and Wennberg Silo in Copenhagen (top), Torpedohallen residential building in Copenhagen (bottom). Photos by the author

In many places, the potential of old industrial areas was used by introducing new investments, including housing on a different scale – from entire districts, to a single, or several, buildings.

Urban post-industrial areas provided an opportunity to create new, attractive public and social spaces, as well as modern housing. Entirely new housing developments were created in these areas, but also pre-existing objects were adopted. Using references to the local history of the place became an important aspect in the development of former industrial areas, which seemed to have no points in common with residential development.

Forms of residential development on post-industrial areas are very differentiated – from completely unrelated to the place of the modern investment, to adaptations of the old, industrial buildings for residential function. It allows creating a new architectural quality in severe forms of the old buildings. Relating directly and indirectly to the local history of the site enabled the formation of unique residential buildings, while the design conditions of the old building allows for the creation of an open and spacious living interior, or so-called “lofts”.

Among the many industrial objects transformed into residential buildings, we can distinguish silos owned by the Soya Bean Cake food company in Copenhagen, built on the waterfront in the 1960s. Industrial facilities located on Brygge Island are today a part of the city, and their form is reminiscent of the old character of the place. Post-industrial areas on Brygge Island were rebuilt in the early twenty-first century into a modern, residential district, bordered by two silos. The majority of the former industrial buildings were demolished, but the silos were adapted to the housing function. The inner space of the objects was divided by ceilings, while glazed facades opened the interior to the surrounding landscape of the coastline. Owing to the addition of simple terraces around each floor, apartments have gained an extra space. Lumps of the Seed Silo and Wennberg Silo are different in their forms, but even after the conversion into residential buildings, they preserved their original and raw nature. Moreover, they’ve even become one of the most recognizable buildings on the Copenhagen embankment.

Another very interesting object is Torpedohallen, also situated in Copenhagen – the residential building which previously had an industrial function. The building – dating from the 1950s – had served for a long time as a place for the construction and launching of boats and torpedo gunboats. The building is situated in a very desirable location on the waterfront in a cameral, residential area of Holmen, in close proximity to the new Copenhagen Opera House.

The Torpedohallen was converted into a residential building by using its characteristic steel-concrete frame structure, whose modularity corresponded well with the repetitive system of the residential building. The interior of the object has been adapted into apartments, but its most characteristic elements – concrete skeleton, steel trusses, and an indoor swimming pool, one which was used for launching boats – have been preserved. Currently, the pool is an internal courtyard, an attractive social space for the residents of the building. The industrial architecture of the Torpedohallen made it one of the most characteristic elements of the Holmen district.

Many investments on the post-industrial areas include large architectural and urban assumptions, where the housing function is only a fragment of a larger complex. Examples of such investments are gazometres located in Vienna, in the pos-industrial Simmering district, which has been revitalized since the late 1990s. Gazometres had functioned until 1986, and for several years, they stored fuel needed to illuminate the city.⁹ The reconstruction of the gazometres was completed in 2001 and engaged such well-known architects as Jean Nouvelle and Coop-Himmelblau’s office. The figure of these buildings has stood out on the landscape of this part of Vienna, both due to its size and unique form – characteristic brick walls and the rich detail of nineteenth century architecture. After rebuilding, gazometres have been complemented by modern

among others, the sustainable residential complex, Greenwich Millennium Village. The author, describes this complex in her doctoral dissertation entitled *Woda w założeniach architektoniczno-urbanistycznych*.

⁹ M. Kozień-Woźniak, *Dzieło architektoniczne w przestrzeni ludzkiej*, [in:] Czasopismo Techniczne – Architektura 6-A, Kraków 2008, p. 386.

architecture (a residential building was added to one of the towers) which maintained the industrial character with the facade materials and detailing made of steel, glass, and concrete. Despite the fairly large body of the new building, the character of the whole site is shaped by the nineteenth-century brick architecture of the industrial buildings, which goes well with the modern architectural forms. After the reconstruction, the gazometres have become one of the most interesting, multi-functional architectural assumptions in Vienna. Moreover, a new, spatially attractive urban district with hotels, offices, cinemas, shops, and residential development sprang up around this investment.¹⁰

Some of the many investments carried out in recent years (ones described above) prove that post-industrial areas do not have to remain empty, degraded spaces in the structure of the city. Former industrial buildings converted to a residential function gain a second life – their technological form seems to be well adapted to the requirements of modern residential architecture. Maintaining the character of these objects also affects the shape of the surrounding urban space in which they function – they are reminiscent of the history of the place and become a new characteristic element in the city. New, attractive spaces are formed around the revitalized buildings, and their original form attracts not only the residents, but also all users of the urban space.

New investments located in degraded, post-industrial areas or sites of historical importance (especially residential investments) became a challenge for municipal authorities, especially in the case of larger areas in the urban structure. On the one hand, one should take into account the interests of the private investors; on the other hand, especially in case of larger architectural, urban assumptions, it is very important to develop a detailed functional program for the new investment, and to adopt guidelines that will enable the preservation of the valuable elements of the cultural landscape. It is particularly important in case of new housing units, where a balanced, functional program and maintaining local tradition fosters formation of the new communities, as well as improvement of the incorporation of greater investment in the urban fabric of the city.

One of the latest implementations of major urban assumptions of the dominant residential function include Fort d'Issy, located in Issy-Les-Moulineaux¹¹, a city near Paris. The name of the new residential complex directly refers to the history of the place – the assumption has been built in a former military fort, which in the nineteenth century had an important defensive role; it was a part of the defense system of Paris. Currently, the fort has lost its military importance, and for the last few decades of the twentieth century, its territory served as a storage and location site of small production facilities. Elements that have mainly survived until today include defensive walls of the fort arranged in a distinctive pentagon, and the former

entrance. Development of the area and its transformation into a new housing district was aimed to create a modern urban-architectural space with facilities for the residents of the city (accessible public transport, commercial services, nursery, school, sports facilities, etc.), as well as to refer to explicit spatial structure, which was created by the massive brick walls of the old fort.

References to the local history of the place helped decide the urban layout of the residential complex. The project of the land use retains the characteristic shape of the old fort, which became the base for the urban composition of the whole complex. The old walls of the fort have been restored, and new residential buildings, referencing historical bastions, were located on the five corners. The inner part of the fort has been aligned with uninteresting twentieth century buildings, and in this place a modern, freely distributed residential development was created on the old plot. A communication system was also created on the contour of the walls of the old fort; the most important street runs around the complex, and the main entrance to the estate is situated at the preserved old gate. In Fort d'Issy's case, the main ideas of the project were to create a functionally diverse, environmentally friendly urban space of residential buildings, equipped with the latest technology, as well as the preservation of the most characteristic elements of the military architecture. The old walls and preserved gate recalls the history of this place, and a small museum located under the walls explains the old history of the Fort d'Issy.

The housing complex in Issy-les-Moulineaux presents a new quality in the approach to the design of modern investment within a historical context. An urban project gave the old fort the opportunity for preservation, bestowing on it a new quality – modern and environmentally friendly architecture with plenty of green spaces.

Fort d'Issy is an investment, one located in areas which used to have a military role, but today does not necessarily serve as a historical monument. Due to the historical conditions of European countries, many of these areas are located in Poland – they are the remains of world wars, but also of military bases, which became obsolete during the socialist period. Many among these areas are characterized by well-defined, organized urban structures, which distinguish themselves in city space. A part of these structures also has architectural objects built in a characteristically military style, which today are classified as monuments.

Military areas may have lost their defensive importance, but even a partial restoration could significantly increase the attractiveness of such areas in many cities. The investments on old military bases are also emerging in Poland – they are both public utility buildings and residential developments, which usually are combined with service functions.

One of the most interesting is the City Park in Poznań,¹² which was implemented in areas of former military barracks. City Park is a multifunctional architectural-urban complex with a service – residential functions. It includes

¹⁰ *Ibidem*, p. 387.

¹¹ The fort's land development project was made by Studio Architecture; individual housing designs and buildings were made by several different French architectural firms. Accomplishment of the housing complex – 2013).

¹² Project: Autorska Pracownia Projektowa Sławomir Rosolski Architekt, implementation 2007.



Fig. 2. Housing complex in Fort d'Issy in Issy-les-Moulineaux (top, middle); residential and commercial complex City Park in Poznań. Photos by the author and M. Kupisz

both restored historical buildings and newly constructed facilities. The whole building has maintained the characteristic architectural form referring to the historic barracks. An important aspect in the implementation of the City Park was to design an open, accessible public space, complemented by both small architecture and plenty of green spaces. Due to that, this complex with exclusive apartments will not become a closed enclave in the city, but an attractive addition to the historic urban structure of Poznań.

3. Summary

The search for the references to the identity of the place and local history is important in the case of new housing investments localized in urban areas. Projects that are based on cultural, urban, and architectural heritage are on the one hand more accepted by the people and easier blend into the urban environment of the areas. On the other hand, new users of such housing complexes easily identify with the place, which from the beginning has its own “story” and is not just another anonymous housing estate with repeatable architecture. Urbanization and the high-density development of cities are leading to wider use of post-industrial and old military areas, ones often located in the centers of the cities. New investments are emerging on them, and are bringing back to the city both old, abandoned urban structural areas and valuable architectural objects.

Building new urban structures (especially residential environments with respect to heritage and historical spatial conditions) affects the quality of life of the whole community. The history of the cities has been shaped by hundreds of years of overlapping urban and architectural structures, ones affecting the overall image of the place. Today, due to the demands of sustainable design, we know that it is impossible to design in isolation from the heritage and history of different urban areas. Modern residential investments, of which several examples have been described above, show that it is possible to shape contemporary architecture while taking into account the historical references of the place – in this case, post-industrial sites and military facilities. In addition to a new, attractive urban space, housing complexes create individualized social space, which gives the feeling of “being at home”, familiarity, and attachment to a particular place. It also allows social contacts and stimulates participation in social life.¹³

¹³ M. Murzyn-Kupisz, *Dziedzictwo kulturowe a rozwój lokalny*, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2012, pp. 128-129.

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