

## **TRANSFORMATION OF AN INDUSTRIAL FACILITIES – REVITALISATION OR ADAPTATION**

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At the turn of the century Polish cities witnessed radical changes due to the political, economic and social transformations which resulted in the technical, social, and cultural degradation of the existing former industrial buildings. On the wave of the common process of revitalization in recent years, many industrial buildings have been transformed. Although the revitalisation processes in our country are based on the recommended by the EU document called - Local Revitalization Programme - in many cases only the easiest type of regeneration is actually taking place, i.e. an adaptation of the object. Its main feature is the lack of a significant contribution to the development of the surrounding areas, in spatial and social terms. This is due to inadequate level of organization of our state, government agencies and legal regulations. The project described in this paper, which has been elaborated as the Master's Thesis, shows the type of action that can be called “grassroots” revitalisation, emerging from the citizen's initiative, with the real participation of local communities, and the needs and methods of their fulfillment properly recognised and defined.

Keywords: transformation of industrial facilities, revitalisation, adaptation

### **1. INTRODUCTION**

Polish towns witnessed a radical change caused by political, economic and social transformations at the turn of the century. As a result of the processes, we can observe technical, social, and cultural degradation in the areas of numerous towns. The changes in the industrial structure, in fact the liquidation of many industries, resulted in the fact that the process affected mainly industrial areas and facilities. On the wave of the commonly occurring revitalization processes,

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many industrial buildings have been transformed in recent years. Unfortunately, in many cases, we have more to do with the easiest way to regeneration, which is an adaptation of the object. The main feature of this type of activity is an insignificant contribution to the development of its vicinity in terms of spatial and social development.

## **2. REVITALISATION – PATTERNS**

Transformations of industrial objects are associated with the phenomenon known as revitalisation, a concept that has commonly been present in our minds for over past few years. With the accession to the European Union, Poland gained financial assistance aimed at supporting the restructuring and modernization of the economy. This support has contributed to reducing economic and social disparities between Poland and the rest of the EU countries.

Revitalization has been seen as one of the most important intervention methods. The notion, which at the beginning was mainly associated with renovation of the material structure of the towns, has gained new meanings and has started to cover social and economic aspects. Poland was one of the first countries, which included revitalization priorities into the Structural Funds. Implementation of the revitalization processes in our country is based on a document recommended by the Integrated Regional Operational Programme for urban development planning - Local Regeneration Programme. This document as the sum of European experiences in this field is based on projects such as: Urban, Quartier en Crise and programs Sociale De Stadt German and Stadtumbau.

Connecting the transformation issues of postindustrial areas to the mentioned above brownfield revitalization programs seems to be necessary. Brownfield sites often occupy vast areas in the structure of modern cities. It is this scale which makes it impossible to revitalize these areas in isolation from the rest of the city. This scale forces to involve as many parties as possible in the revitalization process. If any revitalisation undertakings on the structure of a town are expected to be effective, they must integrate many aspects. The principle of sustainable development is manifested in the fact that social participation, the organizational role of the administration and its tools in the form of statutory planning instruments constitute a counterweight to such items as the market, demographic and economic processes which are often unpredictable and spontaneous. The balance of forces is to enable local communities to express their rights and to disagree with the dictates of economic and technical factors.

The realities of the countries of Western Europe, the brownfield redevelopment has taken place within the large-scale regeneration programs. The prime example is the action of IBA Emscher Park (International Construction Exhibition dedicated to the restructuring of the industrial areas in the Ruhr District). Another interesting example is the Gasometer City, Vienna, or a relatively recent investment: Hafen City in Hamburg.

In 1989, the Provincial Government of North Rhine Westphalia designed the IBA Emscher Park. The campaign was to answer the question: how to revitalize the Ruhr brownfield areas. The initiated venture resulted in over 100 projects. One of the most famous implementations is the revitalization of the industrial complex of mine and coking plant Zollverein in Essen.

Revitalization of the area consisted mainly of maintaining buildings and industrial structures and the conversion of degraded land surrounding the objects into a recreational green space supplied with a system of walking and cycling paths. The performed in 2002 by Rem Koolhaas masterplan for the development of the area assumed the introduction of new modern buildings. It resulted in the realised the so-called SANNA building. The further stage of process is aimed at the development of the arts industry, and 3.5 acres of land was allocated for young creative businesses. In 2006, one of the most spectacular buildings designed by Rem Koolhaas and Hainrich Boll was completed. The former building of coal washing was converted into an exhibition building of free-standing escalator (the longest free-standing escalator in Europe - 55 meters).

Another interesting and spectacular example of industrial facility conversion was the rebuilding of Vienna former gasometer buildings. Only brick exterior casings remained after the nineteenth century, largest in Europe gas reservoirs. They were not so much adapted (as the casings did not constitute a volume), but were used as a distinctive element in a multi-purpose building containing apartments, services in a form of shops and restaurants, offices, an indoor arena and car parks. The whole premise is connected with an existing city with new specially-built roads and an underground. The proposed function, its diversity, architectural quality and the uncommon solution of adapting this type of object for housing needs, have resulted in vast popularity of the building among tourists, which had been expected and intended by the authors. The four transformed objects, along with three newly designed complementary objects, create a new centre for its housing district.

The new HafenCity housing district of Hamburg is formed in the area of the former port and industrial areas. The existing historical buildings are adapted and supplemented with new modern buildings, but inspired by the milieu of the existing industrial and port development. Now, HafenCity is

experiencing an intensive development. New office buildings for 40,000 newly-created jobs are being built, as well as new housing buildings for 12,000 people, commercial objects (shops and services), and cultural facilities such as: Internationales Maritimes Museum Hamburg and Hamburg Elbphilharmonie.

The presented revitalization examples display the preservation of cultural identity and the substance of cultural heritage, high architectural quality and functional diversity. The multiplicity of parties involved in the revitalization process ensures that the problems were defined properly and the proposed solutions feasible. All these elements result in the fact that the carried out works change permanently the degraded environment by creating new values in spatial social and economic terms, a sustainable manner.

### **3. REVITALIZATION – POLISH REALITY**

In Poland, we have also witnessed examples of transformations of industrial facilities in the last few years. A question can be raised - how many cases and to what degree these transformations can be called recapitalizations. Generally, they can be divided into two basic groups. The first one, I think the most ambitious but also most difficult, comprises revitalisation projects which include not only physical undertakings (rehabilitation of the building substance with simultaneous adaptation to new functions), but such transformations which, through the proposed functions, permanently affect the social and economic situation of the revitalized areas. It is a difficult task, and this type of actions are in the minority. The Education and Business Centre in Gliwice can be seen as an examples of this type. The guildhall and the machinery buildings of Gliwice mine, which originated in 1910-1912 and were designed by Berlin architects Emil Zillmann and Georgia, were not protected from devastation. Extensive areas located close to the city centre full of post-mine relics – spoil tips, mine shafts - became property of the city. The technical and architectural revitalization is carried out properly. It is difficult to assess the accuracy of the decisions relating the new functions of the facility. The object in the form designed by the revitalization plan is functioning properly. However, it should be stressed that the impact of this investment on the town, or even its close neighbourhood, does not seem considerable. The assumed function, i.e. a higher vocational university in the context of the existing the Silesian University of Technology and some subsidiaries of other universities, does not seem too appealing. The Enterprise Incubator also seems quite trivial idea. The assumed functions do not produce significant changes in the labour market and employment in the scale of the city or even the neighbourhood. In the longer term, they dependent on many factors (for school the threat may be the

demographic changes, whereas for the business centre - the weakness of the economic base).

The vast majority of revitalisations belongs to the second group, where transformations of post-industrial buildings include only adaptations. Basically, they can be divided into two groups. The first group comprises shopping centres and industrial facilities. Stary Browar in Poznań and Manufaktura in Łódź are their most spectacular examples, which have been launched in the last few years. Both of them have been realised in a large scale, which was the consequence of the original size of the objects. In both cases, their commercial and entertaining functions were supplemented with a cultural offer. In one instance, they are a permanent sculptural exhibition and a temporary exhibitions. Manufaktura in Łódź houses the scene of Teatr Mały and the Museum of Factory. The revitalization works were carried out at a very good technical and architectural level. However, the revitalisation process included adaptation works exclusively. These investments do not create a new quality in a broader sense, it is rather an oasis of luxury in the “sea of unresolved problems”. On the contrary, some of the problems associated with decapitation, degradation of city centres have even become deeper. Such understood revitalization may lead to a greater degradation of the land around these objects. The introduction of strong economic subjects (retailers located in these facilities) may lead to the elimination of small businesses (shops and services) in the centres of old towns.

The last group of transformations comprises industrial facilities which were adopted for the apartment buildings. In the last few years, we have witnessed a lot of such transformations. To name a few examples: Fabryka Tytoniu Fajwela Janowskiego ( Faivel Janowski's Tobacco Factory) - 155 flats, (Białystok, 2008-2010), Spichlerz (Granary) - 30 flats (Gliwice 2008-2009), Drukarnia Narodowa (National Printing) - 46 flats (Kraków 2009), Młyn Ziarno na Zabłocie (Grain Mill in Zabłocie) - 46 flats (Kraków 2008-2009), Fabryka włókiennicza Karola Scheiblera (Karol Scheibler's Textile factory) in Księży Młyn - 400 lofts (Kraków 2007-2010), Koszary Wojskowe (Military Barracks) Poznań - 134 apartments (Poznań 2006-2008), Destylarnia Braci Wolff (Wolff Brothers' Distillery) - 52 lofts (Wrocław 2008-2012), Tkalnia (Weaving Plant) - 36 flats (Poznań 2007-2008), Przędzalnia lnu (Spinning flax) - lofts de Girarda 178 lofts, Stara Przędzalnia (Old Spinning) – 76 lofts (Zyradów 2009-2011) (1). All of them seem to offer good quality solutions both in terms of design and construction. Once more, we find these areas as oases of luxury, surrounded by the grey reality of degraded urban areas.

The mentioned above completed transformations are commonly referred to as “revitalisation”. However, this brief overview of the projects shows that

the term is overused or even used illegitimately. Generally, most of the implementations are performed just to sell the objects for commercial purposes. Even in those cases in which the functional program includes cultural and educational institutions they seem to be poorly motivated, sensitive to small changes and they do not seem to generate a significant contribution to the development of the region. This proves that the decisive factors, i.e. local authorities, have a poor understanding of the real needs of the city. The inactivity of local authorities as well as their helplessness, due to their poor qualifications, result in the lack of social participation and drastically limit the number of parties involved in the revitalization process. In this situation, the market influences and extorts the character of the investment. A further consequence of this fact is a lack of social control over what is happening in the cities. In cases involving the conversion of former industrial sites, local shops and services are closed down without which the centre of the town cannot exist. Lofts create a luxurious ghetto for wealthy people.

#### **4. “GRASSROOTS” REVITALIZATION**

The presented above concerns, which in my opinion are quite commonly expressed, stand in a sharp contrast to the activities of commune authorities in the form of Local Revitalization Programs. Generalized model of organizational revitalization of European programs is a complex model assuming sectoral integration and cooperation of numerous elements which interact both vertically and horizontally.

For the less experienced and less efficient administrative structures, which we have in our country, and which are unable to follow this complex procedure – revitalisation actions can be called “authority-imposed” activities, where participation of local communities is replaced by arbitrary actions. Therefore, the Local Regeneration Programs function in our country in two categories: “let's get rid of the problem” (former industrial buildings are transferred to investors for shopping centres or lofts) or “let's do something” (the program includes minor and trivial works such as cleaning public spaces or repairs to buildings).

In the context of the revitalization issues, I would like to present a Master's Thesis of Mr. Kamil Cierpiot titled "A complex of social apartments for victims of catastrophes, on the example of the reconstruction of the old Department of Tannery in the village of Mochała", performed at the Faculty of Architecture of the Silesian University of Technology.

The subject was approached on the bases of the real, local, specific needs. The adapted object is located in the village of Mochała in Lubieniecki district.

The author of the project comes from the area and knows its realities and problems. One of the greatest tragedies that unfolded there, were strong storms on August 15, 2008. Within several minutes, the storm broke the roofs of many houses, power lines and destroyed crops. In the tragedy, two people were killed, and more than 100 houses were destroyed. Another problem, this time not of an incidental but repeated character, are local flooding. The largest of which were the floods in 1997 and 2010.

The aim of the Master's Thesis was to design a transformation of the former industrial facilities into a building that would provide a shelter for “people affected by a natural disaster or other tragedy”, together with a conceptual design of buildings for social housing applying various elements of the existing infrastructure. The function was supplemented with premises for commercial purposes, a conference room, offices for social assistance services. The main element of the project was a shelter for victims, which was planned in the existing industrial building. The author proposed a method of the building exploitation that allows arrangements depending on the need. The method permits different utility variants, which are realised with the use of such elements as: beds, curtains, and other equipment rescued from disaster. This type of arrangement ensures the basic needs in an emergency for a few days or weeks, depending on the needs. In addition to emergency cases, the facilities can serve the community as a place for rent for various events and trainings.

Another important element of the system is the introduction of social building. The introduction of permanent residents to the complex, which incorporates such elements as: the offices of commune agencies, catering, small local businesses, may become an important functional element for numerous surrounding communities. The buildings for social housing, in the proposed solution, are planned to utilise the existing floor slab and to be erected as light, system-based, wooden construction. The buildings are to be erected by construction crews consisting of persons affected by the tragedy and their neighbours basing on a short operating instructions and training, under the supervision of qualified people. The region which this facility is intended to is the town of Herby and the surrounding communities belonging to the Lubienicki district.

The author's main objective was to create a centre that utilises and adapts former industrial buildings, and to indicate the ways of use and revitalization of the devastated land, a abandoned tannery plant complex.

The basic elements of the proposed by the author design of the revitalization of the brownfield area, are well-recognised local needs, rational and realistic definition of the scope of investment and the ways of its

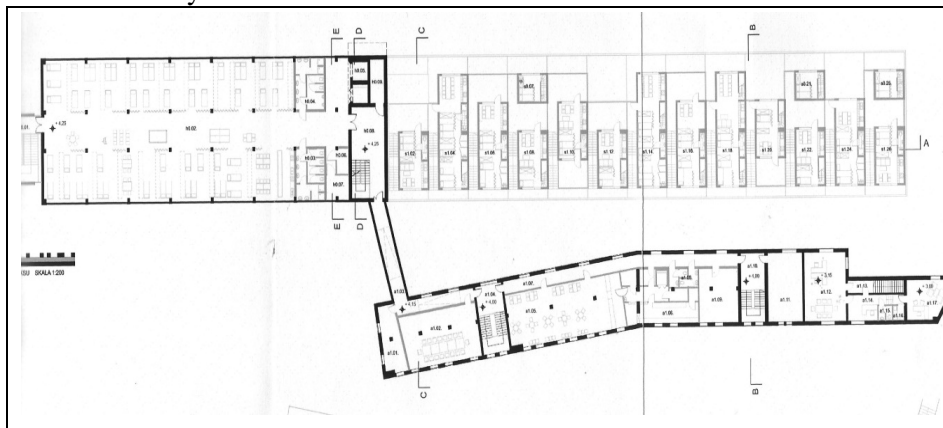
implementation. The project is performed in stages and provides the possibility to perform the particular stages in an arbitrary order.

It is also important that it involves a number of entities (many communities would be interested in the cooperation in the project) as well as individuals affected by the tragedy who would contribute to the project realisation through their own work. The author consulted the project with local authorities interested in the subject. The completed project was presented to the officials. This type of action may be called “grassroots” revitalization, emerging at a citizen's level, with real participation of local communities, where needs and solutions are well-defined.

## 5. SUMMARY

The political and economic changes which took place at the turn of the century did not bring in my opinion the expected effects in many areas. Perhaps it is most visible in the field of urban planning, which is unable to control the deterioration of the downtown. Unfortunately, the system solutions developed in Western European countries do not work in our country. The main reason is the insufficient degree of organization of our country in general, and its administration and legal regulations, in particular.

The proposed project is not a ready solution. However, it shows that local activities initiated by the lowest level of government and local communities may result in making rational decisions also in our conditions. In this situation, the most important issue is to change the philosophy of action. Its main element should be to determine the correct proportions between the weight of the decisions taken at various levels of government and the decisions taken by the local community.





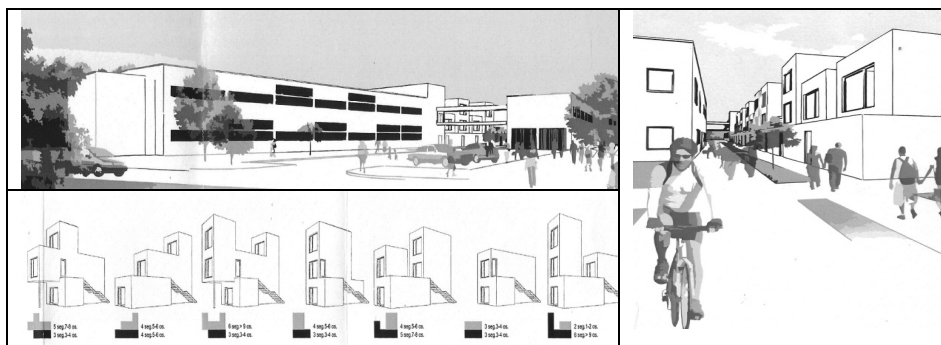


Fig. 1. The complex of social housing buildings and apartments for victims of disasters elaborated by K. Cierpiot as Master's Thesis; Projection of the ground floor of the adapted hall (shelter) and a complex of social housing, visualization, options of systems of social housing buildings.

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## PRZEKSZTAŁCENIA OBIEKTÓW PRZEMYSŁOWYCH - REWITALIZACJA CZY ADAPTACJA

### Streszczenie

W polskich miastach na przełomie XX i XXI wieku nastąpiły radykalne zmiany spowodowane przekształceniami politycznymi, gospodarczymi i społecznymi skutkujące degradacją techniczną, społeczną oraz kulturową istniejącej zabudowy przemysłowej. Na fali powszechnego procesu rewitalizacji w ostatnich latach wiele obiektów przemysłowych uległo przekształceniom. Mimo, że procesy rewitalizacyjne w naszym kraju odbywają się na podstawie rekomendowanego przez UE dokumentu o nazwie - Lokalny Program Rewitalizacji - w wielu przypadkach mamy do czynienia tylko z najprostszym sposobem rewitalizacji, czyli adaptacją obiektu. Główną jego cechą jest brak istotnego wkładu w rozwój najbliższego regionu w sensie przestrzennym i społecznym. Spowodowane to jest niedostatecznym stopniem organizacji naszego państwa, administracji i regulacji prawnych. Przedstawiony w artykule projekt dyplomowy ukazuje typ działania, który można by nazwać rewitalizacją oddolną, powstającą na poziomie obywatelskim, w której udział lokalnych społeczności jest realny a potrzeby i sposoby ich zaspakajania są zdefiniowane w sposób prawidłowy.