

PLANNING OF OPEN PUBLIC SPACES IN THE INNER-TOWN EX-INDUSTRIAL AREAS. SWISS EXAMPLE OF SPATIAL TRANSFORMATION

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Abstract

The aim of the paper is to discuss the subject of open public spaces, created on inner-town industrial areas which are still problematic abandoned zones in present cities. The problem is presented basing on territorial researches carried out "in situ" in Zurich in the years 2003-2006. The described case reflects town policy of sustainable, long-term upgrading processes where accessible public spaces shall play a key role in solving the problem. Such processes are correlated closely with a typical townscape of brownfields. It is a characteristic view, wherein today spaces of "new" open areas can be recognized among new high office buildings. The chosen example presents this town planning and townscaping situation of industrial plants. In Zurich, "Untere Hard" area located in the background of the Zürich-West District is the base for scientific researches. Conclusions illustrate an approach to the rehabilitation process, presenting also the historical and present situation. Thereby, positives and menaces are considered, based on town planning and townscaping analyses, showing relations between the regained open space and desired recreational functions. Further research shall include the shaping of the accessibility to public open spaces on ex-industrial areas. Planning of such spaces is a new and current subject. Especially, treating these areas as an attractive land destined for recreation and other open space activities is an original subject in the present land-use planning.

Streszczenie

Celem artykułu jest omówienie problemu otwartych przestrzeni publicznych, utworzonych na śródmiejskich terenach przemysłowych, które są wciąż opuszczonymi obszarami we współczesnych miastach. Zagadnienie to omówione jest na podstawie badań terytorialnych „in situ”, przeprowadzonych w Zurychu w latach 2003-2006. Opisany przykład naświetla politykę miasta o zrównoważonych, długoterminowych procesach rehabilitacji, gdzie przestrzenie dostępne publicznie powinny odgrywać rolę kluczową w rozwiązywaniu problemu. Procesy te są ściśle powiązane z typowym krajobrazem nieużytków budowlanych. Jest to widok charakterystyczny, gdzie dziś przestrzenie „nowych” otwartych terenów publicznych mogą być rozpoznane pomiędzy nowymi, wysokimi budynkami biurowymi. Wybrany przykład przedstawia urbanistyczną i krajobrazową sytuację obszaru przemysłowego. W Zurychu polem badań jest teren „Untere Hard” na tle dzielnicy „Zürich-West”. Wnioski przedstawiają możliwy obraz procesu rehabilitacji, szkicując sytuację obecną. Jednocześnie, uwzględnione zostały pozytywne oraz zagrożenia, bazujące na analizach urbanistycznych i krajobrazowych. Ilustrują one związki pomiędzy odzyskaną przestrzenią publiczną a pożądanymi funkcjami rekreacyjnymi. Dalsze badania nad omawianym tematem obejmować powinny kształtowanie dostępności do otwartych terenów publicznych tworzonych na obszarach poprzemysłowych. Planowanie takich terenów jest problemem nowym i aktualnym. W tym zakresie oryginalne w planowaniu przestrzennym jawi się traktowanie obszarów poprzemysłowych jako atrakcyjnych i możliwych do przeznaczenia na funkcje rekreacyjne oraz inne role otwartej przestrzeni publicznej.

Keywords: Industrial areas/brownfields; Regained open public spaces; Transformations; Sustainability; Townscape.

1. INTRODUCTION

Looking today at the presented commercially transformed industrial townscape appears to be a question

concerning the sense and basic goal of spatial rehabilitation, viz. it shall serve mainly supporting corporations or improving the health and life quality of town inhabitants.

Public open space is one of the most important, structurally integrative and socially most needed town component. In the historical meaning, it is an element of a town-creating character. The social importance shows open city space as a unique, freely accessible and live town-part common for the inhabitants. Today, it is important to re-create such social zones, leaving them open and free for people. Such a kind of public freedom shapes namely the general character of a town. Most of all, urban mistakes of neglected public space and disturbed townscape affect negatively social and health problems of the inhabitants.

Moreover, public open space is inseparably connected with the surrounding views. It is an important element of a townscape structure, as it creates a live interior of the town space.

The purpose of this paper is to present official guidelines and urban development goals prepared in Zurich for the revival of industrial space. Information mentioned here is based most of all on official Swiss bibliographical sources such as The City Council for Town Planning of Zurich (*Amt für Städtebau Zürich*). The paper, providing a set of rehabilitation keys, shall serve as a theoretical support for the scientific development in general, as well as a practical guide for professional activities. Furthermore, the author's photo documentation and "in situ" researches done in Zurich constitute a primary source for the presented remarks.

It is to be hoped, 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 analyzed subject.

2. OPENING OF INDUSTRIAL SPACES FOR RECREATIONAL PUBLIC USE AGAINST THE BACKGROUND OF REHABILITATION PROCESSES. PRINCIPLES

Researched, functionally deserted and aesthetically neglected sites possess a spatial, visual, historical, economical as well as recreational potential.

The spatial and visual aspects of brownfields and old buildings are seen as an advantage looking at comments of the experiences from the 1950s./1960s. and the 1980s. [1]. It is also claimed, that each building is worth keeping [2]. The historical value of ruins is discussed presently by the councils of monuments pro-

tection [3]. In the 21st century the economical potential of neglected industrial areas is the subject of research [4 and 5].

Besides, the upgraded area is located within the recently central part of a town, where the need for public open space is strongest. Moreover, easy traffic access to the town centre provides additional profits for the general development of the space [6] and for the commercial functions which usually accompany and financially support the rehabilitated area.

The open spaces in the town are often analyzed as a net-system of connections between the different wastelands in the inner-town areas [7].

2.1. Case of study: "Untere Hard" against the background of "Zürich-West"

The analyzed industrial area is localized in the "Industriequartier", a northwest district of Zurich, where the industrial shipbuilding production started at the beginning of the 19th century. Today, after the degradation period, the development of the space is described by sustained revalorization and accordingly, broad use-possibilities for the inhabitants, visitors and landowners, considering both, district and town economy [8 and 9].

All planned re-use guidelines should decide about creating a high urban quality of recreational public open spaces in "Untere Hard". In order to reach a sustained development of a degraded area, an equal consideration of economical, social and ecological aspects is required. The basis for the structure and space reorganization of Zürich-West is the constantly increasing protection of the industrial area. It shows wide possibilities and advantages for the district evolution.

The guidelines presented below shall permit to stress and enforce the district identity which shows the superior role of local values and place heritage, considering the recreational function of industrial open spaces.

The researched "Untere Hard" area is a part of the central zone of Zürich-West. It exists and develops thanks to the urban and functional connection between the Limmat River and the railway lines. Nowadays, the network of these two urban and spatially important territories should be constantly strengthened, since it creates a physical connection of open spaces, both by open-air zones as well as throughout former factories (cf. fig. 1-8). This kind of ecological and town-planning cooperation of the

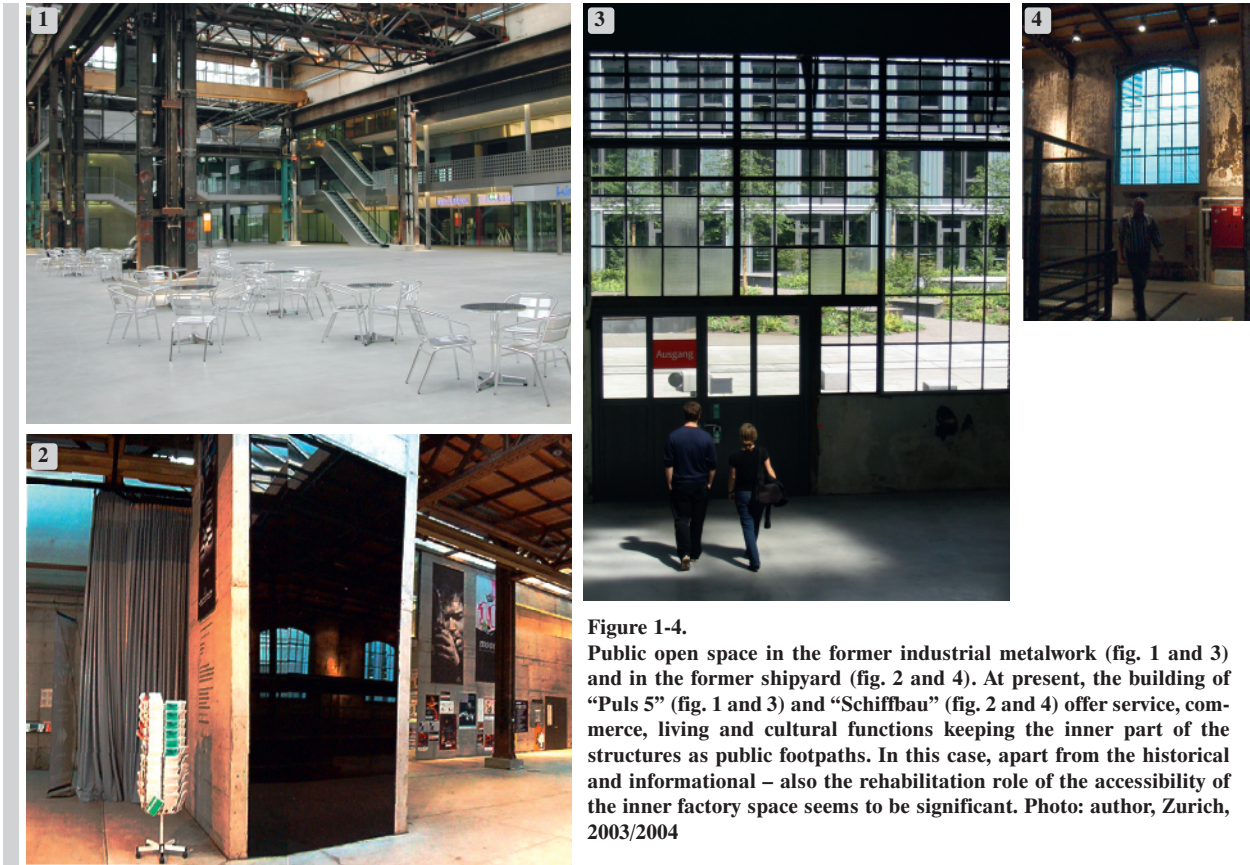


Figure 1-4. Public open space in the former industrial metalwork (fig. 1 and 3) and in the former shipyard (fig. 2 and 4). At present, the building of “Puls 5” (fig. 1 and 3) and “Schiffbau” (fig. 2 and 4) offer service, commerce, living and cultural functions keeping the inner part of the structures as public footpaths. In this case, apart from the historical and informational – also the rehabilitation role of the accessibility of the inner factory space seems to be significant. Photo: author, Zurich, 2003/2004



Figure 5. Public open space of the former industrial area “Untere Hard”. The newly arranged greenery of these spaces. Photo: author, Zurich, 2004/2005



Figure 6. Public open space of the former industrial area “Untere Hard”. The newly arranged greenery of these spaces. Photo: author, Zurich, 2004/2005

whole revitalized territory is becoming profitable for the existence of people, fauna and flora of the industrial district, improving at the same time the general town ecosystem (cf. fig. 5, 6, 8). According to long-time predictions of town authorities and town planners, it will affect positively a sustainable long-term development of the area.

Street spaces and other pedestrian surfaces are being designed as recreation zones. It creates an integral part of the open-space concept [10] which includes, among others, the reorganization of open places, forming green areas, as well as methods of lightening the industrial district (cf. fig. 7, 8). The attractiveness and peculiarity of the “Untere Hard” area would rise,



Figure 7.
Public open space of the former industrial area “Untere Hard”. The monumental stack with the water reservoir. Photo: author, Zurich, 2004/2005



Figure 8.
Public open space of the former industrial area “Untere Hard”. The re-used ex-industrial open space of the “Turbinenplatz”. Photo: author, Zurich, 2004/2005

which again would help its identification. The esthetical aspect of the protection of local characteristic features facilitates also the spatial recognition and orientation in the area (cf. fig. 7).

Generally, it can be assumed that all existing industrial elements in a degraded area possess the potential of an identity creation [A. Włodarczyk].

Another example today, adjacent to the “Untere Hard”, is the mentioned industrial railway intended



Figure 9.
Panoramic photos of the “Untere Hard” ex-industrial area. The remote view of the site from the well-known footpath of the Käferberg hill to the south. Photo: author, Zurich, 2003/2004

for redesigning it into a “Rail Park” [8 and 9].

The opening of former industrial spaces for public use depends also on architectural transformation. The architectural aspect of the rehabilitation process assumes the formation of internally closed buildings as spatial consequences and episodes with a changeable characteristic.

Furthermore, open crossable ground-floor levels in buildings are necessary. It will cooperate with inner closings which shall be shaped and rebuilt without any disturbing edges wherever it is possible.

Besides, situational townscape shaping of architectural elements is of strategic importance for the opening of industrial spaces.

Large-scale structures possess impressive cubature which can serve as public spaces of free access, markets and lanes. Therefore, involving the architectural level in the creation of open public areas would increase and improve a “flow of space” of the place, its accessibility as well as the effectiveness of a compositional urban network.

An important spatial element co-creating the town-planning pattern of the area is a street-net and its components. Lanes, narrow and high-street spaces and niches are creating a network system between the Limmat River and the railway.

Most of the open spaces, as well as the existing rectangular buildings and street nets of Zürich-West are referring to a new orthogonal grid. It adapts the existing industrial urban pattern considering also the central position of “Untere Hard” and its public open spaces. This original district structure is treated as a local urban value of recreational role.



Figure 10. Panoramic photos of the “Untere Hard” ex-industrial area. The near view of the site from one of buildings to the north-west. Photo: author, Zurich, 2003/2004

Another factor of opening the neglected industrial space concentrates on preserving the infrastructure components, like railways which can supply a wide area for the public. In case of “Zürich-West” former industrial rail tracks cross the area breaking through the strict orthogonality.

Apart from its historical, compositional and visual meaning, the industrial infrastructure is a characteristic element which constitutes an open space. Therefore, it shall be protected and rehabilitated to serve as a park, combining particular spaces of the industrial zone.

Serious consideration of all available surfaces possible for town-uses in the area is apparent in the way of traffic organization. Namely, the binding traffic-net system is being formed under the surface which saves precious ground-floor space. It foresees a future traffic development, as for example the area near the Hardbrücke Rail Station, within the “Untere Hard” territory.

The railway infrastructure, as well as street bridges, cuttings and intersections are spatially combined with each other by oblique, slanting surfaces and ramps. Constructing some rail and roads over ground provides additional open space under the bridges, as e.g. Hardbrücke which is nowadays being upgraded for public use.

A meaningful urban axis of the industrial site is the street Hardturmstrasse which shall be carefully shaped in an open-space sense. Thus, a public space for pedestrians is being created within the Hardstrasse, adjacent to the “Untere Hard” too.

Other spatially important components of the traffic system, such as entrance streets and transversals constitute the general urban composition of the site. Special attention will be paid to these characteristic elements of local value, accenting it by specific urban and architectural shaping, as well as by functional organization.

Upgraded and expressively reorganized open spaces of “Untere Hard” are appointed to serve as identity marks of a place. Moreover, all public areas are organized and formed depending on their way of functioning and their meaning of heritage.

Therefore, the attractiveness and peculiarity of the “Untere Hard” area would rise facilitating its identification. Besides, the reorganization of open spaces deals as well with other available architectural elements, like, for instance, roofs of high buildings which are presently often used as parking lots or for technical installations. Roof-surfaces of other buildings can serve in the future also as areas of recreation.

3. RESULTS OF SHAPING THE RECREATIONAL OPEN SPACES RECOGNIZED IN A TOWNSCAPE

The aim of the paper was to discuss the recreational function of open spaces of ex-industrial areas by regaining inner-town brownfields (wastelands of productive history) for public use on a town planning level. In the presented problem another townscape level, which completes spatial researches considering recreation aspects, is also of much importance. For the undertaken subject these two levels are connected with each other, since a view of industrial complexes depends on the place from where these complexes can be seen [A. Włodarczyk]. The upgrading of brownfields by means of their re-use for, among others, public open spaces is important for these aspects mentioned above.

A few significant examples, such as the Lee Valley Regional Park, South East London Green Chain, Parkland Walk, Mile End Park and Thames Barrier Park [11] exist in England. The visual effects are there to be recognized from many view points.

The mere creation of public open space should not be

the final rehabilitation goal. The opening of an industrial surface for the public shall simultaneously serve discovering its (near or remote) surrounding views of the usually similar industrial features [A. Włodarczyk]. The presented Swiss case displays the mentioned dependence and relations between the regained public open space and industrial townscape, as well as the importance of appreciating that townscape.

Various methods of townscape investigations were used in the past. Significant are the researches of the visual panoramic forms of the landscape [12 and 13]. The principles of landscape perception, considering the visual angles and avoiding obstacles from various view points have been presented. The possible ways of landscape investigation are shown as based on quadratic forms of ground, measuring the visual dimensions [14]. The industrial townscape is suggested to be seen through an open space in the buildings created in the neglected areas [15]. The rehabilitation of industrial areas has also recreational functions, serving as parks where the townscape may become an important issue [16].

These analyses open a broad field of studies on the relations between the forms of the townscape (industrial and not industrial) as well as ways of its perception and its recreational functions. Moreover, the next analyses will illustrate it, proving that a panorama of the surrounding may become a special recreational attraction of brownfields, like the Shipyard Zone in Zurich.

3.1. Zurich: “Untere Hard” against the background of “Zürich-West”

The reorganization and rehabilitation process of open spaces referring to “Untere Hard” and to total Zürich-West is visible in the townscape of the district and is a potential of supporting the health of the inhabitants. The space involves characteristic land features and its open space is dedicated to the recreational use by the public. It is, on the one hand, a humid and green space of the Limmat River and, on the other hand, an open and dry space surrounding the railway area [8]. In-between these two urban elements the regenerated public open space and renovated structures of the former industrial zone are recognizable. An interesting and monumental part of this image presents the investigated place of “Untere Hard”. The transformation process considers here various visual aspects for the visitors.

On the territory of Zürich-West there exist a few intentional landscape views, mentioned below, which

can be optimally seen from different points on “Untere Hard”. They are significant for the improvement of the psychological health, as far as the identification of space and sense of localization is concerned [A. Włodarczyk]. Visible are the railway area, characteristic modern industrial and office buildings and surrounding hills, such as the Hönggerberg, Käferberg and Zürichberg, where the view points and recreational paths exist.

These urban openings sketch a townscaping way of architecture and area shaping, applied in specific conditions of an industrial space. It shows distinctly the topographic layout as well as the near and remote surrounding of the district.

A connection between the zone of the Limmat River and the railway territory will be visible in the middle of the area, where the view-axes are to be stressed [8]. The townscape line moving along the inner area will reach the visual culmination in the middle part of the industrial site.

Additionally, street lanes often end with house façades. Such urban spaces are important because of their dynamic character and perspective depth.

The townscape constitutes also small visual breaks spread all over the researched industrial area. These spatially formed niches appear between high buildings. Their urban and architecturally rather static character differs from the dynamic narrow space of the lanes.

Such characteristic and visually important peaceful places should be in the future also a living part of the analyzed industrial site.

An example of traffic space which must be hierarchically reorganized is the street of “Pfungstweidstrasse” with expressive urban fronts. The street is supposed to provide a right visibility, an immediate and deep view for drivers who enter the area. At the same time, this space shall be accessible for all inhabitants.

The industrially typical and large-scale structures in the whole of Zürich-West contrast with small housing estates in the eastern part of the area. Here exist many old small-scale structures built in the 19th century. These architectural differences are being redesigned in order to create a common modern quality of the image.

Nevertheless, in the industrial townscape visible is the predominance of modern tall structures which were built up on and around the “Untere Hard” in the last decades. The original historical architecture is becoming less visible year by year among the new office buildings (cf. fig. 9 and 10).

4. CONCLUSIONS

Summing up, the researched case in Zurich has got many remarkable aspects. The fact of releasing industrial plants of the original function, its time of degradation, and a new possibility of rehabilitation creates a chance for opening primarily long-time closed sites for a present open public use. Rendering the industrial area accessible means opening “new” public spaces. It opens for visitors the unique “new” townscape views which may be observed in the given form only from this industrial site.

However, the more the modern international image will be introduced in the industrial areas, according to the realized plans of a “new image” in Zurich, the more the townscape heritage will be eliminated. The presented example of industrial rehabilitation (“Untere Hard”) shows mostly positive upgrading solutions, regarding the recreational functions of open ex-industrial space, though causing interventions in the town tissue and townscape. The surrounding areas of broader dimensions (“Zürich-West”) intercept historical structures directly or indirectly with new modern forms. These effects are seen especially in the panorama of the district. It ought to open a discussion about the sense and principles of industrial spatial transformation considering the planning of the recreational public open spaces.

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