From Rail to Rose

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Abstract: The Südgelände, originally a freight rail yard, today is a conservation area and nature-park in which urban industrial nature is both protected and accessible to the public. A concept of limited intervention transformed the already existing tracks into paths. These were complemented by the addition of a metal walkway construction traversing the four hectares of nature conservation area. It provides the general public access to the site without any direct impact on the vegetation. In order to preserve the immense diversity of flora and fauna a typology of space was defined. The different succession stages characterising the transformation from rail yard to wilderness were to be kept and continued by using various maintenance interventions. The remnants of the former train use are still visible.

Key Words: Rail-yard, Design, Succession, Dynamics, Access

Introduction

About 50 years of natural succession have converted the Südgelände, a derelict shunting station in the heart of Berlin, into a highly diversified piece of natural urban landscape. Originally a hub of activity, followed by a stretch of more than four decades of almost untouched new wilderness, today the site is officially designated as a conservation area in which urban-industrial nature is both protected and accessible to the public.

Figure 1 shows the shape of the site and the spatial structure given by the different nature protection categories according to German nature protection legislation. The red rectangle in the middle of the site is protected as a nature conservation site, the surrounding blue-coloured area, less strictly, as a landscape conservation site. This structure was one of the essential factors we had to consider when working on the concept(1).

The site covers an area of about 18 hectares. It is stretched out over 1.5 km.
Design concept

The design concept firstly had to ensure that the opening of the site doesn’t endanger the rich flora and fauna present – i.e. you can find more than 360 different species of vascular plants and more than 200 bees and wasps - and secondly had to cope with the fact that ongoing succession would have led to the complete reforestation of the Südgelände in a short period of time. The consequence would have been a decline in the characteristic species and plant communities of the open landscapes and a loss of spatial diversity as well.

The concept is based on the following three principles.

1. Definition of space typology

Three types of spatial typology were defined: clearings, groves and woody stands. Clearings were opened up and partly enlarged, light and open stands were to be maintained as "groves," while in the "wild woods" natural dynamics were left to proceed fully unfettered.

The result of cutting trees, clearing shrubs and sprouts and mowing the lawns was a much more transparent spatial structure contrasting shady woody stands, light groves and sunny open clearings. The interventions in the vegetation structure also emphasize lines of vision i.e. to the old water tower and highlighted remnants of the past like hidden tracks and the old turntable once again.

The spatial determination of the three types considers both nature conservation as well as landscape aesthetic criteria. The aim has been to demonstrate the transformation from rail-yard to wilderness over time and to make the site more attractive both for rare species of flora and fauna, which are bound to the open sites and for visitors, who can experience a more diverse landscape (Fig. 2-4).

2. Access concept

To make the site accessible to the public a path system was developed that was fundamentally based on the linear structures of the earlier rail-yard. Train tracks were turned into paths, sleepers were used for crossings. The ramps and underpasses that were once used for flyovers are now being used to establish the path system on different levels. In addition a few new connections make circular routes possible.

To access the nature conservation area in the middle of the Südgelände a walkway was proposed. The walkway represents a linking element between the requirements of conservation and the aspiration of the visitors. It makes the nature conservation area accessible and at the same time it avoids direct impact on vegetation (design and construction of the walkway: odious artist group).

By combining the functions in a single setting - metal walkway with connected observation post and a platform...
Technical relicts and nature are different contrasting and communicating layers. By interfering and amalgamating each of them they add to the special atmosphere of the site. An additional cultural enrichment is created by the permanently changing graffiti on concrete walls, works of unknown artists.

Management

Since the official opening of the park in May 2000, a new factor at the site has been the management of vegetation growth. This has replaced the previous natural vegetation dynamic. Today management is the key factor in the further development of the park.

The management concept has to be seen as an integral part of the overall design concept. The principles together with the management concept do not only secure the diversity of the site, but also keep its special character namely the amalgamation of nature and cultural elements along with remnants of its former industrial use.

The management measures implemented concern the wild woods, the groves and above all the clearings. From the very outset we decided to leave the wild woods unfettered. The light and open character of the groves is kept by cutting down trees and shrubs from time to time. As to the clearings, reforestation by woody species like the black locust (*Robinia pseudoacacia*) and aspen (*Populus tremula*) is to be prevented. The highly diverse dry lawns are to be kept. Every clearing is grazed by a herd of about 50 sheep which are brought to the site for a few days, normally at the end of June.

The sheep serve two purposes: at first they eat up the herbaceous species and secondly they also eat the sprouts to rest - large areas are protected from intervention, which in turn allows space to be created for undisturbed development (Fig. 5-7).

3. Preservation of cultural elements

On the site we can find a number of relics which have been partly secured and even restored including signals, water cranes and the old turntable (Fig. 8). However, the old water tower - the far visible land mark of the site - constructed in the 1920s is still showing its rusty and marked face.

![Fig. 5. Tracks were turned into path.](image)

![Fig. 6. Sleepers were used for crossing tracks.](image)

![Fig. 7. The raised metal walkway makes the nature protection site accessible.](image)

![Fig. 8. The old turntable was restored.](image)
of woody species keeping the site wild.

Due to the open character of the management approach a monitoring concept was designed. The vegetation development is recorded in reference to the measures. This is the basis for adjusting the intentions and results of the upkeep. Measures always have to be discussed and adapted to changing circumstances.

In the result we created different stages of succession in neighbouring parts of the site maintained by various forms of intervention. The succession stages that normally would be experienced over the course of time can now be experienced as one moves through the site being led by the paths. Every walk is a trip through space and time.

**Green axis**

Today the nature-park is part of a bigger project changing the vast rail-yard infrastructure into a green infrastructure thus creating a green axis which connects the southern parts of Berlin to the downtown area encompassing Potsdamer square, and one of the largest city parks in Europe, “Tiergarten”, a huge park in the heart of the city.

**Note**

(1) Different protection aims were formulated according to the Senate of Berlin Nature Protection Act 1999 designating the site as such. The landscape conservation site is protected in order to preserve the natural ecosystem functions, a diversely structured and species-rich part of an inner city landscape based on its beautiful scenery and particular significance for recreation.

The nature conservation site is specifically protected in order to preserve habitats for rare and endangered species, space for nature development within city limits and to research the ongoing development of undisturbed urban ecosystems and their change due to altering ecological conditions.