

MIND THE GAP
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Urban Waterscapes as Products, Media and Symbols of Change – The Re-invention of the Ruhr

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Abstract. Urban waterscapes are today a key element of revitalization strategies as locations for high-scale office and housing estates as well as tourism and leisure amenities. Their renaissance is not only related to economic transformations; it also goes hand in hand with the re-establishment of urban waterscapes as important parts of the urban imagery and identity after years of neglect and ecologic devastation. We argue that new urban waterscapes have been and are being constructed as emblematic places for successful urban (re)development, and illustrate this argument with the case of the Ruhr Area in Germany. For several years, this old-industrial region has undertaken serious efforts to re-invent itself after having lost its former economic base and importance. The different dimensions of structural change are illustrated, possibly even explained by the new meaning and relevance of land- and waterscapes and by the way they are restored, re-interpreted and rebuilt. New waters can be considered as products of structural change, media of re-invention and symbols for regional advancement. Our five case studies show the range and variety of water- and landscape planning in the area. We aim to show that water was and still is part of the regional cultural landscape that is highly coined and designed according to its societal uses. Waterscapes are planned according to regional development and planning goals, not only for economic reasons, but also in recognition of attractive waters functioning as key carriers of regional identity.

Key words: waterscapes, structural change, urban development, social construction of nature, Ruhr area

Introduction

Water has always been a key to understanding urban development. The very location of many cities was determined by the proximity of waterways as means of transportation for resources and products, and quite frequently waterways have been integrated into manufacturing and industrial production processes. Water has also been an important aesthetic resource for urban design. At the beginning of the 20th century, the Austrian urbanist Camillo Sitte praised water as important feature of natural landscapes that was essential to the urban planner to vitalize cityscapes and to ‘delude’ the inhabitants of ‘piled mass housing’ from the back-breaking and unnatural uniformity of their built environment (Sitte 1901).

By the time Sitte described water as essential part of natural landscapes, however, water had already been shaped and reorganized according to economic, social and cultural

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needs in many ways. Several authors have argued that the reconstruction of water went hand in hand with the modernization of countries and cities (see e. g. (Blackbourn, 2006), (Frank & Gandy, 2006), (Swyngedouw, 2008), (Desfor, Laidley, Stevens, & Schubert, 2010). They highlight not only the economic importance of water in the process of pre- and post-war industrialization, but especially stress the social and cultural dimension of the transformation of waterscapes: The purposeful ‘conquest’ of water (Blackbourn, 2006), its control and its governance played an important role in the colonization of foreign countries and the ‘civilization’ of foreign people, in the demonstration and promotion of technological progress, or in the land reclamation for strategic political reasons. The ‘social construction of nature’ (Demeritt, 2002) has been strongly reflected in the ways nature in general and water in particular were remodelled or rebuilt. This is not only true for the past, but very visible in today’s regional and urban development in many parts of the world.

One evident case in point is the Ruhr Area in Germany. The loss of its industrial economic basis in the second half of the 20th century went hand in hand with the loss of its socio-economic foundations that had determined its national importance during most part of the 20th century. As a consequence, the region has been facing the challenge to initiate a comprehensive structural change. The Cultural Capital 2010 was one of the latest efforts to re-position the Ruhr Area in Germany and Europe. High technology, culture and entertainment have become the new hopes of the region. This is reflected in efforts to transform its name: ‘Ruhrgebiet’ is to become ‘Ruhr Metropolis’: ‘The Ruhr region is the new Ruhr Metropolis. High-tech instead of blast furnaces, collieries as new venues for cultural events, party district instead of workers’ pub. The monumental structural transformation from an area of steel and coal production to a European metropolis of the 21st century is at full throttle.’ (<http://www.metropoleruhr.de/en/start/>, last access 19 Aug 2011).

In this paper, we argue that the new approaches to the region’s waters and waterscapes are particularly informative when it comes to the interpretation of the re-invention process in the Ruhr Area. The region is among Europe’s richest in surface water. For us, the use, transformation and new creation of water is key for understanding the region’s striving for an economic, social and cultural re-orientation towards the service sector, leisure and creative industries as well as a ‘new urbanity’ as a metropolis. We suggest that the different dimensions of structural change are well illustrated, possibly even explained, by the new meaning and relevance of land- and waterscapes and by the way they are restored, re-interpreted and rebuilt. We aim to support this argument by five short case studies which are presented in the following chapter.

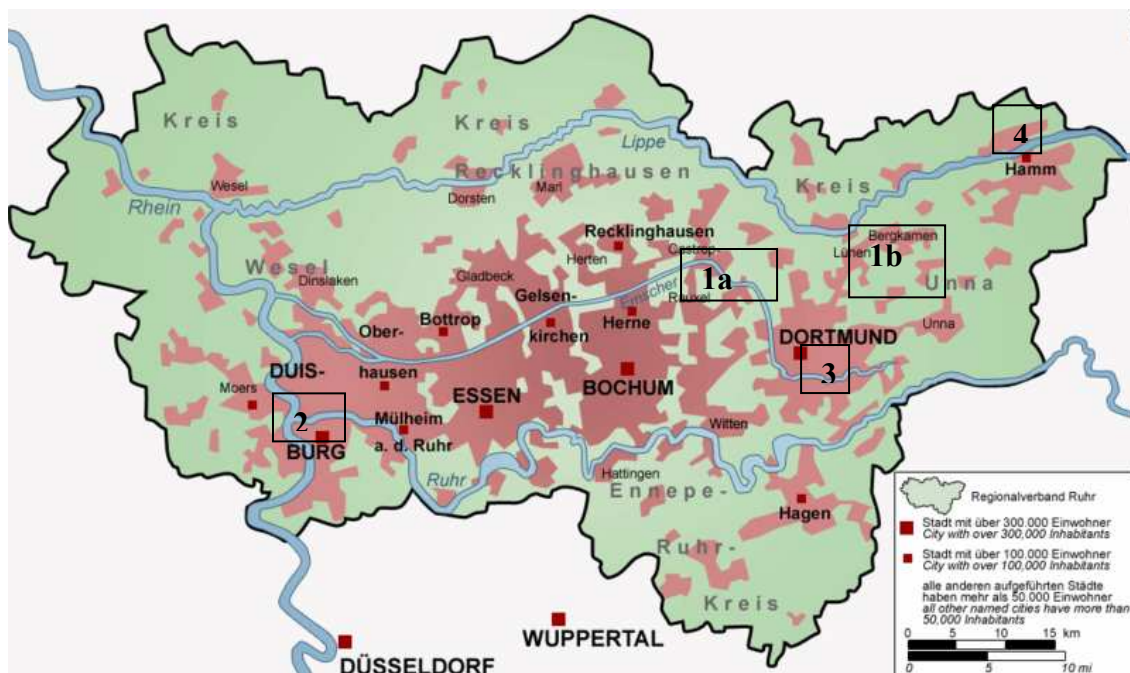


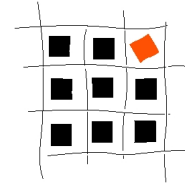
Figure 1: The Ruhr Area

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Numbers added by the authors relate to case study numbers in the following chapter.

New Urban Waterscapes in the Ruhr

The five case studies were conducted between 2007 and 2010 (for the respective locations of the cases see figure 1). The case studies are based on literature and media research as well as personal observation of local events, public and experts' debates. The cases of the conversion of the Emscher River (1a) and the Seseke River (1b) show how environmental conversion is connected to the creation of new land- and waterscapes that are perceived as 'natural', but are essentially the result of – and only possible through – high technological expertise. To re-integrate water into the collective memory and identity building, urbanistic and artistic interventions are used to stage and decorate the new landscapes. The case of the Duisburg inner harbour (2) is a rather traditional example of waterfront development which has been taking place all over the world ever since the 1950 and 1960s. It illustrates that the redefinition of waterscapes can introduce new forms of urban governance. The last two case studies concern plans for the creation of two new lakes: the Phoenix Lake in Dortmund (3) which is currently in the final stages of realisation, and the Lippesee project in Hamm (4) which was rejected in a referendum in 2005. In our view, the creation of entirely new waterscapes highlights that their importance in urban and regional development cannot be underestimated. In all cases, waterscapes' function as natural resource is in tension with their role as symbols for post-modern urban development.



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1. The Conversion of the Emscher and Seseke Rivers

The conversion of the two rivers Emscher and Seseke exemplifies the new way of dealing with nature and landscape in the Ruhr Area, especially in the Emscher zone which makes up the Northern part of the region. In times of coal mining and steel plants, natural resources and especially regional waters were completely subordinated to industrial needs. For a long time, the Emscher zone with its stinking and poisoned waterways, dying forests, polluted air and damaged soil was an epitome for the destruction of nature. In many places, the region's rivers, fenced-off and put in concrete riverbeds, functioned as insurmountable barriers and were non-existent in public awareness at all. This view changed radically over the last years. The Ruhr Area has become cutting-edge with regard to urban and regional development that integrates industry and nature and no longer treats the latter as something 'outside' the urban. The impulse for this transformation was given by the International Building Exposition (Internationale Bauausstellung, IBA) Emscher Park 1989 – 1999.¹ The IBA initiated a new type of regional 'landscape park' which was characterized by industrial sites and facilities such as coal mines, gas tanks, mining waste tips and rail tracks that were marketed as 'industrial culture', and partly left to be taken over by 'industrial nature'. The idea was not to hide but to highlight the industrial past and to use abandoned or converted landmarks as starting points of a post-industrial re-invention of nature and landscape.

The key project of the Emscher Landscape Park has been the environmental conversion of the Emscher River. It started in the early 1990s and is, due to the enormous scope of the mission, expected to take until 2027 (Hühner, 2008). The Emscher is supposed to be turned from regional cesspit into an urbanized meadows landscape. However, what is often perceived and marketed as 'renaturation' of the Emscher has little to do with the natural features of the original landscape. The changes in the topography and in the water system, caused by the mining industry, are irreversible. The Emscher's appearance as intact and natural in many parts today is due to at least two technical operations:

- a) Underground canals are being built with enormous technical effort to take over the regional sewage from the Emscher. Until 2010, more than 200km of sewage canals (out of a total of 400km) have been finished. The Emscher and other tributaries are practically being 'doubled' in up to 40m depth (FG Städtebau, 2008, p. 54) (Urban, 2008, p. 28).
- b) Through mining subsidence, large parts of the region have become polder areas that need to be constantly drained by pumping stations and protected by dykes. Large sewage plants, flood control basins etc. are part of the engineers' solution to the

¹ International Building Expositions have been a tool for urban development in Germany ever since the early 20th century (von Petz, 2008). They are a framework for the assembly of international architecture and innovative solutions to contemporary urban problems. The IBA Emscher Park was the first one dedicated to a whole region and not to a city.

conversion of the Emscher system – otherwise the whole region would no longer be inhabitable (Sack, 1999, p. 79).

This shows to what extent the ‘renaturalized’ ‘New Emscher Valley’ is scientifically and technically constructed and regulated. Interestingly, the technological foundations of this rehabilitation are not hidden and covered, but staged and reflected through art projects. The Emscher Genossenschaft – the public company in charge of the Emscher conversion – aims to accentuate ‘the poetry of technology’ and make it accessible to the public. On the internet, for example, you can listen to the sound of the water that is flowing through the pipes in the sewage plant Evinger Bach (<http://mediaplayer.studio-b-music.de/playMedia.yum?mediaID=49260>, last access 19 Aug 2011). The website EMSCHERplayer (www.emscherplayer.de) shows a number of other examples of using art for staging (industrial) techno-nature.

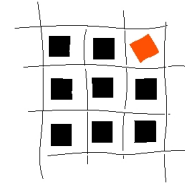
One of the latest examples for the staging of techno-nature was the artistic interpretation of the conversion of the river Seseke which had also formerly been used as sewage canal. In 2010, the year of the Cultural Capital Ruhr, twelve artists created temporary and permanent artworks on twelve specific sites along the Seseke and its influents to aesthetically comment on the ways these are being ecologically transformed. This environmental conversion was also related to the IBA and supposed to become a backbone of the Emscher Landscape Park (Urban, 2008, p. 27). The project was financed by the involved municipalities and by the Lippeverband, the association responsible for the management of the regional water system.

Here, we would like to highlight only one of the projects, developed by Thomas Stricker: On an artificial island in the Seseke, he planted bald cypresses and horse tail. In former times, bald cypresses used to be at home in the region, but today they are foreign trees. With this sculpture in the former sewage canal, Stricker wanted to exaggerate the process of the new design of a waterscape and to show the ‘fluidity’ of borders between the artificial and the natural (<http://www.ueberwassergehen.de/index.php?id=3>; last access 19 Aug 2011). Interestingly enough, adjacent farmers opposed this artwork at first because they worried that those old new plants would impact the ‘natural’ environmental balance of the area. Their opposition declined after experts’ opinion was provided.

In the context of ecological conversion, artistic interventions are supposed to create tensions, enjoyment and memories. Waters are re-positioned in collective memory. Both examples show that the material and symbolic redefinition of water, nature and landscape in the Northern Ruhr is characterized by the purposeful use of art and technology. In combination with architectonic and urbanistic measures, which will be highlighted in the following section, they are the basis for the re-invention of a landscape image that is supposed to change the perception of the region as a whole.

2. Duisburg Inner Harbour

The structural transformation of the Ruhr area is also reflected by the meaning and relevance of waterscapes for urban development and urbanistic interventions. During the industrial era, water was exploited in the Ruhr for industrial and manufacturing



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purposes, and it was subject to technical intervention. The question how to integrate water into urban structures never came to mind. Today, however, water has become an important component in the renewal and re-invention of inner city areas now abandoned by industry.

The Duisburg Inner Harbour is situated close to Duisburg's inner city and covers an area of about 90ha. Economic transformation since the 1960s led to its constant decline. In the late 1980s/early 1990s, the urban government initiated the repositioning and reuse of the harbour area by adopting a Masterplan 'Duisburg Inner City' through an international architectural competition. The Inner Harbour project became part of the Emscher Landscape Park (see above) and one of the anchors on the newly established route of industrial culture.

The transformation plans for the harbour were inspired by projects in the U.S., Canada and other parts of Europe where so-called urban waterfront development projects have been used to convert former harbour and industrial areas ever since the late 1950s. Waterfront development as 'genuine urban revolution' (Bruttomesso, 1993, p. 10) and 'major event in urban planning and development' (Hall, 1993, p. 19) was seen as great potential for 'economic development, public enjoyment, and civic identity' (Wrenn, 1983, p. 2). Duisburg tied in with a world-wide urbanist and urban development discourse, and its Inner Harbour became 'the' waterfront project of the Ruhr area. Among the winners of the architecture competition was star architect Sir Norman Foster, which illustrates the scope of the project which was supposed to be connected to internationally recognized names. Central elements of the Masterplan (1991) were housing and business (Schmals, 1993), leisure and recreation (FG Städtebau, 2008, p. 88ff). Small town canals create additional water surface for more housing at the waterfront, but they also have environmental functions in the environmental system of the remodelled artificial lake that the former harbour has become (Sack, 1999, p. 188).

The Masterplan consisted of 42 individual projects. It was not intended as strict norm, but it proposed a frame for different options. The buildings could be developed by different actors (architects, investors) and with different planning procedures in order to reach a diversity of functions and forms, and the best solution in every single project. The Masterplan offered a framework for quality management in terms of product and process. The procedures and guidelines, especially the Masterplan framework that was successfully employed in the re-invention of this inner-city waterscape, became a model for urban development in Duisburg as a whole. A similar Masterplan for the inner city, also drafted by Sir Norman Foster, was published in 2007. To establish 'Duisburg – city on the water' as a brand is one key element of the plan, as is the production of more housing along Duisburg's waterfront and the addition of 5 percent surface waters to the original share of 10 percent of Duisburg's territory (Innenhafen Duisburg Entwicklungsgesellschaft, 2007): 'Part of Duisburg's 114km of water frontage has already been transformed in the Inner Harbour area from an underused industrial wasteland to an attractive, diverse urban environment. Similarly, new residential developments in the inner city will be formed along the waterfront and around generous landscaped spaces creating intimate, inviting places for urban dwellers to enjoy' (press release by Foster + Partners, 27 Feb 2007). In this case, waterscape redevelopment did

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not only serve as ‘object’ or ‘medium’ for urban re-invention, but it also inspired new planning procedures.

3. Dortmund – Lake Phoenix

A completely different case is the Phoenix Project in Dortmund-Hörde, in the South of Dortmund. It is similar in that this is also the case of a re-use of industrial wasteland from a former steelwork, but the waterscape that is developed here is to a large extent characterized by a lake that will be entirely newly built.

After the Phoenix steelwork had been closed down, deconstructed and sold to China in the late 1990s, two large sites of in sum 214ha were suddenly available for urban development. These sites had been inaccessible for non-workers for about 150 years, and split up Hörde in a northern and a southern part with only few passages to get across. What becomes of the Phoenix sites therefore does not only impact the sites themselves, but will change the city structure of the Hörde district as a whole.

Phoenix West (115ha) is designated to become a location for micro- and nanotechnology and the service and the leisure sector (van den Brink, 2006). Phoenix East (99ha) is planned for housing and business. Core element of Phoenix East is a 24ha lake which will not allow for bathing, but for boating and yachting. The flooding of the lake started with a great public festivity on 1st October 2010. Along the lakeside, housing and working are supposed to be combined: about 26ha of housing will host about 1.000 units. In the small harbour area, office space is built for high quality services and about 5.000 employees. All in all, the development company predicts 15.000 new jobs in ‘key future industries and sectors’ as well as high quality housing and leisure. The project is supported by the Land North Rhine-Westphalia and by EU structural funds.

Lake Phoenix is a prestige project. It is supposed to become a leisure paradise and recreation area for the entire city of Dortmund. The lakefront promenade for walking, biking and skating will be 3 km long. Images and films which were produced long before the actual flooding started have not only served marketing purposes for the project itself, but for the whole structural transformation of the Ruhr – from old industrial area towards modern location for housing and work, especially in the service sector. The development company itself puts an enormous effort into marketing Phoenix – and Dortmund as a whole – as post-industrial location. The three films (‘Seegang’, ‘Seensucht’, ‘Seewärts’)² which it produced were even shown in the local city centre multiplex cinema. The marketing effort is reflected by the excitement of the population. For example, an elementary school in Hörde started to offer boat building classes for its students long before the flooding started. The development corporation organized sailing classes on nearby lakes of the region for those who intended to go sailing on Lake Phoenix in the future. The yacht club Dortmund-Hörde already has almost 150 members, although it will take at least another year before the lake can be used for sports, sailing and yachting.

² The titles play with the German word ‘See’ (lake): Seegang (motion of the sea), Seensucht (longing for a lake), Seewärts (towards the sea).

This case shows – maybe more than others – the mobilising effect that visionary waterscapes can have not only for investors, but also for local residents. The project is – although not yet fully realized – very popular and successful in that there has been no substantial resistance against the project, although it uses up huge municipal financial resources (despite all EU and NRW funding) and although its realisation has been postponed due to technical reasons several times.

4. Hamm, Lippesee

Such general support and enthusiasm for a new waterscape project is not always the case. Our final case shows the project Lake Lippe in Hamm which was controversially discussed and will not be realised as consequence of a referendum in 2006. The project was planned in the framework of the regional initiative ‘Fluss – Stadt – Land’ (river – city – countryside). The initiative itself once more illustrates our point that water is crucial in the re-invention of the Ruhr Area. 17 municipalities in the Northern and Eastern Ruhr Area cooperated from 2001 to 2009 in order to ‘purposefully design the change into an attractive economic region with high quality leisure and natural amenities’ (www.fluss-stadt-land.de, last access 22 Aug 2011). The above described Phoenix Lake in Dortmund was also developed under this label. Central waters in the initiative’s territory are the rivers Emscher, Lippe and numerous smaller and bigger canals. According to its website (see above), the initiative aimed at supporting the reconstruction of regional waterscapes: ‘Living and working at the waterfront, modern jobs in innovative economic branches, new urban qualities, canals as infrastructure lines of modern and environmentally friendly logistics systems and as attractive axes of leisure, the “blue” Emscher as symbol for structural change and for the development potentials of the region, eventful cultural landscapes and water meadows close to nature and of high ecologic quality.’

The Lippesee project (43ha) in the inner city of Hamm, which was officially claimed to serve the purpose of flood prevention, was rejected through a citizens’ referendum in 2006. The citizens’ vote was initiated by the city council of Hamm because its members argued that projects of this scope had to be supported by the population. The lake was rejected with 56.9 against 43.1 percent. The planning for the lake stopped shortly after the vote.

The project mobilized the population of Hamm to a so far unknown extent. On the one hand, there was the association Pro Lippesee e. V., an independent and non-party citizens’ initiative in favour of the lake. This initiative was originally based on local trade unions who argued that the lake would bring many assets to the city: higher quality of life and work, and especially more jobs. The association had about 400 members from different social groups, and it was active in many ways: exhibitions, information booths and events, trips to other regional projects comparable to the Lippesee, the ‘Lippesee run’ as first popular run around the area designated to become the lake, Lippesee stamps, the Lippesee information centre etc. In spite of all these tremendous efforts, the majority of the population voted in favour of the initiative ‘meadow instead of lake’. This initiative consisted of several environmental protection

groups, the green party, young socialists as well as residents and citizens who wanted to prevent the Lippensee project for ecologic, urbanistic and especially for financial reasons. Most of them also worked hard for their good cause: promenades through the planning area, information centres in the high street and in the context of local events, petitions and publications.

This case shows how highly contested the cultural reinterpretations of nature and water are: the lake's opponents aimed at protecting nature (and the communal budget), while its supporters intended to utilize a newly designed nature for higher purposes (jobs, housing...).

Discussion: Urban Waterscapes and the Re-Invention of the Ruhr

All case studies show that the transformation of regional waters and waterscapes is a crucial factor in the Ruhr's process of the re-invention.

First, the new urban waterscapes are *products* of structural change. 'The waterfront provides the developers with space where space is scarce – close to the city centres' (Kokot, 2008, p. 13). The imperative to transform the regional economy has induced the need and the wish to transform the region's environment and its waters, too. Innovative approaches such as the concept of an 'industrial landscape park' and well-established approaches such as waterfront development have both been employed by planners and public bodies.

Second, new waterscapes are *media* of regional re-invention. Their emergence led to new forms of governance, as the Duisburg case shows, and new forms of cooperation, e. g. between artists and public water engineering bodies. Waterscapes can then be 'symbols of the successful transition to a new form of governance' (Bassett, Griffiths, & Smith, 2002, p. 1758). By promoting new and sometimes controversial conceptions of nature and culture, ideas of what the region might be or will be in the future are being spread and reinforced in public opinion.

In this regard, waterscapes are, third, *symbols* for regional advancement. As the image of 'Phoenix from the ashes' in the Lake Phoenix case illustrates, water is used to promote the region as economically and culturally vibrant. In the Ruhr, old and new rivers and lakes are designed as emblems of a new quality of life beyond mining and steel industry.

In general, our case studies demonstrate that water is part of a regional cultural landscape that is highly coined and re-designed according to its changing societal uses. Water is an important factor in the context of local and regional development policy, not only for economic reasons: attractive waters are understood to be key carriers of identity and identification, and are therefore carefully (re)created. As we have seen, this is not always without conflict.

All projects are marketed as signifiers of the successful transformation of the Ruhr area from industry to service and knowledge society. The design of nature in general and of waterscapes in particular means not only the creation of environmental, but also of a socio-economic basis for the survival and future of the region. Development and marketing agencies try to tie in with international trend lines and topoi in order to

meaningfully re-position the Ruhr in the European and global arena.

Conclusion

The Ruhr may be a unique case when it comes to the conversion of its waterscapes. Here, a high share of surface water coincides with its vast inaccessibility during the industrial past of the region. As a consequence, the public attention towards the new waterscapes in the Ruhr is extraordinarily high.

However, we would argue that the staging of waterscapes as part of urban 'natural' landscapes and/or of the postmodern urban imagery can be found in many Western countries and also in Asia and South America. While these two approaches are not irreconcilable, they differ in the function they attribute to waterscapes: For some, new waterscapes signify a return of nature into cities, which connects to discourses on environmental protection and urban adaptation to global environmental change. For others, waterscapes are levers of postindustrial urban change and the socio-economic revival of old-industrial regions. In both cases, waterscapes are products, media and symbols of change and reflect the important role of waters for urban development which is likely to increase even further in the future.

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Figure 1:

Based on Ruhr_area-map.png&filetimest. Copyright (c) 2004 Daniel Ullrich; accessible at http://de.wikipedia.org/w/index.php?title=Datei:Ruhr_area-map.png&filetimest

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