A R C H I T E C T U R E C I V I L E N G I N E E R I N G

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# OPENING OF EX-INDUSTRIAL SPACES FOR PUBLIC USE AND ITS CITYSCAPE RESULTS. "OSTHAFEN-BEHALA" IN BERLIN (GERMANY)

ENVIRONMENT

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#### Abstract

The paper deals with a subject of open public spaces. These spaces, created in inner-city ex-industrial areas, are still problematic abandoned brownfields in present cities.

This is a continuation of the subject undertaken in the previous publication in ACEE\* – dealing that time with the Swiss example in Zurich – this time referring to a German case study "Osthafen Behala" (East Harbour Behala) in Berlin. The case of study in Berlin reflects the city policy of sustainable long-term upgrading processes, where publicly accessible spaces shall play a key role in solving the problem. Such processes are correlated very closely with a typical cityscape of brown-fields. It is a very characteristic view, wherein today spaces of "new" open public areas can be well recognised among new office buildings. The chosen example will present these city planning and cityscaping situation of ex-industrial brownfield. In Berlin the "Osthafen-Behala" on the background of the Spree River Area is the base for scientific research. Furthermore, the author's photo documentation and research in situ carried out in Berlin between 2004 – 2009 constitute, next to the literature, the primary source for the presented remarks.

Transformation of former industrial areas into public open spaces in corelation with the cityscape is a new and current subject. The original feature in this case is the contrast of the present possibilities of opening in relation to the former isoltaion of the described area from the city fabric and the consequences of these processes remarkable in the cityscape.

#### Streszczenie

Prezentowany artykuł przedstawia temat nowotworzonych otwartych przestrzeni publicznych. Przestrzenie te, kształtowane na byłych terenach przemysłowych, stanowią wciąż problem jako opuszczone nieużytki na współczesnych terenach urbanistycznych.

Przedstawiony materiał badawczy jest kontynuacją zagadnienia podjętego w poprzedniej publikacji w ACEE\* – traktującego o szwajcarskim przypadku studialnym w Zurychu – tu odnoszącego się do niemieckiego obszaru "Osthafen Behala" (Port Wschodni Behala) w Berlinie. Analizy podjęte w Berlinie odzwierciedlają politykę miasta polegająca na wspieraniu procesów rewitalizacji o zrównoważonym i długoterminowym charakterze, w których przestrzenie dostępne publicznie maja odgrywać rolę kluczową w rozwiązywaniu opisywanego problemu. Procesy te są ściśle powiązane z typowym krajobrazem nieużytków przemysłowych. Zaobserwować przy tym można charakterystyczny widok, w którym "nowe" otwarte przestrzenie publiczne są łatwo rozpoznawalne pomiędzy współczesnymi wieżowcami. Wybrany przykład przedstawia także urbanistyczną i krajobrazową sytuację byłego terenu przemysłowego. Podstawą dla badań naukowych w Berlinie jest teren "Osthafen-Behala" na tle Obszaru Rzeki Szprewy. Ponadto, autorska dokumentacja fotograficzna oraz badania in situ przeprowadzone w Berlinie w latach 2004 – 2009 stanowią, obok literatury, bazowe źródło informacyjne.

Przekształcanie byłych terenów przemysłowych na otwarte tereny publiczne, w powiązaniu z krajobrazem jest problemem nowym i aktualnym. Cechą oryginalną jest w tym przypadku kontrast współczesnych możliwości otwarcia w stosunku do poprzedniego wyizolowania omawianego obszaru z tkanki miejskiej oraz konsekwencje tych procesów zauważalne w krajobrazie miejskim.

Keywords: Ex-industrial areas; Inner-city; Regaining open spaces for public; Ex-industrial cityscape.

## **1. INTRODUCTION**

Independent of the obvious cultural and geographical differences between the chosen study cases in Zurich, Switzerland (presented in the last publication in ACEE) and in Berlin, Germany, the investigated guidelines will show the similarity of problems connected with ex-industrial transformation.

Moreover, such a scientific comparison shall generally allow to perceive the universalism of urban challenges in the world, considering the subject and dilemmas instead of focusing on disturbing intercountry differences.

Information mentioned here is based most of all on official German bibliographical sources such as The Council for City Development of Berlin (Senatsverwaltung für Stadtentwicklung Berlin), as well as on the in situ research in the city.

The paper, indicating a set of recovery keys, shall serve as a theoretical support for the scientific development in general, as well as a practical guide for professional activities.

A comparison of legal, official procedures in two different cities, as Zurich and Berlin leads to important final conclusions.

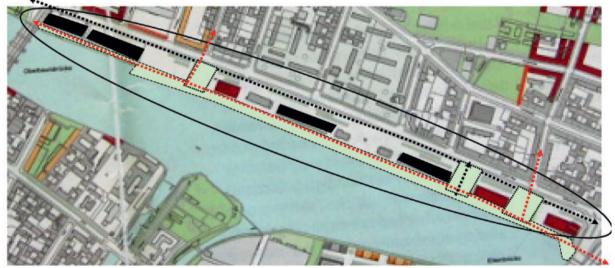
It is to hope, that the paper will encourage a wider international cooperation in this matter, in order to confront more frequently other culturally different international examples concerning the analysed subject.

# 2. THE PROCESS OF OPENING EX-INDUSTRIAL SPACES FOR PUBLIC USE

The ex-industrial areas in Berlin posses a spatial, visual, historical and economical potential. Especially, recovered areas are placed within present central parts of a city, where the need for open public space is strongest. Moreover, easy traffic contact with a city centre provides additional profits for commercial functions, which usually accompany and financially support recovered areas.

# **2.1.** Case Study "Osthafen-Behala". Against the Background of the Spree River Area

The investigated harbour area is located in the southeast part of the city, in Berlin-Friedrichshain. The revitalisation process of the ex-industrial site, belong-



#### Figure 1.

Regained public open spaces on the ex-industrial area in Berlin. Open-space concept of the "Osthafen Behala" (Source: Amt für Stadtentwicklung Berlin, 2001, Spreeraum Friedrichshain-Kreuzberg. Leitbilder und Konzepte). The author's analysis showing the pedestrian's access possibilities considering:

- Traces of heritage: Functionally recovered and architecturally transformed former granaries today "MTV Building" ("MTV Gebäude"), "East-harbour Granary" ("Osthafen Speicher") and "Universal Music" (marked black):

- revitalised city structure: sidewalks of farther urban connections (marked black and red broken lines):

- future public squares (marked light green):

- limits of the research area "Osthafen Behala":





Figure 2.

"Osthafen Behala": Cityscape effects of spatial recovery processes of the assigned area, cityscape part of former and partially still active harbour area. Nowadays, recovered historical architecture and regained open public spaces are visible in the photo. It is a strong functional contrast to the past industrial image. Photo: the author, Berlin

ing to the Spree River Area, concentrates primarily on introducing a spatial and time continuity. It shall namely equalise the hitherto different development directions of neighbouring districts caused by the political division of the city in the years 1961 – 1989.

Furthermore, the present programme of the area revitalisation is to be combined with the general evolution of the strategic city spaces, as well as of spaces lying in-between Berlin-Mitte (city centre) and Rummelsburger Bucht, situated adequately to the north and south of the research space.

The maintenance of a connection to adjacent districts Leeds to be mentioned, as well what is important. In the present time of industrial transformations of importance is the revaluation of public open spaces. Therefore, the harbour "Osthafen-Behala" in Berlin-Friedrichshain is intended to serve in total as a public open space.

The abandoned and neglected land of historical industry along the Spree River offers a wide area for new, non-industrial functions of open public use. The revalorisation of popular city squares and street spaces of a public importance is also necessary.

The riverbanks of the Spree River are becoming an attractive public ground. Similarly, neighbouring exindustrial sites, located traditionally along water streams, are being recovered nowadays as new cooperating public spaces. Their strategic importance depends on shaping the neighbouring areas in connection with the riverbank and with their urban potential. Such a way of natural open space forming shall strengthen the spatial and functional features of the district and emphasise its situational urban identity.

An additional public space also exists along the surrounding roads, streets, and bridges. They namely function as traffic but also as public spaces, constituted by linear elements linking district parts functionally and therewith also spatially. It is namely an element of connection between existing public places and city-spatial situations keeping their own identity.

The future integration of former railway station area with the city-centre shall open the significant development potential of the ex-industrial river area. Transformation plans for the architectural and cityscape structure of the Spree River Area, including "Osthafen Behala", intend to keep up the existing form. This should enforce the local urban identities and network of open public spaces and open accessible structures, like waterside promenades.

New green areas and a green-net system is being created using already existing parks, green squares, and paths along the river. It describes the open space quality, its image, and new identity in the direct surrounding of the Spree River. The new green-net system can constitute a functional and spatial connection between the river area and the city-centre using and correlating the existing and new urban fabric.

Green tracts along riverbanks are valuable for recreation and open space activities. Rows of trees are designed as well for the granaries area "Osthafen-Behala", which nowadays brings to mind memories of a typical "dusty, gray, and dry industrial image". The future greenery will be planted along the river, according to the characteristic land shape (cf. Fig. 1).

Existing urban barriers are mostly of a linear character and are supposed to be overcome in order to render the river area accessible. Therefore, additional bridges are suggested to be built across the Spree River. It will connect existing as well as new districts on both sides of the river, where the riverbanks will be open for public, offering a long-term accessibility within green paths.

Factors improving ex-industrial area qualities, attracting visitors, and future inhabitants to the upgraded sites, are living functions and mixed up use-structures. Wide areas of old railway stations and both sides of the



#### Figure 3-6.

Opening of ex-industrial spaces for public use. All of the presented photos of the area "Osthafen Behala" in Berlin-Friedrichshain were inaccessible in the past period of industry. At present, it serves as a widely accessible open public space:

- In the western part of the revitalised harbour area (Fig. 3 and 4) mostly as pedestrian and service space,

- In its middle part (Fig. 5) as a view point, as well as in the eastern part of the area (Fig. 6) as a recreation space,

- In each of these places a different atmosphere exists, as well as various visual aspects, diversified kinds of material, and ways of

space recovery. Figs. 3-6: Photos: the author, Berlin

river are applicable for arranging housing estates. These would be replenished by trade, service and other activities at an overall city extent. Thereby, the development of living and working functions constitutes a new identity of the Spree River Area.

This new economical utilisation of the area, dominated by brand-new forms of work, is contrasting with the former industrial history of the place. Innovative enterprises focus today on multimedia and design functions. Additionally, important for the future activity are here free-time, sport, and culture exploitations. The urban pattern of the presented site shall be enforced by accenting the existing urban qualities and new completing elements. It will aid the orientation in the Spree River Area as well as qualify and establish city-spatial relations.

Moreover, the mentioned urban order is appointed by such city-integrating elements as continuation of varied squares, traversing from an open space into a built-up area, location of architectural dominants, as well as relations between cityscape and urban structure shaped by water.

Furthermore, expansion and advancement of plan-



## Figures 7-10.

Opening of ex-industrial areas for open public use in the "Osthafen Behala":

#### Figure 7.

The image of historical ex-industrial architecture surrounded by a public space. Former granaries transformed into modern objects of "Universal Music" and "Osthafen Speicher". The view from the south-west direction accented by the surface of the Spree River.

#### Figure 8.

Representative public spaces for recreation, presently rendered accessible thanks to the revitalisation process of the ex-industrial area. In the background: Still working machinery of the still existing harbour part.

#### Figure 9.

Parts of the new open public space composed with ex-industrial and still remaining industrial elements:

- Heritage of re-used factories,

- significant urban structure connecting the area with the district and creating open public squares,
- cityscape of revitalised and still active industry.

#### Figure 10.

Public popularity of the ex-industrial surrounding of the Spree River. Newly created accessible open public spaces are visited today often by the inhabitants. The open space of ex-industrial history and local values attracts visitors, especially to the west part of the "Osthafen Behala". Photos: the author, Berlin ning and development management for the Spree River Area will be continued. The means of development will be coordinated and modernised along with the new building plan.

Additionally, a perspective public participation is ensured, which will be integrated with already existing initiatives of investors and inhabitants, district committees, and meetings of district authorities.

Moreover, considering the aspect of heritage, neither an industrial nor an extensive land-use is desired here for the future. The area is intended for a functional reorganisation. The hitherto heavy industry is planned to be stopped. In 2004 that ex-industrial rearrangement gave rise to the introduction of a procedure readapting the previous Land-Use Plan of Berlin to the presently changed main outlines of the research site.

The aspect of functional structure and image considers the formulation of a multi-level and long-lasting use and creation silhouette. This plans to concern single conceptions as well as development possibilities for the total Spree River Area. On the one hand this assumes the shaping of the research area character, considering it as a prolongation of the city centre. On the other hand, it describes the site as an individual district keeping its local values.

# **3. RESULTS OF SPATIAL REVITALISA-TION RECOGNISED IN A CITYSCAPE**

The aim of the paper was to discuss the question of regaining inner-city brownfields – wastelands of industrial history – for public use at the city planning level. In the presented problem of importance was also the accompanying cityscape level, which completes the spatial research.

For the undertaken subject these two levels are connected with each other, since a view of ex-industrial areas depends on the place from where these areas can be seen.

The revitalisation of brownfields by means of their re-use for, among others, open public spaces is important. Though, the very creation of such a space should not be the final goal of the process.

Opening of ex-industrial area for public shall be simultaneously dedicated for discovering its – near or far – surrounding views of usually similar ex-industrial features.

The presented German case shows mentioned dependence and relations between regained open

public space and ex-industrial cityscape, as well as the importance of possibilities of that cityscape appreciation.

Moreover, the next analyses will illustrate it, proving that panorama of surrounding, in any shape and quality, may become an attraction of brownfields, like the harbour area in Berlin, apart from its public space quality.

## **3.1.** "Osthafen-Behala" in Berlin against the background of the Spree River Area

The century of intensive industrialisation developed architecturally the cityscape of Berlin-Friedrichshain. Here, several examples of single revitalisation processes of ex-industrial space (e.g. mentioned "Osthafen Behala") show a little intervening way of cityscape evolution. In contrary, the general Spree River Area-plan of transformation is going to interfere in the existing district structure and its panorama.

The harbour "Osthafen Behala", located in the valley area of the Spree River, is a nature space from the viewpoint of cityscape. Here, an urgent task is the revalorisation of visual sites, ecosystem, biotope and species protection. Especially valuable for panoramic sights are green tracts along the riverbanks, greenery on the bridges, along the canals, and near reservoirs.

Importance of "new" public space created along the banks of the Spree River depends also on enforcing the accompanying local cityscape impression. It may be due to the development of the neighbouring areas perpendicularly to the riverbanks, in order to orient the public spaces towards the water. Such a way of a visual open space forming will strengthen the cityscape features of the area and formulate distinctively its visual urban identity. On the other hand, an urban accenting of the Friedrichshain District in the Berlin cityscape is planned to be achieved by vertical dominants of massive architecture. It will also fill out the still remaining ex-industrial open spaces, closing them for public use and architecturally contrasting with old and small-scale factories.

All these decisions about brand-new elements for the district will affect not only the image, but also the way of urban existence of the involved "Osthafen Behala" and life quality of the inhabitants of the surrounding areas and visiting the site.

The historical harbour site is characterised by opening the abandoned, primarily closed industrial area in order to, e.g. enforce connections with the city centre, to create an open public space net and to allow a functional and esthetical revitalisation.



Figure 11.

Results of spatial revitalisation process reflected in the cityscape of the "Osthafen Behala" (marked by white broken line). Preservation of the industrial heritage presents in this case harmony of the cityscape line. View from the Television Tower in the central part of Berlin allows the perception of the presented image. Accessibility of the cityscape range of Berlin-Friedrichshain permits visual analysis of ex-industrial public space. Photo: the author, Berlin

Moreover, in case of "Osthafen Behala" the river is a visual aspect, which increases the possibility of recognising the cityscape and provides wide and far views.

Against the background of the general situation the area shares many advantageous conditions. First of all, the location along the river, in close connection to the water is very profitable. This placement considers today the easy traffic connections with the city centre and the neighborhood of historical objects (factories, bridges, housing, monuments, etc.)

Also the content of the area itself is of great importance. The rich history and architecture of the place is represented by attractive monumental ex-industrial buildings (granaries, as for example the "MTV Gebäude").

The size and shape of the site permits various activities in the open space. The area, thanks to present transformation process, shall serve generally as a public open space, apart from inner-building areas. It is becoming one of the most popular public open space in the surrounding (in "Spree River Area"). This public access strengthens the urban significance and attraction of the research site. It is conditioned by its location, size, shape, unlimited opening time, constant re-building and upgrading process, and most of all, by its unconditional possibilities of access.

One of attractions is the neighborhood of a river, with newly created public areas. The site of "Osthafen Behala" posses a wide connection to the water, whereby several bridges support physical public access (two historical bridges "Oberbaumbrücke" and "Elsenbrücke"). However, for the popularity and public functioning of a revitalised area in these city conditions a simple pedestrian zone, as a direct contact with the opposite riverbank, is more important than such monumental, big, and multifunctional bridges away from the area. Nevertheless, the neighbourhood of the river and present care for creation of continuous public areas close to the water seem a specific attraction for visitors.



Figure 12. "Media Spree" – project of the intended new image of the ex-industrial district of Berlin-Friedrichshain. It involves relicts of historical factories assigned graphically on the plan:

J still existing historical factories

the research ex-industrial space of "Osthafen Behala"

elaboration ranges of the project area of "Media Spree"

Source: Senatsverwaltung für Stadtentwicklung Berlin (2005) and the author's analysis.

In Berlin, on the opposite side of the Spree River many transformed ex-industrial objects with historical facades are setting new visual standards. This special character is seen in this form only from the harbour site. The linear shape of the area provides a very expressive and complete view.

Concerning this subject of sight, a comparison of proportions between new (offices, commerce buildings, apartments) and historical city structures (factories) around the analysed spaces is significant, as well.

### **3.2. Revitalisation Plans**

In the presented study case the historical substance of factories is still predominant. The existing monumental ex-industrial structures are of importance as a distinctive landmark of the space. The more completely it is protected, the more precious is the cityscape. Additionally, if carefully and sensibly mixed with new technologies it may appear as an attractive connection in the functional, constructional, and esthetical meaning.

The traffic-net of the surrounding spaces maintain the existing main car streets next to the site ("Stralauer Allee"). On the one hand, it makes the area more accessible for traffic and more popular, as it is seen by the users of these streets. On the other hand, such a situation creates difficulties. In case of Berlin, the main car road is a linear physical obstacle for visitors. It creates a danger of pedestrian and traffic accidents and conflicts, as there are not enough crosswalks.

An important part of transformation processes is, among others, the analysis of conflicts of goals.

In Berlin-Friedrichshain, this situation refers to an economical extension and capacity of functional load-carrying, which competes with the city-conforming concentration of individual trade and service. This conflict can be solved by considering possibilities of connecting the district functions with the city-centre functions, as well as by taking into account the traffic capacity.

Important is also the need of urban pattern, shaping the structure of a district according to the given scale. Proposals concerning the functions in the revitalised district shall be created in compliance with inhabitants' needs and confronted with the specific location and area features. Advisable is the mix of use concerning the size of the district.

A menace are also the visual consequences of revitalisation of background areas. It is a modern and massive architecture, which dominates in the image of the district and is visually contrastive to the historical industrial cityscape. Today some old factories ("Universal Music") are covered with new materials, constituting brand-new esthetical forms for the neighbourhood. Such modernisation ways hide the architectural heritage.

Moreover, the intentions of the "Media Spree" project, described below, are treated in the article with the attention, since it is an actual project. First of all, descriptions of revitalisation plans for the "Spree River Area" include contradictions. On the one hand, it is assumed to formulate a new urban identity. On the other hand, local urban identities are to be enforced.

Secondly, it is said that the urban dimensions foreseen in architectural designs for the Spree River Area including the transformed area of "Osthafen" are not allowed to be transferred on the neighbouring district of Kreuzberg. This would namely, according to the land use plan of Berlin, endanger the present city image by mixing too different urban and architectural scales. Though, such a way of a urban diversification is to be questioned, as this official opinion applies different estimation scales towards two directly neighbouring city areas. If the modern tower blocks can destroy a cityscape and local identity of the Kreuzberg District it can also destroy the local image of any other district.

Moreover, questionable is the fact, that the continuity and harmony of a townscape line of the two directly neighboring districts is not considered. In this case, of significance is a context of the neighbourhood. The limits of the functional zone of a land-use plan are namely not equal to the 'cityscape limits' and should be treated in a spatial aspect of cityscape harmony and not in a surface aspect only.

Thirdly, materials from the City Council of Berlin claim, that the "Media Spree" project refers to the existing massive architecture. However, in the district today only structures like block houses (Ger. Plattenbau') of the 1970s, new industrial offices and service buildings of the 21<sup>st</sup> century are massive in size. There is no massiveness in the existing historical factories in the Spree River Area, which could constitute a comparison scale for the dimensions of designed tower blocks of the "Media Spree" project. Therefore, it is to be observed, that these new plans do not regard the local architectural heritage.

## 4. CONCLUSIONS

Concluding, cityscape and urban scenarios, which take into account the ex-industrial heritage are necessary. In the present Land-Use Plan of Berlin the (ex-)industrial cityscape is namely not considered.

The presented example of ex-industrial revitalisation of "Osthafen Behala" shows mostly positive solutions, resulting in a modest intervention with regard to local heritage. Nevertheless, the surrounding areas of broader dimensions – "Spree River Area" – present new forms, which cover the historical structures. These effects are seen in the panorama of the district.

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