

Figure 1
Position of the Wasserkrater in its suburban context.

Saskia de Wit

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Suburbs and super-nature: How the Wasserkrater exposes an invisible landscape

What bearing can the expression of 'place' have on the 'placeless geography' of the suburban metropolis? Unravelling the design of the Wasserkrater garden, designed by Agence Ter between 1997 and 2000, points towards a possible reconnection between suburban metropolis and *genius loci*, the essence of the place.

Suburban metropolis

The Wasserkrater garden is situated in Bad Oeynhausen, in the conurbation Ostwestfalen-Lippe in Germany (Fig. 1). The region has a rural appearance, but the fine-meshed settlement pattern of medium-sized towns has led to a high population density (Fig. 2). Some of the major infrastructural lines through Germany come together at Bad Oeynhausen: the high-speed train route from Amsterdam to Berlin, the A30 highway from Amsterdam to Berlin and the A2 from Dortmund to Berlin. Highway A30 – about 50,000 vehicles a day – runs through the town to the motorway junction with the A2. Bad Oeynhausen merges seamlessly with neighbouring town Löhne. Through an unbridled growth of suburban housing and infrastructure the landscape has been transformed into an urbanized field, a diffuse and fragmented landscape where spatial, visual, geographic and programmatic differentiation seem to disappear. This discontinuous multipolar tissue extends over large areas with no recognizable borders: a suburban metropolis.

In the second half of the twentieth century suburbia – once an exclusive refuge for a small elite – has grown explosively, so that now a large part of the population in the western world can be classified as suburban. In his article on urban decentralization Robert Fishman (1990, p. 44) described how manufacturing, shopping, office space, laboratories, all migrated to the former suburbs, until the periphery had replaced the urban cores as the 'heartland of our civilization. These multi-functional late twentieth century "suburbs" can no longer be comprehended in the terms of the old bedroom communities. They have become a new kind of city.'



Figure 2
A thin layer of urbanisation is spread out all over the rural region of Ostwestfalen-Lippe.

There is a darker side to the global character of the suburban metropolis. With the increasing worldwide urbanization of recent decades for many of us comes a sense of loss of identity, spatial definition and orientation. Globally, structures of rural landscapes and urban settlements are converging – resulting in hybrid types of urbanity, which are hard to distinguish. The city is included in a continuous field of forces and vectors and positioned in an uninterrupted network. In this dynamic metropolitan landscape the spatial context changes continually, creating conflicts between contradictory spatial claims. A ‘placeless geography’, lacking both diverse landscapes and significant places, seems to have replaced the localism and variety of places. How can the suburban metropolis be related to the underlying landscape and to local conditions?

Spa town Bad Oeynhausen

When the different municipalities of Ostwestfalen-Lippe were still autonomous entities, each had a distinctive identity. To recover these individual identities and project them on the present suburban tissue could help to regain orientation and spatial definition. The position of Bad Oeynhausen as a town and its relation to the natural landscape are based on its spa function.

Ostwestfalen-Lippe is known by its five great spas (Bad Driburg, Bad Lippspringe, Bad Meinberg, Bad Salzuflen and Bad Oeynhausen) as the ‘healing garden’ of Germany. The presence of thermal water was the reason Bad Oeynhausen – founded as late as the nineteenth century – came into being. A thermal spring rich in iron and carbonic acid was

accidentally found when searching for salt deposits for the salt industry. Soon after the healing abilities of this spring were discovered, the first baths were built, bringing about a wave of economic prosperity. Peter Joseph Lenné, the most renowned garden architect of his time, was called in to design a park in the open fields, the Kurpark. Within sixty years the town had grown as a uniform composition around it. The park became the main public space of the town, with thermal springs and bathing and spa facilities for the spa guests, and a church and theatre for the citizens. At the end of the twentieth century, after the hey-day of the bath culture, the number of attendances in the spa towns and the numerous health centres and spa clinics dwindled. New clinics were built, but scattered through town, removed from their landscape origins of the thermal salt springs in the park. Nowadays Bad Oeynhausen is one of many smaller centres in a continuous suburban tissue. The Kurpark and its buildings have regressed from an active urban centre to a décor for wedding photographs.

A sense of place

In contrast to the geographically undefined metropolis, there is the concept of place as a particular and specific part of space.¹ The landscape contains an annotated catalogue of situations, in which the *genius loci* – the distinctive character of a place – is recorded and secured (Wit, 2011). This character shows evidence of natural as well as man-made transformations, and consists of both internal characteristics – that give the place its own order and distinguish it from its surroundings – and external connectivity to other places. Above all a place is a perceptual unity: it is perceivable as an ensemble, different from its surroundings.

A place is always sensed. All the senses human beings have at their disposal are required to fully comprehend the nature of a particular place. In a preface text for *The Architectural Review*, Frances Anderton (1991, p. 27) stated that ‘We appreciate a place not just by its impact on our visual cortex but by the way it sounds, it feels and smells. Some of these sensual experiences elide, for instance our full understanding of wood is often achieved by a perception of its smell, its texture (which can be appreciated by both looking and feeling) and by the way it modulates the acoustics of the space.’ Whether or not we are aware of the sounds that surround us, of the quality of the light, of the smells of the street or yard, these are part of our habitat and enter into our perceptual engagement with places.

In his in-depth work on the aesthetics of environment, in which the author argues that sensory experience, or, as he calls it, aesthetic engagement, is the key to environmental awareness, Arnold Berleant concludes that the experience of environment includes such factors as space, mass, volume, time, movement, colour, light, smell, sound, tactility, kinaesthesia, pattern, order and meaning. The conscious body does not observe the world contemplatively but participates actively in the experiential process, the experience of multisensory bodily engagement with the place (Berleant, 1997).

1 One could argue that the ‘placeless geography’ of the suburban landscape is exemplified by the ‘non-place’, as opposed to the place. The notion was coined by anthropologist Marc Augé and refers to spaces that do not hold enough significance to be regarded as ‘places’, spaces one often only remembers in very generic terms. However, we must be aware that Augé opposes the non-place to ‘anthropological places’, formed by social bonds and collective history, whereas the landscape-architectonic definition of place as used here, is based on its perceptual qualities. Marc Augé, *Non-places: Introduction to an anthropology of supermodernity* (London: Verso, 1995).



Figure 3
Plan of the Aqua Magica park.

However, although perceiver and perceived are interdependent, it is the perceived that should be the object of the (landscape) architectural study: the physical surroundings and the way these are translated in the design. Sensory information is not an asset of the perceiver, but of the perceived object, place, or landscape. As the sociologist E. V. Walter pointed out: 'a place is a location of experience. It evokes and organizes memories, images, feelings, sentiments, meanings, and the work of imagination. The feelings of a place are indeed the mental projections of individuals, but they come from collective experience and they do not happen anywhere else. They belong to the place.' (Walter, 1988)

As the traditional means to give expression to landscape, to the *genius loci*, as well as traditional locations of sensory experience, gardens can define places. They can structure the organization of the sensory experience, forming a sensory substratum that unites all possible interpretations.

Aqua Magica, a garden festival for a spa town

To give Bad Oeynhausen a new impulse after the gradual decline of the spa industry, a competition for a garden festival was launched in 1997. In their winning entry Agence Ter landscape architects suggested liberating the thermal waters from the closed worlds of the spas into the open air. The hidden water – source for the main economic factor of Bad Oeynhausen and the greater region, and for its cultural identity as a spa town – should be made visible again. The festival lasted six months and after the event the area was transformed into a large park

linking the two towns, intended as a tentative start to re-structuring this diffuse suburban landscape.

The park is organized around two routes, accentuated by water gardens, directing visitors across the park, and displaying the water's various stages along the way. One route connects to the main parking space, the other to the Kurpark in the centre of Bad Oeynhausen. This last route runs through the forest, with gabion walls set along the fault line to symbolize the presence of the water, which is invisible here. Both routes point towards the Wasserkrater garden, the only circular element in this linear plan, confirming its central position. A six hundred-metre long promenade links the towns of Bad Oeynhausen and Löhne. Its far end, laid out as a belvedere, offers views of the two towns and the surrounding countryside (Fig. 3).

The Wasserkrater garden

The two paths join in the Wasserkrater garden, the climax and the pivot point of the park, where one descends under the earth's surface. From both routes a path leads down into the circular valley, where the route continues over a scattering of stepping-stones. One then enters a cone through two narrow slits with heavy doors, and negotiates a spiral staircase, descending twenty metres to the bottom of the crater (Fig. 6).

The subterranean hot salubrious water, the source for the wealth of the Westfalen region as a thermal and spa landscape, remains mainly hidden behind the walls of the various clinics and spa establishments. These buildings were typically organised around long corridors, coming together in a *rotunda*, an octagonal or circular, dome-covered central space. Some salt springs however emerge in the shape of large fountains, incorporated in the Kurparks. The Wasserkrater refers to both these fountains and the central spaces of the spa buildings.

Various layers – valley, crater, spiral stairs, round pool and fountain – elaborate on the central organisation, materializing the vertical axis (Fig. 4). The contrasting materialisation of valley and crater enhances the image of the underground garden. In the circular valley dappled sunlight through the canopy of densely planted Juneberries (*Amelanchier lamarckii*) evokes the image of a natural forest valley (Fig. 7). Creeping willow (*Salix repens*) covers the sides of the valley and undergrowth of shade-loving plants forms a lush green carpet. The crater walls are made of Corten steel, clad on the inside with gabions. Rumbling noises, limited light and an earthy smell evoke the atmosphere of an underground cave (Fig. 8).

The sound of water

The tangible water in the Wasserkrater – coming out in uneven intervals like a living being – evokes an artificial image of the subterranean fault, making the invisible, underground natural force sensory perceptible. The aquifers run about five hundred metres below the surface. The water was pumped up and is stored in a superficial underground reservoir, fifteen metres below the floor of the Wasserkrater. This reservoir feeds the fountain: a permanent field of small jets, and an erupting

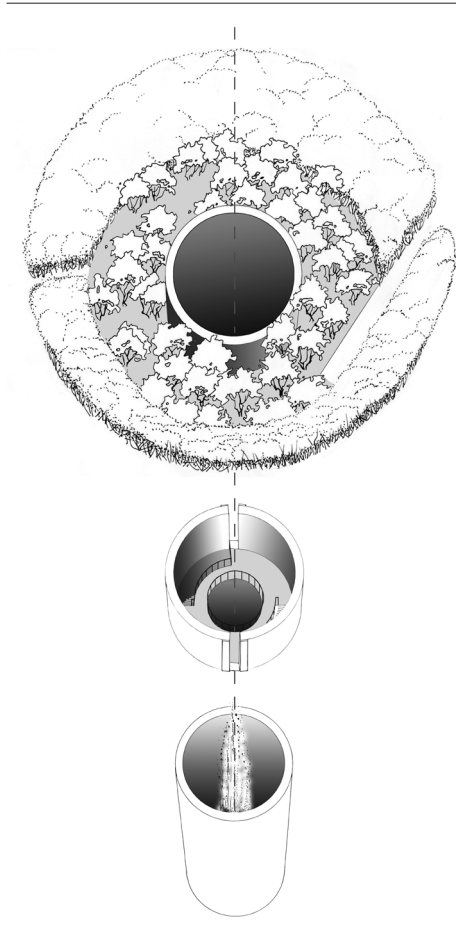


Figure 4
The Wasserkrater has several layers, composed around a vertical axis.

geyser of thirty-five metres high at irregular intervals. A sophisticated computer-technique accompanies these waterspouts with rumbles and flashes of light, creating a spectacle that evokes the sheer force exerted by the pressure of water in the bowels of the earth.

The water bubbles from the bottom of the crater, drips down from the gabions on the stairs, with the sound of the drops echoing in the depth. Thunder and lightning emerge from the depth, while from the black water surface the frothy water column ejects far above the craters' edge. Each time the water jet suddenly falls away, the space is wrapped in a dense mist, creating a darkness which strengthens the sensation of being underground. The funnel shape of the space forces the visitor

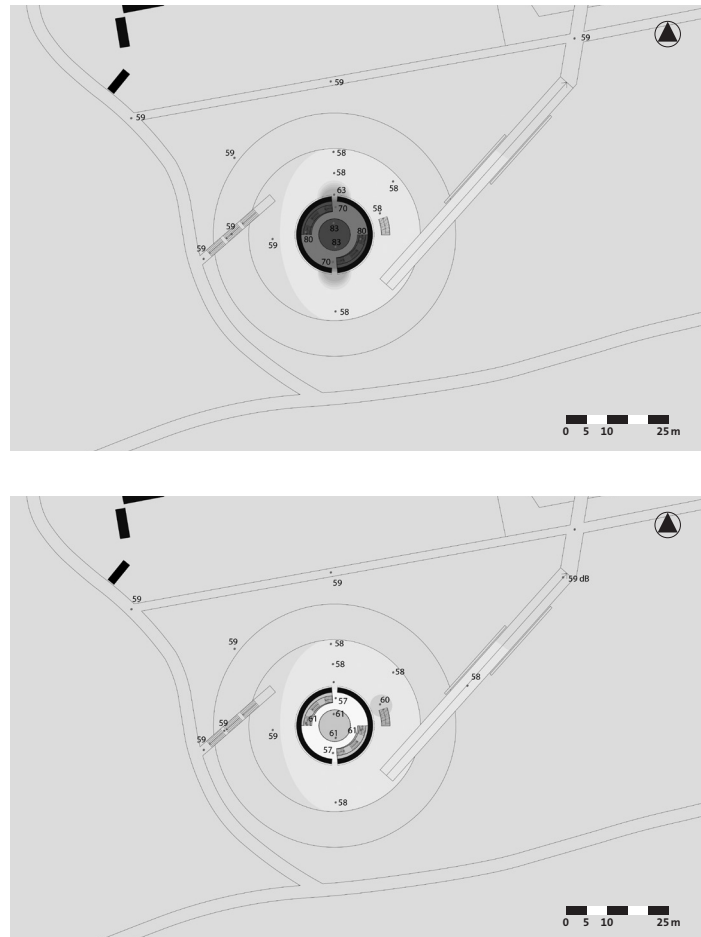


Figure 5
 Isobel maps of the sound measurements taken when the fountain was at its peak (A) and those taken in between the eruptions (B). The spatial distribution of the sound levels is an echo of the basic form of the crater.

closer to the centre while descending, increasing the risk of getting wet. Most striking about the water is its sound, rhythmically rising and waning in time (Fig. 5).²

² On Sunday May 13, 2012, between 10:30 and 12:00, sound level measurements were taken. The weather was almost windless, clear and bright, alternated by cloudy skies. All given sound levels are A-weighted. (The A-weighting network corresponds to the tendency of the ear to discriminate against low frequency sounds).

Although the fountain produces the most conspicuous sound on the plain, it does not significantly affect the sound level. The sound can be heard from a distance of about fifty metres from the edge of the valley, but its volume does not rise above the volume of the everyday sounds (an average of 59 dB): the almost continuous roar of aircraft, intensive bird singing and background sounds of children playing and people talking.

In the valley the fountain is clearly audible. Although the sound level is only slightly lower than in the surrounding plane, in the intervals

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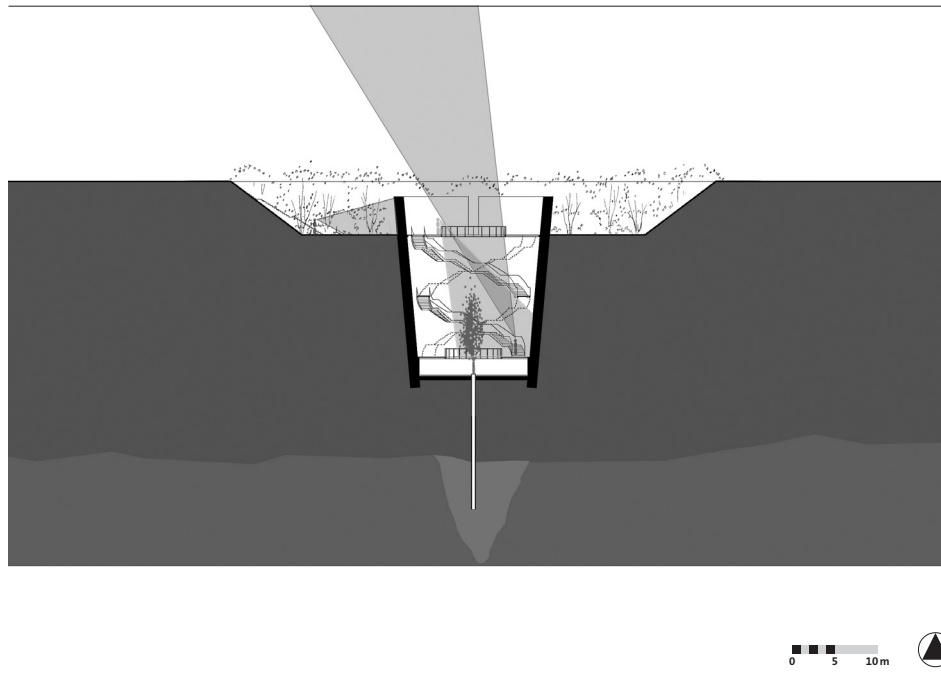


Figure 6
Section. The valley has gentle slopes and a horizontal alignment; the water crater has steep slopes and a vertical alignment. The fountain taps onto an underground reservoir, referring to the natural aquifer.

between the eruptions of the fountain the valley appears to be quieter. The high-pitched background sounds (the human vocals) are muffled; the bird sounds and the wind remain. On the other hand the volume of the fountain becomes louder. The position of the entrances can be heard by the leaking of sound from inside the crater: 63 dB near the entrances. Still the difference in sound level is only a few decibels.

Only within the confines of the crater wall are the differences between the sound levels of the eruptions and the intervals substantial. On the entrance platform the background sounds have disappeared altogether, at the quietest moments the sound level is 57 dB. But at the peak of the eruption of the fountain the level rises to a 70 dB. On the stairs the keynote sound is the sharp rattle of dripping on the metal stairs, from 69 dB just after the fountain stops till 61 dB before it starts again. When the fountain erupts the enclosure of the space retains the sound, which rises here to 80 dB. Down at the lowest level the sound of the fountain is loudest: its 83 dB prevents people from hearing each other's voices. In



Figure 7
The valley refers to a natural glade in the forest.



Figure 8
In the crater the theatrical effect of light and shadow enhances the sensory experience of being underground.

the intervals one can still hear the dripping. The different stages of the choreography of the fountain can be clearly distinguished here. Starting from the staccato rattle of the dripping, a heavy bubbling raises the sound level to a constant 65 dB, then to 73 dB when the music swells and to a climax of in between 79 dB and 83 dB when the fountain squirts.

This distribution of the sound levels in space and time reflects the centrally organised visual space of the garden. It also reflects the meaning of the underground space (the invisible landscape of the aquifers, the *genius loci* of Bad Oeynhausen) in relation to the everyday landscape of the surface.

Super-nature

In 2011 landscape architect Malene Hauxner – in her research on recent landscape architecture *Fra naturlig natur til supernatur. Europaeisk landskabsarkitektur 1967–2007 set fra Danmark (From natural nature to supernature. European landscape architecture 1967–2007, seen from Denmark)* – defined super-nature as an intensified and superior version of nature, no longer a pastoral escape or a mythical state of origin, but something deeply embedded in history, culture and technology. The term is derived from Rem Koolhaas, who fifteen years earlier had coined it in *Delirious New York*. He used the prefix ‘super’ in the ironic manner that was so common in the ‘90s, seemingly promising the possibility of transcending late modern dreariness without lapsing into nostalgia or conservatism. In his double coding it meant both larger-than-life nature, and fake, plastic nature (Hauxner, 2011).

By now the notion of super-nature has matured and outlived its ironic conception. In a globalised world under pressure of climate change, nature is a top priority. The return of nature as a major player on the stage of landscape architecture – as model, as process, as co-creator, as ideal – has led to multiple designs in which the representation of nature takes centre stage: nature transposed to the urbanized context, with a natural nature replaced by artificial nature, mimicking the natural processes such as at the Wasserkrater.

The garden suggests to have been constructed around a piece of pre-existing (natural) landscape: nature is represented as a creative force for the metropolis. Sensory aspects predominate in this theatrical nature spectacle: the visual image, the noise of thundering waterfalls, the spray of water, the dramatic lighting effects, the change in equilibrium and muscle tension when descending under the surface of the earth. Place is defined as a ‘super-natural’, version of the natural water source. The sensory stimuli make the natural origins, the *genius loci* of the underground water, once again perceptible.

Conclusion

In the undifferentiated suburban metropolis there appears to be the need of specific interiors, and gardens like the Wasserkrater can assume that role: ‘emotional shelters for the metropolitan masses that represent ideal worlds removed in time and space, insulated against the corrosions of reality’ (Koolhaas, 1994). The Wasserkrater is spatially a unity, with an emblematic image, underpinning its autonomy. At the same time it is a contextual space, entering into a physical and spatial relationship with its surroundings. It is bound to the (urban) tissue, originating from it, and at the same time essentially one of what Foucault called ‘other spaces’ (1967, p. 352). In his famous essay *Of other*

spaces: Utopias and heterotopias he introduced those spaces, real and effective spaces that are contrary to their surroundings 'in such a way as to suspect, neutralize, or invent the set of relations that they happen to designate, mirror or reflect' (Foucault, 1967). If the space is isolated from its setting, it can become a 'place', exposing the characteristics of the *genius loci*.

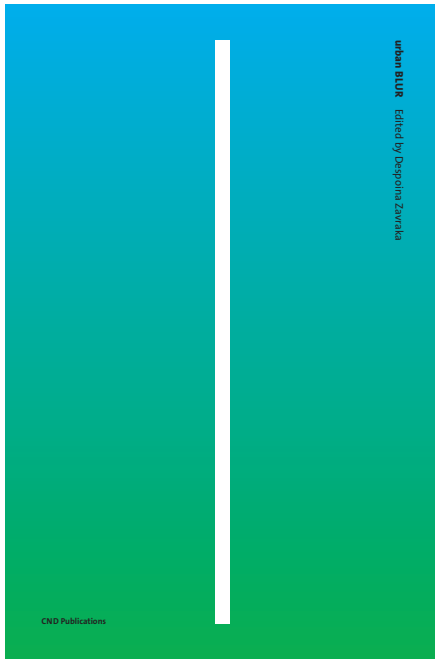
In the process of metropolitanization, the *genius loci* does not disappear, but becomes hidden and obscured underneath the generic layer, and people become more unaccustomed to seeing it. It is the task of the designer to retrieve the hidden characteristics of the place and make them visible again. While these characteristics may remain hidden to the general public, the designer should inspect, analyse and understand them, and translate them in into perceivable form. The role of the architectural intervention is to enhance those aspects that make a place. The garden then becomes a symbol for the landscape, opening up levels of reality, which remain otherwise closed.

Exposing the identity of a place in a garden, and expressing it in the form of a multisensory experience creates environmental awareness. This can be a first step in creating a differentiation in the diffuse and fragmented suburban metropolis, as a new layer, but one that is derived from history and the underlying landscape. Thus the suburb can retrieve its lost relationship to the physical and historical context, transforming the undefined tissue into a system of defined components.

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Cover



About the book

urban BLUR is a publication bringing together writings and project inserts on multi-layered infiltrations between city and nature. The notion of BLUR refers both to a fusion of disciplines forming space as well as an interactive dispersion of natural and artificial elements redefining contemporary human environments. More specifically, the title wishes to indicate an emerging defocus in the manipulation of space at various scales of the city, and the emergence of new ‘understated’ modes of urbanism.

Through brief articles, authors of this book negotiate contemporary expressions of urbanity attributing newfound abilities of nature and interactions within urban environments.

- A Urban naturalism & natural metabolism
- B Nature as a place within ...

Urban naturalism & natural metabolism is an exploration of contemporary effects on edaphic territories and multi-layered articulation of urban environments. The perception of ‘urban nature’ reflects upon a new set of desired qualities and artificial formations. Beyond idyllic projections, naturalistic genres create new tissues of continuity and discontinuity in human inhabitation.

Within such ‘neo-romantic’ modes of infiltration, ‘nature’ radically transforms urban topologies. This new set of reactions occurring to dissolve density, along with advanced comprehension of natural processes, form various mutating systems.

A place within is a mental rather than spatial interplay between urban and non-urban territories, indicating deep shifts in contemporary perception of the city. It is the new narrative expressing inner fantasies and newfound ‘places’ of nature.

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