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In-between Nature

Berlin's human and natural constructed spaces

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Abstract

This PhD thesis explores natural urban environments in Berlin which defy canonical typologies and attempts at easy categorisation. They are conventionally regarded as marginal and play a subordinate role within urban densification plans and neoliberal policies. However, such spaces are diffused across the urban fabric and constitute a fundamental part of Berlin's urbanity. They emerge through, and change with, a variety of socio-ecological entanglements and are currently configured in the urban arena as hybrid. That is, they occupy the intersection between the natural and the artificial as well as between public and private. They are shaped equally by formal and informal practices. This thesis proposes the notion of "in-between nature" as a theoretical and empirical tool to analyse hybrid landscapes in order to recenter spaces and practices considered marginal within urban design in the age of the Anthropocene.

Furthermore, the term "in-between" captures the range of human-nature relationships in these contemporary landscapes and enables their close investigation. The hybrid spaces embody a specific culture of citizens living with, interacting with and reclaiming urban nature. They thus foster the emergence of new grassroots design cultures, forms of governance and spatial typologies that oppose the current dynamics of urban green consumption and enclosure, contributing instead to the preservation of biodiversity and the rise of eco-responsibility approaches.

The research is divided into two parts. The first part traces the genealogy of the concept of "in-between nature" and anchors it within Berlin's urban history. It focuses on the intersection between urbanism and urban ecology and those intellectual discourses that emerged alongside this contemporary critical understanding. The second, based on a reassessment of interdisciplinary literature and on empirical fieldwork, examines different urban green spaces using a storytelling approach. It blends methodologies such as participant observation, in-depth interviews with citizens, activists, policymakers, and photography as a visual practice.

In each instance, the analysis of the human-nature nexus reveals the valuable ecological, spatial and political characteristics of contemporary hybrid settings within the city context. As a result, this critical lens suggests a deeper, more articulated understanding of landscape design and lived practices, taking urban studies a step closer to the developing more encompassing angles and perspectives beyond the singularly human perspective.

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Within the Feld Food Forest community and with the co-creators of the Open Soil Atlas pilot project, especially with Anna Verones and Fenia Grote, I spent hours working together and approached the application of sociocracy in community life.

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Finally, I have to thank my advisor Prof. Maria Chiara Tosi, who has always sought to bring my multidisciplinary interests in nature back into the urban design debate.

To Francesca
Berlin, August 2022

“After all, naming is not just about analysing what exist; it also contains a hope, or an expectation, or a claim for the site that you want to see realized”

Herbert Sukopp
in “The Botanical city” (Gandy and Jasper, 2020)

Table of Contents

FOREWORD

A personal narrative: The Berlin urban natures I have lived

INTRODUCTION

Intermediate

Intermediate state of nature *p-17*

Intermediate Berlin *p-21*

Methodology: 'intermediate nature' through story telling *p-23*

PART 1 - IN-BETWEEN NATURE : GENEALOGY AND CONCEPT

Chapter 1

I - City and Nature

Berlin unfinished *p-31*

Introduction to the intermediate *p-38*

The intermediate as urban project: a 20th century debate *p-41*

II - Cohabitation

Urban Ecology: when the Berlin's urban landscape has definitely changed *p-48*

Dwelling in proximity to nature *p-56*

Nature, transgression and design *p-66*

Chapter 2

In-between nature

What is left *p-77*

(Un)intentional natures *p-78*

In-between nature *p-84*

Margins and boundaries *p-91*

Who owns nature? *p-93*

Three fields of investigation *p-97*

PART 2 - SPACES DESIGNED BY NATURE, SPACES DESIGNED BY HUMANS

Chapter 3

A minute and hidden infrastructure

A landscape of abandoned infrastructures p-101

In conversation with Kerstin Meyer

Urban Margins p-124

Along the parks' margins p-128

The transects along Park am Gleisdreieck p-131

Three cemeteries in North-Neukölln:

stories of animals and temporary uses p-146

In conversation with Christof Mayer

Floating University: a fragile ecosystem p-166

In conversation with Rosario Talevi

Chapter 4

Gardens in transition

Gardens along transformations p-177

Berlin community gardens p-181

Prinzessinnengarten from Brache to commons p-184

In conversation with Marco Clausen

Berlin allotment gardens p-203

Integrated Garden:

a hybrid landscape p-205

In conversation with Toni Karge

The gardens in the urban project p-226

Chapter 5

Greening North-Neukölln

Marginal North-Neukölln p-231

North-Neukölln social and natural ecosystems p-236

Street gardens p-245

In conversation with Max Schützberg

The street soil through counter-mapping p-253

Making time for (soil) care p-257

CONCLUSIONS

In-betweenness p-271

Appendix p-276

References p-284

Glossary

<i>die Auflösung</i>	dissolution
<i>die Auflösung der Städte</i>	“the dissolution of cities” (Taut, 1920)
<i>die Baumscheibe</i>	tree pit
<i>der Bezirk</i>	district
<i>die Brache</i>	wasteland
<i>der Garten</i>	garden
<i>der Gemeinschaftsgarten</i>	community garden
<i>der Friedhof</i>	cemetery
<i>der Kiez</i>	quarter
<i>der Kleingarten</i>	allotment garden
<i>die Nachverdichtung</i>	urban densification, urban concentration
<i>die Naturnähe</i>	closeness to nature
<i>das Quartiersmanagement</i>	neighbourhood management
<i>die Stadtlandschaft</i>	urban landscape; ‘city-landscape’
<i>Zwischen</i>	intermediate, in-between
<i>die Zwischennutzung</i>	temporary use
<i>der Zwischenraum</i>	intermediate, in-between space
<i>die Zwischenstadt</i>	“in-between city” (Sieverts, [1997] 2001)

Foreward

A personal narrative: The Berlin urban natures I have lived

The interplay of personal and professional experiences strongly influenced my research as it unfolded. Its core ideas have emerged from my interest in Berlin's natural landscapes since I moved to the city in 2013. Discussions about open space has historically been a cornerstone in Berlin's urban planning. In particular during the 20th century, the idea of Berlin as a 'city-landscape' was consolidated through theories and plans that approached urban development in terms of the relationship between the built and open environment.¹ However, the metropolis' growth and expansion have followed a very rapid course; and its landscape, as a palimpsest of urban transformations, has been continuously challenged.

Over the past decade I witnessed how Berlin's urban natural areas have undergone major changes and have acquired a renewed importance within city studies. While concentration processes are leading to open space shrinkage, the effects of the climate crisis and the COVID-19 pandemic have progressively strengthened the role of natural areas as part of plans and policies promising the key to tackling environmental risks, supporting socio-ecological transitions and addressing issues of spatial and social justice. Literature concerned with nature has expanded considerably across different disciplines over the past

¹ I refer, for instance—in the context of other urban-historical issues I discuss in chapter 1—to the first master plan proposed by the Kollektiv and directed by Hans Scharoun for the post-World War II period, in which the low density of the destroyed city was employed as a resource for rethinking a new 'non-compact' metropolis; or to the city of West Berlin, theorised as an 'archipelago' of fragments in the midst of greenery by Oswald Mathias Ungers.

decades with particular reference to the irreversible damage by humans on natural settings and as part of the broader discourse about the Anthropocene. The theorisation of human-environment relations has made substantial progress, giving rise to a body of research that has attempted to overcome the nature/culture dualism that governs the binary view of city versus the environment. These fundamental concerns have injected my analysis with the consideration that the relationships between the city and its landscape, between the anthropic and natural dimensions are (again) significant and urgent questions to be addressed in contemporary terms. Given the historical and cultural value of the Berlin landscape as a benchmark for understanding of the city's development, this dissertation focuses on transforming or recently transformed spaces that I observed first-hand as a resident of Berlin.

In 2013, the year I moved to the city, "The Berlin Reader" edited by Bernt, Grell and Holm and published. The book opens with the 1991 article "Berlin won't remain Berlin" (Häußermann and Siebel, 1991) describing the uncertain prospects of a new city in the newly reunified Germany. It was a lucid prediction; and the question 'what will remain of Berlin?' subsequently subsequently framed the different planning debates that I revisit as part of my investigation. The book further collects a number of contributions that outline the state of transition, tremendous changes, and urban conflicts that have been a constant in a controversial debate in which the German capital has been a protagonist since the postwar period and after Wall fell. As witnesses to the metropolitan economic and geopolitical history wastelands, so-called *Brachen*, still were very prominent within the inner-city landscape when I arrived in Berlin Neukölln. Former bombing sites between buildings, abandoned infrastructures, spaces along the route of the old Wall remained often officially unplanned places of wilderness that strongly contributed to the aesthetic of the city still in a state of decay.

At the time my scholarly interest rested mainly with the ongoing pioneering projects and bottom-up processes emerging in urban voids, which books such as Oswalt, Overmeyer, Misselwitz's recently published "Urban Catalyst" (2013) describes as new design cultures in the Berlin tradition. The metropolis' physical low density (still) offered the opportunity to experiment with new temporary and informal uses in open spaces, leading the city to be recognised in the European arena as a creative capital (Florida, 2002). Experiencing and observing these practices and venues, the underlying ambition of everyone declaring and using "the public space to be their own personal property" (Beier, Schmundt and Weidermann, 2018) was tangible. This prompted a personal critical reflection on how collective and individual actions influence the spatial production of innovative places; but it also meant that a newcomer to the city like me could feel welcome in such culturally, politically and aesthetically diverse open urban environments.

Over the past decades, major abandoned wild areas were affected by (and in turn affected) a paradigm shift within urban planning. Some wastelands have

been turned into urban parks, a process that contributed to the emergence of a type of public space peculiar to Berlin, based on the inclusion and preservation of the naturalistic features of abandoned sites into landscape design. Two main examples, *Tempelhofer Feld* and *Park am Gleisdreieck*, were the most relevant in this research. The former *Tempelhofer* airfield was opened to the public only three years before I arrived in the city, becoming Berlin's largest *Brache* and a site of spontaneous nature transformed into a formally 'undesigned' park. In 2014, the plans for the partial building of the area was prevented thanks to the activist campaign *100% Tempelhofer Feld*, which I supported, as a frequent park visitor and like many inhabitants of nearby district of Neukölln. This was an historic event and it resonated in international public discourse, popularising the park as a 'unique' landscape of freedom and contestation (Fahey, 2015). From my perspective, as a citizen and designer, the preservation of *Tempelhofer Feld* made me tangibly realise how civil claims and ecological demands could be consistently accommodated in urban and landscape design—processes that were not enforced in the policies of (Italian) cities where I had previously lived and studied. 2013 was also the year in which the *Park am Gleisdreieck* project was completed, developed on an railway tracks site abandoned during the Cold War. The conversion of this important inner-city area was the culmination of a fundamental political, planning, ecological and civic discussions ongoing since the early 1990s about the future of wastelands in Berlin (Lichtenstein and Mameli, 2015). Anchored by two main examples, my academic sights focused increasingly on the interplay between urbanism, activism and nature conservation regimes, further inspired by sociologist Lachmund's re-examination of the history of the contemporary Berlin landscape through the lens of urban ecology in "Greening Berlin" (2013).

In addition to the development of relevant city areas, some minor wastelands were turning into gardens, a trend that in Berlin started during the early 2000s and rapidly gained more ground. My interest in such spaces and practices has evolved and strengthened over the years in many ways. I started cultivating a raised bed shared with friends at the *Allmende Kontor* garden in *Tempelhofer Feld*; I have approached the culture of community life and started to get involved in activist networks. I have become familiar with various urban garden types, deeply understanding their role as contexts for environmental learning and social integration, whose activities are based on interpersonal relationships, shared interests and economies of solidarity. In spite of their valuable role in the urban socio-ecological infrastructure, garden areas have continually been subject to displacement due to urbanisation and land privatisation, motivating citizens to claim the spaces as commons. As part of an interdisciplinary research project conducted from 2019 to 2021, I analysed, together with colleagues Agnieszka Dragon and Anna Dańkowska, how gardeners currently cope with urban transformations through innovative green management solutions. Since 2020 I have been also a member of 'Feld Food Forest', a community based on ethical principles of permaculture. Through this experience, I later

became co-creator of the 'Open Soil Atlas', an urban soil counter-mapping project developed by citizen scientists in Berlin, with the aim to collect data normally lacking in official cartography and to raise citizens awareness about the importance of the different soil qualities.²

All these experiences have added to my perspective as a researcher those of practitioner, activist and citizen. The latter have complemented my scientific analysis with an ethical and affective dimension. Fundamental were the relationships and exchanges I built with the agents living in the natural urban spaces I studied, who constantly enriched this investigation with new reflections and insights. Central to the thesis' discussion became the topic of how 'people live with nature in everyday life' and how these practices influence the spatial production of landscapes that are distinctive for their naturalistic, socio-ecological and cultural characteristics. While in 2019 the Berlin Senate submitted a strategy that focused on concentration urban development and thus on the infill of vacant areas in the city fabric, the questions 'what will remain of Berlin's landscape legacy?' and 'what value does the city-landscape relationship have within the global crises that characterise the historical present?' have provided the backbone of this manuscript.

Witnessing the shrinking of Berlin's open spaces has drawn my curiosity to observe what escaped from urbanisation: a fragmented and apparently fragile hybrid landscape, 'in-between' past and future. I began walking around neighbourhoods with my camera and documented natural spaces that apparently had no typological or morphological significance of their own. I got closer to nature and was able to watch how the blurry boundaries between the anthropic and natural realms in Berlin had produced different design cultures that could only be analysed up-close and by continuous observation to understand their evolution. Combining the 'social', the 'natural' and the 'urban' in my analysis, the temporal scale of the transforming natures emerged as a dimension that I realised needed to be expanded in the study. The discussions at the seminar I attended on "Temporality of Urban Nature",³ coordinated by Lucilla Barchetta and Mathilda Rosengren, highlighted the intertwining of multidisciplinary perspectives on the nature and the criticality of the technoscientific and functionalist view of time as merely linear. These themes met my interests and strengthened my conviction to restrict my research to the 'present', as a peculiar historical moment in tension between the re-examination of a recent past and an uncertain future in the age of the Anthropocene.

² See annexes for detailed information on the activities carried out during the years of research.

³ Seminar series (2021-2022) organised in collaboration with: Humanities and Social Change, Ca' Foscari University of Venice Center; Urban Research Institute, Department of Urban Studies, University of Malmö; Georg-Simmel Center for Metropolitan Studies, Humboldt University Berlin.

Introduction

Intermediate

Intermediate state of nature

Through the definition of “in-between nature”, this dissertation seeks to validate and name ‘hybrid natural urban landscapes’ subject to urban transformations and normally neglected in city plans and policies. The discussion around the notion of ‘hybrid’ in the natural urban environment in itself leads to a reflection on ‘uncertain ground’. I investigate ‘hybrids’ as essentially undefined spaces often regarded as ‘marginal’ from a broad and multi-layered perspective. The work proposes a possible interpretation of an ‘intermediate state of nature’, a conceptual figure that can help to understand multiple dimensions of human/nature coexistence in the urban sphere. The hypothesis I advance is to consider marginal urban natural spaces as contexts of particular social, ecological and cultural attributes in contemporary times.

In recent decades, within the context of the accelerating impetus of environmental crisis, urban nature has formed an essential field of enquiry into the physical, biological, social and cultural transformations of metropolitan areas. Across disciplinary fields, the Anthropocene (Zalasiewicz et al., 2011) has primarily formalised the urgency to radically reformulate the paradigms underpinning the dynamics of natural resource consumption and how these affect life on earth. The question of the long-term habitability of a “Damaged planet” (Tsing et al., 2017) transformed by human activity has resonated in multiple spheres of public and political discourse, challenging the epistemic boundaries of the modern system and forms of spatial design and planning.

The idea of discussing ‘nature’ as ‘in-between’ refers to embracing the concept of the ‘hybrid’ as a possible arena for questioning dichotomies and binary logics inherent in the modern Western socio-spatial culture and its possible implications in the theoretical and empirical analysis of contemporary urban landscapes. Firstly, to question the implicit hierarchies of modernity—whether political, economic, social or cultural—of human versus nature. In the study and design of the city and its natural environment the debate focuses on restructuring the concept of the ‘agency’ (Latour, 2014) of living species and their functioning in the urban system (Amin and Thrift, 2017; Houston et al., 2017).

The main Western socio-spatial paradigms, articulated according to normative dualisms predicated on anthropocentrism, conceptually organise space and its planning. The subversion of such logic has led urban studies to primarily draw on an ecological perspective, which is influencing theory, design and cultures (Gandy, 2022), appealing to the interdependence between the components of the city and to the fact that human beings are an integral part of nature. The notion of ‘ecosystem’ at the heart of the ecological project coined at the end of the 19th century in the natural sciences (Egerton, 2013) relates to the scientific study of interaction between organisms and their environment by shifting from a static principle of nature in equilibrium to a dynamic approach which includes the anthropogenic aspect. The way in which the notion of the ecosystem has influenced the theoretical horizons of the study of the urban space and its bond with humans and society at large is manifold. One notable concept in this regard is that of human ecology (Park, 1952; Wirth, 1945) developed by the Chicago School of Sociology (Joseph and Grafmeyer, 2009), which is defined as the study of the interplay between different populations interrelated with the environment in which they coexist. This theorisation assumes that society within the city can be conceived through the metaphor of an ‘organism’ in which natural processes such as symbiosis competition and succession occur. The ecosystem instead is conceived in political ecology in a different manner. It does not refer to the interdependence between components but to human governance that takes the nonhumans into account. Thus it is concerned with human practice within the biophysical sphere (Augagneur and Rousset, 2015). A branch of political ecology draws on the theories of eco-Marxism based on the idea that nature itself is a social and cultural construct—advanced by theorists including Henri Lefebvre ([1938]1968)—influencing among others Donna Haraway’s work on ecofeminism (1991), Bruno Latour’s writing on “hybridisation” and “actor-network theory” (1987;1993) and more recent research on urban metabolism (Gandy, 2004; Swyngedouw, Heynen and Kaika, 2006).

As natural sciences via ecology have influenced the epistemological restructuring of the relationship among living beings and between society and the urban environment, around the prospect of posthumanism—the term coined in the late 1970s (Hassan, 1977)—a dense network of discourses has formed,

cutting across various scientific domains and subverting anthropocentrism and thus Cartesian dualism. Posthumanism opposes human exceptionalism by introducing a break with the founding assumptions of modern Western culture as a new way of understanding the human subject in relation to the natural world. From that vantage, agency is interpreted as being distributed through dynamic forces of which humans are a part but which they do not dominate. This premise brought about a cultural and ethical redetermination of associations such as animal/human (Derrida, [1997]2006; Haraway, 2003), animal/human/technology (Haraway, 1991), plant/human (Coccia, 2018; Mancuso, 2019). The above-mentioned “hybridisation” and “actor-network theory” can help better explain this perspective and how it encompasses a cross-disciplinary discussion. In “We Have Never Been Modern” (1993), Latour argued that the model that had governed Western scientific thought for centuries, the “modern constitution”, by postulating effective dichotomies such as society/nature and human/nonhuman has been undermined by the proliferation of hybrids that science itself has produced. To account for these hybrids, Latour, John Law and others, developed the “actor-network theory”, which describes social phenomena in terms of interactions between human and nonhuman actors. It constitutes a rejection of the boundaries of traditional humanistic sciences and philosophies; and it is therefore an influential contribution to the posthumanist project (Bolter, 2016).

The inseparability of ecological relationships and thus the breaking down of boundaries formed at both the biophysical and social levels is addressed with the aid of the broad interpretative spectrum of the nature/culture opposition adopted primarily by the branches of the environmental humanities. The two domains have been synthesised in the concept of “Natureculture” (Haraway, 2003), giving rise to a series of studies analysing space as ‘multispecies’ in terms of its materiality and cultural attributes (Fuentes, 2010; Tsing et al., 2017). Implicit in Natureculture is the recognition of the near absence of pristine environments on a planetary level. It instead acknowledges that natural spaces are substantially modified by anthropogenic dynamics and processes. This assumption has already been clarified by geographers, for instance in the definition of “social nature” (Castree and Braun, 2001), and ecologists in the postulation of new kinds of novel ecosystems, themselves product of urban transformations over the time (Kowarik, 1991). The contestation of the once-dominant paradigm that privileged the study of the ‘natural’ as ‘untouched’ is also a central means to critique the economic and political powers that influenced the modification or exploitation of planetary social and natural resources—particularly capitalism and industrialisation—which Moore conceptualises in the definition of the “Capitalocene” (2016; 2017).

The critique of capitalism that is integral to the Anthropocene is the gateway to associate the above reflections with the dimension of ‘marginality’ on which this research is built. The spatial dimension commonly considered ‘marginal’ has been an instructive domain for investigating of contemporary urban

landscapes. In recent literature, “new natures” (Gandy, 2022:3), “marginalia” (Gandy, 2013), biological niches (Tsing, 2015), wastelands (Rosengren, 2020) or spaces of decay (Barchetta, 2021) have provided intriguing pathways for the redetermination through an ecological and posthumanist perspective of liminal urban contexts normally neglected and of subordinate value within urban development strategies. These are spaces produced by recent urban transformations—according mainly to consumption dynamics and industrialisation processes—which do not fall into canonical land-use categories and are normally conceived as ‘uninhabitable’ by humans. Among these studies, the analysis of the ‘margin’ revolves around two main reflections that formed an early foundation for this dissertation. The first is to recognise in the ‘waste’, in the ruins of the capitalism (Tsing, 2015), valuable naturalistic, social and cultural qualities for rethinking the design of the (posthumanist) city in the age of the Anthropocene. The second is to propose alternative conceptions of landscape authenticity as a useful counterpoint to strictly utilitarian approaches to urban nature, vulnerable to capitalist urbanisation and re-development.

Investigating marginality through “anomalous spaces” (Gandy, 2013:1301) in the contemporary metropolis tends to subvert the classification and spatial hierarchies of the urban order necessary for capitalist reproduction (Stavrides, 2015), focusing instead on ‘under-evaluated’ urban systems. This concerns not only the study of the physical dimension of the city but also the social aspects and practices. Drawing on Foucault ([1977;1978] 2009), urban ordering is a “mechanism of social normalisation” built into modern Western thought, which tends to establish spatial frameworks that encourage social relations to be repeatable and predictable. Stavrides further elaborates the concept by assuming that ‘normalisation’ orients urbanity to a “city of enclaves” (2015:10): an archipelago of self-contained worlds in which predetermined rules influence patterns of behaviour. What lies outside this order—as Stavrides further discusses—are the ‘thresholds’, namely spaces of practices that connect different worlds, circumventing the control exerted by political and spatial forms of power.

The landscapes that this research proposes to categorise as ‘in-between’ are places resulting from recent city transformations. As ecology and posthumanism have influenced different disciplinary fields to discuss nature as a hybrid concept in itself, inseparable from the anthropic sphere, dealing with an ‘intermediate state of nature’ refers to repositioning the ‘margins’ at the focal centre of the study of the city. It aims to look at what is considered fragile within the urban system for a possible paradigm shift in restructuring the analysis and design of natural metropolitan territories in times of crisis and transformation.

Intermediate Berlin

Berlin is a metropolis that offers a broad field for an investigation into hybrid urban landscape. In the first instance, ‘in-between’ can be associated with the spatiotemporal order that has governed the relationship between the city and its natural environment through two main processes: urban shrinkage and densification. The last century has been a succession stagnation and rapid recovery. The city seems to have found its own unique identity in the constant suspension between a ‘before’ and an ‘after’. Dialogical power relations and sociocultural conflicts have shaped the urban field through an unceasing mechanism of erasure and rewriting of city identity. Different time frames, dictated mainly by the city’s geopolitical history, have been the momentum that continuously questioned the urban open space design. Since the great expansion of the city in the 1920s, low density has become the main feature of the metropolitan territory (Bodenschatz et al., 2020). The compact industrial city core destroyed after the World Wars meant that the open space formed part of a new porous urban fabric which was consolidated during the Cold War. After the reunification Berlin became a montage of contradictory ideological urban fragments, scattered among unbuilt spaces (Oswalt, 2000).

In a process of destruction, reconstruction, urban growth and expansion open space has become a palimpsest of different projects and imaginaries (Brandlhuber and Hertweck, 2015). The genealogy of Berlin as a city-landscape can be delineated from different angles of enquiry: the ‘metropolis of gardens’ in the 1920s in the “Fruchtlandschaft” proposal of landscape architect Lebrecht Migge (1919); the ‘city of emptiness’ in Scharoun’s plans (1946) and in Ungers’ idea of the ‘archipelago city’ (1977); the capital of temporary uses in vacant lands (Oswalt, Overmeyer and Misselwitz, 2013); the ‘in-between city’—*Zwischenstadt*—influenced by Sieverts’ theories (1997). The alternating processes of urban shrinkage and densification have in turn given the natural environment a strong social and cultural value. Green space in the city has become a substantial part of Berlin’s urbanity but also a rallying point for claims in activist movements particularly since the 1970s as a matter of food security in times of crisis and the backdrop to the emergence of metropolitan subcultures, characterised by new forms of community life, bottom-up processes and informality.

Over time landscape has emerged as a symbolic and material urban archive that has contributed to a specific image of the city. In urbanism much emphasis has been placed on the ‘unfinished’ or ‘incomplete’ character of the metropolis. However, it must be recognised that the 1970s marked a decisive cultural and scientific shift in what has been meant as ‘empty space’ or ‘urban void’. In West Berlin, while Ungers advanced the idea of considering the city as an ‘archipelago’ of built islands scattered over a green surface, pioneering studies in urban ecology began to focus on considering open spaces as a set of natural biotopes to be protected from urbanisation. The ecological turn

initiated by Prof. Herbert Sukopp occurred earlier than in other European contexts (Lachmund, 2013a). It actually shifted the low-density city paradigm into an inquire into urban nature, and into the idea of the city as a human and nonhuman habitat (Sukopp, 1969). Urban ecology formalised a regime of nature protection that later became a tool for urban planning. This ensured the integration and preservation of the wild life of the *Brachen* into the city centre (Kowarik, 2013), contributing substantially to the current metropolitan form, which is today supported by a vast green infrastructure.

Since the 2000s, in a number of intellectual endeavours, Berlin urban ecology tradition has become central to the analysis of contemporary natural spaces. In the writings of sociologist Lachmund (2007; 2013a), ecology has paved the way for a revision of the city's landscape through nature conservation policies and how these have historically been supported by environmental activism, associationism and citizen naturalist initiatives. Geographer Matthew Gandy introduced a new important debate on wastelands, reflecting on the work of Sukopp and colleagues on botany, as a way to elaborate on the unity between ecology, aesthetics and design. His investigation was formalised in the documentary film "Natura Urbana: The Brachen of Berlin" (2019) and influenced some contributions to the book "The Botanical City", co-edited with Sandra Jasper (2020). In the research by Gandy's students and colleagues much attention has been given to analysing Berlin's nature from the nonhuman agency (Jasper, 2020b) and to how this intersects with a broader reflection on the way the anthropocentric urban realm could be inhabited by considering "more-than-human difference" (Rosengren, 2020). Sandra Bartoli brought the tradition of ecological studies into the urban and architectural theoretical debate and she explicitly describes Berlin's natural environment as a "human and natural constructed space".⁴ In her co-edited publication "Licht Luft Scheiße. Perspektiven auf Ökologie und Moderne" (2020) she offers a spectrum of multidisciplinary research that traces the link between humans and nature over the last century, taking into account the work of landscape architects, activists, artists and gardeners, in her critical reconstruction of the city's history. More recently, the ecological angle has contributed to contemporary intellectual debates on Berlin in the Anthropocene, appealing on different possible forms of urban species "cohabitation" (Arch+, 2022) in conflict with current densification processes.

In spite of the overlapping ecological, social and spatial values that the Berlin landscape has acquired in urban history, after the fall of the Wall urban development, under the spell of neoliberal policies, has been driven by the dynamics of land consumption and privatisation of public land (Schüsche, 2020). Ever since the open space shrinkage has followed a progressive course. According to urban development strategies Berlin is in a new phase of transition from a low-density metropolis to a compact city by 2030 (SenStadtWohn,

⁴ See the series of seminars Sandra Bartoli held at the *Akademie der bildenden Künste Wien* (Akademie der bildenden Künste Wien, 2018).

2019a). What is left of the heritage of the city landscape are liminal wastelands, urban gardens and street greenery, which now occupy the margins of the urban system, constituting a ‘minor and hybrid infrastructure’ threatened by future urbanisation.

This work focuses on the analysis of spaces in transition, between their current state and possible upcoming development, recognising in heterogeneous natural structures historical, ecological, social and cultural attributes. Drawing on the line of enquiry of the above-mentioned literature, these landscapes include domains of biodiversity, but also the traces sedimented over time of a specific way of dwelling close to nature—in German *Naturnähe*. The relationship human/environment in this work is thus approached through the analysis of practices, sometimes hidden, unknown, and not valued in the neoliberal system, as forms of multispecies cohabitation that are most expressed in ecological niches. This perspective suggests recognising the importance of both places and behaviours that offer the cue to rethink new models of sustainability and design cultures in the uncertain times of crises.

Methodology and research structure: ‘Intermediate nature’ through storytelling

This thesis discusses “in-between nature” applying a cross-disciplinary framework and different methodological approaches (Fig.1). Chapter 1 and 2 define the concept of “in-between nature” and outline its genealogy. It surveys the literature on Berlin’s urban history of the last century and highlights the tension between those historical trends and current dynamics as well as the concurrent theories of the city’s development. It focuses in particular on the intersection between urbanism and urban ecology and intellectual discourses that have arisen in relation to this new critical understanding, especially the contemporary debate on the urban Anthropocene in the field of environmental humanities. Chapter 3, 4 and 5 then cover three major fields of observation or macro-areas: the ‘city’, the ‘garden’ and the ‘street’. These sites also stress the potential of analysis of natural spaces and their spatiotemporal transformations across analytical scales. The aim is to foreground emerging issues concerning theoretical and empirical perspectives on the urban landscape in the context of neoliberal developments and urban densification.

In the second part—“spaces designed by nature, spaces designed by humans”—the three fields of observation are explored in the form of narratives, which in turn are articulated in the description of case studies. These are presented as ‘microhistories’: a collection of texts, visual materials and interviews that together complement the study of the places investigated. The ‘microhistories’ are not intended to confine the discussion to single, punctual

contexts, but to jointly form a broader picture of urban phenomena.⁵ The idea is to compose a collection/series of contemporary Berlin forms of hybrid spaces and uses. Storytelling has been relevant in investigations dealing with aspects of social and spatial marginality (Lancione, 2016) as well as in the investigation of contemporary urban natures (Gandy and Jasper, 2020). In fact, storytelling succeeds in gathering representative qualities of otherwise undervalued or ‘forgotten’ socio-spatial concerns.

From the earliest stages of my research, the walk was the primary method on which later paved the way for different narratives. The simple act of walking—and revisiting these walks through stories—becomes a cognitive and interpretative interaction with the metropolitan landscape. It in fact implies and relies on a decidedly subjective experience. This allowed me to strengthen a critical understanding of urban areas not officially mapped and to grasp the socio-spatial and complex ecological qualities of landscapes that zenith analysis cannot represent. It sharpened my methodological sensibility and evolved into a daily practice as well a research method. In recent years, a number of scholars have associated walking with storytelling in the study of contemporary urban landscapes, for example as a method to narrate the archaeology of open spaces (Veronese, 2016) or to address spatial and socio-environmental conflicts through ethnography (Barchetta, 2019). In fact, the walk—in German *Spaziergang*—has a tradition in the of studying the urban landscape.⁶ In the 1980s, Lucius Burckhardt introduced the German term *Promenadologie*, in English “Strollology” (2015), embracing aesthetics as a way of perceiving the landscape one passes through. The human body as it engages in the act of the ‘stroll’, he argues, explores and develops an understanding of place, also imparting a keen awareness of the close relationship between the human and nonhuman worlds. The walk must also be contextualised in the French *Flânerie* culture, in which strolling is a mere purpose of observing the city, as reported by Walter Benjamin in some passages of *Berliner in Kindheit um Neunzehnhundert* ([1950] 2010). Francesco Careri, instead, understands this method as a form of ‘transurbance’ in his book “Walkscapes” (2006) also referring to the Situationist idea of *dérives* [drifts].

Two references in particular have been fundamental to my choice of

⁵ The term ‘microhistory’ was adopted by Carlo Ginzburg and refers primarily to the ‘Microstorie’ series of twenty-odd volumes published by Casa editrice Einaudi in Turin from 1981 to 1991, curated together with Giovanni Levi and Simona Cerrutti. In the article ‘Microhistory: Two or Three Things That I Know about It’ (1993), Ginzburg provides a retrospective on the term ‘microhistory’ by drawing on experiences and scientific enquiries that confirm its validity. This is explained by understanding the ‘micro’ not in terms of a small or marginal dimension, but as a significant element that can give a complete view of a broader historical tale.

⁶ Walking in German literature at the beginning of the 19th century was also defined by Karl Gottlob Schelle (1802) in *Die Spaziergänge oder die Kunst spazieren zu gehen* as an art form, a kind of aesthetic method.

walking as a method to understand hybrid spaces. One of the earliest visual and conceptual sources was the art work “A Line Made by Walking” by land art artist Richard Long (1967), who recorded the path of the human footprint left by walking along a line, which became the organiser of space and its unity. The second concerns the expansion and ‘transgression’ of the idea of a line proposed in Matthew Gandy’s (2020) “transect” concept. Gandy revises the botanical analytical method of walking through different naturalistic settings—in terms of visual representation, the cross-section—as a way of exploring different sensitivities and expanding our understanding of place as well the relationships between the observer and other beings. His approach connects the botanical practices with posthumanist and other-than-human critical discourses. Drawing on these two contributions, interpreting the walk as a line became in this research a way of observing the hybrid sphere as a field a social and ecological unity and multiplicity.

In order to be able to narrate “spaces designed by nature, spaces designed by humans” my study relied on further methodologies. I associated the experience of moving in nature with visual analysis through photography. This allowed me to carefully observe the changes of different contexts over time and subsequently to register their current attributes. Since I am analysing landscapes of mostly temporary projects, photography in this research also serves as a historical archive and inventory of sometimes rapid transformations. Images that capture different moments of the changing and disappearing spaces are employed to render visible and permanent my own personal critical observation of the socio-spatial interweaving of the urban environments—as tools that shed light on the complexity of nature in otherwise undefined contexts. I link the use of photography to William J. T. Mitchell’s idea of visual culture in the landscape. Mitchell (1994) defines landscape as a whole as a set of signs and writings. In his understanding, pictures are a way of revealing this complexity, as they manage to capture an essence of living things that exist beyond human intention.

Inspired by the work of Nicholas A. Scott “go-along” (2016), movement and visual methodology are blended with qualitative analysis. I employed interviews to finalise the narrative of each field of investigation. The interviews collected in this thesis were selected to give voice to representative actors who influence the design of hybrid contexts. These include activists, designers, urban practitioners and policy makers. The fieldwork allowed me to come into contact and establish interpersonal relationships with the people interviewed, which substantially enhanced my knowledge of the complexity of the places studied.

Finally, two interdisciplinary projects in which I participated as a researcher and practitioner—included in Chapter 4 and 5— Influenced the assessment of the relevance of the themes proposed in this research. In Chapter 4 I present the output of the project “Integration of Allotment and Community gardens”(Humboldt University of Berlin, and Łódź University). Within this study, a new type of garden, the ‘integrated garden’, a sustainable model of

shared management of urban natural resources has been conceptualised. In Chapter 5 I applied the methodology developed within the “Open Soil Atlas” citizen scientist project to map the soil qualities of citizen-managed spaces along a street in the North- Neukölln district (see annexes for detailed project descriptions). These final chapters emerged from my work as a participant researcher enmeshed in ever-evolving projects located at marginal spaces on such serve as case illuminating case studies for the theoretical and methodological framework that I work toward in this dissertation.

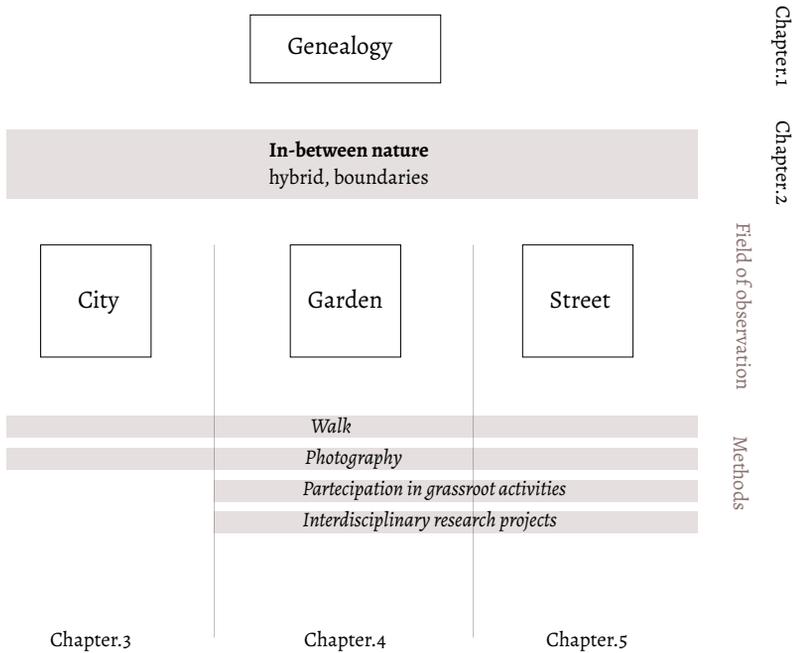


Figure 1 Thesis structure

Fields of observation



- + Case studies in Chapter 4
- 1_Allotment garden Am Stadtpark I
- 2_Allotment garden Freie Stunde
- 3_Allotment garden Harztal-Wilde Rose
- 4_Community garden Peace of Land
- 5_Community garden Himmelbeet
- 6_Community garden Prinzessinnengarten Kreuzberg

■ Green area



Source: (Geoportal Brandenburg, 2020)

Part 1

IN-BETWEEN NATURE : GENEALOGY AND CONCEPT

Chapter 1

I - City and Nature

Berlin unfinished

The year 2020 marked the 100th anniversary of the Greater Berlin Act: and yet the city is still considered an ‘Unfinished Metropolis’.⁷ What would it mean, I ask, to finish the project of the Berlin metropolis? Or, how can Berlin’s incompleteness still be considered a resource?

In 1920, the Greater Berlin Act outlined the incorporation of 7 cities (Charlottenburg, Köpenick, Lichtenberg, Neukölln-Rixdorf, Schöneberg, Spandau, Wilmersdorf), the Köpenick municipality, 59 rural communities and 27 housing districts into the boundaries of Berlin, which until then had only been defined by its centre *Alt Berlin*. The urban area expanded from 66 to 878 square kilometres and the population grew from 1.9 to about 3.9 million. The Greater Berlin project formalised low density and the decentralised city character as the founding traits of the new metropolis. The urban expansion of 1920 can be taken as the time in which the relationship between the city and its natural landscape changed fundamentally. Since then, and following the geopolitical transformations of the last century, the high availability of open

⁷ Exhibition “Unvollendete Metropole: 100 Jahre Städtebau für Groß-Berlin” (Unfinished Metropolis: 100 Years of Urban Planning for Greater Berlin) at Kronprinzenpalais in 2021, curated by Prof. Dr. Harald Bodenschatz. The exhibition presents both the urban history of the city during the last century and the results of the “International Urban Design Ideas Competition Berlin-Brandenburg 2070”. See the publication of the two-volume exhibition catalogue (Bodenschatz et al., 2020).

space has shaped Berlin's urban structure.

Berlin today covers 891.2 square kilometres of land with a population of 3.7 million inhabitants. Its polycentric fabric is permeated by a vast green infrastructure, which makes up about 35% of the whole urban area.⁸ The ratio between built-up and natural environments is one of the main traits that sets Berlin apart from other European capitals. It seems to be reversed and calls into question the term 'compact city'. Different fragments of the city are connected by large stretches of forests or parks. Berlin is perceived to be "many cities" (Bodenschatz et al., 2020:14). Architect Jean-Philippe Vassal states that "the center is not so important, you are in Berlin in Spandau, as in Mitte, Neukölln, Märkisches Viertel or Lichtenberg. It is only islands" (2015:360). The morphological character of the city-archipelago overlaps with a branched historical administrative structure. Berlin is divided into twelve *Bezirke* [boroughs], which are communal entities with specific legal rights. Each borough has localities called *Ortsteile*, that do not have significant legal powers of their own and are further subdivided into unofficial sub-zones, called *Viertel* or *Kieze*, describing smaller neighbourhoods. Life within a *Kiez* is supported by a strong network of urban practices, interests and relationships brought together in citizenship groups and associations, often recognised by central or local authorities. The city's urban geography is thus defined by islands that enjoy an independent spatial, political, and cultural value.

The specific character of a metropolis has contributed to Berlin's worldwide popularity. The city has been growing annually by many thousands of people.⁹ As throughout Germany, the primary reason for population growth is immigration. The projected population growth for the years ahead has motivated the city council to call for over 190,000 new houses by 2030 (SenStadtWohn, 2019a). The city must construct 20,000 housing units per year to confront what has been dubbed a housing crisis. Following the development trend of most German urban areas, this has led to a certain degree of endogenous development in the inner city and urban expansion processes in the regional area. The current demand for housing and infrastructure, aligns with interests of the real estate market. In 2018, Berlin was the most sought-after city in Europe for investment in the real estate market and two-thirds of sales were already made to foreign investors. Land prices have risen sharply from 2013 to 2018 by about 345%.¹⁰ In this scenario, speculation and profit maximisation jeopardise the urban need to create liveable, attractive, and identity-creating buildings and neighbourhoods that will benefit the entire urban population.

8 Senate Department for Urban Development and Housing, "06.01 Actual Use of Built-up Areas / 06.02 Inventory of Green and Open Spaces (SenStadtWohn, 2016a).

9 Ca. 190,000 new inhabitants from 2013 to 2017 (Amt für Statistik Berlin-Brandenburg, 2018).

10 See Federal Foundation of Baukultur, "Baukultur Report 2018/19" (Amt für Statistik Berlin-Brandenburg, 2018).

Over the last decades, Berlin has been attractive also because of low rents and living costs, especially compared to other German and European cities. Average rental prices for housing remained stable from the early 1990s until 2005 (Holm, 2013). This has completely changed: rents in existing tenancies have risen by 36% since 2009 while rents on new tenancies have increased by 65% (Holm, 2014). Berlin's rent levels are definitely rising and the city has witnessed the sharpest increases in rent across Germany.

In February 2020, a controversial law came into effect, setting a cap on rental prices to contain speculation and gentrification, two developments that significantly affect the vast majority of residents, whose lives as renters are shaped by the policies of the real estate market. More than 360,000 households in the city are eligible for the rent reduction (Jauernig, 2020). During the past couple of decades, hundreds of thousands of social housing units have been sold off across the city while building regulations have been relaxed and local authorities' ability to plan and build new houses has been drastically curtailed in favour of private developers (Vasudevan, 2020). The so-called *Mietendeckel* (rent cap) is a measure promoted by former Senator Katrin Lompscher,¹¹ who for years has been committed to the fight against what she called "Elite ohne Moral"¹² [elite without morals], referring to the major real estate companies. The discussion regarding this law became more heated following a protest in April 2019 in which 40,000 Berliners participated. The protests' organiser activist group *Deutsche Wohnen & Co. Enteignen*,¹³ demanded a referendum on the expropriation of all profit-oriented landlords with more than 3,000 apartments and their socialisation into a democratically run, publicly owned housing agency. The rent cap has been seen as a short-term success that offers protection to tenants and a much-needed emergency break against the cycles of displacement and eviction that have become a routine experience for many Berliners (Zollhauser, 2014; Berner, Holm and Jensen, 2014). In April 2021, the law was declared unconstitutional by Germany's Federal Court of Justice in Karlsruhe, emboldening and uniting activist movements across the city in a 10,000 strong protest against speculation and demanding rent regularisation and for tenants, through the expropriation of assets of major private real estate companies (Zeit, 2021). In the last local elections (2021), however, the referendum launched by *Deutsche Wohnen & Co. Enteignen* was successful. More than 1,000,000 Berliners voted in favour giving the proposed measure overwhelming popular support (Sullivan, 2021). This is just the latest chapter in how tenants' struggles have resonated with urban politics, as privatisation

11 From Die Linke [The Left] party that together with social democrats and greens composed the so-called *red-red-green* coalition until 2021. Lompscher resigned in 2020.

12 Statement by Senator Lompscher during a debate following the screening of the film "Die Stadt als Beute" on 28 November 2019 at the Babylon cinema in Berlin.

13["Expropriate Deutsche Wohnen and Co"] The name refers to the housing company *Deutsche Wohnen*, which owns about 113,000 housing units in the city.

has put the city in a mode of *Extraktivismus* [extra-activism] and made the expectation of profit the engine of urban development (Holm, 2020).

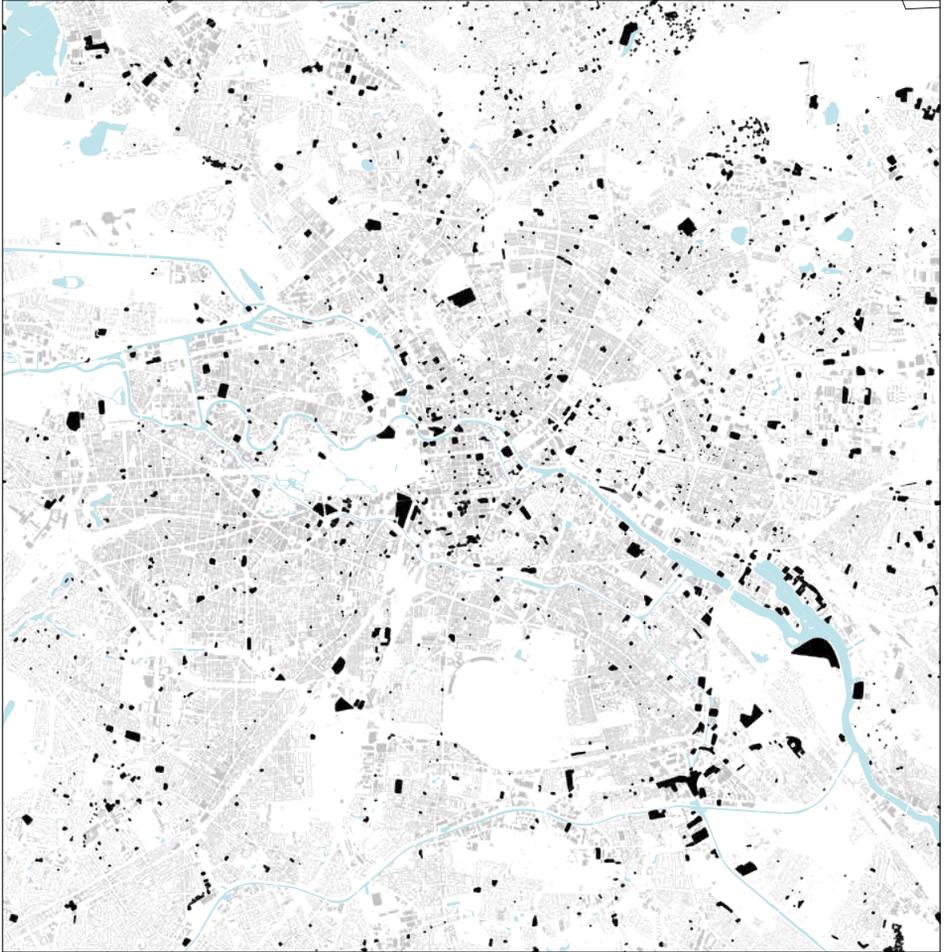
The catchphrase “Berlin for sale” that Bernt, Grell and Holm chose for one subsection in their 2013 volume is still extremely topical today, even if under different urban circumstances. Since the fall of the Berlin Wall, urban densification and privatisation of public land have mutually reinforced each other. Urban change in the last 30 years has been rapid. The city continues to grow following mechanisms that effectively challenge both its urban form and the living standards of its inhabitants.

On the occasion of the thirtieth anniversary of the fall of the wall, ARCH+ magazine in its 241st issue (2020) “Berlin Theorie” devoted an extensive reflection to the ‘myths’ of the city after reunification: the ‘myth of history’, the ‘myth of market’ and the ‘myth of creativity’. The editorial opens with Lefebvre’s popular 1974 statement that “a revolution that does not create a new space has not realised its full potential.” The critique revolves around the ongoing ‘re-writing’ of the city, suspended between the consumption of its spaces and the tireless attempt to reconstruct its lost identity through rhetorical design languages. Florine Schüsckhe’s contribution “Ausverkauft” [Sold out]¹⁴ illustrates that from 1989 to 2017 about 6,750 plots of land owned by Land Berlin have been sold, covering a total area of 21 square kilometres, which corresponds to the whole surface of Friedrichshain-Kreuzberg district (Map.1). As a result of these sales, Berlin lost large parts of its public housing, which was often social housing subject to both occupancy and rent control. The residential land still in state ownership, which is also suitable for development, is now managed by BIM (*Berliner Immobilienmanagement GmbH*). Its assets currently include about 17 square kilometres of land. This is just under 44% of what was directly or indirectly owned by the state in 1990. Most of the lands are already built-up or in use for administrative or public utility purposes and some are green areas, forest and water infrastructure that are not available for building purposes (Schüsckhe, 2020). What this survey makes clear is that the urban densification paradigm is today confronted with a limited availability of space and a finer urban grain.

The development strategy presented by the Berlin Senate for 2030 defines that the city’s future plans aim at a compact city and regional expansion, designing a stronger infrastructure network towards the Brandenburg region (SenStadWohn, 2019). It envisages a development of centres or *Stadtquartiere* to theoretically ensure the uniqueness of the city’s individual districts in the future. The urban rhetoric of the diverse and creative city (Florida, 2002) traits that hold specific sociocultural value is reflected in *Stadtentwicklungskonzept*

¹⁴ Displayed in 2019 in the exhibition, *1989–2019: Politik des Raums im Neuen Berlin* at Neuer Berliner Kunstverein (n.b.k.), curated in cooperation with ARCH+ magazine.

Map 1_Land privatisation (1989-2017)



■ Privatised state-owned land



Source: (Schüscke, 2020)

Berlin 2030 (SenStadtWohn, 2019a) through diagrams and images¹⁵ that are not actually part of the programmatic planning. Indeed, both the hierarchy of centres (SenStadtWohn, 2019) and the proposed new housing developments are concentrated in the central city core. Thus, this approach does not refer to the decentralisation of spatial strengths, but rather to a targeted action on specific areas within the city (which are currently the densest). It is not coordinated by an overall urban project but subject instead to neoliberal strategy (Map.2).

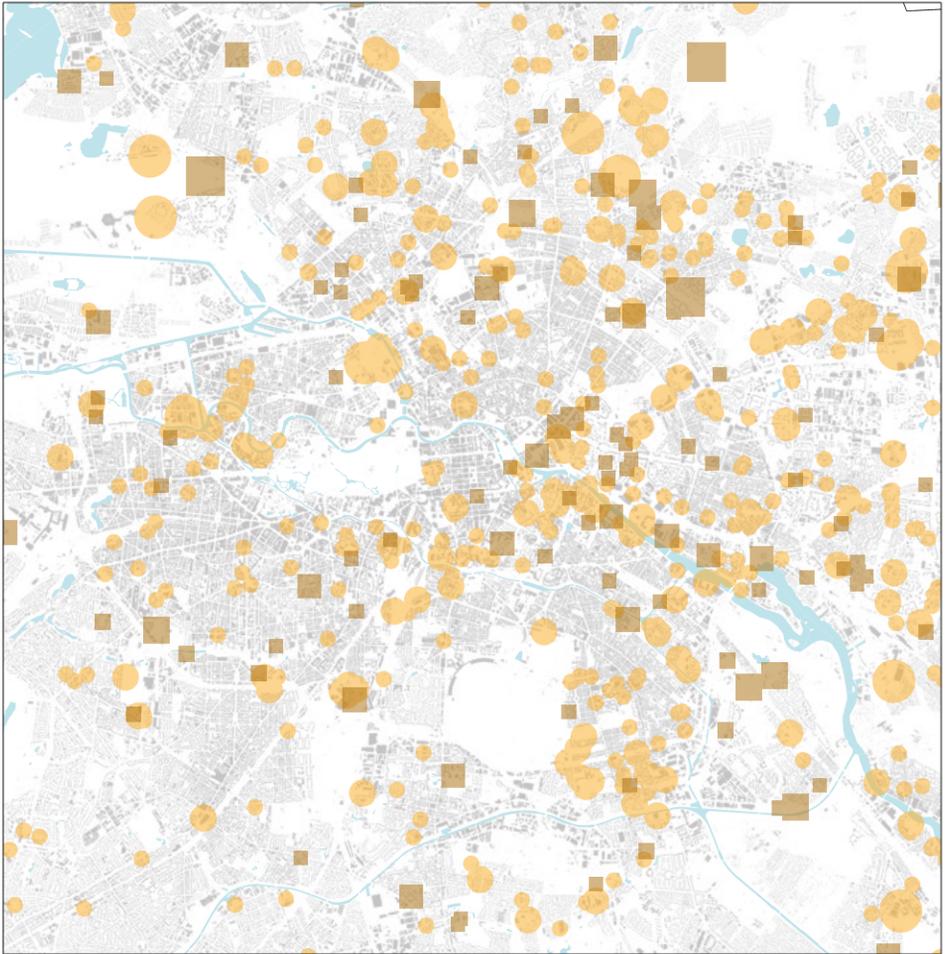
In 2019, the “International Urban Design Ideas Competition Berlin-Brandenburg 2070” was launched with the ambition to come up with a new model and an exemplary spatial image of the metropolis over the long run of 50 years. It addressed the challenge of urban development a century after the Greater Berlin Act, explicitly invoking the idea of Berlin as ‘unfinished’ (Unvollendete Metropole, 2020b). The planning area included the city and regional territory with a total of 374,300 hectares for a population of 4.5 million. The competition called for specific requirements according to the current guidelines proposed by city administration: the preservation of the diversity of urban centres, the design of green and transport infrastructure, new housing solutions (Bodenschatz et al., 2020; Unvollendete Metropole, 2020a).

The first five award-winning projects interpreted future Berlin from very different design approaches. New and radical visions showed the attempt to superimpose the strategy of urban concentration on the strengthening of horizontal connections with new regional cores, re-proposing the archetype of the ‘city-archipelago’.¹⁶ The second winning project instead elaborated a new scenario for the city boundaries, designing a multi-functional diaphragm—

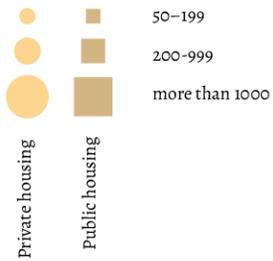
15 The images by Urban Catalyst firm included in the document refer to the creative city — heterogeneous social groups and fluid practices in the use of public space. However, it seems that this representation is more related to the recent past and is not reflected in the contemporary urban complexity. This understanding can be related to Prof. Calafati’s reflection on the strategies pursued by some European cities which he describes as *collective cognitive exercises* and shaped through the paradigm of *territorial competition*. This paradigm generates visions that are sometimes relevant, coherent, even perfect, other times it generates mirages and strategies without foundation. (Calafati, 2014)

16 Third prize: “Sternarchipel Berlin-Brandenburg” (Star Archipelago Berlin-Brandenburg) by Jordi & Keller Architekten / Pellnitz Architektur und Städtebau (Berlin), Christina Kautz Landschaftsarchitektur, Ludwig Krause Stadtplaner. Fourth prize: “Landschaft der Unterschiede” (Landscape of differences) by Thomas Stellmach Planning and Architecture / fabulism GbR (Berlin), Lysann Schmidt Landschaftsarchitektur, Melissa Gómez (Beraterin für nachhaltige Mobilität und urbane Innovation), Marcus Andreas (Berater für Nachhaltigkeit), Florian Strange (Berater für Urbanismus & Design Prozesse). Fifth prize “Archipel – Labor: Ein Atlas von urbanen Inseln für Berlin” (Archipel - Laboratory: An Atlas of Urban Islands for Berlin) by Pedro Pitarch (Madrid).

Map 2_Housing development (2030)



Residential units to be developed by 2030



Source: (SenStadtWohn, 2019a)

ecotone—between urban growth and expansion.¹⁷ For the winning project *Zusammenwachsen-Landschaf(f)stadt* [Merging-landscape-city] by Berndt Albers, Silvia Malconati and Günther Vogt, the competition jury emphasised that the proposal showed very clearly the potential for urban densification in some central areas. The master plan envisions a radial compact development of the city: “As soon as the radial roads are built more densely, the landscaped spaces in between should be intensified” (Bodenschatz et al., 2020:180) (Fig.1.4-1.8).

The connotation of an ‘Unfinished Metropolis’ seems today to correspond, both in political strategies and design proposals, with the idea that the project of Berlin will not be completed until the urban fabric is dense. The *Nachverdichtung* [densification] is the project path theoretically implemented to limit the consumption of natural resources, minimising urban sprawl on agricultural land and natural habitats at the urban outskirt (European Commission, 2016). “Berlin is growing, but not its space”, one of the last ecological reports for the city states bluntly (SenStadtUm, 2019a:6). While urban densification in favour of a more compact city can conventionally be pursued as a winning strategy in terms of environmental performance, in the case of Berlin this undermines the city’s founding character, namely the landscapes and spatial resources that have made it historically competitive and very different from other European metropolises to date.

Introduction to the intermediate

Since its founding, Berlin has not been a unitary city but mainly a dual one, if we consider its founding core, made of the two urban ensembles *Berlin* and *Cölln*, along the river Spree. When Oswald uses diagrams (Fig.1.1) to portray the metropolis’ history in his book “Berlin-City without form” (2000), he states that “Berlin is a city of extremes, a city without middle ground” (2000:29). He clearly refers to the conflicting forces—geopolitical, environmental, infrastructural—that have shaped the city up to the present day, superimposing them on the different plans and vision. Oswald’s diagrams are a useful starting point for this study. While reinforcing the shared idea of Berlin as “Dialogic” (Brandlhuber, Hertweck and Mayfried, 2015), the schematic drawings show that the urban palimpsest needs different representations to illustrate its character constantly undergoing a process of evolution. The diagrams drawn in black representing the progressive conceptual succession of urban ‘extremes’, in contrast, make the white background stand out: the space ‘between the lines’. This intermediate zone, or “middle ground” in Oswald’s words, is the metropolitan open space, which at various times has been considered ‘unfinished’. Some recent reinterpretations of Berlin’s history teach that this dimension is the

17 “Stadtlandschaft Brandenburg-Berlin 2070 - Kontur einer Übergangsgesellschaft” (Urban Landscape Brandenburg-Berlin 2070 - Contour of a Transitional Society) by Kopperroth / SMAQ / Alex Wall (Berlin und Cambridge, USA), Dipl.-Ing. Stefan Tischer, freischaffender Landschaftsarchitekt, Office MMK – Urban Technologies.

Figure 1.1 Oswalt's diagrams
(Oswalt, 2000)

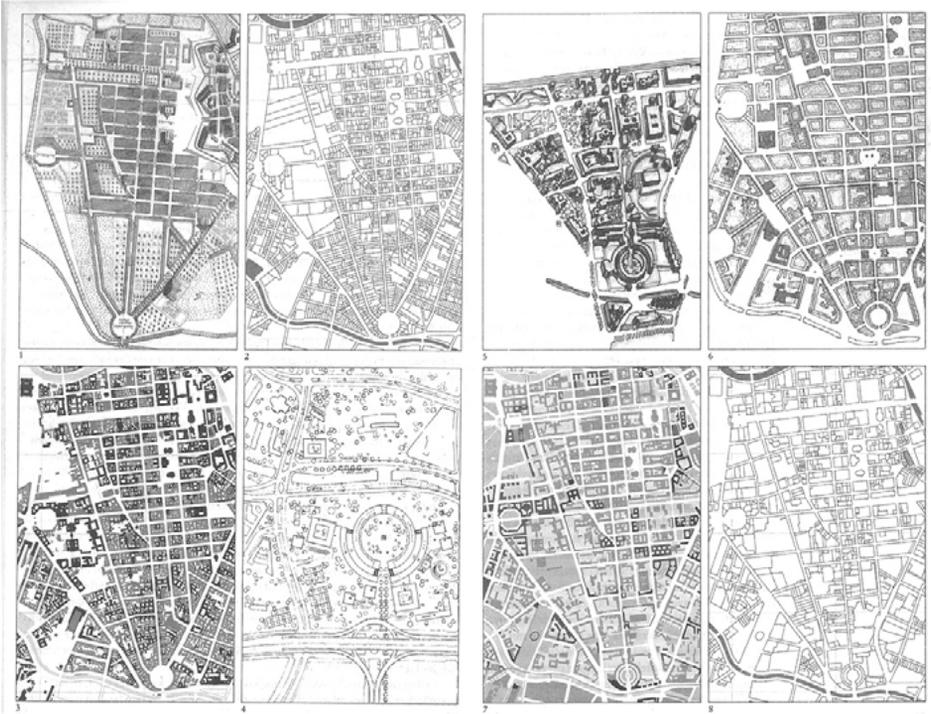
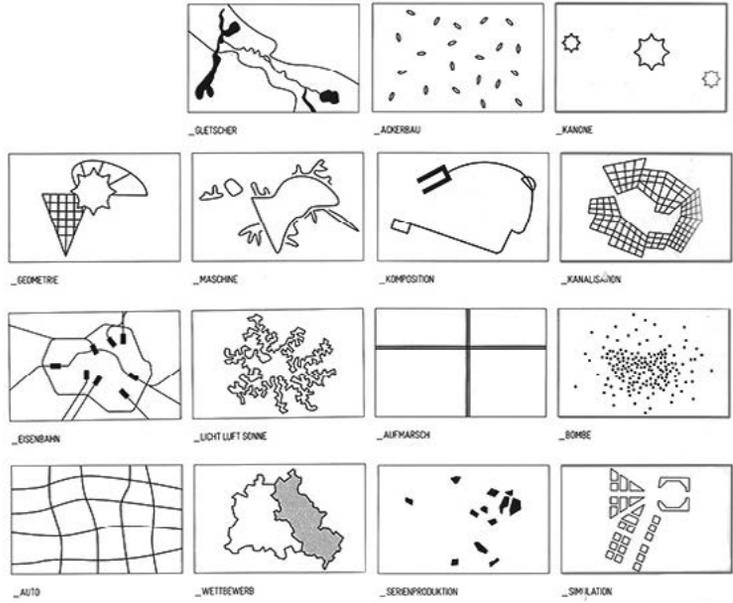


Figure 1.2 Development of the Friedrichstadt Plan (Brandhuber and Hertweck, 2015)

- 1-Plan of the royal Prussian Residence, Johann Friedrich Walther, 1737
- 2-Berlin inner-city, 1940
- 3-War-damaged inner-city Berlin, 1940
- 4- Mehringplatz, competition, Hans Scharoun, 1959
- 5-Study of the southern part of Friedrichstadt, Peter Riemann, 1977
- 6-Idealplan Friedrichstadt, Rob Krier, 1977
- 7-Palmwerk Innenstadt, Berlin Senat, 1999
- 8-Innercity structure, 2010

city's defining feature: here intended as a tension between the urban and the environmental.

The relationship between city and open environment, according to Brandlhuber and Hertwerk (2015:81), is already part of the design in the extension of the *Friedrichstadt* plan in the early eighteenth century initiated by König Friedrich Wilhelm I. The baroque urban structure composed of squares and radial axes provided two main gestures of dealing with open spaces: a four-meter imposing separated the city from its natural surroundings, while the homogeneous morphology of the buildings included 'unplanned intermediate' green areas—*Zwischenräume* [in-between spaces]. Brandlhuber e Werk intended the 'in-between' not as a discarded ambit but on the contrary as fundamental to interpreting the bond between architecture and the landscape. The 'unplanned' here is a design gesture that simultaneously creates a limit and offers multiple freedoms of space's interpretation. The authors illustrate the evolution of *Friedrichstadt* by eight cartographies (Fig.1.2). It seems useful to look at them through the same analytical lens as Oswalt diagrams. Throughout history, the open spaces of the ancient *Friedrichstadt* structure—today the *Hallesches Tor* area—have endured a constant process of dilatation and shrinkage. They followed the regular structure of the Baroque design, were filled in up to the industrial era and then formed an open mesh following the wars, becoming the design subject for a plan of the city dispersed in the green by Hans Scharoun (1959). And again in the postwar period, the urban frame became the object for rethinking alternative housing typologies that accommodated large green inner courtyards. In the late 1990s, the construction of vacant areas shaped open space as fragmented and heterogeneous. Although nowadays the layering of ideas, projects and historical events is hardly recognisable in the conformation of the urban landscape of the former *Friedrichstadt*, the analysis of the area according to its palimpsest gives the open space the agency to portray the intrinsic complexity of urban materiality and its cultural sediments.

In the same vein, Sandra Bartoli (2019), together with Jörg Stollmann, proposes a contemporary reinterpretation of one of the city's oldest parks: the *Große Tiergarten*. She argues that through the history of the central green space one can reconstruct the evolution of the city. "Tiergarten has become an island of anomalies that can be read as the radical expression of what is most urban and public in the city. The urban intensity is not only registered in the condition of the place where both human and nonhuman coexist in a fragile and somehow strangely stable form but that is, in Tiergarten, where human history and natural history are manifestly constructed together" (2019:7). Firstly a large forest and former royal hunting ground of the Prussian court, in 19th century redesigned by landscape architect Peter Joseph Lenné,¹⁸ Tiergarten in the early 20th became the largest and most majestic city public park. Design, social, ecological and cultural instances have made the Tiergarten through in a

¹⁸ The first Berlin public park was by Lenné in 1848: the *People's Park (Volkspark)* in Friedrichshain (Lachmund, 2014).

long term a 'hybrid urban object' in itself, by questioning its form, its function and its biophysical attributes. In Bartoli and Stollman's publication, the different angles of investigation under which the park can be observed today are stressed: an urban and ecological matter of design, a recreational space, a place of subsistence during times of war and finally a place of transgression and pleasure.¹⁹ What Bartoli defines as "more urban and public" is in fact the intersection anthropic-natural, as an inescapable link to read the current attributes of the park, as a symbol of the evolution of many natural spaces in Berlin.

There is a rhetoric concerning Berlin as a city that keeps changing but remains the very same.²⁰ Using two very different examples—*Friedrichstadt* and Tiergarten—the intention is to emphasise the idea that the landscape of the contemporary city must be read across different theoretical, spatial and temporal boundaries, a question which this research intends to address. The open space, conceptually interpreted as a repository of the superimposition of signs proposed by Oswalt, is (and has been) the field on which to measure the incessant and rapid urban changes—a debate that became clearly formalised during the 20th century, delineating the 'intermediate' or 'unfinished ground' as an urban project.

The intermediate as urban project: a 20th century debate

'Fragmentation', 'heterogeneity' and 'dispersion' are fundamental aspects of the twentieth-century city (Secchi, 2005) and Berlin's history encapsulates them as an extraordinary example albeit distinct from other European contexts. One can recognise three main times in the second half of the century when these matters emerged and made urban design a debate centred on the natural landscape: the postwar period, the 1970s and the late 1990s.

After 1945, the 28.5 square kilometres of built-up area damaged by the bombing (Fichtner, 1977) provided an opportunity for planners to get rid of the paradigm of the dense structure of the industrial city, characterised by the unhealthy *Mietkaserne* architectural typologies. Architect Hans Scharoun spoke of this process as a 'mechanical loosening' which had paved the way for the consideration of open space as an integral part of the new city centre fabric.

¹⁹ Transgression and pleasure is understood here as Tiergarten's function as a place for casual sexual encounters, particularly in the city's gay scene. But also as a space for city protests and illegal parties. This aspect, highlighted in the next chapter, refers specifically to the naturalistic attributes of Tiergarten, which still has a dense vegetation that allows for the configuration of intimate settings and designed open spaces used for collective gatherings.

²⁰ Brandlhuber, A., Hertweck, F. and Mayfried, T. (2015). *The Dialogic City. Berlin Wird Berlin*. Köln: Walther Kö nig. The title of the publication refers to the dual aspect of the city and at the same time to its continuous dimension of becoming the same: "Berlin wird Berlin" [Berlin will become Berlin].

Together with his colleague Max Taut, he hoped that the new Berlin would pay more attention to the integration of built and natural spaces, advancing the idea of the novel “city-landscape” concept [*Stadtlandschaft*]. The *Kollektivplan*—the first master plan for the reconstruction of Berlin—was explicitly based on this principle (Scharoun, 1946). Designed in 1945 by a planning team directed by Hans Scharoun, it envisioned a radically restructured city of dispersed modernist buildings clustered into homogeneous neighbourhoods permeated by green areas. He pictured the dispersion of the city as the *Auflösung der Städte* (Taut, 1920)—an ideal large metropolis composed of agrarian-industrial belts consisting of parallel sub-belts which contain industry, mobility infrastructure, housing and green spaces (Sohn, 2008). As Elke Sohn stresses, the *Kollektivplan* championed the idea that Berlin could be recognised in the metaphor of a ‘natural organism’ (2008).

In the 1960s, urban planning was concerned with the growth and spatial expansion of housing areas and the programmatic model of the ‘city-landscape’ and the ‘dispersed city’ was increasingly replaced by the goal of urbanity by densification (Krämer, 2007). The Cold War years later formalised a political and geographical hierarchy of urban territory that made Berlin an outstanding European case in the study of radical projects. In the walled-in city of West Berlin, the loss of density has been the condition behind Ungers’ theories of “Berlin Green Archipelago” (1977), which attempted to emphasise the horizontality of the urban on a natural surface. The ‘archipelago’ expressed a methodology that would not preserve the city and its historical structure, nor reinvent it, but rather to propose a new urban entity. That would be generated through a selective ‘tabula rasa’, which through dissections and eliminations of existing morphologies would define a new order. The figure of the ‘fragment’ as an ‘island’ emerges as the carrier of the utopian vision of the ‘archipelago’. The so-called ‘fragments’ were actually architecture with a clear identity that deserved to be preserved and reinforced. The remaining fabric according to shrinkage in population “would be allowed to deteriorate and turn slowly into nature” (Hertweck and Marot, 2013:14). Ungers recognised in the fragmented urban space the properties of a landscape and the dissolution of the compact city, antithetical to planning theory established well in the 1970s which was based on a unitary urban image (Veronese, 2016). Starting with the understanding of Berlin as a conglomeration of islands and not a whole, Ungers developed the figure of the ‘city in the city’. He underlined that a peculiar condition of Berlin as “discontinuous, incomplete and therefore varied and vital” (Ungers, 1991:215).

In the 1990s, dispersion and fragmentation were recognised by Sieverts along the entire extent of the metropolitan territory. Although not referring specifically to Berlin, his analysis of the “city in-between” or *Zwischenstadt* ([1997] 2001) had a significant influence and specific correspondence in the study of the urban spatial features of the German capital. The *Zwischenstadt* has been conceptualised as a proliferation of ‘unexpected urban forms’, with both urban

and rural characteristics: “the empirical space extends over wide areas, but comprises them only as place-specific fragments rather than comprehensively” (Sieverts, 2003:71). The fragment is the essence of the *Zwischenstadt*, which is permeated by open spaces and the natural landscape. This vision puts towards the idea of a metropolis based on a network-like structure, which has no longer one functional centre, but numerous functionally and symbolically diversified cores which will mutually supplement each other and, when taken together, make up the essence of the city.

How Berlin’s low density opened a debate during the 20th century for the analysis of dispersion, fragmentation and thus of a city with a heterogeneous, porous and non-compact fabric, this can best explain how the landscape was shaped as an intermediate sphere among different urban elements. The three historical moments and design theories listed above were among the conceptual bases on which Laura Veronese discussed the contemporary form of the city in her doctoral thesis (2016), advancing the hypothesis of Berlin as an “horizontal metropolis” (Secchi and Viganò, 2011; Viganò, Barcelloni Corte and Cavalieri, 2018). Drawing on a study by Paola Viganò (2013) (Fig.1.3), she worked on the juxtaposition of Gloeden’s idea of the “cellular metropolis” (1923). The Gloeden scheme is an abstract representation of the territory, composed of cells framed in a geometric grid. The cells lead to an isotropic association without a dominant core, suggesting a possible growth of the structure without limits. The intermediate dimension in Gloeden’s work is depicted the role of the ‘void’, the space between cells that connects and permeates the different nucleus.

How the ideas and plans that have stressed horizontality, porosity and urban heterogeneity have been deposited on today’s Berlin territory can be easily understood in the large-scale representation of the metropolis (Map.3). Today Berlin urban fabric is interconnected by a green infrastructure connecting the center with the outskirts and the Brandenburg region, dissolving administrative boundaries. This became a socio-ecological ambit where biodiversity and agricultural production, innovation practices are concentrated, along with a variety of functions and great ethnic and social diversity are expressed. The metropolis cultural landscape is the spatial and environmental resource recognised in the experimentation of various urban theories that followed during the century. This idea collides with the (utilitarian) consideration of Berlin as an ‘unfinished’ city. Instead, it emphasises the importance of examining today, on the strength of past experiences, the legacy of open space as an opportunity to rethink new models of the relationship between the city and the landscape, the humans and natural environment, in the light of new challenges dictated by the historical present.

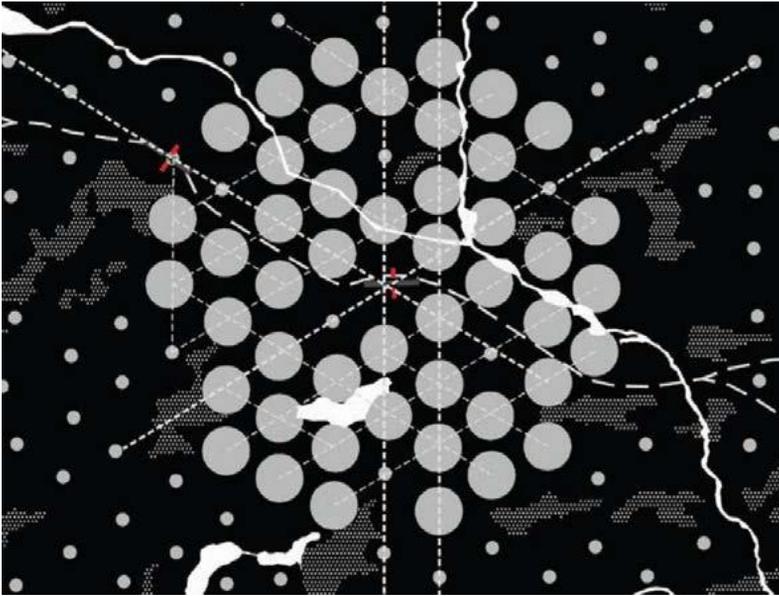
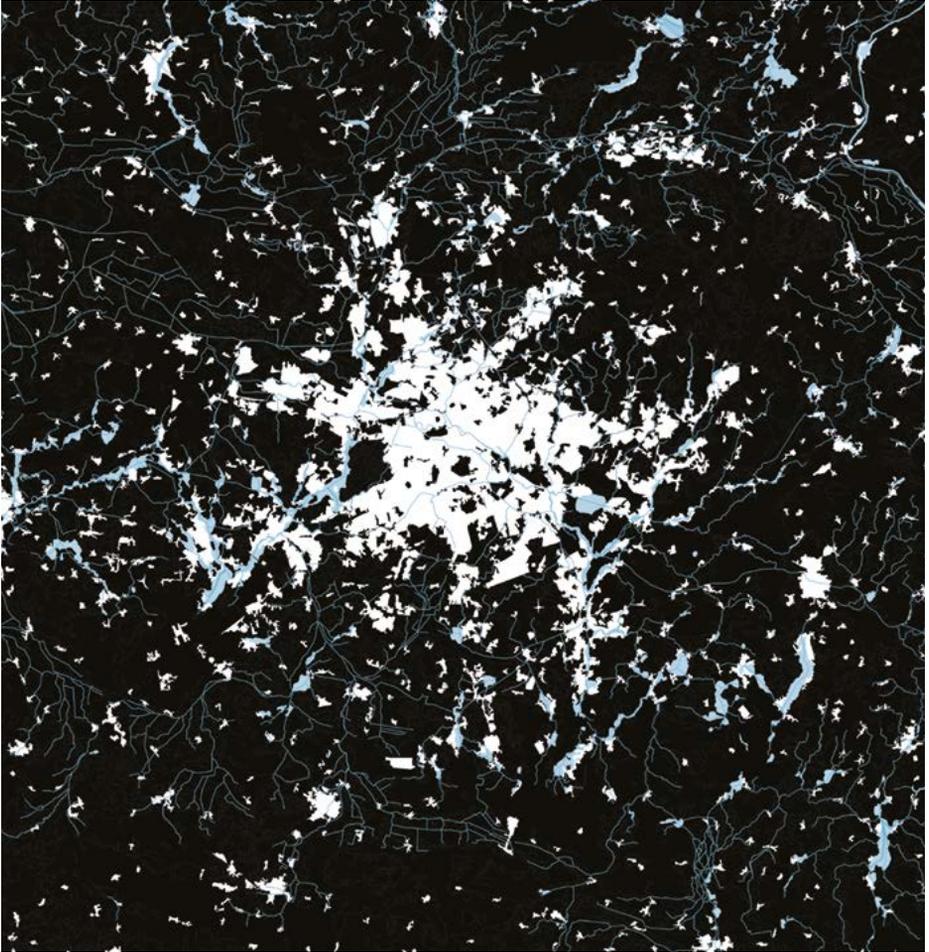


Figure 1.3 Gloeden's diagrams redrawn for the horizontal metropolis.
(Viganò, 2019)

Map 3_Berlin metropolitan area



□ Impervious surfaces

— Body of water



Source: (Geoportal Brandenburg, 2020)

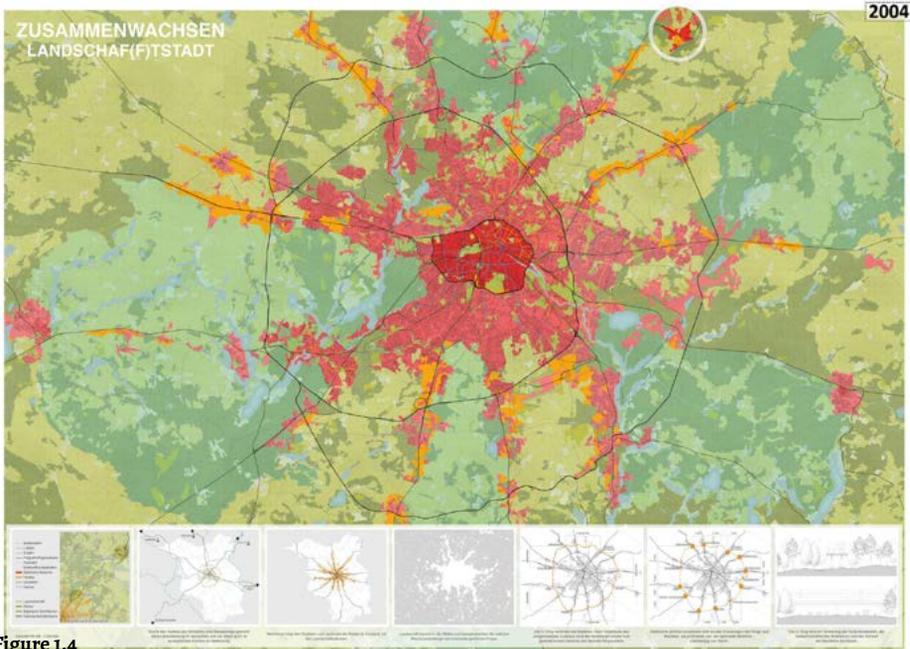


Figure 1.4

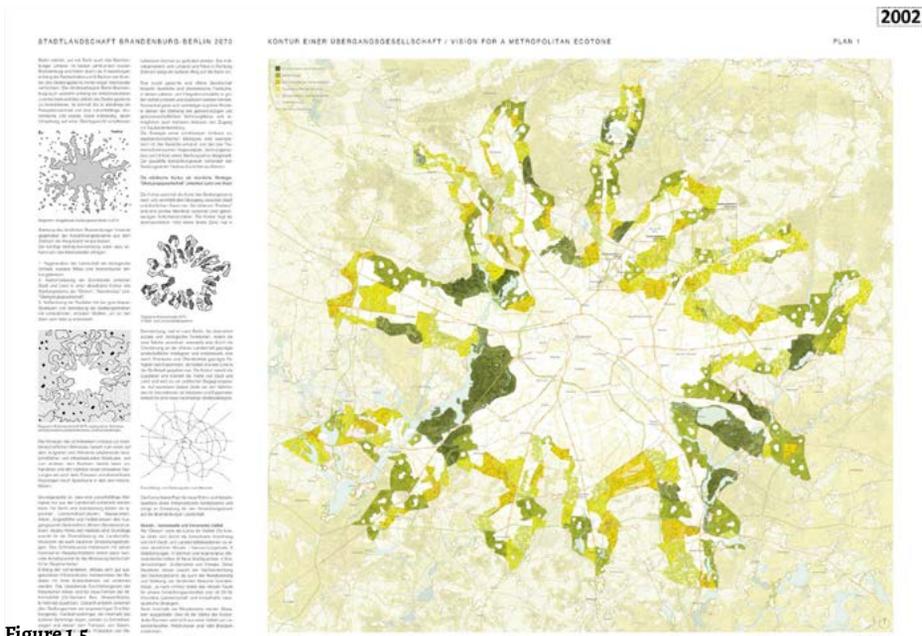


Figure 1.5

International Urban Planning Competition for Berlin-Brandenburg 2070

Figure 1.4 First prize: “Growing Together – Landscape and City” Bernd Albers Gesellschaft von Architekten GmbH, Vogt Landschaft GmbH (Berlin, Potsdam and Zurich), Arup Deutschland GmbH. **Figure 1.5** Second prize: “Contour of a Transition Society” KOPPERROTH / SMAQ / Alex Wall (Berlin and Cambridge, USA), Dipl.-Ing. Stefan Tischer, freelance landscape architect, Office MMK – Urban Technologies

Figure 1.6 Third prize: “Sternarchipel Berlin-Brandenburg” (Star Archipelago Berlin-Brandenburg) by Jordi & Keller Architekten / Pellnitz Architektur und Städtebau (Berlin), Christina Kautz Landschaftsarchitektur, Ludwig Krause Stadtplaner. **Figure 1.7** Fourth prize: “Landschaft der Unterschiede” (Landscape of differences) by Thomas Stellmach Planning and Architecture / fabulism GbR (Berlin), Lysann Schmidt Landschaftsarchitektur, Melissa Gómez (Beraterin für nachhaltige Mobilität und urbane Innovation), Marcus Andreas (Berater für Nachhaltigkeit), Florian Strange (Berater für Urbanismus & Design Prozesse). **Figure 1.8** Fifth prize “Archipel – Labor: Ein Atlas von urbanen Inseln für Berlin” (Archipel - Laboratory: An Atlas of Urban Islands for Berlin) by Pedro Pitarch (Madrid). (Unvollendete Metropole, 2020a)

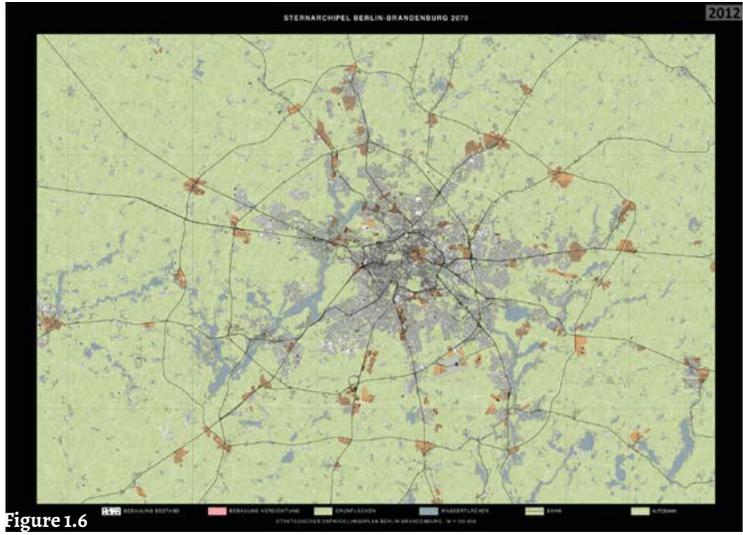


Figure 1.6

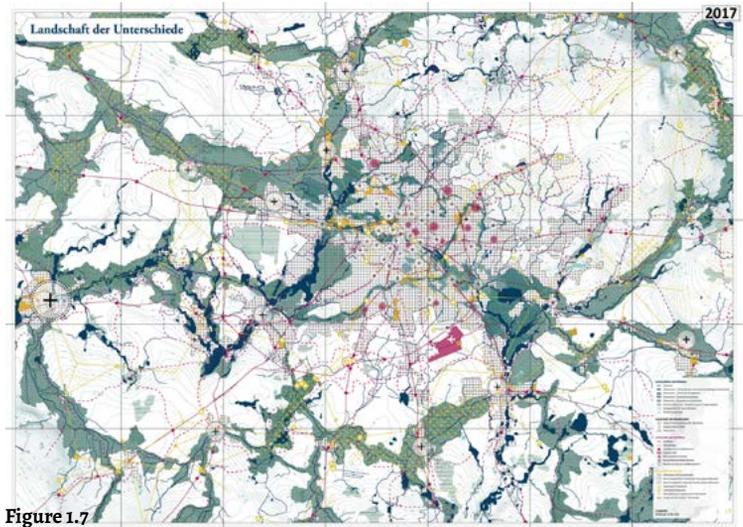


Figure 1.7

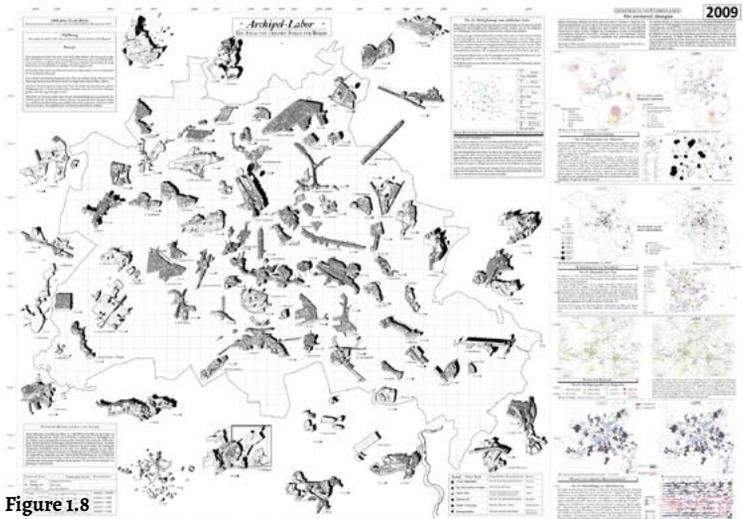


Figure 1.8

II Cohabitation

Urban ecology: when Berlin landscape has definitely changed

During the Cold War, in West Berlin, the history of the urban landscape underwent an epistemic paradigm shift, which influenced (and overtook) the demands of planners who had hitherto sought to engage with the spatial dimension of low density as a condition of a new metropolitan model. The urban area limited by geopolitical boundaries generated a shared sense of interest among scientists and urbanists to focus on the 'island' as a unique 'experimental zone'. This is explicitly explained in the words of Koolhaas: "What Ungers has done was to take the city—at that point an enclave surrounded by a wall, embedded in East Germany—and declare it the single obsessive subject, for years" (2013:44). Two radical projects overlapped sharply. The first is that of the Ungers' 'archipelago city' (1977) of architectural monuments scattered on a green extensive surface. The second is the 'city of biotopes' (1984), result of pioneering studies conducted by urban ecologist, in which nature has been no longer observed as an object but an integral part of a complex ecosystem where different forms of urban life cohabit. By superimposing maps, made a few years apart, of the two radical visions (Map.4), the change of gaze that ecology introduced into the study of a specific city condition is evident. The 'tabula rasa' methodology proposed by Ungers and displayed with a regular grid has been replaced by the meticulous representation of the city as a mosaic of areas corresponding to different biophysical attributes—biotopes.

Toward the end of World War II, one third of Berlin's housing was destroyed, resulting in 75 million cubic meters of rubbles in the city center (Till, 2005).

*Map 4_Two superimposed visions
for West Berlin*



The map proposes the overlapping of two radical projects for the city of West Berlin:
Berlin Green Archipelago (1977) by Ungers and
West Berlin Biotope Map (1984) by Arbeitsgruppe Artenschutzprogramm Berlin

West Berlin acquired a specific image. As depicted in Wim Wenders' movie "Der Himmel über Berlin" (1987), the voids left by the conflict represented not only an urban dimension but also a sensory one. The dispersion of urban practices in morphologically shapeless spaces portrayed the Cold War's moment of stasis. Berlin's urban landscape was dominated by wastelands. These spaces not only represented the physical spatial modification of the city, but primarily its soil. While the bombs of the conflict had left a sense of loss, they also turned out to be 'time machines' allowing plant seeds that had been buried for centuries to resurface and germinate. Other plant seeds have crossed continental borders carried by soldiers' boots or bags (Bartoli, Linden and Wußt, 2020). Berlin's mainly sandy ground and the presence of war rubbles generated the emergence of wastelands as vibrant novel ecosystems. Over a few years the *Brachen* became wild contexts of plant species completely exotic to the urban environment. This extraordinary phenomenon attracted the attention of naturalists, botanists and ecologists who began to observe urban space as an unexpected field of research.

Ecologists considered the vegetation of wastelands as a special type: 'ruderal vegetation'.²¹ Among others, plants such as sticky goosefoot (*Chenopodium botrys*), tree of heaven from China (*Ailanthus altissima*), the North American black locust (*Robinia pseudo-acacia*), and the herb giant goldenrod (*Solidago giganteana*) were first recorded in Berlin at that time (picture on next page). Sites themselves were later called 'ruderal areas' or 'ruderal biotopes' (Lachmund, 2013b). They were characterised by dry, gravelly soil and a warm climate. Their marginal state meant that vegetation could grow almost without interference, but at the same they were determined by the specific environmental conditions of the city. Increasing trade, migration, and urbanisation had created a diversification of habitats, and a new type of vegetation became visible. The ruderal plants growing spontaneously on rubble, in wastelands, along roads and infrastructure were indicators above all of profound environmental change (Stoetzer, 2018).

In the 1970s, studies of urban nature in West Berlin became a central focus at the Institute of Ecology at the *Technische Universität* where the botanist Herbert Sukopp was a professor. In 1973, Sukopp published an article calling for the recognition of the metropolis as an object of ecological studies. As Lachmund²² puts it, "Sukopp's program of an ecology for the city had a clear political mission: ecology was supposed to monitor and control the effects of human land use on urban nature and thereby create a basis for more rational planning and nature conservation policies of the future city" (2013a:47). The

²¹ From the Latin word for rubble (*rudus*).

²² The book "Greening Berlin. the co-production of science, politics, and Urban nature" (2013) by Lachmund highlights how urban nature was conceptualised across different scientific-administrative-political configurations, ranging from late 19th century Kaiserreich and the Weimar years to post-World War II, with a focus on West Berlin.



Ruderal vegetation in a former Brache in Erna-Berger-Straße, in the vicinity of Potsdamer Platz.
Robinia pseudo-acacia (black locust) and *Solidago gigantea* (herb giant goldenrod) in the foreground.
(EF, 2019)

professor began²³ to address the issue of urban nature conservation by initiating a survey of different typologies of spaces. The aim was to gather the entire city under a specific kind of *Landschaftsschutz* [nature conservation law] whose primary objective was the care and development of the city's flora and fauna, without excluding human inhabitants. The program included a large team of professional and non-professional figures: ecologists, botanists, and landscape planners and many citizen naturalists. It was therefore a collective effort that brought together in the research various forms of knowledge and interest in urban nature. The ecological fieldwork was one of the crucial pathways through which the urban biotope-protection regime emerged in Berlin. The first step to a biotope-protection, as well as for the design of special action programs, was the compilation of a Red List of endangered species to be preserved. Sukopp's work resulted in an extraordinary taxonomic map of the biotopes of the entire city of West Berlin (1984)—*Grundlagen für das Artenschutzprogramm*.²⁴ It represented the walled city by 57 biotope types that correspond to land use categories associated with characteristic assemblage of plant species (Lachmund, 2020).

The work of Sukopp in identifying spatial and ecological dimensions to be protected, resulted in the negotiation of a new regime of order for natural spaces in the urban plan. In 1988, the ambitious Landscape Programme was elaborated: a programmatic planning tool that still guides the preservation and development of open spaces in Berlin (Kowarik, 2019). The Landscape Programme was an avant-garde plan that complemented the land use programme with the protection and promotion of biodiversity. The demands made by ecologists for conservation were thus aligned with those of urban and environmental policies, uniting in a new planning debate.

After the fall of the Wall, the paradigm of urban planning shifted towards closing off the open areas of the previously divided city and many marginal spaces were lost in the context of large-scale urban redevelopment projects. After 1989, a series of new void spaces were produced among abandoned buildings and along the former 'death strip'. The gap left by the Wall became the central 'intermediate' space of the city, where vegetable gardens and wastelands had settled. It had taken the form of a vast infrastructure, later densified or converted into parklands as in the case of 'Green Belt Berlin', described by Ingo Kowarik—a green path that integrated several areas with significant natural features and led to the formation of green connections and parks in the northern part of the city (Park auf dem Nordbahnhof, Mauerpark, Nasses Dreieck, Schönholz). In his article on the Green Belt Berlin (2019), Kowarik draws attention to the intersection of ecology with urban planning and design

23 Sukopp referred to the research on urban nature conducted by Scholz for his doctoral thesis (Scholz, 1956), in which neophytes—non-native plants—suitable for warm climates were identified.

24 See: Arbeitsgruppe Artenschutzprogramm Berlin (1984). *Grundlagen Für Das Artenschutzprogramm Berlin. Landschaftsentwicklung und Umweltforschung*, Band 1-2 Publication Series Fachbereich Landschaftsentwicklung TU Berlin.

and how these concepts relate to cultural heritage, human well-being and biodiversity conservation. In addition, the role of wild nature accessibility in the integration of distinct social contexts is highlighted. The ecological dimension of urban areas with the presence of wilderness helps to identify the supply of spaces that can meet citizens' needs and can support planning approaches (Fig.1.11; pictures at the end of the chapter).

The integration of wild nature into urban context through a continuous rearrangement between nature conservation policies and urban planning instances has led to the formation of the largest urban parks and the protection of Berlin's fragmented character.²⁵ Also at the architectural scale, since the 1990s ecological requirements have been formalised in the introduction of the *Biotopflächenfaktor* (BFF). That is a design tool that provides for a minimum ratio of built and natural areas within private developments and residential projects in central urban areas. This meant the protection and implementation of horizontal and vertical green surfaces within the courtyards or private gardens and not only in public spaces (SenStadtUm, 2021a). Examining the urban history of 20th century Berlin, urban ecology, ahead of other European contexts, established itself as a discipline capable of ordering spatial and environmental urban hierarchies and designing a novel city dimension of species coexistence, between public and private realms, that portrays the vital aspect of today Berlin's urbanity.

The map of the biotopes initiated by Sukopp and colleagues resulted in two actions that can be recognised in this unique experiment and which resonated in the study of the urban territory. The first is that the city was for the first time represented as a multi-species realm, in which the coexistence of humans with nature assumed a scientific form in the urban sphere—"A large number of plants and animals are able to live in close proximity to the city dweller. The aim of conservation in the city is to protect these organisms for cultural, social, health and ecological reasons" (Sukopp, 1979). The second was about the scale of analysis. The urban ecology research has allowed the micro scale of botanical detail to be interwoven into an understanding of the territory, influencing plans and policies. All species and spaces, even the smallest in nature, have taken on significant meaning for the understanding of the urban as a whole.

The ecological turn, which subverted some foundational references of the sociospatial design—of scale parameters such as those of hierarchies between human and nonhuman—can be framed into a broader intellectual fundamental debate that began in the 1970s. It must be considered that in

²⁵ Nature conservation policies at various times in history have led to the formation of the following urban parks: Park Hallesche Straße/ Mückernstraße (0.7 ha; 1987); Park am Gleisdreieck (26 ha; 2013); Park am Nordbahnhof (5.5 ha; 2009); Tempelhofer Feld (300 ha; 2010); Natur-Park Südgelände (16.7 ha; 1999); Flugfeld Johannisthal (26 ha; 2002); Spandauer Zitadelle (13.1 ha; 1959); Grünauer Kreuz (34.2 ha; 2004); Fort Hahneberg (29.2 ha; 2009); Falkenberger Rieselfelder (60 ha; 1995); Rieselfelder Karolinenhöhe (220.4 ha; 1987) (Kowarik, 2019).

that decade, the theories of English chemist and inventor James Lovelock and American biologist Lynn Margulis (Margulis and Lovelock, 1974), who respectively focused their studies on the macro planetary system and the microorganisms, laid the foundation for the “Gaia theory” or ‘hypothesis’. That is, that the Earth’s surface is maintained in a habitable state by self-regulating and synergetic mechanisms, involving that living organisms interact with the inorganic environment surrounding them. The intersection of the planetary with the micro scale, researched by the two scientists, was the basis for Latour’s later studies of Gaia theory (2015) and its overcoming—the “Terrestrial” ([2017] 2018)—, epistemologically influencing the analysis of nature (both in urban areas and globally) and its agency within political ecology in the context of the new climate regime.²⁶

It is therefore no coincidence that Sukopp’s ecological work in West Berlin was part of a historical moment in which the study of the city through nature was also advancing on the European scene, leading to diverse relevant results that influenced contemporary planning theory. Sukopp’s research has been associated with the investigation of the Belgian botanist Paul Duvingneaud, who paved the way for research into urban metabolism in Brussels (Lachmund, 2020). The two different approaches are comparable through the cross-sections representation: cross-section of Berlin and different human influence zones (Sukopp and Kunick, 1973); cross-section of Brussels (Duvingneaud and Denayer-De Smet, 1977). For Sukopp, the city was a mosaic of different habitats for humans and nonhumans (Sukopp, 1969; 1973). His cross-section represents the schematic city morphology divided into zones, such as forest, ruderal site, dense city structure, gardens (Fig.1.10). Below, layers define the factors that vary according to anthropogenic influence, including climate, water, soil, flora, fauna. Duvingneaud by contrast, developed a functional understanding of how the city operates as an integrated ecosystem type with its own distinct metabolism, through the study of circular flows.

The postwar landscape of Berlin, which presented a unique set of ecological assemblages—studied within an avant-garde cultural and political milieu at the Institute of Ecology—has been an opportunity to definitively revise the conception of the urban void as purely supporting environment for the urban human dimension. Wastelands became the spatiotemporal repository of environmental and cultural change in the study of the city as a sphere of relationships between different agents that compose and inhabit it.

26 See Latour, B. (2018). *Anthropocene Lecture: HKW Berlin*. [online] www.bruno-latour.fr. Available at: <http://www.bruno-latour.fr/node/770.html> [Accessed 29 Mar. 2021]. In his lecture as part of the ‘Anthropocene’ programme organised by the *Haus der Kulturen der Welt* institution in Berlin (2018), Bruno Latour calls for a new politics that should think and act neither in globalist nor nationalist terms, but as ‘Earth-bound’, redesigning our conception of the past and the future, as well as relations between humans, planetary and microscale orders.

Dwelling in proximity to nature

The protection of biodiversity through urban ecology was a transversal link to human issues, the aim of which was to guarantee a specific condition: access to nature in the urban environment (Kowarik, 2018). Living close to nature in the German language has a specific linguistic connotation: *Naturnähe* [proximity to nature]. The term is used in city planning to express criteria to interpret the supply of green spaces in urban areas and in ecology to define the degrees of interference and impact of human action on nature (Kowarik, 1999). It also describes a concrete state of dwelling close to urban natural environment, reflected in various practices, such as gardening or the care of nature at large.²⁷ In more recent literature, this could be allied to the concept of ‘Biophilia’ (from ancient Greek ‘love of life’),²⁸ which is considered to be biologically based and fundamental to developing harmonious relationships between humans and the biosphere (Barbiero and Berto, 2021). The concept has been itself linked to a branch of ecology ‘Affective Ecology’. It concerns with emotional relationships between human beings and the rest of the living world, so a tendency to focus upon life and life-like forms (Barbiero, 2021).

Associating the term of *Naturnähe* with that of Biophilia seems useful to describe the way the human-nature relationship evolved in accordance with urban design under different historical circumstances. During the 20th century, the rapid changes, the widespread presence of wastelands, and the endorsement of ecology as part of the urban were among the conditions that influenced the formation of social practices and behaviour in synergy with nature. The specific urban circumstances meant that the attitude of Berliners towards the landscape did not only conform to that of ‘users’, but influenced a peculiar, even affective and cultural way of living and inhabiting the urban natural environment.

The ties between design cultures, citizens and nature can be interpreted in various ways. The ecological perspective can help to understand and re-evaluate how past design experiences align with a deeper understanding of contemporary actions that portray a particular civic orientation towards the environmental concerns. Here, the discussion focuses on: the ‘*Lebensreform*’ movement and the figure of Lebrecht Migge, who introduced the garden as a political and ecological device in the design of the city; in ‘activism and associationism’, which contributed to the negotiation of nature conservation regimes and as a manifestation of civic responsibility; in ‘scientific and

²⁷ Gardening associations, nature conservation institutions or naturalists explicitly use this term to define a specific behaviour of citizens in the care of natural assets (e.g. *BUND Naturschutz, Gartenfreunde*).

²⁸ The concept was first coined by a German psychoanalyst and social philosopher Erich Fromm in the 1970s and later used by the American biologist Edward O. Wilson (1984).

participatory practices', as models of human engagement with urban nature issues, both in the production of new forms of ecological knowledge and in the maintenance and care of green spaces. The aim of this selection is to trace a genealogy of contemporary practices, which today are represented in a spectrum of human-nature relations that characterise the Berlin natural urban landscape, its care and its cultural significance.

Lebensreform

In the early 1900s, the poor living conditions in the high-density industrial city received attention in Germany and fortified a general rejection of the metropolis that became popular among middle class intellectuals²⁹ (Linse, 1983), who shared the common belief that the industrial urban conditions were physically and socially degenerating the human being. The interaction between the human body and nature took a crucial position in the *Freikörperkultur* movement (literally 'free body culture' associated with naturism or nudism). It did not emerge as an isolated phenomenon, but in the context of the anarchist lifestyle reform [*Lebensreform*]³⁰—a movement that sought to renew the whole way of life in the areas of nutrition (vegetarianism), clothing, housing, health and personal care body care (rejection of alcohol, intoxicants and tobacco consumption). *Lebensreform* referred to peasant literature agro-romantic and anti-metropolitan. It celebrated authority, order, and hard manual work as key values of an authentic German identity and was used as a cultural link between an agrarian past and an industrialised future in German nation building (Walker, 2009).

The *Lebensreform* demanded large, open, green spaces and such political and intellectual context deepened the debate around the garden city. In Berlin that was represented in modernist architecture public housing projects designed by Bruno Taut in the 1920s, such as the *Hufeisensiedlung* Britz and the *Siedlung Onkel Toms Hütte*, who conceived the residence as an integral part of a project in harmony with nature (Taut, 1963). As well as in the emergence of new ways of living in communities, based on sharing principles and resources among people. One of the most known is the *Obstbau-Kolonie Eden* in Oranienburg—a vegetarian community pioneering the implementation of the independent proletarian-socialist life reform movement (Baumgartner, 1990).

One of the key figures associated with the lifestyle reform in Berlin is the landscape architect Lebrecht Migge. Migge's ideas and projects were linked to a very clear political vision, based on a society independent to the central system. In his "Green Manifesto", published in Germany in 1919, he proposed that all social and economic problems of the German nation could be solved by creating as many gardens as possible, which included parks, but most importantly, small, intensive vegetable plots where everyone could grow their own food (Haney, 2007). He explicitly called for the need of Germany to become

²⁹ Prominent supporters were Rudolf Steiner and Franz Oppenheimer (Linse, 1983).

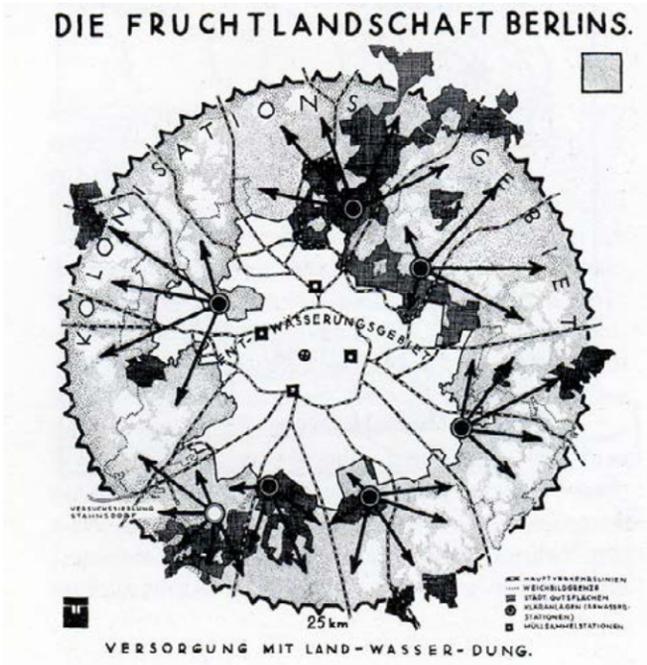


Figure 1.12 Fruchtlandschaft Berlin, Migge, 1932.
(Bartoli, Linden and Wüst, 2020)



Figure 1.13 Life on the Sun island. Photo by Hans Peter Elsaesser.
(Bartoli, Linden and Wüst, 2020)

a nation of gardens, he envisioned a new world, where city and countryside formed a continuous texture of agriculture production, dwellings, and civic areas (Haney, 2007); to “bring the city back to land” and to “create a city-land” (Migge, 1919). He drafted for the fringes of Greater Berlin a productive landscape—*Fruchtlandschaft*—, connected to the city through a circular system of resource use (Fig.1.12). According to Migge, the garden was the synthesis of urban and rural landscape, a place of self-determination, self-sufficiency and production, to meet the needs of individual families gathered in communities. Food production had to be used to support small communities, while waste to be transported and sold at central city markets or processed into compost and applied to vegetable gardens and fields. Buildings and cultivating plots were also strictly interdependent. Compost toilets as well full connection between the gardens and the living spaces were envisaged. In this sense, Migge formulated an urban metabolism where the *Fruchtlandschaft* links residents to building plots and building plots to the urban resource cycle of food and waste (Gogl, 2016). Around this political and design vision, dwelling with nature remained at the centre of his investigation. The *Fruchtlandschaft* project envisaged an approach at different scales. The urban scale, in which the garden areas established a landscape, social and economic relationship with the metropolitan system, and the architectural and detailed scale. The individual garden plots presented a particular architectural typology. The so-called *Sonnenlaube* (Sun-hut) was conceived as a minimal space where urban gardeners could rest, cook and store their gardening tools in contact with nature (Burckhardt, 1981).

Migge’s activities were outlined in different theoretical and design approaches (Burckhardt, 1981). From 1930 to 1935 on an island near Berlin, Migge experimented as a protagonist with the ideas of complete immersion in nature and self-sufficiency. The *Sonneninseln* became one of his most significant—although less studied—design experiments. Documented in a film by Thomas Elsaesser (2017), life on the island became in every detail a collective pioneer project. Dwelling with nature and working for nature was the essential condition for the project to be realised in its entirety (Fig.1.13). Although Migge never mentioned ecology, Bartoli describes the *Sonneninsel* as an ecological experiment (2020), effectively linking the practice of living with nature to that of gardening and ecological exploration. Migge embodied a vision of urban design as an integration of the individual, society, space and nature, acting himself as a key figure in the profound understanding of the (political) character of the contemporary gardener.

Activism and associationism

The lack of greenery in the high-density industrial city began to be addressed programmatically in the design of green spaces for working class people to ensure adequate hygienic conditions for families and especially for the children. The garden colonies, to which Migge refers in his studies, were green

space typologies that started to be recognised in Germany in the middle 19th century and subsequently organised themselves under the umbrella association *Gartenfreunde* [Gardening Friends] around 1920 (Katsch, 1996). The presence of allotment gardens within the city has been strongly rooted in German (and Northern European) landscape tradition and contributed to the building of new gardeners' groups and communities that have historically played a role in the negotiation between urban transformations and preservation of urban natural spaces (Gutzmann, 2015). In the 1970s, together with the garden movement, other common interests in nature protection based on community alliances were rooted within Berlin when ecological demands met a new civic activism.

Critical public within West Berlin had come to acknowledge urban nature as an object of concern and political action. Environmental conflicts started to be addressed also within networks of citizens engaged in *Bürgerinitiativen* [citizen's initiatives]. Like other social movements these organised groups opposed dominant paradigms of urbanisation such as a lack of green spaces, noise abatement, housing conditions and urban renewal. They actively fostered the scientific theories of the time that promoted the integration of urban nature conservation into the city's development up to date (Lachmund, 2013a). A number of natural areas were also preserved thanks to grassroots initiatives, such as the Südgelände, Berlin-Adlershof (Flugplatz Johannisthal), which followed in the wake of other important activist campaigns that had already started at the beginning of the century, such as the one for the protection of the Grunewald forest (Wilson, 2019). Associationism, formalised through large environmental movements or in small groups, has matured into a series of now highly professionalised institutions that bring together different kinds of professionalism and academic knowledge.³⁰

The protests of the 1970s also injected the demand to integrate ecological qualities into the discourse about the housing crisis. The Kreuzberg district was the focus of an important protest movement against policies of demolition, evictions and vacancies which had led to the consideration of new design approaches on existing building stock linked to ecological principles within the International Building Exhibition (IBA) 1984-87.³¹ *IBA-Altbau* [IBA Old

³⁰ The BUND group for example is a German non-governmental organisation dedicated to nature conservation and environmental protection, founded in 1975. Or the Berliner BLN (*Berliner Landesarbeitsgemeinschaft Naturschutz*), founded in 1979, with the aim of coordinating the work of Berlin nature conservation associations with federal, state and district authorities (Lachmund, 2013a).

³¹ In 1978, the West Berlin Parliament with the leitmotiv *Die Innerstadt als Wohnort* (The inner-city as a place to live) firstly officially finance IBA Berlin GmbH, the corporation responsible for what eventually became known as IBA 1984-87 (Miller, 1993). IBA developed according to two different strategies to inner-city urban development. IBA-Neubau (New Buildings) directed by Josef Paul Kleihues concerned the *Critical Reconstruction* of the historical center, mainly involving the southern district of Friedrichstadt, Tiergarten and the Tegeler Hafen. IBA-Altbau (Old Buildings), directed by Hardt-Walther Hämer, concerned urban renewal.

Buildings] directed by Hardt-Waltherr Hämer initiated grant programmes for 'Cautious Urban Renewal' that was concerned with the ecological upgrading of old buildings and led to fundamental changes in urban standards and social conservation in Kreuzberg.³² Plans for the district's renewal included a process of civic participation in planning, gradual repair of structures compromised by the war by ensuring lasting urban change and proposed new residential models. As described by Margrit Kennedy in "Öko-Stadt : Materialien Zur Internationalen Bauausstellung Berlin" (1984) some building renovation techniques were based on ecological solutions for the improvement of architectural artefacts that could be implemented independently by citizens in a DIY³³ manner without an expert assistance. Renovation practices focused on a series of actions that today would be considered 'Nature Based Solutions', such as the dimming and insulating of windows using plants grown indoors (Fig.1.14).

The direct involvement of civic participation in the design of private and collective spaces took place through assemblies, founded on the principles of direct democracy and solidarity based on the wishes and needs of residents (Förster, 2019). The *IBA-Altbau*'s experience with the reconstruction of the city brought attention to residential green spaces. The green rooftops and inner courtyards of houses blocks began to acquire the value of minute green areas for communal living and shared practices in proximity to the living place. Among different implementations of ecological plans,³⁴ two blocks in the Kreuzberg district represent design principles applied to clusters of housing units. The Block 103, which encompassed 12 squatter houses, became a comprehensive example of planning with self-help living models. It proposed new types of residential courtyards, factory and district initiative, tenant gardens, playground and a green area, daycare facilities, local businesses, as well as ownership models (Förster, 2019). The Block 6 resulted in a real pilot project for the application of ecological principles. On 900 square metres in the courtyard of the residential complex, a grey water treatment plant was installed in a wetland constructed with a multi-level planting concept (Bodenschatz, Polinna and Huber, 2010) (Fig.1.15). The outstanding contribution to a new design culture within *IBA-Altbau* was the recognition that planning proposals could only be adapted and brought to life through the cooperation and interest of

32 In the context of the IBA the *Milieuschutz* (milieu protection) has been formalised. It is a legal instrument of conservation statutes. It is intended to prevent the composition of the residential population from changing due to displacement through expensive modernisation measures, changes in the structure of a dwelling, the conversion of dwellings to commercial use or the conversion of rented to owner-occupied dwellings.

33 Abbreviation for do-it-yourself, i.e. the practice of realising projects independently.

34 See the implementation of a pioneering (never realised) *Ökologiekonzept* (Ecology concept) for Morizplatz in Kreuzberg, reported in detail by Ekhart Hahn (1994).

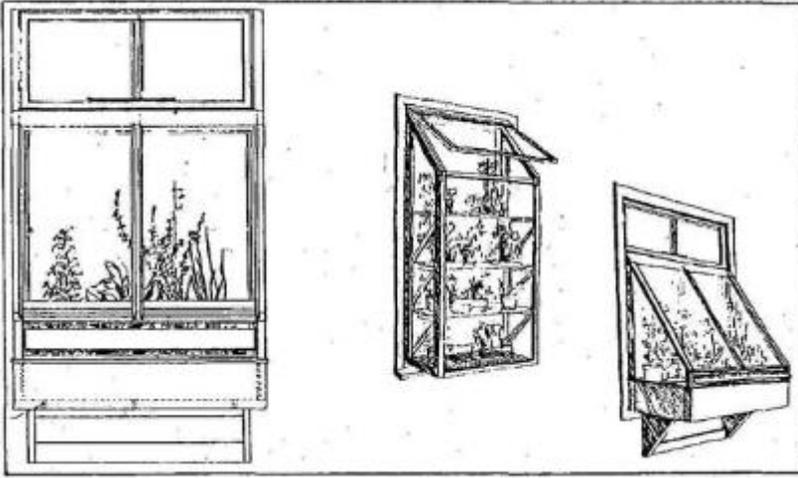


Figure 1.14 DIY temporary thermal protection devices implemented within IBA *Cautious Urban Renewal* programme. (Kennedy, 1984)



Figure 1.15 Block 6 plan. (Hahn and Simonis, 1994)

those involved in urban change (Hahn and Simonis, 1994).

Through their activism, citizens have historically provided evidence of the added value of implementing ecological principles and protecting natural assets. Their voice as stakeholders, both in planning practice and in the political debate on urban change, combines civic engagement with forms of stewardship. Thus, the implementation of individual and collective responsibility towards both nature and the urban common space.

Participatory sciences and practices

Ecological and environmental stewardship has become particularly evident in different forms of knowledge's co-production. Ecological requirements also echoed different aspects and scales of city design. Lachmund (2013a) makes clear how ecological planning in West Berlin was the result of different knowledge interests. Ecologist's research on urban biodiversity was at first also shared as part of study materials collected by small groups of vegetation scientists or experts on certain animal groups, amateurs and people from various backgrounds who shared an interest with members from various knowledge domains. As in other international contexts, the integration of different forms of knowledge into the field of ecology has heightened awareness of the need to protect urban species (Gandy, 2019), contributing to the collection of significant new data. The map of Berlin's biotopes is in fact an example of how the boundaries between academic discourse have collapsed and civic expertise has been integrated into taxonomic work and urban policies.

Once called naturalists or amateurs, this category of people is now considered part of the new 'citizen scientists'—a label first applied at the end of the 1980s in Anglophone literature. It describes people who generate scientific data through voluntary work addressing politically relevant issues. Citizen science broadly refers to the active engagement of the general public in scientific research tasks (Vohland et al., 2021) and has grown incrementally in Europe.³⁵ Biodiversity monitoring especially profits from this approach: 80% of biodiversity data in Europe is recorded by citizen scientists (Frigerio et al., 2021) and data collected are normally available on open access platforms. Voluntary work in empirical research is also incrementally regarded as fundamental at the institutional level. As in the case of the Ministry for the Environment and Nature Conservation (BMU), that financed the development an open-access application³⁶ for surveying different species in Germany. Such technological tools and big data gathering actively contribute to the making of new critical maps, as well as new theoretical approaches to acknowledge urban biodiversity.

It is particularly remarkable to stress the figure of the naturalist or the

35 In 2012, ECSA (European Citizen Science Association) was officially registered as an association under German law, and it is based at the *Museum für Naturkunde* in Berlin.

36 *Naturblick* (Museum für Naturkunde Berlin, 2020)

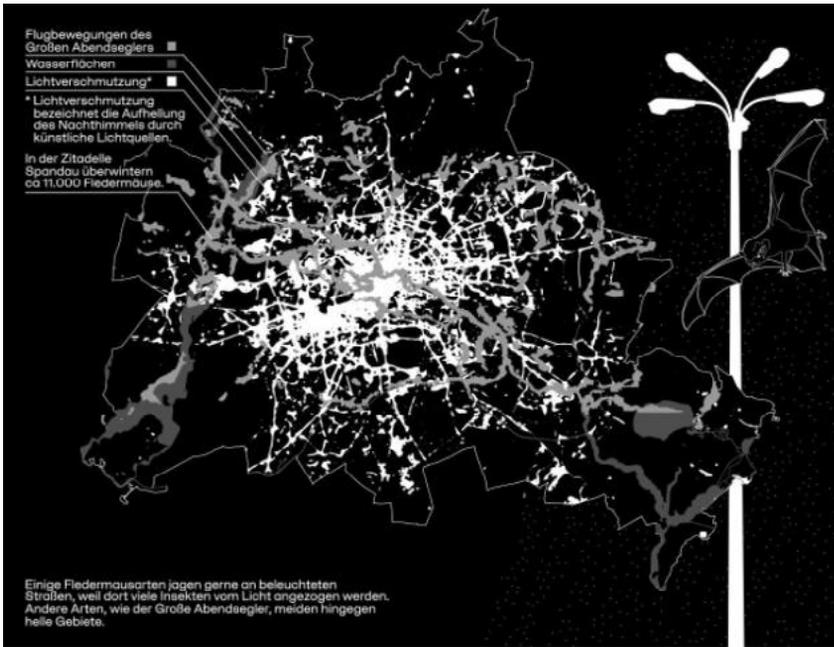


Figure 1.16 Mapping the post-human city 2021 by By Moritz Ahlert & Alsino Skowronnek. (ARCH+, 2021)



Figure 1.17 Open Soil Atlas map (Open Soil Atlas, 2020)

new citizen scientist in the current Berlin context. The non-professional and non-institutionalised civic interest in nature and environmental aspects is leading to significant changes in the methodology of analysing the city and its environment. The project “Mapping the post-human city”³⁷ (2021) is one of the most recent exemplifications. As part of the “Cohabitation” exhibition,³⁸ the map focuses on observing Berlin through the prism of its nonhuman species. The project relies on citizen scientists’ labour—including the ministry’s application (Fig.1.16). An attempt that rather than being merely taxonomic is representative of a change of perspective. The mapping delineates a juxtaposition of roles in city enquiry. The role of the cartographer doesn’t correspond to the field worker, but an expert who collects data based on personal interests and the involvement of civil society. On the contrary, emerging groups of citizen scientists in the city are joining their activities with activist opposition to dominant power structures in favour of a more democratic access to urban knowledge and environmental education. Small initiatives are developing in Berlin with the objective of raising awareness of nature-related issues, as urban soil health (Open Soil Atlas³⁹) (Fig.1.17) or urban multispecies entanglements (Multispecies Resistance⁴⁰). Counter-mapping that opposes top-down urban strategies to actual needs and critical understandings of individuals and communities are rising in reaction to urban change.

It is noteworthy that today forms of critical cartography in Berlin are used by both participatory sciences and participatory practices. The connection between activist groups that took hold in the last century against socio-environmental injustice and new counter-mapping methodologies for participatory practices is exemplified in the *Berlin-Entsiegeln* [Unsealing Berlin] initiative. The project⁴¹ consists of an open-access map for the districts of Kreuzberg and Friedrichshain in which citizens can indicate possible unsealing strategies. Streetscapes, unused parking lots or simply vacant lands are represented as possible green places—areas where impervious surfaces could be removed by local authorities. This initiative elucidates how the transition towards greater inclusion of nature within the city is strongly favoured by the Berlin civil public. It also poses questions about often standardised methods of public

37 By Moritz Ahlert & Alsino Skowronnek. (ARCH+, 2021)

38 “Cohabitation – A Manifesto for the Solidarity of Non-Humans and Humans in Urban Space” curated by Arch+, at Silent Green Berlin (2021).

39 A citizen scientists counter-mapping project initiated by Feld Food Forest community in 2020 (Open Soil Atlas, 2020).

40 A project initiated by a team of scientists, artists, and researchers, collaborating for the creation of an ecopolitical map to show Europe from a nonhuman point of view (Multispecies Resistance, 2021).

41 The project it is developed by the activist group *Bündnis 90* with the association *NaturFreunde Berlin* (Berlin-entsiegeln, 2020).

participation in urban design. In fact, the correlation between analysis of the actual needs/wishes of citizens and project approaches is almost reversed. It seems to envision a new figure of the planner—no longer the one who involves the civil public in the design, but rather someone who knows how to integrate different agencies and stakeholders in the city design process.

The use of open-access platforms fostering public participation in the monitoring of urban natural assets have begun to be part of Berlin's strategy for green governance. One of the most notable initiatives is *Gieß den Kiez* [Water the neighbourhood],⁴² which promotes the engagement of citizens in watering street trees. It provides a digital map indicating the trees' water requirements, arboreal species and their state of health. City dwellers can check the data and according to their willingness can provide water to the plants and track their practices on the platform. *Gieß den Kiez* platform is an example of how people's concern for the natural environment and voluntarism are taken into account by local administrations as attitudes that can contribute both to monitoring and containing the costs of maintaining greenery. Some critics see both participatory science and participatory practices as a renewed neoliberal approach that exploits the free labour of citizens instead of validating it (Vohland et al., 2021; Rosol, 2010). In Berlin's recent history, however, it can also be remarked how the citizen can be considered a resource in the construction of possible sustainable scenarios with respect to the preservation and design of natural spaces. This perspective offers insights into rethinking new approaches to design as well as new types of mutual actions between humans and urban nature.

Nature, transgression and design

Over the course of a century, and particularly since the fall of the Wall, nature has taken centre stage not only in everyday practices but also in the city socio-cultural aspects, becoming its de facto embodiment. In December 2018, *The Guardian* newspaper published illustrations by artist Ali Fritzgerard on the history of urban ecology in Berlin. "Like Berlin infamous party, the flora is wild" (Fitzgerald, 2018), states the title of a drawing depicting scenes of transgression in a Berlin club associated with ruderal vegetation (Fig.1.18). The illustrator compares the image of wild plants growing in the ruins of the city with a human stance. Wilderness and green spaces assumed after the reunification a central role, both symbolically and materially, in naturalising social cohesion—"beyond the boundaries of the human skin" (Stoetzer, 2018:305). While the wild has conventionally been considered something undesirable and a symbol of decay (Barchetta, 2021), in fact these traits are conceptually united in the state of 'absence of control', in its broadest sense. After an initial post-unification building boom in the 1990s, the city found itself in a phase of despondency,

⁴² Platform developed by CityLab Berlin in collaboration with Berlin administration (CityLAB Berlin, 2020)



Figure 1.18 In the postwar 'death zone', new life: Berlin by Ali Fitzgerald – an urban comic. (Fitzgerald, 2018)



Figure 1.19 About Blank is a formerly illegal, multi-room club by Ostrkeuz S-Bahnhof in Friedrichshain. (Elena Ferrari, 2019)



plunged into a fiscal crisis, which coincided with deindustrialisation as well as rising unemployment rates. A close relationship exists between low density, postindustrial sites, unplanned, wild vegetation and practices of transgression that evade and lurk in spaces that are not conventionally ordered and controlled. It is not only about a bond between the human body and wild nature or mutualism between species: the agency of nature in the construction of urban scenarios is reflected in aesthetic and behavioural aspects. As vegetation grew untouched in spaces on the fringes of urban development, it itself became the setting for collective, creative, stigmatised, and illicit activities.

As addressed in the rich debate on ‘Shrinking Cities’ (Oswalt, 2005),⁴³ the Berlin-Detroit parallel emerged in the 1990s. At different times and in different contexts, postindustrial, low-density urban conditions brought out the same processes in the two cities. Informal uses, community gardens and subcultures flourished, making the natural open space an articulated assemblage of social-ecological aspects to be studied (Draus et al., 2019; 2020). In Detroit, abandoned and unmanaged places have been the cradle for black communities to give birth to the techno style of music, that was later imported to Berlin in the same modalities: through raves and open air in wastelands and in abandoned buildings. Techno music itself became a symbol of Berlin, recognised worldwide for its *Clubkultur* [club culture], and the closer cultural connection between the two cities. The techno parties in Berlin were (and are) places of strong transgression, where drug use intertwines with the free use of the body in dance and sexual expression.⁴⁴ Clubbing combined aspects of degradation and marginality with a sense of community and unity (Denk and Von Thulen, 2014). Techno music spaces were conceived as hidden crucibles of protest. “Clubbing is just one form of revolt which attempts to reclaim creative participation and life-enhancing abandonment, to fight against the tendencies within capitalism to commodify [...] As a socio-historical trend, *club culture* is thus a ritualistic inhabiting of ruins as well as the awakening of a future through the unforgetting of a repressed primordial past beyond the individual self and Cartesian mind-body dualism” (Honey, 2019). The first clubs in Berlin, many of which no longer exist, were located along the former Wall (Ritts and Santana López, 2021) (Fig.1.19). The progressive densification and gentrification processes that have affected club culture and practices have led to strong reactions among Berliners, who now perceive them as ‘spaces of

43 The book was published in conjunction with the exhibition “Schrumpfende Städte: Internationale Untersuchung,” held at KW Institute for Contemporary Art, Berlin, September 4–November 7, 2004. The exhibition illustrates the urban and architectural form of four cities affected by vacancy, decay and neglect: Detroit, Manchester, Leipzig and Ivanovo.

44 One of the most known open air events was the ‘Love Parade’ in Tiergarten, in which the park became a notable spot for cruising practices.

urgency'.⁴⁵

In common parlance, the word 'wild' is associated with parties and nonconforming behaviour. Wild areas of the city welcome different forms of body performance or ways of life in urban space. Forests at night in summer become hidden dance floors. Parks during the time of the pandemic, in addition to being safe and hygienic spots in which to carry out daily activities, have become open-air clubs.⁴⁶ Along the edges of parks and the banks of watercourses, in neighbourhoods most affected by social stigma, such as drug use and poverty, nature becomes a refuge or informal shelter. Walking through the city's green areas among the bushes, one comes across encampments of tents, some temporary, others that persist for longer periods and are furnished with scraps of basic items. Nature in Berlin has also become the context for accommodating different ways of living in the city.

Wilderness evades controlling and draws boundaries that oppose private patterns of space use. It defines conceptual lines of separation between certain landscapes (and the life within them) and the commonly understood urban development. In contrast to the Western model of 'privatisation of nature'—managed and domesticated by human action—(Adhya and Plowright, 2017) the wild spaces could be interpreted not according to public scheme but to the collective. The *Brachen* offered spaces of hope to escape social divisions (Stoetzer, 2018), particularly in the 2000s when the phenomenon of temporary uses—*Zwischennutzungen*—emerged more insistently. Empty lots became turned to be community gardens, one of the first of which were called multicultural gardens,⁴⁷ founded by immigrant groups. By cultivating plants different communities established around common interests, principles and knowledge, overcome cultural barriers. Neither wild nor domesticated, these spaces gave rise to new cultures of landscape design, in which nature cannot be regarded as merely productive (or agricultural) but as an object of social and ecological unity.

The phenomenon of *Zwischennutzungen* was the engine for creative design practices; the open spaces of the city during the years of abandonment became a territory of social production (Lefebvre, 1991). The book "Urban Catalyst: the Power of Temporary Uses" elucidates how pioneer uses have become a permanent part of discourses on Berlin urban development and urban planning (Oswalt, Overmeyer and Misselwitz, 2014), which have been

45 "Space of Urgency" is a global platform that aims to empower the visibility and resilience of cultural spaces, including clubs as protective contexts for minority communities. www.spaceofurgency.com

46 The Treptower or Hasenheide parks in Neukölln, while the city's dance venues were closed, turned at weekends into raves in the city centre.

47 One of the first and most famous in the city was the *Interkultureller Garten Rosenduft*, founded (2006) on the once unplanned area of the Park am Gleisdreieck (Lichtenstein and Mameli, 2015).

included as a methodological work in professional architectural practice. As in the case of Raumlabor⁴⁸. The architectural firm's practices in recent decades have integrated awareness of neoliberalist dynamics into urban design. The temporary dimension was therefore accepted as transitional between the collective project and possible future development prospects.

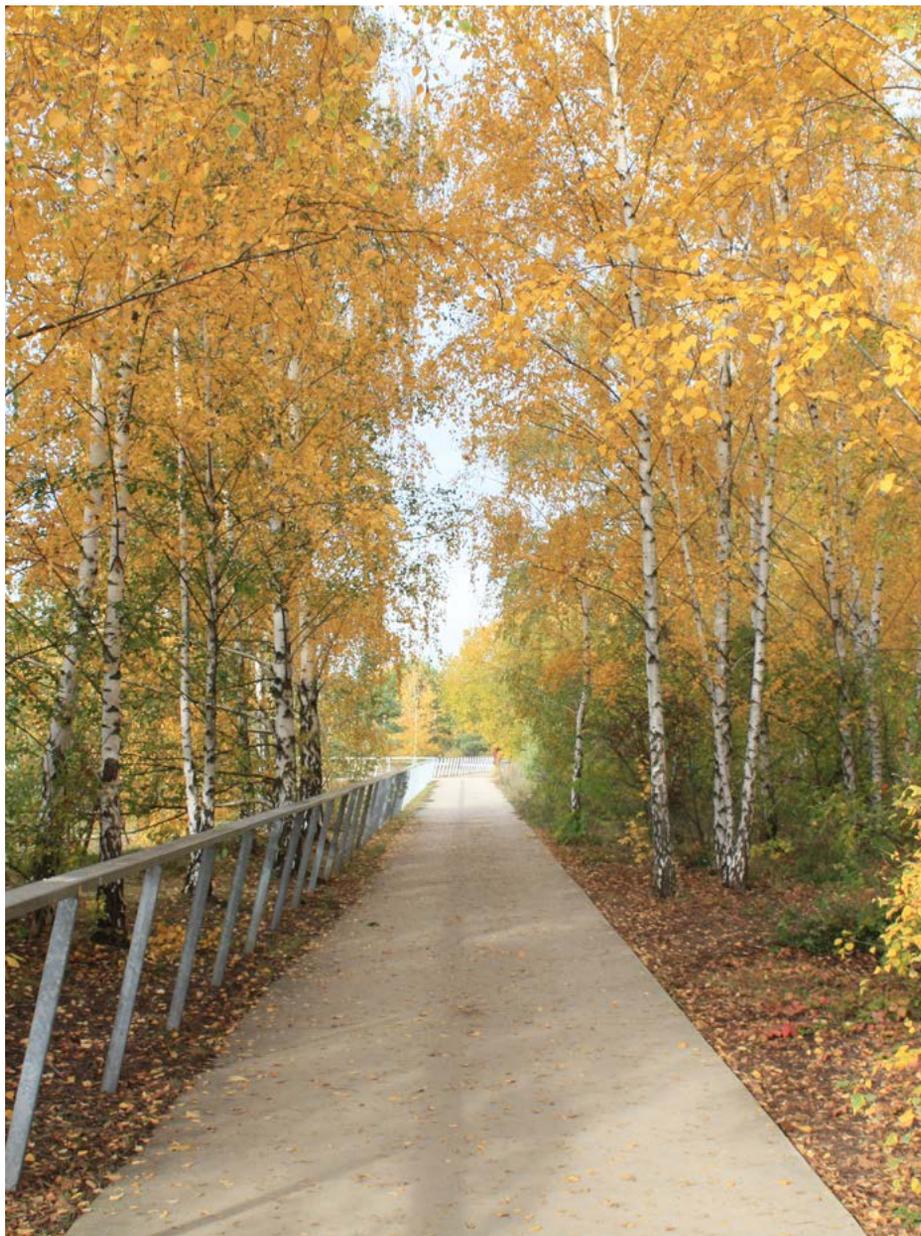
The aesthetic value of the marginal and abandoned space (Gandy, 2013; 2022) is inextricably intertwined with Berlin's landscape culture. It has also become an identifying element in landscape design. The transformation of wasteland areas into public parks has brought out the aesthetics of the wild as a design language. Nature has acquired a unique cultural, social and ecological value in planning, raising questions about what is actually the trend line in Berlin's contemporary landscape design and how this is influencing a wider debate about the planning of nature spaces in general. For instance, in the case of some public parks, such as the *Tempelhofer Feld* and the *Park am Glesidreieck*—discussed in chapter 4—the presence of spontaneous nature is the result of several instances: the inclusion of ecological and activist demands for the conservation of the area in urban plans over the years. The design of wastelands is not only a programmatic action of planners, but a practice of collective management, maintenance and claiming, which has become the representation of specific urban socio-cultural attributes.

The inhospitable landscape of rubbles and the urban voids became an opportunity to redefine Berlin's natural spaces as capable of crossing cultural, political, design and aesthetic boundaries. A manner of living in contact with nature, with an intellectual and political spirit, through activism and different forms of community management, participatory practices and cultural actions, delineate specific traits of the contemporary Berlin urban dweller. If during the last century urbanism has sought the relationship between the anthropic and the natural, the analysis of the human-environment, linked under different angles of investigation, shows how open space can be understood as a sphere of cohabitation between species, social and cultural diversity. The past unruly heterogeneity of projects and practices within the urban landscape today meet other paradigms. What is left of Berlin's landscape tradition? And what will remain of the cultural landscape in a city driven by neoliberal policies? How can Berlin's urban nature be reinterpreted in the age of the Anthropocene, the global crisis and social and ecological transitions?

⁴⁸ *Raumlaborberlin* is an architectural firm that has made temporary uses a design methodology since the 2000s. The office has been a pioneer in the occupation of many abandoned areas in the city. See: www.raumlabor.net



Green Belt Berlin- Park auf dem Nordbahnhof.
(EF, 2020)



Green Belt Berlin- Park auf dem Nordbahnhof.
(EF, 2020)



Green Belt Berlin- northern part of Mauerpark.
(EF, 2020)



Green Belt Berlin- northern part of Mauerpark.
(EF, 2020)



Green Belt Berlin- Nasses Dreieck
(EF, 2020)

Chapter 2

In-between Nature

“The unintentional side effects of political, economic, and militaristic actions have marked the city. But it wasn't ideal plans or organic growth that formed Berlin, because in the repetitive process of inventing, destroying, and rebuilding, the original intentions of all large-scale planning were soon lost. [...] Like in a photograph that has been multiply exposed, new figures emerged from the superimposition of different motifs. Up to the present, the opposing powers have created unplanned structures and activities, urban phenomena which are beyond the categories of urban planning and architecture.” (Oswalt, 2000:23)

What is left

Berlin, in the course of its recent history has become a unique ground for reflection on metropolitan landscapes. Theoretical and design-based developments that aimed at including open spaces in the urban fabric have made Berlin an example that goes against the European model of the compact city. Ecology through a new planning regime has included the conservation of wildlife in new landscape design approaches. The gardens, first the allotments of the early 20th century interpreted in Migge's political visions, then the community gardens within the framework of temporary uses, turned into social and productive spaces as a component of the current landscape system. Superimposed on this, is the role of urban voids that have developed into niches within the construction of alternative cultural contexts and scenes. Yet, today's cultural landscape is the result of the tension between two opposing phenomena. The first concerns all strategies and plans that have pursued the integration of nature in the city among different scientific endeavours. The second took place through the redevelopment and erasure of low density.

While up until two decades ago these opposing dynamics led to Berlin being recognised as a “city without form”, characterised by “unplanned structures and activities” (Oswalt, 2000:23), the progressive shrinkage of open spaces and the cultural practices that defined their social character has now confined the legacy of the urban landscape to small urban areas, surviving in central locations. These are gardens and wilderness along transport infrastructures, large cemeteries embedded in densely populated neighbourhoods, street

greenery, inner courtyards, waterfronts, park edges, interstitial spaces. De facto, they cannot be included in pre-established forms of landscape or land use categories. Their heterogeneous spatial dimensions often reflect different patterns of space management and governance and they present varying degrees of naturalistic quality.

This complex mosaic of natural urban soils suggests that urban nature is increasingly a hybrid space (Beatley, 2012; Waldheim, 2012). As an analytical tool the concept of hybridity is a broad brush-stroke of an idea that continues to be appropriated across disparate critical reflections on the study of the contemporary city and its natural environment. Hybridity usually refers to intermingling and often to something that has not assumed a single specific connotation. Precisely because they are excluded from the categories of urban ordering, spaces of a hybrid nature are currently subordinated to a marginal status according to the city's development strategies. They are relegated to a utilitarian value within neoliberal policies, as suitable areas for future urban development—a process that tends to reduce diversified spaces, processes and behaviours, according to a logic of normalisation and efficiency (Stavrídes, 2015; Bianchetti, 2016).⁴⁹

The concept of 'intermediate state of nature' that this research proposes to feature applied to the study of Berlin facilitates the discussion of how the 'hybrid' has taken on a specific connotation. The first chapter sought to offer a perspective on how the 'intermediate hybrid sphere' between the anthropic and the natural realms can be conjugated in the blending of the main guises: spatial, ecological, social, cultural. The (last) traces left on the urban territory of these attributes are prefigured in minor natural environments that are today illustrative of the city's palimpsest. Closely produced by continuous spatial and historical changes, these contexts emerge today as a new precarious urban natural dimension: landmarks in transition between recent past and a near future.

(Un)intentional natures

In contemporary terms, there is a shared conception—based on the concrete difficulty of analysis—of 'what is left' of natural metropolitan resources as a matter produced by a series of conditions not governed by a coordinated vision and therefore considered 'unintentional'. In order to extend the reflection conducted on the contemporary Berlin to a multidisciplinary perspective, five concepts are proposed here: "unintentional monument" (Viganò, 2020), "patchy dynamics" (Pickett and White, 1986; Wu and Loucks, 1995), "nature of the fourth kind" (Kowarik, 1991), "minimum landscape" (Ferlinghetti, 2009) and "unintentional landscape" (Gandy, 2016). The focus tightens on the material dichotomous relationship between the city and nature, along transformation,

⁴⁹ This refers to the critique of capitalism and functionalism by Stavrides and Bianchetti respectively.

while illustrating that what is conventionally understood as ‘unintentional’ can be a significant field of enquiry in the study of contemporary metropolitan landscapes. This presupposes a change of epistemological outlook on marginal territories, both in terms of their role in the city project and their connotation in linguistic registers.

On a spatial enquiry, the hybrid character of the urban fabric is representative of many contemporary metropolises. Starting in the 1980s, the foundations were laid for a new epistemological thinking in the field of urbanism,⁵⁰ a subject that no longer adequately responded to the complexity of the problems posed by the structural changes affecting the territory and urban centres, such as the processes of economic⁵¹ and of institutional restructuring. New languages rethinking the rationality of modernity have therefore been assumed in the study of the European city. The urban fragmentation has been recognised in the isotropy of the sprawl in the Veneto region (Munarín and Tosi, 2004), in the ‘city porosity’ (Secchi and Viganò, 2011), the *Zwischenstadt* (Sieverts, 2001)—mentioned in the first chapter. The relation between the city’s growth, expansion and natural environment⁵² has been the momentum to question new urban forms, setting the intellectual basis to reflect on the horizontality of the urban system (Viganò, Cavalieri and Barcellona Corte, 2018).

Densification and concentration strategies seem to collide with the real attributes of the contemporary metropolis, which today is “a mixture of different kinds of spaces, infrastructures, cultivated land, and equipment. It is something that is normally considered as chaotic, a mess”—states Paola Viganò in one of her latest presentations, arguing that such “conflictual accumulation of urban materials and natures can be transformed into a resource.”⁵³ The current global crisis offers the cue to shift the urban planning debate in order to utilise the potential and effectiveness of a new vision which can counter dynamics of pure consumption. The change of perspective that Viganò advocates for in considering the ‘waste’ produced by urban transformations as

50 See Secchi, B. (1987). *Il Racconto Urbanistico: La Politica Della Casa E Del Territorio in Italia*. Torino: Einaudi.

51 For instance those of deindustrialisation, consumption of agricultural land, reorganisation of services.

52 Regarding the North American context and the relationship between city expansion and nature see also the environmental history of the city of Chicago in: Cronon, W. (1991). *Nature’s Metropolis: Chicago and the Great West*. New York: W.W. Norton.

53 Paola Viganò’s presentation of the Grand Genève project. This project has been mentioned among Paola Viganò’s works and theories because it deals specifically with the role of different natural urban soils in the design of the city. She takes as her starting point the hypothesis that for a complete understanding of the contemporary metropolis it is necessary to investigate the fragilities of the urban system. See: Viganò, P. (2021). *Soil and labour: the Project of the Transition*. TEDx Talks. 8 Jan. Available at: <https://www.youtube.com/watch?v=BhP1vIXpZcU>.

'resources' is based on the idea of a city that can 'rewrite itself' on the existing assets (Viganò, 2012).⁵⁴ It presupposes looking at the city as a complex system, deconstructing hierarchies of spaces in favour of a horizontal, and holistic and critical approach.

This is clarified by the metaphor that she, drawing on Corboz (1983), employs for conceiving the territory as a palimpsest (2020). The city as palimpsest is not an inert entity but a deposit 'subject' to continuous and stratified modifications and projects in the long run—*longue durée*. Time is the central dimension that enables us to interpret how slow and repetitive accumulations of opposing powers and projects on the territory have led to spatial relapses. This complex time/space superimposition finds its proper expression in what Viganò defined as "unintentional monuments": "episodes of a collective human and environmental history" that can be understood individually and mark a specific instant, thus keeping the memory of the palimpsest alive (Viganò, 2020:169). The "unintentional monuments" is a space "in common" (2020:169) that gathers the semantization of urban processes; the contraction of space, unintentionally generated and representative of metropolitan history.

The value that urban planners associate with the discontinuity of the metropolitan territory is notoriously ecologically specific. This is what North American ecologists began to observe in the 1970s and which subsequently led to the study of what is known as "patchy dynamics", a notion based on the observation that ecosystems are spatially heterogeneous and that such heterogeneity occurs across time and space (Pickett and White, 1986; Wu and Loucks, 1995). This theory challenged the conservative paradigm of the 'state of equilibrium' of nature, which posits that nature would maintain a permanence of its state if left undisturbed. Instead, according to the "patchy dynamics system", ecosystems are dissipative; an orderly structure emerges when the interaction between the system and its environment reaches some threshold (Wu and Loucks, 1995).⁵⁵ The heterogeneous composition of city structures thus favours ecological disturbances that depend on several factors, including geophysical formations, land use, natural history and types of boundaries of interaction, and that organise the land into a mosaic of patches. Particularly on the fringe of the city, as on some fragmented agricultural lands, the heterogeneous composition of ecosystems leads to an increase in biodiversity (Burel et al., 1998). The observations and insights of "patchy dynamics" across spatial scales have been extended to urban settings and to the analysis of biodiversity in smaller contexts in more densely populated areas (Kowarik et

54 See also: Fantin, A., Franzese, A., Magnabosco, G. and Nicoletto, L. (2021). La Città Come Risorsa rinnovabile. Il Ruolo Dello Spazio Nella Scrittura Del Territorio. *Planum. the Journal of Urbanism*, 1(XXIII Conferenza Nazionale SIU).

55 "When ecosystems constantly absorb energy and material from their environment, entropy (a measure of uncertainty or disorder) decreases and negentropy (a measure of predictability or organisation) increases, resulting in a build-up of structural complexity." (Wu and Loucks, 1995:444)

al., 2016).⁵⁶

In the case of the Berlin landscape, the modification of the urban ecosystem resulting from the world wars, which led to the emergence of ‘new natures’ and a high degree of biodiversity within the city centre, has acquired specific value in the studies of the ecologist Ingo Kowarik. Following research conducted by his professor Sukopp, Kowarik advanced the hypothesis of defining wastelands as a specific type of space: “nature of the fourth kind” (1991). He outlines four categories that can provide access to nature in urban regions. The first is pristine nature; the second is the agricultural and cultivated landscape; the third represents designed urban green spaces and gardens; the fourth is a novel urban ecosystem that is the result of rupture in ecosystem development, due to urbanisation and urban modification. The transition from the first type of nature to the fourth one follows a gradient of ecological novelty, in terms of both novel habitats and novel species assemblages, since the number of non-native species usually increases with ongoing transformation of urban habitats. Kowarik’s study associates human interference to ecological novelty in natural areas modified by historical change and city space shrinkage, effectively conceptualising the results of ‘unintentional processes’ with a type of Berlin landscape. The definition of “nature of the fourth kind” played a strategic role in the negotiation of postwar wasteland conservation regimes, as a scientific concept to discuss the value of a new urban natural space, symbolising the legacy of historical and cultural values rather than decay and vacancy.⁵⁷

Leftover sites, like wastelands, are often associated with “third landscape” (Clement, 2005). In geography, Renato Ferlinghetti’s notion of the “minimum landscape” accounts for this difference (2009) and coupling itself with the proposed concept of Kowarik, which takes into account the scale of time as intrinsic in the transformations of urban nature. Ferlinghetti refers to the study of biodiversity in urbanised contexts, showing that the physical and biological artefacts that most characterise places are generally those with the greatest variety of species and proving an interweaving of artificiality and naturalness. The geographer defines “minimum landscapes” as “small areas, result of human transformation, inserted in highly anthropic contexts and characterised by originality, geographical specificity, historical and landscape value and identity.

⁵⁶ That the composition of the territory in different patterns has been the explicit objective of the discipline of Landscape Ecology, which “considers the development and dynamics of spatial heterogeneity, spatial and temporal interactions and exchanges across heterogeneous landscapes, the influences of spatial heterogeneity on biotic and abiotic processes, and the management of spatial heterogeneity” (Risser, Karr and Forman, 1984:7).

⁵⁷ In the next chapter I will discuss how this concept was included in the public debate after 1989 to negotiate the preservation of the area of today *Park am Gleisdreieck*.

They are habitat of biocenosis⁵⁸ of naturalistic quality, that are not widespread in neighbouring contexts” (Ferlinghetti, 2009:277). The definition refers to an ambit of historical and cultural heritage. His research relates to some specific features of the Italian urban landscape in Lombardy: the city walls of Bergamo and the wild nature that grew on their surfaces; hedges on dry stone walls, local cobblestones [*selciato*] colonised by specific *florula*.⁵⁹ “Minimum landscape” takes root between botany and Italian culture.⁶⁰ It departs from Clément’s concept of the “third landscape” which is the result of the self-organisation of nature in places left untouched. Ferlinghetti’s notion, on the other hand, refers to a context that only manifests itself through continuous transformations and the meeting/breaking of different environmental ensembles that can be observed both at a scale perceived by the human eye as microscopic. Precisely because it can be multifaceted, the notion can be integrated as an element in the spatial project as threshold, limit, edge and border (Basso, 2013).

By approaching minor urban natural contexts in an interdisciplinary discourse, it illustrates how these can be understood as valuable historical, ecological and cultural manifestations of urban transformations. Berlin’s (marginal) nature, whether understood as the setting of everyday practices or as the ecological signal of environmental change—as in the case of ruderal vegetation—has taken on a socio-spatial, even symbolic and aesthetic connotation characteristic of the contemporary open environments. This consideration introduces the last concept proposed in this section, which has been elaborated by geographer Matthew Gandy. He describes the “myriad of zones of neglect that have proliferated alongside human activities at a global scale” (2016:434) as “unintentional landscapes”. They vary from the wastelands to the wildness that grows between the cracks in the asphalt pavement. Gandy emphasises that these are the result of unforeseen phenomena of urban transformations and identifies them with an ephemeral, serendipitous identity. “Unintentional landscapes” is “an aesthetic encounter with nature that is not purposefully created [...] is not necessarily a space associated with visual pleasure or even disorientation, in a strictly aesthetic sense, but something much less easy to categorise or define” (2016:434). He refers to an interweaving of factors that, through the human (and sensory) gaze, give explicit agency to the natures that are dispersed across the urban territory as a result of urban

58 Biocenosis is the association of different organisms within a closely integrated community, focusing of adverse effects at different levels of biological organisation.

59 The flora of a small single environment; such as flora growing in semi-permeable pavements or between diffuse cracks in asphalt pavements.

60 The term “minimum landscape” is taken from a series of publications by Mario Sturani (1906-1978), writer and entomologist, who entitled one of his publications “Paesaggi Minimi”. A friend of Italian writer Cesare Pavese, he was an important exponent of art *decò*, particularly interested in ceramics (Ferlinghetti, 2009).

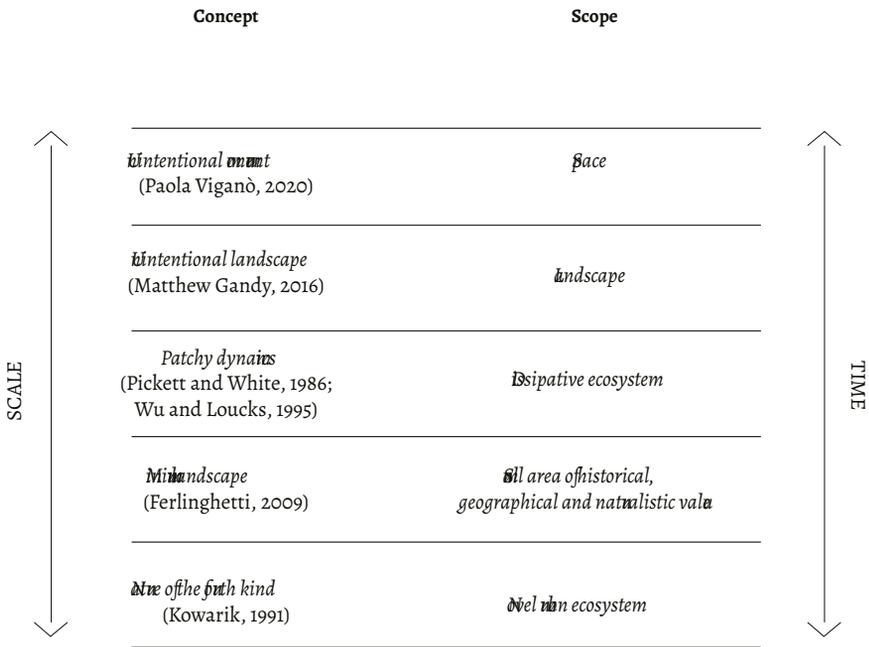


Figure 2.1 Five concepts on hybridity: over time, urban changes have influenced the production of natures that can be interpreted at different urban scales.

restructuring.⁶¹ This could be best explained by his conception of urban space as an “ecological constellation”—a hypothesis he discusses in his latest publication (2022). Thus marginal nature represents a unity of physical, ecological and social changes and facets.

Through the discussion of the above-mentioned concepts, leftover spaces take on the role of an important subject to read the metropolitan changes, across different scales, from micro to territorial (Fig. 2.1). The ecological perspective states how the meeting/breaking of different urban systems is the factor that favours the increase of biodiversity. The geographical angle also highlights how this can constitute the emergence of landscapes closely connected to the urban cultural and aesthetic matter. In Berlin, what is generally counted as ‘unintentional’, can potentially, in this vein, take on a pivotal value in the theoretical and empirical city study. The juxtaposition of lands that today constitute heterogeneous environments and vary in extent, natural qualities, spatial structure and governance, are the stratification of monuments (Viganò, 2020), landscapes (Ferlinghetti, 2009; Gandy, 2016) and ecosystems (Pickett and White, 1986; Wu and Loucks, 1995; Kowarik, 1991) that characterise urban specificity. For instance, the green spaces along the route of the old Wall that

61 See also Gandy, M. (2013). Marginalia: Aesthetics, Ecology, and Urban Wastelands. *Annals of the Association of American Geographers*, 103(6), pp.1301–1316.

have been transformed into parks, now take on a character lying halfway between wild and designed. These are sometimes flanked by colonies of allotment gardens, which in turn border transport infrastructure running along their edges. Walking the streets or in private spaces, instead, the vestiges of ruderal vegetation are easily recognisable. Plants such as *Alianthus altissima*⁶² or *Robinia pseudoacacia* grow robustly along interstices, informal pathways or within private lands or community gardens. ‘Unintentional natures’ become spatial, geographical and ecological markers but also a constituent cultural element of contemporary Berlin (photos on forthcoming pages).

In-between Nature

The previous paragraph discussed the material relationship between the human-made urban sphere and the natural one, its modification over time and its potential examination at different scales. Stating that biophysically diverse urban spaces are potentially the contact zones, or boundaries, of different urban systems makes them de facto contexts on which to potentially shift the inquiry to new social and ecological scenarios. In order to broaden the reflection on the materiality of intermediate urban spaces to the immaterial human/nature dimension, which the concept of “in-between nature” proposes to discuss, this section addresses the value of social practices carried out in marginal landscapes, suggesting that, in the case of Berlin, these could be understood forms of ‘cohabitation’ between human and nature.

Hidden, unobserved and leftover environments are often the scene of nature ‘care practices’. I argue that the condition mentioned in the previous chapter of *Naturnähe*—a certain degree of dwelling in proximity to nature that sometimes results in affective attitudes of Biophilia (Barbiero, 2021)—becomes apparent in these contexts. Social behaviours taking into analysis range from gardening, involving tilling the soil and plants, to watering street vegetation, to supporting urban animals, which includes providing insect hotels and bird feeders by the side of trees, hedges or interstices. Practices of care are not only isolated events, but are often rooted in shared interests that give rise to networks and alliances, often establishing places of commons or new form of green space management. At other times they emerge from political ideas and activism; or they engender scientific debates, as in the case of the new naturalists or citizen scientists. These occur individually and in communities and are highly recognisable and widespread in Berlin’s urban landscape (photos on forthcoming pages).

As the development of urban concentration has prefigured certain natural environments to be smaller in dimension, these currently accommodate and welcome what can be defined as “minor public” (Bianchetti, 2016). This is

62 See Stoetzer, B. (2020). *Alianthus altissima*, or the Botanical Afterlives of Europe Power. In: M. Gandy and S. Jasper, eds., *The Botanical city*. Berlin: jovis Verlag GmbH, pp.82–90.

(Un)intentional natures

Allotment gardens between the railway and the route of the former Wall, in the southern part of the Neukölln district. (EF, 2020)



Robinia pseudo-acacia (black locust) growing wild along an informal path in front of Berlin Central Station, in the Mitte district. (EF, 2020)



Ailanthus altissima (tree of heaven) in an interstitial space along a playground (former bomb site), in the Schöneberg district.
(EF, 2020)

constituted by the legacy of the pioneering actors of collective and individual behaviours that over the course of the century have developed into community lobbies, alternative social and cultural manifestations and that today congregate in the last vacant, self-managed places often adrift from urban centrality. It is better explained in what Cristina Bianchetti accounts referring to the scenario of the neoliberal city. The mechanisms of reduction, subtraction and negation turned certain spaces to become contexts of *intimité*—where one can be alone and find refuge—and of *extimité*—where one negotiates the desire to build dense bonds with like-minded individuals (2016).

As areas of biodiversity, the term refuge, or *refugia*, that *intimité* expressed in social terms has an ecological foundation (Keppel et al., 2011)—meaning habitat of nonhuman retreat. When associating it to niches inhabited by a ‘minor public’, the feminist perspective helps to contextualise care as part of a multispecies cohabitation debate. A branch of political ecology, ecofeminism, from the mid 1970s onwards, has been concerned with the connection between humans and nature within the environmental crisis. In particular, the link is seen between degradation and exploitation of the natural resources with the oppression of marginalised individuals (in this case especially women). Ecofeminism theory seeks to show the connection between all forms of domination, including the domination of nonhuman life. Ecofeminist practices towards nature have thus been intended as non-hierarchical (King, 1997). Drawing on this, according to Gilligan (1982), the “ethics of care” directs our attention to the need for responsiveness in plural relationships. Care, within this discussion, are intended as forms of ethical responsibility and support towards other-than-human agents (De la Bellacasa, 2017). It encompasses the affective sphere—proper of the domestic context and labour—and not utilitarian (Federici, [2012] 2020). Following Tronto (1993), care is understood beyond gender-specific discourses, not as a form of “women’s morality”, but as a practical and political project: the necessary ongoing work of maintenance and repair of the world so that we can live in it as well as possible (1993:103).

The debate on feminist theory is relevant in addressing issues related to social and ecological marginality in the landscapes under investigation. In Berlin, it is significant to point out that care work in natural spaces is mainly based on voluntary labour, but at the same time it is notoriously included in neoliberal strategies to contain the financing costs of greenery maintenance. Although the actions of a ‘minor public’, such as gardeners, urban practitioners, activists or ordinary citizens, in supporting natural settings are normally accepted by the local authorities because financially viable, in fact commitment of individual and communities remain relegated to temporary projects and not validated in urban planning strategy (Rosol, 2011).

In the Anthropocene, inclusion of the urban dwellers eco-responsibility within city policies proved instead to be valuable (Buizer et al., 2015). Many actions of public participation in the care, protection and improvement of green spaces are usually counted under the term ‘spontaneous’. Like a rather

Care practices



Bird feed hung from trees and scattered on the ground along the edge of the *Cheruskerpark* in the *Schöneberg* district. (EF, 2020)



Roadside area fenced off by a *Kreuzberg* citizens' association to protect and enhance biodiversity. (EF, 2020)



Tree pit maintained by citizens in the Schöneberg district.
(EF, 2020)

vague term, ‘spontaneous’ is often contrasted with the overt realisation of an intention. Instead, it is important to grasp the motivation behind grassroots movements. This includes, among other, political claims related to issues of spatial and environmental justice (Certomà, 2013; 2015), increasing social and ecological knowledge (Bendt, 2010; Bendt, Barthel and Colding, 2013), ethical responsibility (Adams and Hardman, 2014).⁶³ Therefore, the intangible features—personal and emotional drivers—linked to these behaviours are aspects not to be underestimated in order to contextualise their value in the possible inclusion in urban policies. Moreover, in the case of Berlin, the special urban conditions that have given landscape a prominent role in the history of metropolitan design over the last century have generated a widespread sense of ‘attachment’ to the natural environment.⁶⁴ Bernardo Secchi explains how calling something ‘spontaneous’ is instead taking into account a series of traces that can be discerned across the city. These are “the outcome of a project that sought to describe a possible future state in advance, and others are the outcome of a succession of moves through which an attempt was made to respond to a dispersed set of contiguous needs that were changing over time” (Secchi, 2010:5). Drawing on this, looking in the historical present at practices of care tends to re-evaluate the past intentions of design cultures that have sought to bring humans closer to the natural environment, in a form of ‘cohabitation’ that may be meaningful to analyse in times of ecological and social restructuring.

In the first two sections of this chapter, the discussion substantially revolved around different concepts that brought to light the use of disparate words to describe the status of certain Berlin natural spaces. Terminology was necessary in order to approach the idea of ‘hybrid’ and thus of something commonly undefined. The term ‘unintentional’ offered in the previous paragraph a way to reflect on two main strains. Firstly, the result of historical accumulation and territorial modifications places nature in a ‘dimension of transition’. It can therefore be understood as not static, but as subject to transformation. Secondly, such dynamics produce articulated grades of complexity at different scales. The hybrid could be intended as a ‘cross-scale domain’. The discussion then moved on to tackle the relationship between humans and nature. It approached practices of care as a form of eco-responsibility, mutual relationship and multispecies cohabitation, by recontextualising actions mostly deemed temporary or spontaneous.

The term ‘hybrid’ associated with ‘intermediate state’ or ‘dimension of

63 Emerging forms of green care based on Permaculture philosophy must be considered. This is based on ethical principles that refer to care for the earth, people and fair share (Mollison and Holmgren, 1987). Permaculture is applied in Berlin in the design of gardens, food forests, as well as in the maintenance of street greenery.

64 This refers, for instance, to the environmentalist movements that contributed to the formalisation of nature conservation policies, discussed in chapter one. Or to the more recent and important activist campaign that led to the preservation of the *Tempelhofer Feld* park, which I will address in the next chapter.

nature', 'middle ground', etc., points to the central object of my study that I conceptualise as "in-between nature". Almost synonymous with intermediate, 'in-between' differs slightly. It has no a verbal form ('to intermediate' means 'to mediate') but it is an adjective and a noun. "In-between nature" doesn't 'act' as a mediator between different dimensions but it is proposed to be its own physical and intangible embodiment. This concept is close to the meaning of 'liminal',⁶⁵ so relating to a threshold or at a boundary or transitional point.⁶⁶ Berlin 'In-between Nature' is therefore a third dimension resulted of dynamics, spheres and concepts ordinarily considered as opposites: a heterogeneous socio-ecological form and structure of cultural sedimentations, where the urban natural palimpsest meets human practices of individuals or collectives.

The notion contributes to a discussion on the reformulation of modern planning paradigms in favour of the consideration of an ecological and posthumanist perspective. It thus offers the cue to take into account the interplay of multitude of urban species that are born, survive and gather along the conflicting boundaries of the city conceived mainly in human terms. It is conceptualised as a framework for reading the territory in its long-term complexity, across different spatial, social, cultural and ecological entanglements. "In-between nature" is: (i) a context in transition whose true essence manifests itself through urban changes; (ii) a place of biodiversity and multispecies cohabitation; (iii) a cross-scalar sphere; (iv) a landscape of cultural memory and aesthetic value.

Margins and boundaries

Berlin's in-between natures, characterised by ambiguity, complexity and multiplicity, can provide the basis for articulating a discussion around the concepts of 'margin' and 'boundary', which are a common thread throughout this work. Spatial marginality itself presupposes both conceptual and material references, specifically contours and separation lines between different environments, land use categories, land values, ownership models, social groups. The prism of the ecological and posthumanist perspective, which

⁶⁵ The Latin word for threshold is *limen*, which in turn refers to harbour, where land and sea, society and aquatic ecosystems meet. See: Downey, D., Kinane, I. and Parker, E. eds., (2018). *Landscapes of Liminality: between Space and Place*. Lanham, Maryland: Rowman & Littlefield.

⁶⁶ According to the Collins Dictionary, the term "in-between" has been used incrementally in the English language from the 1950s onwards, compared to the word "intermediate", which has an older origin (Collins English Dictionary, 2021a; Collins English Dictionary, 2021b; Collins English Dictionary, 2021c). The use of this term is conceptually employed with increasing frequency to identify spaces with qualities similar to those reported in this survey. See: Luccarelli, M. and Bergmann, S. (2015). *Spaces in-between: Cultural and Political Perspectives on Environmental Discourse*. Leiden ; Boston: Brill.; Downey, D., Kinane, I. and Parker, E. eds., (2018). *Landscapes of Liminality: between Space and Place*. Lanham, Maryland: Rowman & Littlefield.

includes the agency of innumerable actors in the city operation (Amin and Thrift, 2017), entails the consideration of other-than-human geographies in the analysis of urban territories, thereby challenging its spatial scope. Urban spatial arrangements which habitually separate nature from culture are increasingly questioned in favour of new models of urban politics, governance and practices in the co-production of natural spaces and urban (political) ecologies (Heynen, 2013; Houston et al., 2017).

After translating the concept of the margin to ‘in-between’—or by shifting the conception “from margin to the center” (Hooks, [1984] 2000)⁶⁷—the boundaries of the urban systems reposition themselves in a focal dimension within the urban arena. The cohabitation among species when reviewing human practices and behaviours, conventionally considered spontaneous, refers to leaving behind the antagonisms between nature and culture—to recognise the two spheres’ inseparability in ecological relationships that are both biophysically and socially formed (Haraway, 2003). Imagining an urban spatiality that can encompass all these attributes requires precisely the reinterpretation of the boundary as a ‘threshold’, a space where binary concepts and environments merge or a ‘liminal arena’, that retains certain degree of uncertainty (Downey, Kinane and Parker, 2018:10). The interpretation of the line as a passage or a place of threshold presupposes transgressing its conventional function. In ecological terms ‘threshold’ is recognised as ‘ecotone’, a term that Haraway (2003) employed to explain an arena where human and nonhuman subjects are constituted in and by their mutual relations of co-presence, interaction, understandings and interconnected practices. Haraway employs “ecotone” as an ecological matter to expand the concept of “contact zone”, which Pratt (1991) intends as social spaces where cultures meet, clash and grapple with each other, often in contexts of highly asymmetrical relations of power, such as colonialism.

As far as terminology is concerned, it is necessary to stress again how what is considered marginal must be linked to political and economic connotations of power that have influenced modern Western socio-spatial planning. While the Anthropocene, in all its unruly polysemy, continues to inspire the interdisciplinary conversation on the urban landscape, in which the marginality of nature is reinforced because it is conceived as the manifest result of capitalist dynamics (Tsing, 2015; Tsing, Mathews and Bubandt, 2019), the connotation ‘marginal space’ in urban planning commonly refers to neglect and thus to the idea of areas that need to be regenerated or re-designed because they are perceived to be threatening or lacking any cultural or economic value. Definitions that have been used up to the present day to describe marginal spaces are effectively a representation of the latter. The

⁶⁷ Here a reference is made to the work of feminist and activist Bell Hooks which deals with social marginality in the context of gender and anti-racist struggle. It seems significant to quote her work as it makes explicit how the margin can be conceived as a context of resistance against dominant powers.

wasteland, “terrain vague” (de Solà-Morales Rubió, 1993), “drosscapes” (Berger, 2006), presupposes the consideration of a place produced by consumer-driven dynamics. This conception addresses the modern space-time ratio, which sets urban ‘scrap’ as a contrasting entity between a project of ‘before’ and ‘after’, implicitly disregarding its present conditions.

Ecological project, and in particular urban ecology, which proposes the analysis of the city through the relationships between social and natural ecosystems—whose changes depend on human resources, ecological cycles and historical legacies—also presupposes a rethinking of their design in temporal terms. (Ossola, Cadenasso and Meineke, 2021). The question of time, purely understood as linear, based on technoscientific principles and efficiency has laid the foundations in the contemporary debate on its revision (Ingold, 1993; De la Bellacasa, 2015). “In treating nature as a stable background, we are, in a sense, claiming that the changes that do occur within nature are neither significant nor relevant”, states Michelle Bastian (2009:102), arguing that giving agency to nature in fact implies rethinking Western concepts of the flow of time. To acknowledge the agency of nature by analysing human practices allowed a deeper reflection on how planning theory would benefit from developing approaches better attuned to the interplay of urban species. Donna Houston clarifies that in the Anthropocene: “the challenge is to critically rethink temporal and spatial scales of eco-social responsibility—without collapsing all of humanity into an amorphous ‘us’ or by ignoring the lively multispecies assemblies gathered in the margins of the contemporary theorisation of urban planning” (Houston et al., 2017:193).

Reconceptualising marginal nature as ‘in-between’ through terminology implies—as well as suggesting a change of cultural paradigm shift—a re-signification of boundaries, and scales in the design of urban landscape, whether understood in physical and temporal terms. In this sense, space, which in fact remains the main subject of our discipline, must find other references and be possibly interpreted through different analytical lenses and linguistic registers.

Who owns nature?

“In-between nature” describes a wide variety of green spaces, embracing heterogeneous forms of maintenance and design that do not always coincide with land use categories. Contemporary examples may be small wastelands that are used for cultural activities by non-governmental associations, cemeteries cultivated as urban gardens, roadside spaces maintained by private subjects, etc. Urban land, in Berlin, at different points in history, has become an object of claim and appropriation. Citizens’ informal or intentional actions have remarkably redefined the functions of green areas. Open space historically represents an arena of ‘freedom’, typified by different scopes and purposes. The appropriation and overlapping of uses in greenery can be discerned as part of

the culture of landscape planning. For instance, the term ‘open space’, *Freiflächen* [free space] in German, has been employed by Martin Wagner at the beginning of the 20th century to define green areas in which different naturalistic arrangements and uses were brought together (Scarpa, 1986). Remarkable is the role of public lands in the postwar period as resources for food supply. Many historical pictures depict the public land in front of the Brandenburg gate, now a Tiergarten, as an expanse of community gardens.⁶⁸ Appropriation became apparent in the 2000s with the formalisation of temporary uses and their subsequent integration into urban strategies.⁶⁹

The phenomena of appropriation and free use of the space have meant that Berlin could today highlight that urban greenery is understood as a set of ownership relations involving a plurality of owners and ways of owning nature. These in turn have an influence on the spatial patterns of the variety of green spaces, despite property models—namely private and public. This consideration is particularly significant in a context of progressive privatisation of public land and urban densification. Such dynamics have in fact led to the emergence of new grassroots strategies of land use in the city and broadened the debate on the urban commons.⁷⁰ “In-between nature” as a hybrid context whose essence doesn’t depend on private or public schemes, could lead to an essential reflection on how social relations influence the concept of ownership, which shape governance policies, maintenance and design approaches. The question of ‘who owns nature?’ becomes central to grasping the plurality and diversity that contemporary landscapes embody.

This topic is mainly approached in critical geography. As Don Mitchell puts it, “public space is the product of competing ideas about what constitutes that space—order and control or freedom—and ‘who’ constitutes the public” (1995:115). Nicholas Blomley (2004) further argues that property constitutes a socio-political relation and a spatial model that traditionally defines an organised set of relationships between people with regard to valuable resources. Additionally he states the very institution of property is collective and provides a grammar through which the most significant relations of the political and social life becomes legible: “the relationships between the individual and the collective, humans and non-humans and, in general, the ethics of social life” (Blomley 2016:1). Blomley’s theory challenges the binary concept of private-public, taking into account other forms of urban social relations.

68 Meaningful photos are collected in the book: Bartoli, S., Linden, S. and WußF. (2020). *Licht Luft Scheiße Perspektiven Auf Ökologie Und Moderne*. Hamburg Adocs.

69 In 2007, the book *Urban Pioneers: Stadtentwicklung durch Zwischennutzung* was published by the Senate Department for Urban Development, presenting over 40 examples of appropriation projects in Berlin.

70 For instance, the claiming of community gardens as commons (Clausen and Meyer, 2019) or alternative proprietary model of using buildings for cultural purposes as the pioneer case of Ex-Rotaprint. See: www.exrotaprint.de

Reflecting further on the different dichotomies between ownership models that characterise urban city spaces as well as the ways in which a space ‘is owned’ (Blomley 2016), the concept of the commons conventionally emerges as an alternative between public and private (Ostrom, 1990; Bromley, 1992). It is identified also as non-proprietary or a “threshold” that resides outside urban order structures (Stavrvides, 2015; 2016). Notably, urban commons refer not only to material resources and physical space but also to social and cultural values (Caffentzis and Federici, 2014; Stavrides, 2016). In this sense, the behaviour of individuals and communities and the public and private property patterns of the spatial context do not necessarily coincide. Not denying the land ownership model, the concept “urban green commons” by Colding and Barthel’s (2013:157) accounts to this: “urban ecosystems of different ownerships that depend on collective organisation and management”. The authors stress that what is considered commons depends on social claims, regardless of land tenure. In fact, understanding the commons as a purely non-proprietary site does not take into account the social relations and different types of management. “In-between nature”, offers the cue to discuss the articulation of property regimes and how the public-private dichotomy can be read in agreement with different behaviours of management, care for and claim the urban space.

Chioldelli and Moroni address this issue in terms of the “spatial dimension of toleration”. “Toleration can be defined as the principle of peaceful coexistence of individuals and groups with conflicting, incompatible, and irreducible differences in cultural identities, ways of life, practices, and habits” (2014:164). The authors call into question the simplistic reduction of the ownership regimes into an opposition between two models while arguing for the necessity to take into account the complexity of different human behaviours. They identify six subcategories of urban spaces according to ownership models and behaviours on public land (Stricto sensu public spaces; Special public spaces; Privately run public spaces) and private land (Simple private spaces; Complex private spaces; Privately owned collective spaces). According to this concept, common property is understood as a private form. These categories are proposed to suggest different degrees of tolerance in order to influence the public subject in the decision-making process for the formulation of new spatial governance rules and to guarantee accessibility depending on the different uses.

Delving into the concept of “toleration” proposed by Chioldelli and Moroni, I applied it to some green space typologies analysed within this work (Fig.2.2). I related the idea of “toleration” and the application of property regimes based on the principle of accessibility and behaviour to different types of natural space, which I define using the conceptual parameter of ‘cohabitation’, namely spaces characterised by human practices of management and care of natural assets. The selected categories are: allotment gardens, community gardens, street

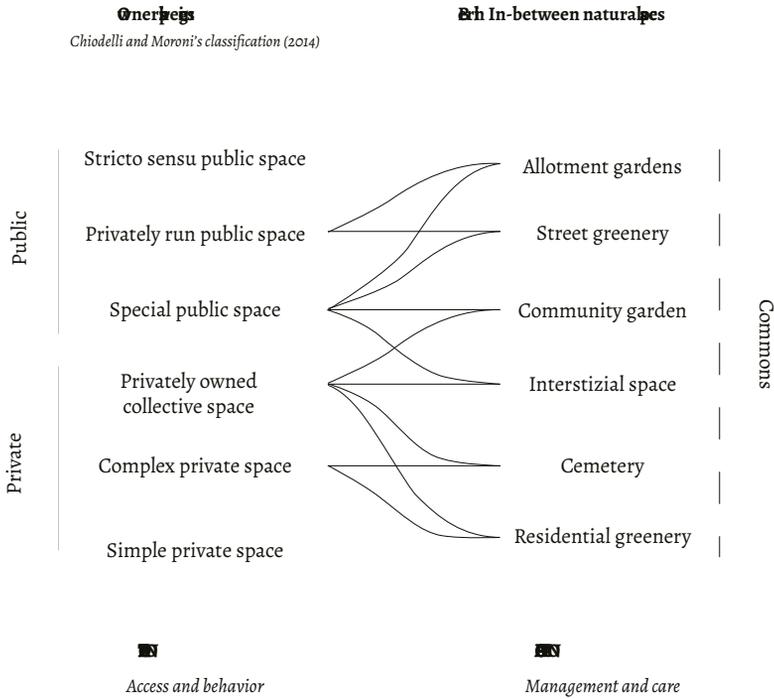


Figure 2.2 Articulation of in-between nature property regimes as analysed by Chiodelli and Moroni (2014). The spaces analysed do not always fit into the scheme of *toleration* and only in some cases can they be regarded as commons.

greenery, cemeteries, residential greenery and interstitial spaces.⁷¹ This work is designed to observe that the natural hybrid landscape itself is a complex system to which toleration categories do not overlap. Indeed, Different uses and management of space are linked to the way different landscapes are ‘actually owned’. I argue that a greater articulation of property regimes in the consideration of contemporary natural spaces⁷² can be key to their analysis and possible inclusion in urban planning policies. Understanding ownership also in relation to human behaviour can influence the proposal of solutions that are responsive to social and spatial inclusion in a context of progressive urban concentration and privatisation of natural resources.

71 By interstitial spaces I mean all those contexts which do not fall into the other categories and which are normally passages, small green connections or nature growing on vertical surfaces.

72 Lucilla Barchetta discusses this issue drawing on the proposed categorisation of toleration. See Barchetta, L. (2017). *The Natures of cities: a Typology of Green Spaces and Property Regimes. Gran Sasso Science Institute Working Paper Series.*

Three fields of investigation

Although the concept of “in-between nature” can be applied both conceptually and materially to different scales of urban design, in this research it covers three main areas: the city (Chapter 3), the garden (Chapter 4) and the street (Chapter 5). With respect to the theoretical frame of reference, the selected fields of observation are contextualised within contemporary urban changes. They aim to describe how a way of ‘inhabiting nature’ leads to the revaluation or transformation of social, ecological and spatial patterns along urban change.

Chapter 3 offers a glimpse into how the changes in the city have brought some landscapes to a state of marginalisation, analysing the edges of the *Tempelhofer Feld* and the *Park am Gleisdreieck*—representative examples of how the ecological requirements of nature conservation policies have been included in the design of urban parks. The focus is to read territories threatened by urban densification and their current value as representative examples of novel space typologies and design cultures. Chapter 4 deals with the historical context of allotments and community gardens, which are green structures currently devalued in the neoliberal economic system. In this part, the emphasis is on the current transition of gardens into spaces progressively recognised as urban commons, stressing the issues of accessibility and the articulation of ownership regimes. Chapter 5 describes the urban landscape of the northern part of Neukölln, the emergence of the socio-ecological value of street landscapes and how the care practices carried out by citizens affect the protection of natural assets. This chapter offers a narrative from the study of the district landscape to a reflection on the soil of street greenery, understood through the theoretical frame of care in ecofeminist ethics.

Part 2

SPACES DESIGN BY NATURE, SPACES DESIGNED BY HUMANS

Chapter 3

the city

A minute and hidden infrastructure

A landscape of abandoned infrastructures

During the last thirty years, concentration phenomena have shaped the entire inner-city area. They have become evident as dispersed interventions not always governed by a coordinated vision of urban development, as mainly the result of public lands privatisation mechanisms. Today densification processes can be deciphered more accurately. The past design and ecological instances that aimed to integrate nature into the city generated the emergence of new urban centralities, shaping novel design scenarios and encouraging land speculation.

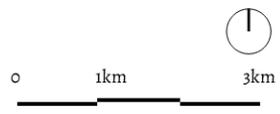
In the last decade, in the southern part of the city centre (Map.5), two important *Brachen* have been converted into public parks. Today *Tempelhofer Feld* and *Park am Gleisdreieck* are prime examples of how ecological needs and social demands have been addressed in the design of formerly abandoned infrastructures. The transformation of these two major wastelands lead to an inevitable surge of the real estate value in the neighbouring districts Schöneberg and Neukölln. The lands surrounding the two parks are nowadays subject to enclosure and erasure schemes that have culminated (and will culminate) in the construction of mostly luxury housing. While capitalist urbanisation is made explicit in this scenario, this process meets the current intentions of city planners for the future city design. It is right along the southern edge of the *Tempelhofer Feld* that the winning planning proposal of the “Urban Planning Competition for Berlin-Brandenburg 2070” has drafted a massive densification

Map 5_Urban frame



- Park, square, promenade
- Cemetery
- Allotment garden
- Sport area

1. *Park am Gleisdreieck*
2. *Tempelhofer Feld*
3. *Natur-Park Schöneberger Südgelände*
4. *Cheruskerpark*



Source: (SenStadtWohn, 2019a)

development.

This chapter focuses on the transition from the low-density city to the current condition of the metropolis besieged by concentration trends. The ecological, social and spatial entanglements that have marked urban changes in recent decades can be analysed by looking closely at the history of these two former wastelands. Intriguingly, the deeper meaning of the German term *Brache* refers to a sense of waiting, not like the English ‘to waste away’, but like the time between seasons (Rosengren, 2020:74).⁷³ The wastelands emerge according to a space-time of transition between two states of being and may also be explored as productive spaces ‘in terms of time’.⁷⁴ In the case of the two parks, time (‘the wait’) is prefigured by the state of abandonment in which the two former infrastructures—*Tempelhofer Feld*, a former airfield, and *Park am Gleisdreieck*, a derelict railway line—typified before they were opened to the public. Abandoned infrastructure are arenas that encapsulates geopolitical and urban history. The lag between successive stages of development offers exceptional conditions for biodiversity and a flourishing wildlife. Considering derelict infrastructures as ecologically vibrant and cultural spaces has led to a counter-aesthetic of life and urban design in Berlin—which the two parks today represent—combining concomitant political efforts to protect these sites from corporate seizure to the present day.⁷⁵

Starting with these two examples, the chapter offers a perspective on how a strong postwar commitment to landscape design, nature conservation policies and activism, triggered processes that have driven a number of natural territories into a state of marginality. The brief narrative of the history of the two former wastelands can offer a broader view of the way in which neglected areas have been repositioned as pivotal for the structuring of the horizontal city fabric and its ecological and cultural dimensionality in landscape planning. The analysis will then be narrowed to the natural spaces bordering the parks which today prefigure contexts outside canonical land-use categories within which the joint project of humans and nature has taken various forms.

73 The term *Brache* has also an agrarian connotation. Mathilda Rosengren’s doctoral research (2020) offers a broad reflection on the temporalities of nature in the Berlin wastelands.

74 Topics covered by Sandra Jasper in her keynote presentation “The temporalities of urban wastelands: reflections on Berlin” at the workshop series “Temporalities of Urban nature” (Berlin, 25th June 2022). Jasper also emphasised how, in the tension of spatio-temporal transitions, uncultivated land can be identified as urban elements of ‘anticipation’, thus a link from the past into the future.

75 See Jasper, S. (2020a). *Abandoned Infrastructures and Nonhuman Life*. [online] www.societyandspace.org. Available at: <https://www.societyandspace.org/articles/abandoned-infrastructures-and-nonhuman-life> [Accessed 10 Dec. 2021].

Park am Gleisdreieck

Park am Gleisdreieck was developed amid the railway tracks that once connected the former stations *Potsdamer Bahnhof* and *Anhalter Bahnhof* with cities in Southern Germany such as Dessau, Leipzig, Frankfurt am Main, Munich. During the first two decades of the 20th century, the site became a complex triangular railway junction⁷⁶—an “iron landscape” (Roth, 1924)⁷⁷—to improve the flow of trains in a rapidly expanding Berlin. During the 1940s, the train tracks were the crossroad for the deportation of Jews and other minorities to death. Towards the end of World War II, the railway lines were heavily damaged. With the Berlin Wall erected a little further north, the site remained inoperative for many years. The rights for all Berlin rail yards had been given by the Allies to the *Deutsche Reichsbahn*, whose seat was in East Berlin. Train services were thus reduced to a minimum in West Berlin, allowing nature to reclaim the area (Lichtenstein and Mameli, 2015; Kowarik, 2015).

During the Cold War, as the vegetation along the tracks grew wildly and slowly turned into woodland, urban plans including the redevelopment of *Gleisdreieck* area, focused on a massive strategy, namely a motorway ring around the centre of the city, integrated with the project called *Westtangente* [Westtangent] (Bauer, 2015). In reaction to the plan proposed by the Berlin Senate, activists began to demand the protection of the entire abandoned railway line, which included the site of the *Park am Gleisdreieck* and the areas further south, today’s *Natur-Park Südgelände* and the *Cheruskerpark*. At the beginning of the 1970s, the *Bürgerinitiative Westtangente* was founded by a group of Schöneberg citizens who later proposed a pioneering and convincing counter-project for the future development of the city. Called *Grüntangente* [green bypass], the proposal envisioned a large-scale green corridor connecting the abandoned *Gleisdreieck* site with different natural urban areas (Fig. 3.1). In the late 1970s, the grassroots group took legal action against the motorway project (Bauer, 2015); and the case for civic nature conservation claims was strengthened by ecologists who identified and catalogued 417 plant species in the *Gleisdreieck* area at the beginning of the 1980s.⁷⁸

The abandoned railway was progressively recognised in its entirety as a unique natural habitat within Berlin. Indeed, the southernmost vacant site of

⁷⁶ The name *Gleisdreieck* means ‘track triangle’.

⁷⁷ Roth accounts for the significance of the area in the early 1920s: “It is the centre. All vital events in the surrounding area have their source and destination here at the same time, just as the heart is the source and destination of the blood flowing through the veins of the body. This is what the heart looks like in a world whose life is the swing of a machine and the sound of a clock, the cruel beat of a lever and the cry of a siren” (Roth, 1924).

⁷⁸ Asmus, U. (1980). Vegetationskundliches Gutachten Über Potsdamer Und Anhalter Güterbahnhof in Berlin. *Unpublished* (Kowarik, 2015).

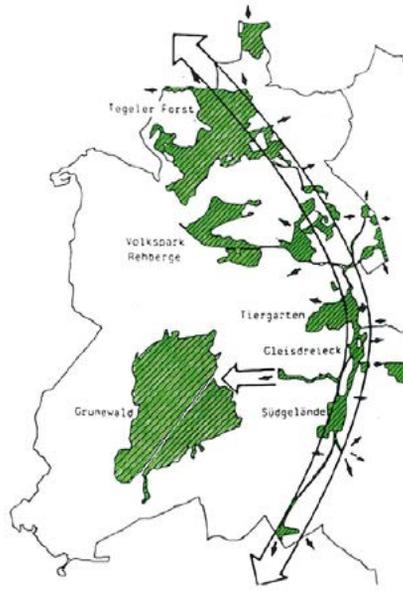


Figure 3.1 Grüntangente plan, proposed by activist group BI Westtangente in 1978. (gleisdreieck-blog.de)



Figure 3.2 Project entered in the Gleisdreieck competition by Atelier Loidl in 2006 (www.competitionline.com)

Südgelände had been a site of similar activist demands and urban ecology studies. Efforts by the civic group *Bürgerinitiative Südgelände* to preserve the space were complemented by taxonomic surveys that revealed the high species richness and the presence of rare plants and animals along the abandoned tracks: wild bees, spiders and birds among native and non-native vegetal species. Since the early 1990s, plans to make *Südgelände* accessible to the public have been realised. They combined ecological design based on nature conservation approaches and landscape planning. The site was opened as an ‘urban natural park’ in 2000. A rather peculiar European example of public space. Biodiversity has been frozen (Rosengren, 2020:81) in its ‘abandoned state’ and maintained through a meticulous landscape management regime—some areas are dedicated to public transit and allow only restricted access in order to protect natural assets (Kowarik and Langer, 2005).

Immediately after the fall of the Wall, potential development plans for the *Gleisdreieck* were discussed among city authorities. It was on this occasion that Kowarik (1991) presented the concept of “nature of fourth kind” at the *Stadtforum*⁷⁹ in Berlin, where it was met with skepticism from some participants who believed that conservation was anti-urban or misanthropic. Kowarik’s definition of a concept of nature exemplified by *Gleisdreieck* actually had political power in the shaping of a large-scale urban project. The ecologist offered an insight into a new type of *Stadtwildnis* [urban wilderness] as coexistence between citizens and nature as well as into the urban and environmental heritage resulting from city changes, which at that time effectively supported a future discussion on site preservation (Kowarik, 2015). When Berlin’s House of Representatives decided the future development at Potsdamer Platz in 1994, their plan in fact included the *Gleisdreieck* as a 16 hectare ecological compensation area.⁸⁰

From that time onward, various visions for the future park had been discussed (Lichtenstein and Mameli, 2015) until the two-phase open international landscape design ideas and realisation competition was launched in 2006 for land covering a total of 26 hectares divided into an eastern and a western part. Among the 24 proposals, the project by Atelier Loidl was selected by the jury. The designers had interpreted the *Gleisdreieck* site focusing precisely on its boundaries (Fig. 3.2). The first project draft was rooted in the central idea of two large multifunctional lawns surrounded by borders of denser vegetation that would create a separation between the park, the railway lines and the future development of buildings envisaged by the competition call. Atelier

⁷⁹ The *Stadtforum* is a meeting format for debating topics that affect Berlin’s future spatial urban development. It is organised in a series of events promotes the formation of public opinion on city-wide topics and challenges.

⁸⁰ *Ausgleichsflächen* in German. The ‘compensation areas’ in Berlin, which deal with a specific urban nature policy, were put in place in the 1990s, with the reunification of the city and the ensuing building boom—when nature conservation was confronted with strong land-use interests by developers, investors and state agencies (Lachmund, 2013a).

Loidl explains how the idea would account for a new public space model: “the park’s multifunctional and flexible setting frames two unusually spacious lawn areas from its edges [...] The intended qualities and dimensions are unusual for the centre of the city and are not to be found in the Tiergarten” (Atelier Loidl, 2016).

Although the two central spaces are the most salient characteristics of the landscape plan, *Park am Gleisdreieck* today is the result of a long process of negotiation between different social, ecological and political demands. From 2007 to 2013, several participatory design phases have engaged a number of stakeholders, including *Grün Berlin* (a private-state manager of the area), the landscape planning studio Atelier Loidl and citizens (Lichtenstein and Mameli, 2015). The final design park stage inaugurated in 2013 shows a sophisticated design that integrates existing wild nature, garden spaces, designed greenery and playgrounds with different functional areas, seeking connections with surrounding neighbourhoods. The use of different materials and colours clearly separate areas with different functions—bicycle and pedestrian passages, leisure spaces and wilderness—reflecting a diversity of social, cultural and ecological interests. *Park am Gleisdreieck* includes wild paths which are preserved as remaining fragments of the spontaneous urban woodland developed on the site before its conversion. The use of rubble substrates, *Ökoschotter* [eco-gravel], recalls the legacy of the wastelands landscape and promotes ruderal ecologies (Gandy, 2020a).

Park am Gleisdreieck was conceived by the Berlin Senate as part of a larger urban project—a juncture linking southernmost green spaces into a *Biotopverbund* [network of biotopes]—echoing the intentions of the *Grüntangente* activists’ plan of the 1970s (Duquesnoy, Öffentliche and Ächen, 2013). In fact, the park’s former abandoned tracks fork and extend southwards to meet the *Ringbahn* at the *Schöneberg* and *Südkreuz* stations, serving as a gateway to the *Cheruskerpark* and *Südgelände* parks. Today these connections run along pedestrian and cycle paths and border the *Schöneberg Rote Insel*, a former working-class district founded in the early 1900s along the railway.

Tempelhofer Feld

Since its inception, *Tempelhofer Feld*—Berlin largest urban wasteland with about 300 hectares—denotes a specific intertwining of qualities and functions, characterised by displays of political power as well as everyday practices. In the early 18th century it was an agricultural field [Feld], requisitioned by Friedrich Wilhelm I from the local peasant farmers of *Schöneberg* as new military parade ground. Since then *Tempelhofer Feld* had been used for military purposes but also as a space for events and leisure. The space, once larger and intended for military use, was reduced to the eastern part; the adjacent western land was sold and developed into new housing experiments and a garden city under the influence of the architectural typologies proposed by Bruno Taut in Berlin,

becoming the *Gartenstadt Neu-Tempelhof* in the 1930s, which was completed in its urban form by new buildings in the 1950s (Schnell and Thiele, 1992).

The airport function on *Tempelhofer Feld* was formalised in the grand plans of the National Socialist government. In 1935 Ernst Sagebiel was enlisted to design the majestic building, to impose a gateway to the *Welthauptstadt Germania* [World Capital Germany] as envisioned by Hitler. He conceived an impressive, 1,200-meter-long elliptical complex of buildings arranged at the northwestern edge.⁸¹ The infrastructure also served as an SS concentration camp in Berlin, which was located right on the edge of *Tempelhof* at the Columbia-Haus. It was only after the World War II that the airfield turned from a zone of terror into a symbol of 'freedom', becoming the main landing field for the Western Allies (Schmitz, 1997). During the Cold War the airfield was handed over for civilian use until the Tegel Airport was opened in 1975. After 1989 *Tempelhofer Feld* was in a central urban location and the two airports *Schönefeld* and *Tegel* were sufficient to cover the city's air traffic. *Tempelhof* airfield finally shut down in 2008 (Copley, 2016).

After the closure, the extensive grounds turned into an open, dry meadow that preserves a number of high value biotopes. Large areas of endangered sandy dry and flat oat grassland were detected, a habitat for different species including wild bees and wasps, crickets, butterflies and breeding birds. Some species that have colonised the airfield over the years are now listed in Berlin, federal or EU nature conservation schemes, requiring specific strategies for maintenance regimes in different areas of the park (Jasper, 2020; SWUP GmbH, 2019) (Figure).

At the same time that the closure of *Tempelhofer Feld*, the city also suffered a serious financial crisis. In 2008 the Berlin Senate commissioned the firm Raumlabor to develop a low-cost vision for the future use of the area. The office proposed successive phases starting with the catalysis of pioneering temporary uses which would then be integrated into a long-term design for the park. At that time the phenomenon of *Zwischennutzungen* had already clearly entered the formal development strategies of the city as a specific design culture for abandoned areas. The architects of Raumlabor explain how the temporary uses were an experimental method, a practice that involved a commitment to learning, but in particular they were based on the pattern-free use of the space that the park represents today. "It was difficult for many to imagine this giant and perfectly centrally located field to become an organic part of the city. The strategy focuses on the first steps and the first five years, but suggests frameworks and strategic organisational bodies that could drive the transformation process in the long term. This 'learning urbanism' works closely with cultural strategies, giving away land for pioneer uses, creating

81 The eagle-shaped geometry of the construction was axially aligned with Karl Friedrich Schinkel's 1821 Kreuzberg Monument in Viktoriapark—where the Nazis used to gather for celebrations—and a representative square on the outer façade was interpreted as a new centrality of urban power.

testing situations for long term ideas and translating the activities on site into the planning sphere with the new tool of the dynamic masterplan” (Raumlabor Berlin, 2007).

Temporary uses proved necessary as a method of filling the ‘gap’ time between abandonment and considering new urban development. In 2008, while Raumlabor was commissioned for a new vision for the former airfield, the Berlin Senate, based on a strategic masterplan, launched the competition for the development of part of the park’s perimeter. The park was opened to the public in 2010 and became an instant focal point of competing and concurrent interests. Such as those of an activist group that occupied part of the land and transformed it into the *Allmende Kontor* community garden, the most important example of a space conceived as a common good in the city (Halder, 2018). In 2013 the city’s master plan was approved for the development of new urban districts on the edges of the current park, which would have compromised both the existing biodiversity by illegally violating nature conservation laws protecting certain bird species and diminished the quality of life for the population of surrounding neighbourhoods (SWUP GmbH, 2019; Jasper, 2020b) (Fig. 3.3; 3.4). In May 2014, after a successful referendum organised by the activist group 100% *Tempelhofer Feld*, the building plans were put on hold. Since then, the former wasteland has been protected by the special law *ThF-Gesetz* (2014) that should ensure the preservation of the area in its entirety.⁸²

The various sectors of the park have remained largely unchanged since the design of the former airfield and are used today following different approaches in nature conservation. In the central area—*Wiesenmeer* [sea of meadows]—between the two runways, the flora and fauna are particularly rich (Figure). Depending on the month of the year, access is restricted to visitors, allowing certain species to reproduce. In particular, the skylark (*aluanda arvenis*), a bird that nests on the ground and used to live in agricultural fields, has found a new habitat in the meadows of Tempelhofer Feld following the conversion of much rural land to monoculture.⁸³ The animals at the park are a notable and characteristic presence: 25 *Skudde*, a breed of sheep threatened by extinction,⁸⁴ are grazing and keep the grass mowed in a specific sector. In three large areas dogs can walk off-leash. Community gardens, barbecue zones, sports facilities make *Tempelhofer Feld* an anomalous urban natural space that now resembles a “rural and pastoral landscape with the acoustic background of bicycles, birdsong and wind” (Jasper, 2020b:225). Today the park can be understood as the largest square in Berlin. Its vast space calls for broader re-consideration of

82 See www.thf100.de and the interview with Kerstin Meyer, *activist of 100% Tempelhofer Feld*, at the end of the section.

83 See Jasper, S. (2020b). Acoustic botany: Listening to Nature in a Former Airfield. In: M. Gandy and S. Jasper, eds., *The Botanical City*. Berlin: Jovis, pp.221–227.

84 See Grün Berlin (2020). *Über den Park*. [online] gruen-berlin.de. Available at: <https://gruen-berlin.de/projekte/parks/tempelhofer-feld/ueber-den-park>.

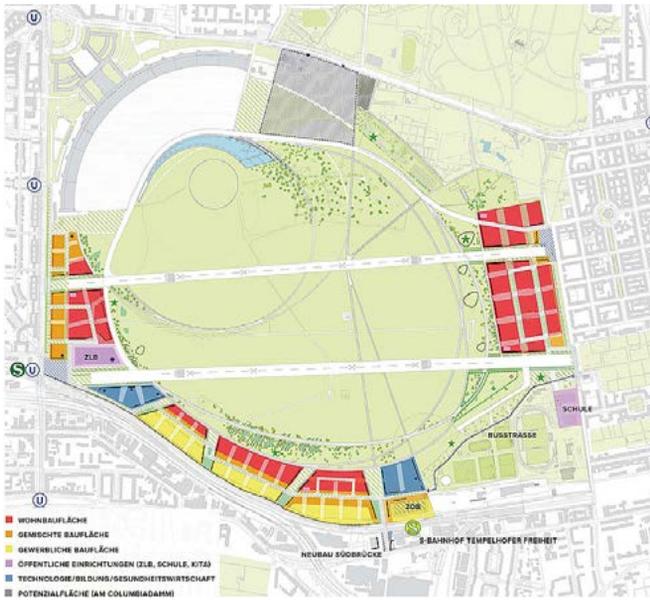


Figure 3.3 Masterplan proposed by the Berlin Senate in 2013 (www.berlin.de)



Figure 3.4 Tempelhofer Feld's biotopes structure (SWUP GmbH, 2019)

the concept of freedom for both human and nonhuman lives.

How to interpret today the design of the abandoned

The two former wastelands present two versions of potential redevelopment, both highlighting the tension between human and nonhuman ways of being in the city, as well as the complexity in attempting to bring them together in landscape planning. This may better explain the concept of “spaces designed by nature and spaces designed by humans” that this second part of the research intends to develop. The two projects illustrate the diverse epistemologies and demands that were integrated into contemporary landscape design.

Atelier Loild’s role in the project of *Park am Gleisdreieck* was only one, albeit an essential, component of its realisation. The range of interests of grassroots organisations, ecologists and different stakeholders filled the ‘abandonment’ with political and cultural meanings. The preservation of urban wildlife through the concept of “nature of the fourth kind” proposed by Kowarik, was not only a programmatic tool for the integration of a specific landscape into an urban park but the redefinition of its agency in shaping new pathways of connection between humans and nature in a public sphere. *Tempelhofer Feld*, on the other hand, illustrates what is often referred to as a ‘unplanned’ or ‘non-project’ precisely because of the minimal interventions that have been made to the area following its opening to the public. Instead it must be more profoundly tackled as the result of activist struggles that have met nature conservation policies—as activist Kerstin Meyer stresses in the interview at the end of the section. Indeed, since the victory of the referendum initiated by the 100% *Tempelhofer Feld* campaign in 2013, the area has been administered according to law *ThF-Gesetz* by a peculiar body, the *Feldkoordination*,⁸⁵ a board of state and non-state actors selected by citizens. The transformations and changes that take place at the site must be discussed by civic assemblies and agreed upon through a process that involves a range of concerns. On the land of *Tempelhofer Feld*, civil society imposed itself with what Mayer calls a “stand-off”, a counter-movement that shaped political ecologies for the defence of human and natural environments.

Since at both *Gleisdreieck* and *Tempelhofer Feld* the role of planners has been embedded in a horizontal decision-making hierarchy, this affected the (pioneering) spatial and governance patterns that the two parks exemplify. The development and conservation of wastelands integrates the fundamental components of maintenance and monitoring of protected species into landscape design. The management of former *Brachen*, which in the case of the two parks is the responsibility of the agency *Grün Berlin*,⁸⁶ requires a complex scheme of long-term professional partnerships. It must follow a meticulous management

85 See www.thf100.de

86 See www.gruen-berlin.de

regime, which defines the park's uses and landscape qualities (SWUP GmbH, 2019; Kowarik, 2005). In addition, some spaces are used by gardeners' communities, who settled in the areas during the years of neglect and in turn run the area according to self-imposed rules of governance. In this complex juxtaposition of behaviours and policies that redefine the environmental qualities of the two parks, the landscape project is expressed as a plural action that is far from static in time. The analysis of the development processes of individual wilderness areas shows how in the last decade the inherited effects of occupation practices, environmentalist demands and ecological interests have moved beyond the stage of innovation to become the formal design tools of a 'multispecies city'. Theoretical and material approaches have been applied to redevelop an urban environment to provide access to wilderness in urban contexts (Kowarik, 2013), shaping places, cultures and everyday practices in dialogue with urban nature.

In conversation with

Kerstin Meyer

Economist and activist representative of the “100% Tempelhofer Feld” campaign

EF Are you a Berliner? How did you get close to the *Tempelhofer Feld*?

KM No, I'm from the Saarland region, which is much further west. When I came back from West Africa in 2009, I moved to Neukölln and I found myself in front of *Tempelhofer Feld*, which was still closed at the time. By curiosity, I went to one of those participatory events that the Berlin government was holding for presenting the plans to build on *Tempelhofer Feld*. I noticed two things. One was that the government was not present. The event was just paid and run by an agency which organised workshops and seminars. So the politically responsible were not there to answer our questions. The second one was that the citizens were already well organised. I realised there were plenty of citizen initiatives. In the *Tempelhofer Halle* they were already running a campaign to open the park and it was successful, because in 2010 the area was opened as a park. The citizens at this event refused to go into the workshop groups. We exchanged email addresses, phone numbers and started to get organised ourselves independently. I was really impressed. Later, I found a small group of people who decided to take care of the legislative procedure. And they were all 'crazy ecologists'.

EF Do you mean ecologist by training?

KM Some were younger, some were older, some were ecologists by training, other amateur ecologists.

But their focus was on ecology and preserving this important space against the plans of construction.

EF How did the campaign start?

In 2006, there has been a constitutional change which enabled these campaign and referendum procedures for the first time. One of the first ones was the referendum against the privatisation of water, which was successful. We thought that we could do the same and it could be powerful. A group of people wrote a law proposal. They were supported by the administration, the *Naturschutzbehörde*. The draft of the law went through the procedure for about almost two years. First, we had to collect 20,000 signatures, then 200,000 and after that there was the voting day. 723,000 Berliners voted in favour of keeping *Tempelhofer Feld* open, which was unheard of. A landslide victory or a defeat for the government, which until today, five years later, it has not digested yet.

EF What has been the biggest challenge of the campaign?

KM The first 20,000 signatures have been collected rapidly, around the *Feld* or on the streets. Even though at the time, the *Feld* was pretty new. It wasn't as popular as it is now. The next phase in which we had to collect 200,000 signatures in four months, which means 1000 signatures a day, and not online, was a big challenge. We also had no money until the end. Just crowdfunding, a couple of hundred euros to print signature lists and posters. The main factor of success was that people across the city connected to the issue and collected signatures on their own. We didn't know them. The result in the

end, on voting day, was a majority in favor in all districts of Berlin, including the outer ones. During the second signature collection, we had to discuss with the people. We spent so much time discussing and we found out that people wouldn't sign just for the ecology, that was in 2013. They would acknowledge it was important, but housing was more important. In a sense, this campaign sort of opened the big floodgates for that discussion in the city. We had to discuss city development: Why were housing prices rising? What would happen? What were the new buildings the government was selling plots for? The plans proposed for the area turned to be a design for expensive housing. And this would have increased the level of rent prices around them. We had discussed a lot about that, we all had to get educated on that. We found out that we had to talk about housing and city development and not just about ecology.

EF It is really impressive that so many citizens wanted to protect a green space. Do you think the housing development was the main driver?

KM I think initially the ecological drive was strong. But what came after was an analysis of what was happening in the city. People understood that the more flats are built, the more people are crowded out. There is a lot of propaganda that says that we need more flats. But who does it? Who will benefit from buying cheap public land? Or buying the last bits of public land that we still have? Berliners are proud of their public (space). Probably because they have been treated badly by history. I'm not from here but now I feel that the history has left its imprint, more so than in other cities that I have lived in before.

EF Berliners feel the heritage of the urban 'voids'.

KM *Tempelhofer Feld* was a void because it was used by the Prussians to train the military for a long time. So, it was a bit late in development and then it was used for aviation. And if it hadn't been for World War I, the land would have been sold, as it was done for the land of *Gartenstadt Neu Tempelhof*.

One of the first ecological movement in Berlin was to fight against the construction of *Grunewald* forest. What I find very touching, is that the Berlin activists of that time were forward thinking. If you read some scripts, they say: "we want the future generations of Berliners to be able to walk in this forest, right like us". I was so touched when I read this because thanks to this movement, we can still walk in that corner that has shaped the city so strongly. I thought that we have to remember it and do the same for future generations.

EF The association that you make with the forest is meaningful. *Tempelhofer Feld* seems something that nobody can touch.

KM What you observed rightly, I think is a 'stand-off'. It is a bit strange that in five years, the only thing they've been able to add or to improve is a couple of benches. It is because of the law. There's a group of people who are elected every two years who sit with the administration and discuss changes. This is also unheard. The administration cannot really move without them, which is not the case anywhere else in the city. It's just there. And it sort of leads to a standstill. But I'm happy because it means that we can improve it for a while. I believe the most important design is how people use it.

EF A minimum design.

KM A backward analysis of what has been done since 2009 are poor little red and white benches, dog areas, a couple of toilets and three wooden towers. What can be observed is that it is enough for people to use the park freely. One can think of minimal structure as what people design by their uses.

EF Very often when designers think of such a large space to be planned, they think of a *change*. This is why *Tempelhofer Feld* is understood as a void.

KM It's not a void. It is actually filled with life and change. Last month I was in Vienna, I spoke about *Tempelhofer Feld* in front of some architects. Afterwards, a student told me: "It's great that you kept the *Tempelhofer Feld* free. I have a very good idea of what to build there". It was funny how this expressed an *egocentric* human conception of space. I told the student "Look, maybe I have a solution for you, build something temporary, that is allowed on *Tempelhofer Feld*"

EF Temporary uses are also a complicated topic in Berlin.

KM I know, but now we are in a planetary crisis, and we have to think very long term. In this sense, we can think about ourselves as temporary inhabitants of this space. If you think about *Tempelhofer Feld*, that it was built in the 30s by the Nazis: this huge, massive thing. Now 'we' have to deal with it. And a hundred years later, we are still stuck with the result of this *Megalomanie*.

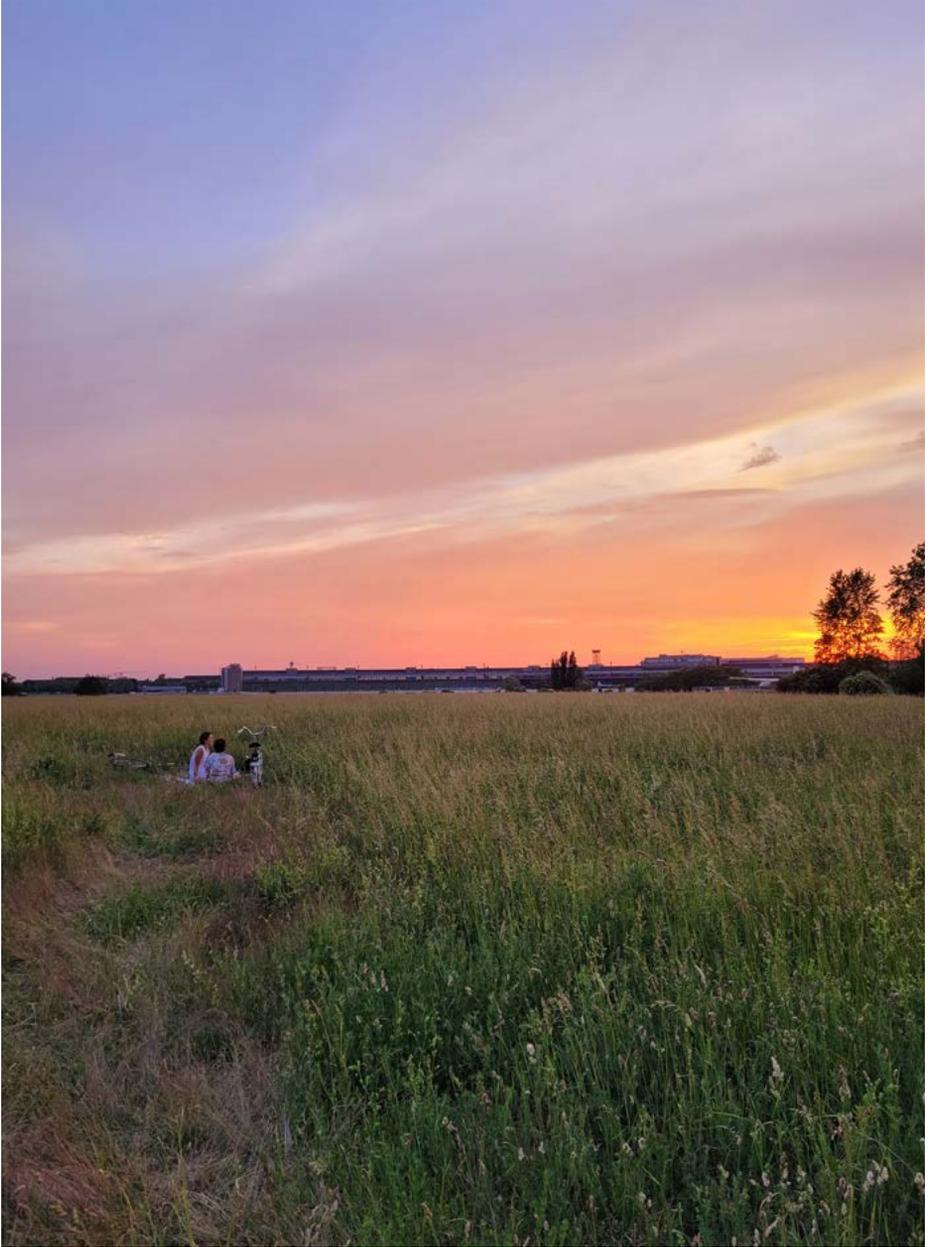
EF What do you do now?

KM I started to work with the group of people from *Prinzessinnengarten* that want to stay in the area. I believe it is the same fight that we have with *Tempelhofer Feld*, which continues, of course. It's a fight for the green spaces in the city and their role in urban ecology. But first of all, it is a fight for the soil, both as land and as an ecological matter.

Kreuzberg, June 2019



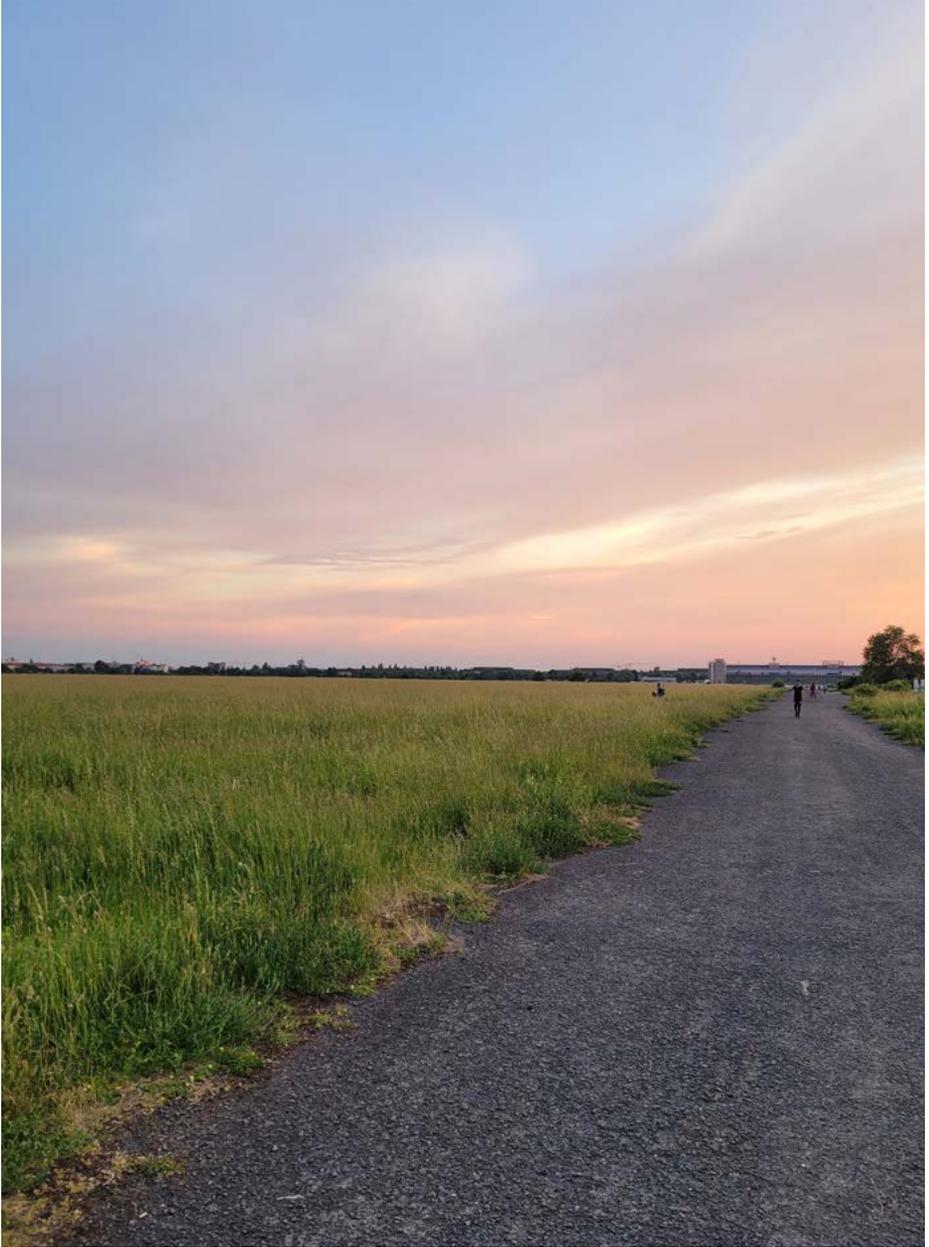
Tempelhofer Feld, view from the east entrance of the park.
(EF, 2019)



Tempelhofer Feld Wiesenmeer.
(EF, 2020)



Tempelhofer Feld, north-central part of the park.
(EF, 2021)



Tempelhofer Feld Wiesenmeer.
(EF, 2020)



North-eastern part of *Park am Gleisdreieck*. In the background new *Wohnpanorama* residential buildings still under construction.
(EF, 2021)



South-eastern part of *Park am Gleisdreieck*, looking at the *Gleiswildnis* (Railway wilderness) area.
(EF, 2020)



Ruderal vegetation (giant goldenrod, *Solidago giganteana*) in the area designed with rubble substrates, Ökoschotter, in the eastern part of Park am Gleisdreieck.
(EF, 2021)



South-eastern part of the *Park am Gleisdreieck*, wild trails in the *Gleiswildnis* area (Railway wilderness).
(EF, 2020)

Urban margins

The change of the city environment around the two parks has created an attractive new urban core triggering progressive infill mechanisms in empty areas as well as urban planners' interest (Map.6). The infrastructural network has become central to urban visions for the future metropolitan development. The core of the *Zusammenwachsen Landschaft(stadt)* project, the winner of the important "International Urban Planning Competition for Berlin-Brandenburg 2070", considers a radial city growth employing existing infrastructure links to reinforce rail transport to the Brandenburg region. Reminiscent of plans from the turn of the century (Bodenschatz and Tubbesing, 2020), the model of radial expansion envisions the densification of the city core—*Stadtkern*—and of the settlements along the railway axes. It explicitly abandons the paradigm of the city's dispersion and its archipelago character: "in contrast to modernism, which forced the dispersion and fragmentation of the city, from which many cities still suffer to a greater or lesser extent, the goal must now be to counteract this process through a re-urbanisation"—the planners planners Malcovati and Albers have stated (2020:26).

The call for competition required the illustration of design strategies in three areas chosen by the designers across the city. The winning team exemplified its intentions right along the edges of the circle line and A100 highway bordering on the Tempelhofer Feld—a move that was particularly appreciated by the jury. The draft proposal envisages a development of structure (whose architectural typology is not defined in detailed as in the case of other project entries⁸⁷) out of scale with respect to the existing fabric, recalling the encounter "between baroque and socialism" (Zohlen, 2020:25) (Fig.3.5). The concept idea does not foresee the demolition or densification of existing building stock,⁸⁸ but rather the occupation of empty and natural marginal areas. These are allotment gardens, small wastelands and a portion to the south of Tempelhofer Feld, which retains protected biotopes.

It is a recognised phenomenon that the conversion and revaluation of abandoned spaces in central areas like *Tempelhofer Feld* and *Park am Gleisdreieck* brought conflicts with it. In other similar contexts, such as Detroit, the development of unused greenery resulted in housing market-oriented developments and privatisation policies, affecting residents and fostering social and environment injustice (Draus et al., 2020). Defined as 'eco-gentrification' or 'green gentrification'—the transformation of low-income or vacant areas into more middle-class, mostly residential districts following the revaluation

87 See for example the second prize winning project by KOPPERROTH, SMAQ, Alex Wall, in which different building types are represented in their complexity and articulation. (Unvollendete Metropole, 2020a)

88 As it was proposed for example in the fourth winning entry by urban planner Thomas Stellmach (Bodenschatz and Tubbesing, 2020)

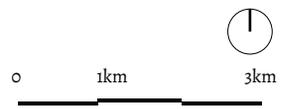
Map 6_Densification at the margins



Schöneberg

North-Neukölln

-  Winning entry for the international ideas competition Berlin-Brandenburg 2070 Zusammenwachsen-Landschaft(stadt) [Merging-landscape-city] by Berndt Albers, Silvia Malconati and Günther Vogt
-  Densification at the margins (2008-2022)
-  Potential urban densification schemes



Source: (SenStadtWohn, 2019a; Bodenschatz et al., 2020)

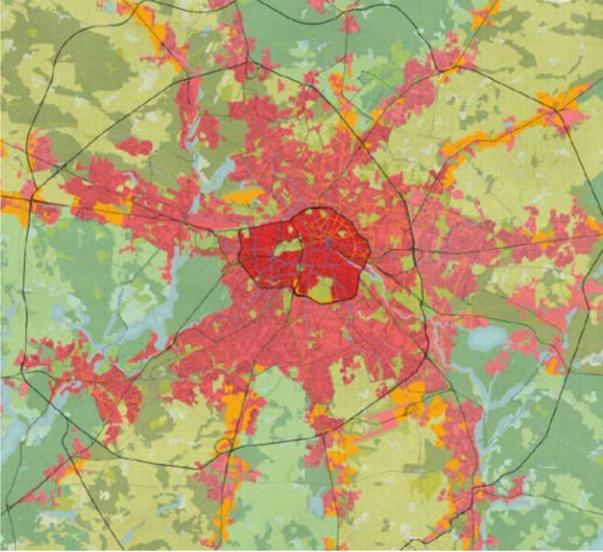


Figure 3.5 *Zusammenwachsen*
Landschaft(st)stadt
by Albers, Malcovati, Vogt
(Unvollendete Metropole, 2020a)



of green spaces—, this process can be analysed at the two parks. In fact, since 2010, the price of land has risen approximately twentyfold in the upper part of Schöneberg and tenfold in North-Neukölln.⁸⁹

One of the largest urban densification projects is being undertaken between the *Schöneberg* and *Südkreuz* stations, west of *Tempelhofer Feld*. *Schöneberger Linse* will be a mostly residential neighbourhood. Its construction involves the renovation of some existing industrial buildings and the redevelopment of a large wasteland, which has become a meaningful place for the neighbourhood. The new masterplan re-establishes the centrality of the *Südkreuz* station, which will in fact turn into a key infrastructure junction. To the north of the Schöneberg station a former industrial area has already been converted into the EUREF-Campus, a hub of companies and research facilities in the fields of energy, sustainability and mobility in 2008. It created a new business district around the landmark of the former gasometer. To the south of the station, the two recent urban re-developments share a border with the former working-class neighbourhood of *Rote Insel*, which within just a few years has been converted from an almost peripheral district to a central urban area (Bezirksamt Tempelhof-Schöneberg, 2019). To the East of *Tempelhofer Feld*, in the northern part of Neukölln, the large areas remaining on the fringes of the park are the partly disused graveyards owned by the Evangelical Church. On these sites, which over the years have become islands of nature embedded in a dense urban area, some buildings are under construction and further development is being discussed on the political and administrative level.⁹⁰

Along the edges of the Park am Gleisdreieck, infill has taken place, sparking criticism of both the architectural quality and urban planning approaches (Crone and Thein, 2019:20; Gandy, 2020a).⁹¹ The plan proposal *Planwerk Innere Stadt* in 2010 had already proposed block buildings along the edge of the *Gleisdreieck* area. The new development, however, follows the same dynamics that have driven the city's endogenous growth so far, resulting from the sale of land (mainly owned by the railway agency *Deutsche Bahn*) to real estate companies in the early 2000s. That is also the case for the area to the south-west of the park originally given to the *Möckernkiez* cooperative which, after its transfer to a private developer, is now a site of exclusive housing (Crone and Thein, 2019:20). In the dynamic of ownership changes, the perimeter of the park has been converted into an epitome of elite residential buildings and speculation

89 Data available at fbinter.stadt-berlin.de/boris/

90 See STATTBAU Stadtentwicklungsgesellschaft GmbH (2015). *IFEK Hermannstraße*.

91 A project along the south-eastern edge of the park is an exception, both in terms of architectural quality and the interpretation of urban densification strategy. *Am Lokdepot* by Robertneun Architekten is a slatted structure that closes in a courtyard, completing an existing building. The red façade composed of overhangs and recesses and the use of metal echoes the dynamism of the railway line and forms a new link between two existing roads (Crone and Thein, 2019).

planning. The development of the park's fringes is projected into prominent visions for the future. One controversial masterplan for the intersection of the two parts of the park—*Urban Mitte*—is currently still awaiting approval. It would consist of the intensive construction of office and retail buildings as high-rise blocks 25 to 90 metres tall (Urbane Mitte, 2019).

The development of the city of Berlin is following an unmistakable transition from the horizontal to the compact urban form, undermining the vision conceived by ecologists as a 'city of biotopes' in favour of the 'neoliberal city'. The current scenario aligns with the city administration's politics, which, as the recent past has demonstrated, trigger economic profit mechanisms, but in particular lead to the transformation of city urbanity through the modification of open and free spaces, promoting closure in opposition to the existing porous urban fabric. It programmatically introduces recognisable spatial hierarchies between the spaces of development and those of consumption.

Along the parks' margins

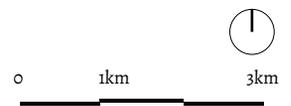
In the course of the research, the natural areas around the two city parks have been a source of scientific interest in many forms, which have converged into the idea that what is considered 'marginal' in accordance with current capitalist and neoliberal strategies is a multilayered terrain that must be analysed for its specific attributes. At the same time, strategies that involve the consumption of minor spaces, re-signify their value and offer the opportunity to categorise them as a whole, guided by a sense of urgency to investigate the qualities of remaining natural lands—today 'fragile' and mainly temporary.

Looking at the territorial dimension today, the set of natural spaces that remain on the fringes of former wastelands physically, socially and ecologically constitute another infrastructure—'minor', 'hidden' and 'segmented'. These are: the wilderness along the train tracks, former parts of the airport facilities, partially disused cemeteries and urban gardens (Map.7). The exploration of these contexts took place through walks and visits. As a research method and daily practice, crossing these spaces by foot was the way to grasp the qualities that characterise their complexity. In the spirit of "go-along" (Scott, 2019) the marginal infrastructure, the practice of movement—walking—and stopping—visiting, interviewing and photographing—combined spatial with visual and qualitative inquiry. Firstly, these approaches have proved useful in revealing how social practices governing the set of landscapes that crown parks condition their accessibility, politics naturalistic qualities and scopes. I refer to the minor infrastructure as 'hidden' and 'segmented' because the whole of it cannot be traversed and its individual contexts are hardly reached. Rather, the set of marginal spaces is an ensemble of heterogeneous territorial components that differ from each other in terms of social organisation and land property patterns, which influence their management. The 'infrastructure at the margins' provides a gateway to a deeper understanding of what a contemporary natural

Map 7_Parks' margins



-  Cemetery
-  Allotment garden
-  Community garden
-  Water basin
-  Wastelands and areas along the train infrastructure
-  Park
-  Sport facilities
-  Surrounding green areas



Source: (SenStadtWohn, 2019a)

hybrid urban territory might represent.

Marginal spaces are also ‘hidden’ because they are not popular in the common image of many Berliners. This is the case with some urban gardens, both allotment and community gardens, to which I devoted my first fieldwork. Different types of gardens nestle along the edges of the two parks. Allotments, like small *civitas* (Bigell, 2015), are mostly enclosed spaces; community gardens, instead, can be found on cemetery grounds, or on the edges of parks and accommodate a broad social milieu. Fieldwork has been key to collecting the stories of individuals and communities and to restoring the emergence of largely unknown and non-assessed contexts. In fact, some gardens are still based on informal practices and not recognised in official maps. Although often not recognised as such, gardens today constitute places of social integration and environmental education, promoting new green space uses and self-governance models.

Walks along wide stretches or shorter transects made it clear how actual occupations of space clashed with current land-use categories and ownership patterns. Indeed, these contexts are not really public spaces. Nor does their function fit the standard notion of a public. For instance, graveyards are privately owned but used for community activities or recreational purposes. Some allotments on the land of the private company *Deutsche Bahn Immobilien* are spatially regulated by a federal law and have to meet dictates by a specific umbrella gardeners’ organisation (*Gartenfreunde*). Areas as the old water basin of the airport—today Floating University—are public land run by an ad hoc non-institutional cultural association.

Social, spatial and political complexities have moreover an ecological significance. The marginalisation and the proximity of different landscapes with varying naturalistic attributes mean that these contexts are characterised by high biodiversity. Old cemetery structures provide a habitat for endogenous species (Kowarik et al., 2016; 2020), while urban gardens are intensively used green spaces for recreation and horticultural cultivation. Their geographical adjacency to park areas favours the interweaving of different degrees of naturalness, which together form patches of different natural ecosystems that often provide ecological corridors and *refugia* for various animal species (Rink, Backhaus and Schubert, 2007).

The interweaving of social-ecological differences can be analysed in these smaller urban settings. In the following sections I will present the stories of three very different landscapes. Along the edges of *Park am Gleisdreieck*, urban transformations have led to the prefiguration of spatially, socially and ecologically hybrid contexts, representing today ‘in-between nature’ as the heritage of Berlin’s open spaces archaeology. At three cemetery sites in the North-Neukölln district, the integration of wilderness into landscape design and temporary uses influenced different and contrasting approaches of political ecology, today instrumental for depicting the fragility of marginality in relation to densification dynamics. In the former water basin of the *Tempelhof*

airfield the concepts of ‘nature/culture’ and ‘care’ formed the theoretical and empirical basis for design mobilisations.

The transects along Park am Gleisdreieck

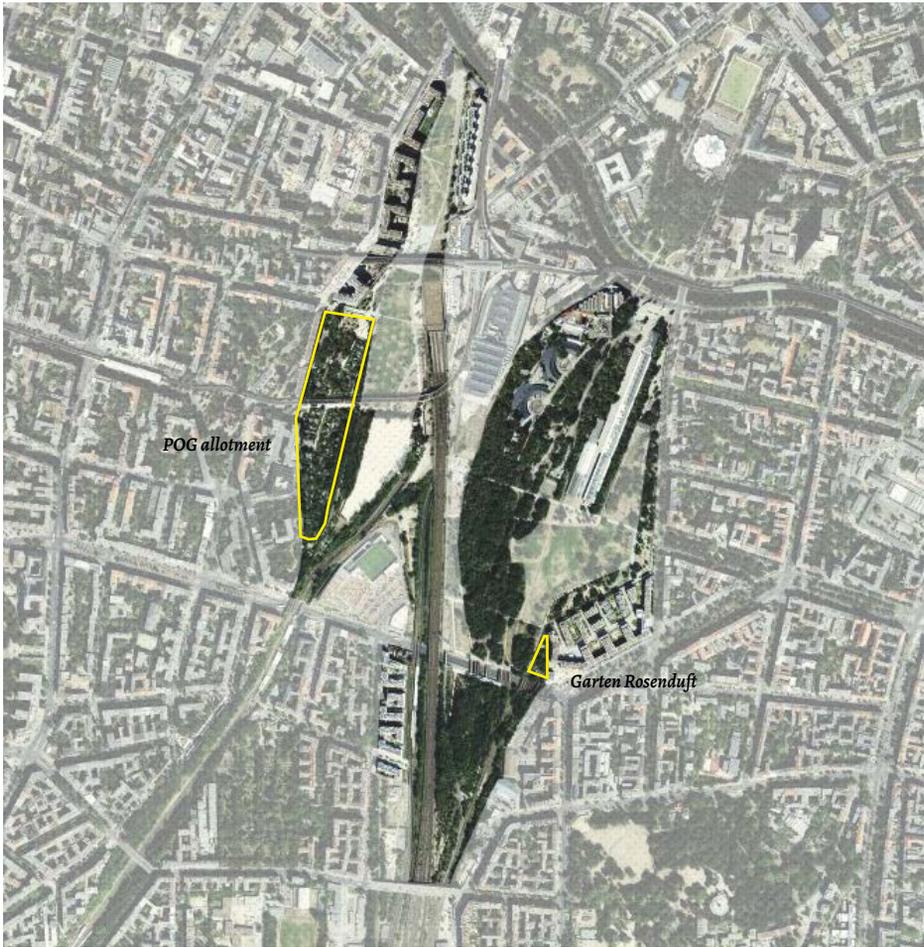
Walking along the *Park am Gleisdreieck* boundaries, it is possible to grasp the value of the project in contemporary landscape design and urbanism. Wild areas, collective spaces, urban gardens and new housing developments thicken around the perimeter of the park, forming a zone between the public green areas and the surrounding urban context. The main sites of wild vegetation that have been preserved by urban ecologists taking into account their *genius loci* are located to the south of the western part of the park—*Stadtwildnis* [urban wilderness]—and along the current railway line in the eastern portion—*Gleiswildnis* [railway wilderness] (Kowarik, 1991). Between the woodlands and the surrounding neighbourhoods remain two urban gardens, whose fate was not considered in the first design proposal, but after several stages of negotiation they have been integrated into Atelier Loidl’s plan (Map).

Approaching the *Gleisdreieck* from the southernmost entrance of *Monumentenstraße*, an extensive wilderness area [*Gleiswildnis*] stretches between the railway track and new housing buildings. A bicycle and pedestrian corridor connects to the northern part of the park, while informal and designed paths run through the preserved urban woodland along the old railway tracks. These are places normally frequented by dog owners, runners and families, because they form secluded routes, compared to the open green spaces that welcome a wider public.

Further north, crossing the bridge over *Yorckstraße*, the community garden *Interkultureller Garten Rosenduft* can today be found fenced in on a small plot of land. In 2005, *Garten Rosenduft*, encouraged by temporary use phenomena and under the influence of the New York community garden movement, was established on the former wasteland and later managed by an association of women with an immigration background. It was one of the first community gardens in Berlin and had a very specific aim: to unite different socio-cultural and generational groups. The project was one of the first created by the research working group *Arbeitsgruppe Kleinstlandwirtschaft* [working group on micro-agriculture] formed at the Humboldt University in the early 2000s that dealt with micro-husbandry and gardens in the city and countryside, focusing heavily on social inclusion, gender issues and new forms of micro-economy (Meyer-Renschhausen, Müller and Becker, 2002).

The working group can be considered a founding episode of the community gardens scene in Berlin and was centred around feminist intellectual movements. During those same years, as documented in more recent writings (Federici, 2018; 2020), intellectual feminist Silvia Federici reclaimed the community garden as a form of commons. As a critique of the colonialist policies in the Global South, the feminist theorist argued that in the capitalist

*Map 8_Gardens and wilderness along the margins
of the Park am Gleisdreieck*



Source: Bing Map (2021)

economy, women were at the forefront of the struggle against land enclosures, standing in the way of commercialisation of nature in favour to a subsistence-oriented agriculture. Community gardens in Latin America and in Africa have been examples of the ‘solidarity economy’ movement of new social relations based on the principle of sharing, community, autonomy and care (Caffentzis and Federici, 2014; Federici, 2018). Elisabeth Meyer-Renschhausen, one of the promoters of *Garten Rosenduft* and an emerging figure of garden activism in Berlin, comments on the integration of the garden in the *Gleisdreieck* area with a subtle polemic on the overall design of the park. She also explicates the profound significance of caring for socially fragile individuals and the role of gardens within an environment of progressive gentrification. “Members of the upper classes can be expected to altruistically maintain flower beds at Riverside Park, but won’t work with our elderly who come from immigrant backgrounds. They need more gardening plots because they will not work in anonymous green spaces” (Lichtenstein and Mameli, 2015:159).

The small plot, the legacy of activist and scientific debates on innovative methods of urban agriculture, is today open to visitors and is easily accessible, located in a central spot at the eastern side of the park adjacent to the new *Möckernkiez* district. Behind the fence of *Garten Rosenduft* the atmosphere is that of a place very unlike a public park. The women of Bosnian origin whom I met during my visits shared how this space has become a community for different families to gather and forge friendships and mutually supportive relationships between people from similar cultural backgrounds. The delimitation of the garden in relation to public space, rather than a factor of exclusion, can be understood today as evidence that such conditions reveal and influence the production of community space in contrast to wider, public spatial frames (Kurtz, 2001). Today the minute area is a cultural-historical reminder of the beginnings of a tradition of community gardening that has quickly taken hold in the Berlin landscape in recent decades—a terrain left embedded between wild areas and a new housing development.

While the enclosed *Garten Rosenduft* has clear borders separating it from the surrounding public space, the POG allotment on the west side of the *Gleisdreieck* area, after being integrated into the park, has taken on unusual and complex spatial contours. The garden colony was founded on railway land adjacent to the train tracks in the 1940s, with the typical structure of allotment area: a gated land divided into small plots used as private family gardens. This type of space clearly conflicted with the idea of a public and also hindered the possible programmatic arrangement of the connections with the neighbouring districts. The compromise that was found between the planners and the gardeners was a new concept of a semi-public space in which the inner areas of the allotment would be permanently open to visitors, becoming unusual green paths and public venues surrounding clusters of private plots of land.⁹²

92 Interviews with POG gardeners during the *Integration of allotment and community garden* project (June, 2020)



Gardeners of the *Interkultureller Garten Rosenduft*.
(EF, 2020)



The border between the *Interkultureller Garten Rosenduft* and the new residential area *Möckernkiez*, on the east side of the *Park am Gleisdreieck*.
(EF, 2020)

Walking along the west side path of the park from north to south (Map.9 and diagrams), the landscape changes sharply. To the north, new residential buildings overlook the large expanse of lawn and playgrounds. The public footpath continues as it enters the POG allotment in the area *Gärten im Garten* [Gardens in the Garden] where, between the small family plots, former meeting places for allotment tenants have been developed into a public café, *Café Eule*, a community garden, environmental education spaces for children and a market spot. Community activities in this context are strongly intertwined with a sense of publicness within a fabric of spaces organised and maintained very differently.

The southernmost part of the allotment runs adjacent to a woodland where the *Bahnbrachen* [railway wasteland] vegetation typical of dry, sandy soils has been preserved and opened up as a sort of ‘open-air botanical museum’ in which a number of natural species are illustrated on signs along the way (Kowarik, 1991, 2005). Away from the main entrance to the park, the walkways designed by the Atelier Loidl connect to the existing ones, marking a change of ground material. The area between the wild vegetation and the allotments is a *cul-de-sac*, a quieter and less frequented place. This area crosses through a range of natural species, soil substrates as well as different forms of uses. The permeability between ecological, institutional and spatial boundaries results in a hybrid landscape governed by different social groups. In a liminal cross section, dense vegetation varies from wild to ornamental to horticultural. Parallel walkways are used by gardeners to collect compost as a kind of extension of their private plot or by people from the neighbourhood to find intimate spaces to stroll (*Scheme.1*). Continuing the walk along the public paths that lead to the entrances to the individual gardens the view narrows. The low occupancy of this area has meant that vegetation persists along the borders of the gardens on either side of the paths. Ferns, mosses, and a variety of flora growing on the private green have colonised the public space. Unlike the wild area, public alleys are managed by allotment tenants, an example of green maintenance schemes between the formal and the informal.

I associated the walk and the margins of the park with Matthew Gandy’s concept of the “transect” (2020b). The line, which in botany is intended as a cross-section and a method associated with the walk survey, provides a traditional methodology for analysing different degrees of variation in the natural environment.⁹³ According to Gandy, the queering theory, deconstructing sexual norms and categories, expands the scope of botanical methods and analytical sensitivities, bonding the physical human body walking in nature to other-than-human subjectivities within the urban space. The “transect” precisely points towards the valorisation of marginal spaces, as “in some case the transect becomes the ecology of the line itself, as in studies

93 Alexander von Humboldt’s sectional drawings collected in the book “Cosmos” are one of the clearest and most valuable examples. Humboldt, A. von (1893). *Cosmos a Sketch of a Physical Description of the Universe*. United Kingdom: Malcolm Bell.

of plant growing in the interstitial spaces produced by transport networks such as roadside verges or railway embankments” (2020:164). The employment of subjectivity in ‘transgressing the line’ and thus experiencing the hybridity, returns again to an aesthetic idea, which ties in philosopher Gernot Böhme’s notion of ‘atmosphere’. Walking the boundaries of *Park am Gleisdreieck*, through the succession of different natural spaces, is in fact a movement between different aesthetic settings. Böhme conceives the ‘atmosphere’ as a means of encapsulating the feeling of humans in perceiving the environment precisely as something in-between, *Dazwischen* (Böhme, 1995).

Gleisdreieck is “a hybrid of nature of the third and the fourth kind”—between nature in gardens and urban green, and ruderal vegetation—Kowarik commented on the park project after its completion (2015:220). In the ensemble production of these spatialities one can today read the shrinkage of the archaeology of the Berlin landscape; the environmental memory of the *Brachen* and forms of civic resistance for the protection of natural settings and practices. The process of converting a wasteland into a public green area has made the park’s margins both spaces of commodification and of negotiation of different goods. *Gleisdreieck*’s perimeter is today an in-between threshold whose evolution illustrates how participatory design in urban planning can be inclusive when designing spaces taking into account social minorities, geographical and ecological specificities as well as new housing development.

Map 9_Western transect

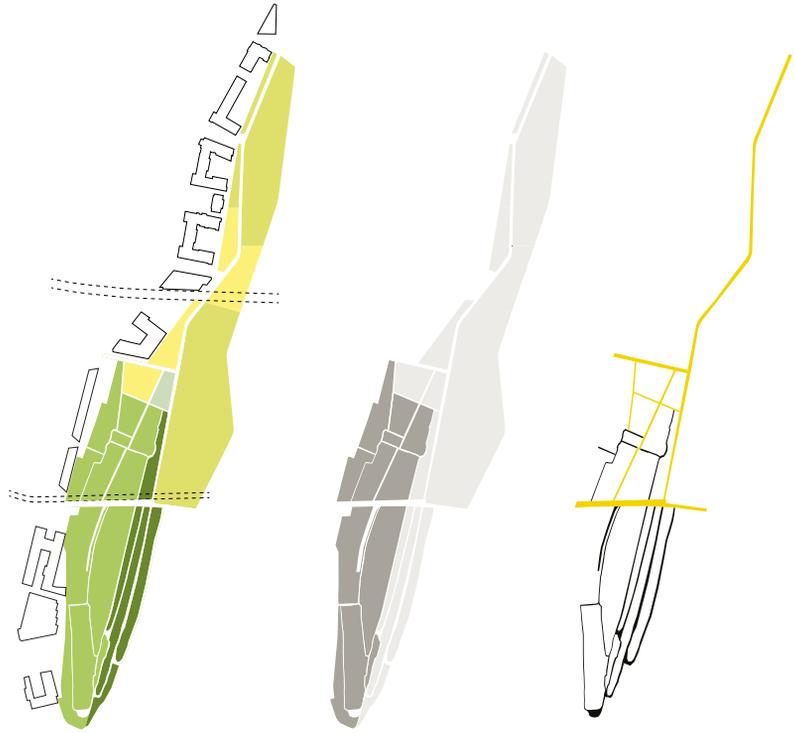


 Urban densification



Source: Bing Map (2021)

Western transect design



- Designed lawns
- Playground
- Public square
- POG allotment
- Wild area

- Public space
- Privately run space

- Former paths integrated into the park design
- Designed paths

Scheme_1 A hybrid landscape
Routes between the park and the allotment gardens
(south-west side)

Wild area

Public space

Dry habitat vegetation -
ruderal vegetation

Public allotment
paths

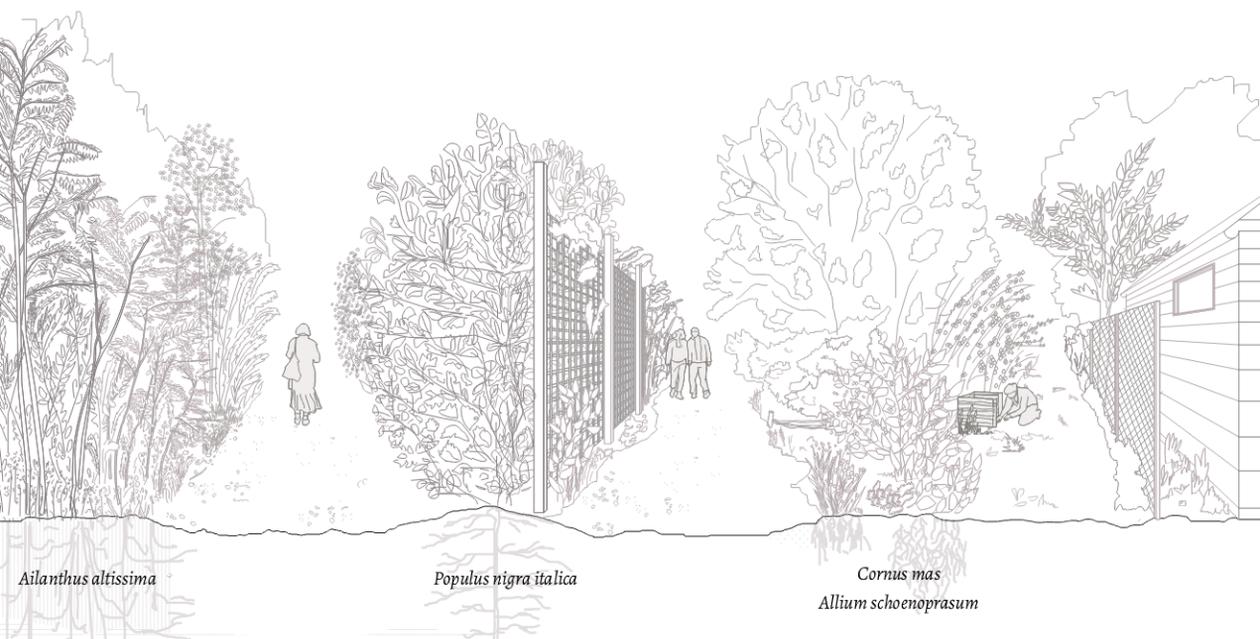
*Between public and
privately run spaces*

Ornamental and
ruderal vegetation

POG allotment

Privately run space

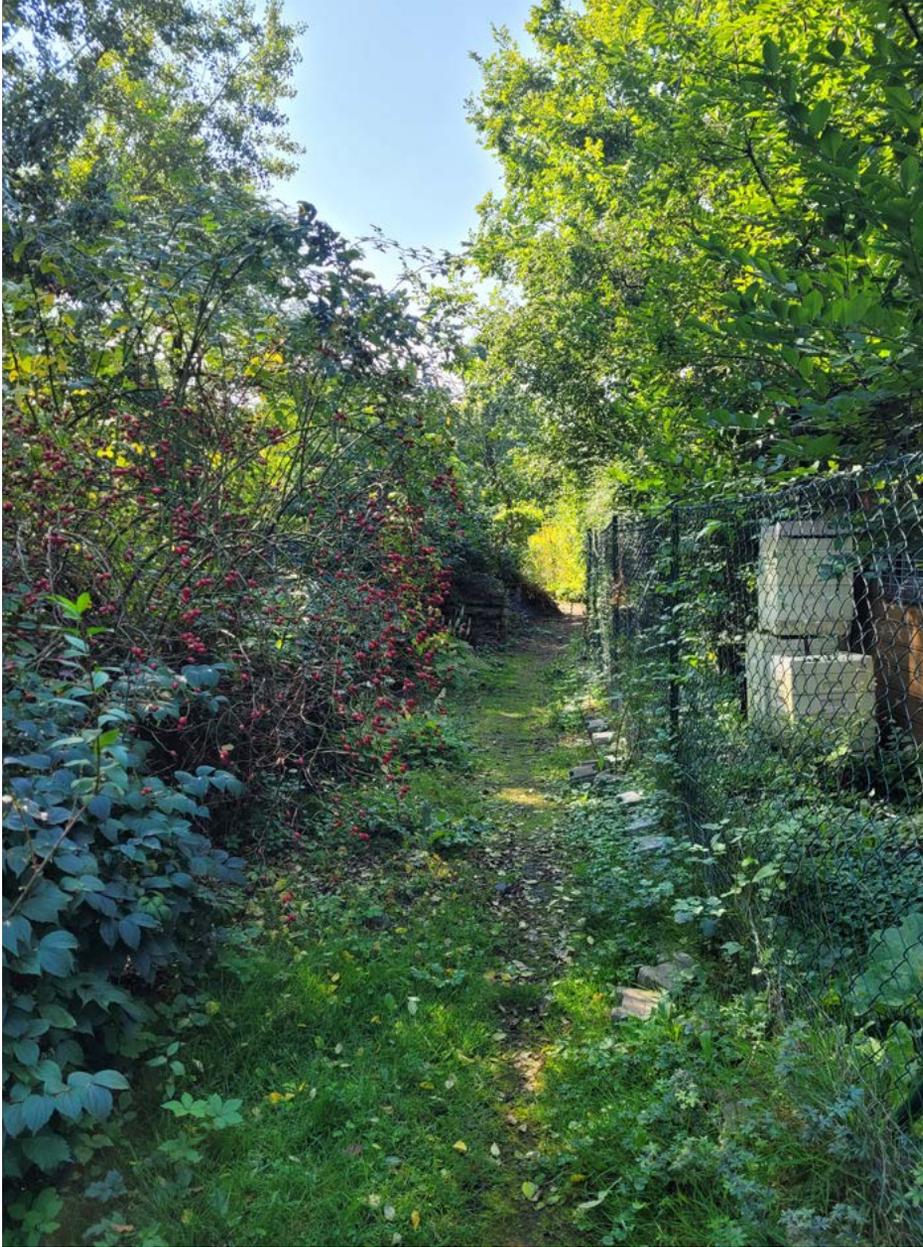
Ornamental and
horticultural vegetation



o 1m



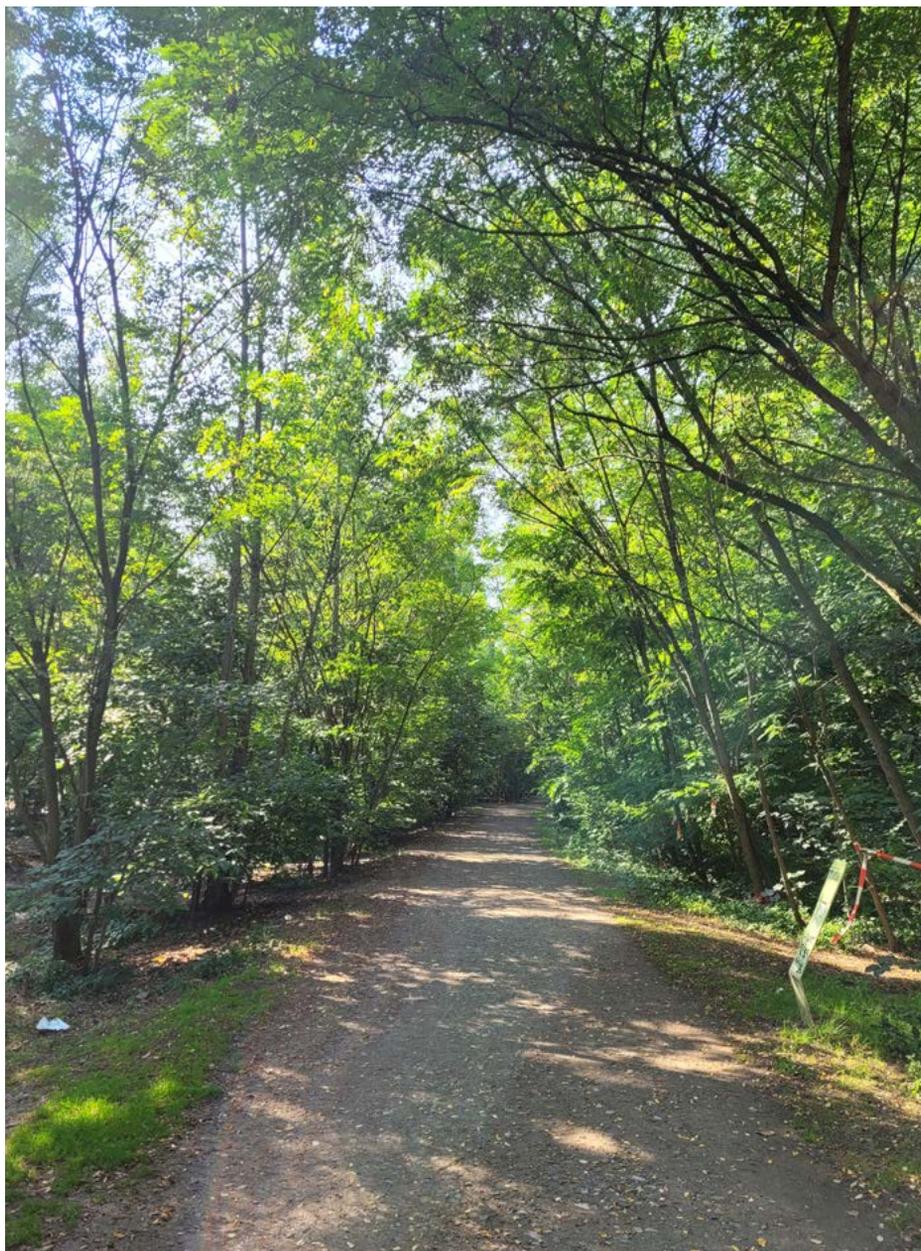
Wild area in the south-west of *Park am Gleisdreieck*. The path runs adjacent to the POG allotment area.
(EF, 2020)



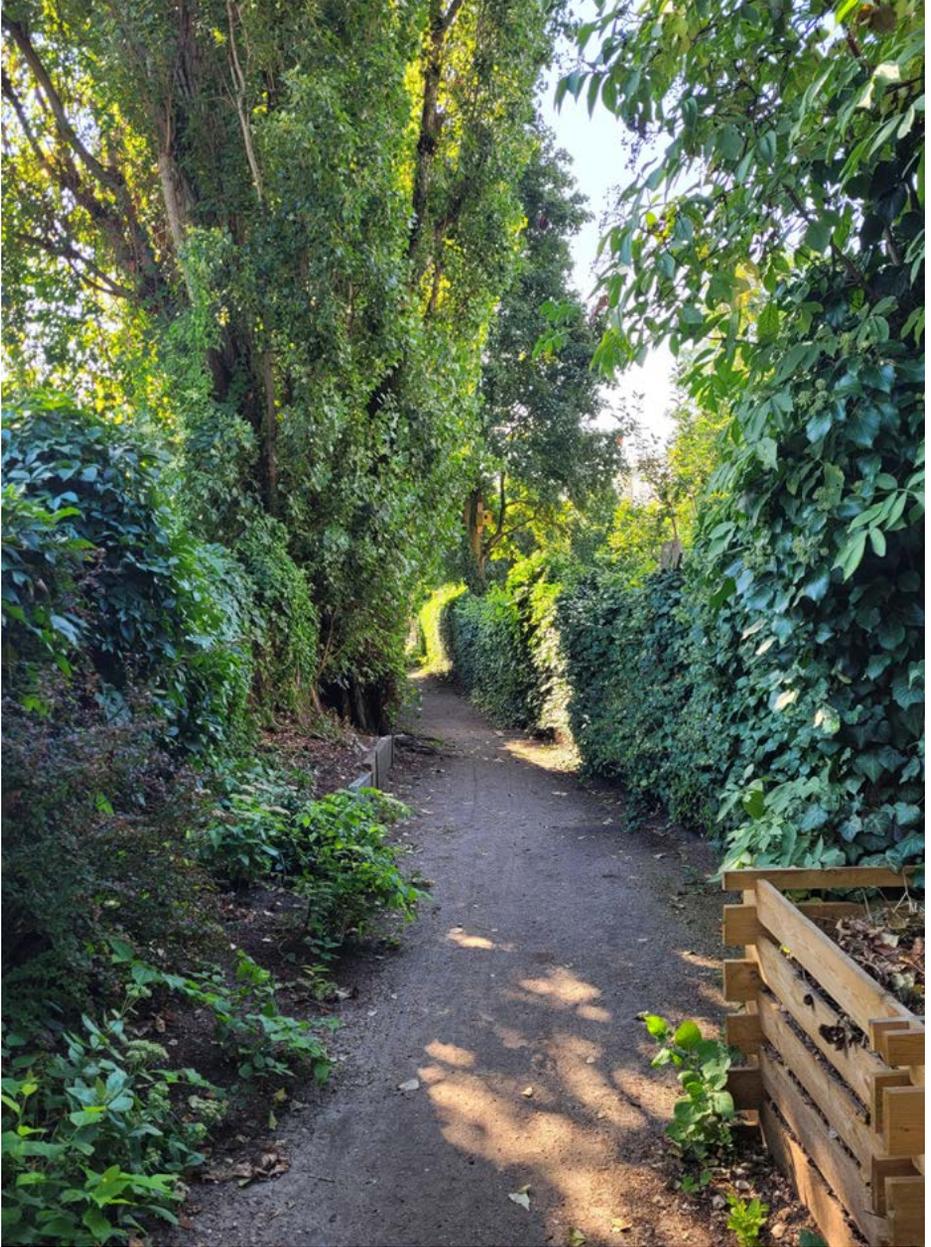
Publicly accessible route along POG allotment boundaries in the southwest part of *Park am Gleidreieck*.
(EF, 2020)



Route open to the public between the POG allotment and the wild area
in the southwest part of *Park am Gleidreieck*.
(EF, 2020)



Wild area in the south-west of *Park am Gleisdreieck*. The path runs adjacent to the POG allotment area.
(EF, 2020)



Publicly accessible routes of the POG allotment. Gardeners use the public space to collect compost.
(EF, 2020)

Three cemeteries in North-Neukölln: stories of animals and temporary uses

Berlin's urban cemeteries are striking urban landscapes where the coexistence of nature, cultural-historical heritage and novel urban practices provide a representation of the interdependencies that exist between the human and nonhuman in the city. Old burial areas are in fact green structures included in a defined and often walled perimeter and have over the years become 'natural islands' set in the urban fabric. Cemeteries have been fertile fields for investigations for urban ecologists. From the 1980s onwards, scientific efforts have focused on the taxonomic survey of the natural qualities of burial grounds. In the walled city of West Berlin, the vegetation of 50 cemeteries had been examined by the botanist Anne Graf who found 690 species of wild ferns and flowering plants and 128 included in the Red List. A very significant result, since that corresponded to half of the total flora of West Berlin at that time found within just 1% (297 hectares) of the whole city's land area (Kowarik, 2020). As Kowarik argues (2016), in today's cemeteries the high diversity of environmental conditions, the coexistence of wild and ornamental plants and areas with different levels of maintenance provide a variety of ecological niches for plants, animals and insects that is rare to find elsewhere, "perhaps even outside the city altogether in different types of landscapes".

Cremation, preferred to burial in coffins, has resulted in the partial or total abandonment of many of those spaces. Being mainly privately owned land, which together make up an area of 1364 hectares, the cemeteries in Berlin today represent a high potential for building development. In recent years, following the impetus of urban change, the three cemeteries that lie on the east side of *Tempelhofer Feld* (Map.10), in the district of North-Neukölln, have changed their function, representing new models of design cultures. The three cases illustrate how nature conservation politics affect the management of similar urban natural spaces in very different respects.

St. Jacobi, *Jerusalem V* and the former cemetery *St. Thomas*⁹⁴ were built in the late 1800s as part of a larger burial complex along the western side of *Hermannstraße*. They were designed according to the trend of the time following foreign models which called for a regular geometric distribution of the areas in order to maximise burial space (Rosengren, 2020). Called *Alleequartierfriedhöfe* [Alley district cemeteries], they have a reticular structure with trees planted along avenues and hedges along secondary paths. Next to each other, the areas are easily passable along their entire length individually, but cross-access between one site and another is not always granted. This is primarily due to their current land tenure. The *St. Jacobi* and *Jerusalem V* are privately owned by the *Evangelischer Friedhofsverband Berlin Stadtmitte* [Lutheran Berlin Cemetery Association]. Only the area of *St. Thomas* has been purchased by the city of

94 Full names: *Neuer St. Jacobi Friedhof*, *Jerusalems- und Neue Kirchengemeinde-Friedhof V*, *Neuer St. Thomas Friedhof*.

Map_10 Three cemeteries in North-Neukölln



+ Community garden



Berlin and redeveloped into Anita Berber Park. The new public space serves as a link between *Hermannstraße* and *Tempelhofer Feld* while the other two sites on private property remain fenced off and in a state of semi-abandonment.

Anita Berber Park

The former *St. Thomas* cemetery has not been actively used since the 1970s; and during the years of abandonment it has become a space to walk dogs amid wild trees and shrubs, which also is the case for several other wastelands in Berlin.⁹⁵ During a participatory design process that involved civic groups from the neighbourhood, dog owners campaigned against any redevelopment that would deny their ability to let dogs roam freely in the area.⁹⁶ In 2017, the site was inaugurated under the name of Anita Berber Park. The existing spontaneous vegetation, including bushes and trees, was integrated into the new project and only small interventions like wooden benches and playgrounds have been introduced (Kowarik, 2020). Today the area is a semi-wild corridor where dogs are officially allowed off-leash. It represents a very peculiar hybrid status between an urban park and a dog zone.

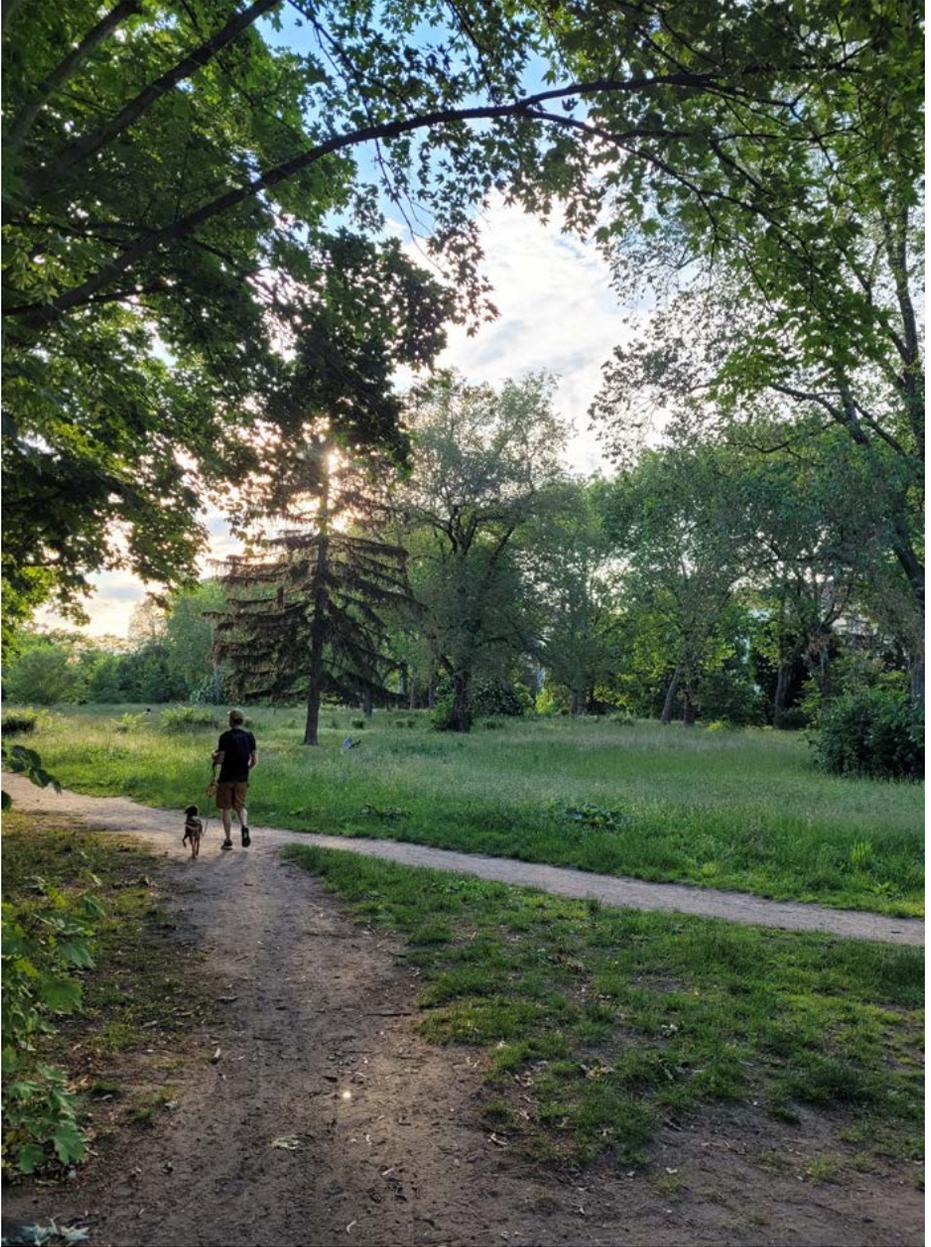
The area is characterised by very different naturalistic and social settings. The major avenues of plane trees are used as walking areas or by runners as a connection to the nearby *Tempelhofer Feld*. In the central part people habitually cross the meadows or follow small unpaved paths accompanied by their canine partners or use the space for informal gathering and picnics. The perimeter of the park, where the vegetation is highest, is a place of retreat for socially vulnerable communities, such as groups of drug addicts who use the area for consumption. Anita Berber park today is an unlikely shared ground of wild and domesticated species which accommodates formal, informal habits and social differences, typical of the *milieu* of the neighbouring Neukölln district.

The nature conservation management integrated into the project yielded an example that can point toward a change in the contemporary discourse about how to respond to wild nature within more formal types of green spaces (Kowarik, 2020). The design embraces the needs of different human and nonhuman actors, including dogs among the first users. The conventional hierarchy between space-user-design is blurred, opening a potentially wider reinterpretation of the anthropic project of multispecies landscapes on a small scale.⁹⁷

95 Another contemporary example is the *Rütli School* building site in Neukölln.

96 Documentation about the participatory design process is available at <http://schillerpromenade-quartier.de/>

97 See Mathilda Rosenger's doctoral research on other-than-humans entanglements, taking as a case-study the *St. Thomas* area among other former wastelands in Berlin and Gothenburg (Rosengren, 2020).



Anita Berber Park.
(EF, 2019)



Anita Berber Park.
(EF, 2019)



Anita Berber Park.
(EF, 2019)

Jerusalem V cemetery

In contrast, at the nearby cemetery *Jerusalem V*, an animal was the reason for preventing the continuation of a project started in 2015 by Raumlabor architects and the groups *Schlesische 27* and *Prinzessinnengarten*.⁹⁸ Established in the western part of the cemetery, *Die Gärtnerei* was a cultivable space of the project of so-called *Coop Campus* that, following the large immigration wave of Syrian refugees at the time, aimed at social inclusion and integration for people who had fled their countries. The project started with a strong partnership between the landowner and Technical University Berlin who proposed new temporary use ideas for the potentially creative and sustainable development of the partly abandoned area. A wooden auditorium for meetings and a long walkway were built to frame the garden activities. Later a greenhouse was designed both as a plant lodge and as a public pavilion that could serve as an architectural element representing the whole project. Over time, the building became a place of hospitality for mainly Syrian refugees who were allowed to settle. Thus, they could at the same time they be close to the garden and be included in social activities.

The project had to stop in 2018 when a representative of the Neukölln nature conservation office claimed that a long-eared owl—*Asio Otus*—lived in a tree near the gardens's greenhouse. The *Asio Otus* is an endangered bird of prey that used to hunt and breed mainly near large open spaces like *Tempelhofer Feld* where it finds an abundant supply of mice.⁹⁹ The cemeteries around the park are therefore ideal habitats. The presumed life¹⁰⁰ of a long-eared owl on the *Jerusalem V* cemetery sparked a political debate over the site's future. The greenhouse built by Raumlabor was too close to the tree that allegedly hosted the bird which was the first reason to stop the garden activities. The same reason was given to deny the asylum request of some refugees in the no-longer-used greenhouse. Since the employees of the nature conservation office who opposed the project belonged the right-wing party *AfD* at the time, serious doubts arose about the political manipulation of the matter—as Christof Mayer from Raumlabor explains in the interview at the end of the section. Indeed, the owl became a symbol of how bird ecology could shape design interventions (Jasper, 2020b).

The garden area has remained formally closed since the onset of the COVID-19 pandemic in 2020. During that time, an international group of

98 All information on the project was provided by Vera Fritsche (*Schlesische 27*) in an interview in November 2020. See also the interview with Christof Mayer at the end of this section.

99 See NABU (n.d.). *Waldohreule | NABU Berlin*. [online] NABU - Naturschutzbund Deutschland e.V. Available at: <https://berlin.nabu.de/news/newsarchiv/2017/mae-rz/22173.html>

100 A study of a nearby cemetery on Bergmannstraße north of Tempelhof confirmed that the owl had rarely been spotted back in 1997 (Winfried and Jens, 1997).

people mostly from Latin American countries began to spontaneously cultivate the space. The community on the former *Die Gärtnerei* grew to about 80 people without a central organising body within only a few months. “The only form of organisation that we have is a Telegram chat group”, said a girl gardener from Guatemala.¹⁰¹ She also explained that the owner of the land is familiar with the gardening activities. However, it cannot be guaranteed that a Neukölln nature conservation officer will not intervene again. While in the western part of the cemetery the new gardening community uses the old infrastructure designed by the Raumlabor studio, the central cemetery area still retains its original function; and amid the wilderness there are still some gravestones. On the *Hermannstraße* front, instead, the land was sold off and is under construction.¹⁰²

St. Jacobi cemetery

St. Jacobi cemetery remained semi-abandoned until 2018, when some activities of the *Prinzessinnengarten Kollektiv* moved inside.¹⁰³ The land owner has begun to develop models of ecological use for graveyards in North-Neukölln and Kreuzberg thanks to the Berlin Sustainable Development Programme (BENE) with European funds (ERDF). As part of this collaboration *Prinzessinnengarten Kollektiv* has started to promote the burial site as a hub for meeting different practices related to ecology, e.g. gardening, nature protection and environmental education. Nowadays community gardens, agricultural crops, spaces for insects and bee breeding, together with a number of formal and informal activities are gathered at the site. In just a few years, *St. Jacobi* has become a socio-ecological system; a place where different activities coexist and mingle with a mosaic of natural valuable biotopes (Map.11). In this place, the ‘cohabitation’ between humans and nature is implemented in different ways; through the care and maintenance of the space, as well as in recognising its qualities within educational and training activities.

While the eastern part of the cemetery still maintains its original function, at the center of the area there is a plant nursery run by Matze.¹⁰⁴ Perennial and semi-perennial herbs are sold and reproduced in situ. The community garden

101 Interview with three gardeners at *Jerusalem V*, September 2020.

102 The Schöpflin Foundation’s headquarters (Stadtbau StadtEntwGesel mbH, 2015).

103 In the next chapter, the origin of this initiative, which started in the Kreuzberg district, will be recounted. The garden was moved to the cemetery due to different political motivations of the organisation’s members.

104 The official name is Matthias Wilkens. My relationship with the gardener has developed over the years, as a result of repeated visits to the garden and only made possible through personal friendly relations. Matze in fact always seemed more attracted to informal conversations rather than telematic or official interviews. During long chats with the gardener, he explained that many of the species he sells are endangered and have been recovered from the streets or from abandoned infrastructures.

Map_11 St. Jacobi cemetery biotopes

1. Prinzessinnengarten
(area for children's educational activities)
2. Staudengärtnerei
3. Prinzessinnengarten
4. PlantAge Stadtgarten
5. Prinzessinnengarten' agricultural crops
6. Neighbours' garden
7. Heilkräutergarten



- | | | | |
|---|--|---|-------------------------------|
|  | Species-rich meadow |  | Hedges with native plants |
|  | Shrub planting with trees |  | Herbaceous meadows |
|  | Shrub planting |  | Other herbaceous flora |
|  | Ruderal meadow |  | Deciduous bush |
|  | Woody stock mixture with native plants |  | Rubble |
|  | Woody stock mixture |  | High growing strong nitropyls |
|  | Mat grass |  | Perennials planting |
|  | Path | | |
|  | Settlement of informal houses | | |



Source: GruppeF Landscape Architects (2020)

of the *Prinzessinnengarten Kollektiv* includes spaces for vegetables and herbs grown in wooden boxes. These are cared for by about thirty people, including garden members, occasional workers and volunteers. Near the garden, the community manages an agricultural field, which serves as a production base for short-range food chains within the neighbourhood. Together with *Prinzessinnengarten Kollektiv*, the cemetery has been occupied by various other urban gardens, such as *PlantAge Stadtgarten*, coordinated by Alina,¹⁰⁵ which has become a branch of a biovegan farm from Brandenburg and the distribution point for selling its products. In the western part of the area, hidden among wild vegetation is a space cared for by two neighbourhood ladies, who mainly grow flowers and sometimes join in the activities of the other communities.¹⁰⁶ The latest to be established on the land (2020) is the Heilkräutergarten ‘Hevrín Khalaf’ dedicated to the cultivation of medicinal herbs run by the Flamingo association and based on an exchange with a group of women from the village of Jinwar in Rojava.

In February 2020 the same representative from the Neukölln nature conservation office who opposed the garden project on *Jerusalem V* threatened the association *Prinzessinnengarten Kollektiv* with shutting down its activities. The accusation concerned the inadequate cultivation of plants such as chard and kale and practices inappropriate for a burial context and its natural habitat. After a petition collected more than 10,400 signatures¹⁰⁷ an agreement was reached with the district authorities. Despite the desire to relocate activities that could endanger the natural ecosystem, plans for the development of housing and school buildings in the area are today on the agenda.

Temporary uses

The recent history of the three cemeteries allows a comparison of how different project cultures affect the design of urban natural spaces. The case of Anita Berber park illustrates that after the area had been acquired by the city of Berlin, not unlike the projects of *Park am Gleisdreieck* and *Tempelhofer Feld*, it turned into an example of how the existing nature could be integrated into landscape architecture by meeting certain requirements established by civil society. In contrast, in two other areas with similar natural qualities, conservation schemes appear to be subordinate to private interests resulting in political constraints and manipulation. In the case of *Jerusalem V* the programmatic action of a district representative in opposing socio-ecological and community-based activities shows how the agency of an animal, the owl, could become a political subject and an effective stakeholder to hinder design

¹⁰⁵ Interview with Alina from *PlantAge Stadtgarten*, June 2020.

¹⁰⁶ Interview with Michaela Kirschning, June 2020.

¹⁰⁷ (Prinzessinnengarten Kollektiv, 2020)

approaches.

The near-abandonment of a graveyard burdens the owners with a rather high maintenance cost, who therefore only manage selected spaces and leave others untended. The work of gardening communities is therefore fruitful and serves as unpaid green maintenance work, as in the case of *Jerusalem V* and *St. Jacobi*. Innovative practices on private lands are currently accepted because they represent a low-cost alternative in green maintenance: they control unused areas and improve the appeal of the neighbourhood (Rosol, 2014). Despite this, their indisputable value is not sufficiently recognised in urban development policies; and they thus remain relegated to a state of precariousness. As a result and as a strategy of neoliberal urban governance, temporary uses nowadays serve as projects that mainly benefit state actors by lowering the costs of management of undeveloped sites until their future development.

In conversation with

Christof Mayer

Co-founder of Raumlabor Berlin

EF I researched the history of the *Gärtnerei* project at *Jerusalem V* cemetery. I found the story of the owl that hindered the development of the project very significant. Would you like to tell me more about it?

CM What I think is interesting is that an animal, or maybe more in general a ‘thing’, can as well be a stakeholder in planning processes. It was the owl that stopped the project, because when we were applying to have the permission to build the greenhouse close to the *Gärtnerei*, it was already clear that there was the animal on one tree and we had to keep the distance. For some reasons, it was not clear which one of the trees it was.

For us, the greenhouse was something like a ‘Trojan horse’ because being in a cemetery, one cannot build everything. When we made the application to the cemetery owner we indicated that we wanted a nursery, for people to have space for their gardening tools and for an office. But for us it was also a way to communicate the importance of the project and to have a nice public pavilion that could represent it. The greenhouse was intended as a space for social activities that we had been conducting for some years earlier on the *St. Thomas* cemetery with the university, which was the catalyst for the whole project. For some reason the greenhouse was never accepted because it was said that we didn’t respect some regulation. But I think they haven’t had a close look at the drawings. The dimensions were clear.

There was only the issue with the tree and the distance we had to keep.

The representative of the *Grünflächenamt* (greenery department) was apparently a former *AfD* member, and I think he didn’t like what was going on there and he was well-informed. He knew that we didn’t use the greenhouse as we described it in the application. So that’s why we think he used the owl to stop the project. There was also the idea of constructing a new building in the western part of the cemetery and the owner wanted to provide us with a location there. So, alongside the greenhouse we could carry out tasks also in the new space. The building has not yet been approved and apparently that is for the same reason. The two trees where the owl was supposed to be living, one during the night and one during the day, are both located close to the greenhouse and where the new construction should have been built. I think there were too many coincidences.

EF It is interesting that the owl became a stakeholder.

CM In fact, it is a strategy that often occurs. Usually, the ‘Greens’ or the (so-called) ‘Ecos’ use these approaches to preserve nature from being consumed. In this case, it was the other way around. Somebody else apparently made use of this animal in his interests.

EF Do you know that also at *St. Jacobi* cemetery the *Prinzessinnengarten* community is facing similar problems? Are you in contact with them?

CM Yes, I am in close contact with them. They now use our greenhouse. I find this process very interesting.

For me, it is 'user driven urbanism'. We started the project at the *Gärtnerei* as a temporary community centre, so as something that could evolve. This is pretty much anchored in the study we did for the *Tempelhof* airport. Which was completely based on this idea.

EF You work with places that are abandoned, left over or in transition. The open spaces in the inner-city of Berlin are constantly decreasing. What is the value now of temporary uses in Berlin? Do you think they still function the same way as they did the time ago?

CM I've lived in Berlin since the 90s. We had these 'niches', there were unused spaces in abundance. I think temporary uses reflect our mindset. Being children at those times you see the availability and the power of acting in these spaces. That has been changing rapidly and radically. We have to think in completely different terms now. Before it was a playful process. Berlin was a place where we didn't have to worry too much about our living costs. It was a city where you could experiment, express yourself. These conditions have totally changed. Even all these gaps between blocks have been closed. If you look at areas like the cemeteries: these are still that kind of 'niches', also where the Floating University is. And of course, being an architect, I understand that some sites can be developed in different ways, but I think we should keep them free and open, as reservoirs for different uses.

EF I'm also researching urban gardens that are constantly jeopardised by urbanisation. Gardens need time and care. Within the city, community gardens have always been understood as a temporary practice.

Should we maybe start seeing a shift from temporary spaces to more permanent ones? Can temporary uses be reinterpreted in the contemporary context?

CM I believe there is a shift in how these practices are used as tools. These approaches become standard if you look at urban development in 'creative' terms. I think about it more in functional terms. We have to be careful saying that temporary uses are always a good thing. I wouldn't say it anymore in Berlin because now we don't have the same conditions. But at the same time, if processes are formalised, they acquire a completely different character. Creative ideas can be proposed, but the social fabric should go along with that. It takes time for a community to gather under the same interests. I think it is the same for urban gardening, however the ideas of care and time are peculiar to these spaces and the most important.

EF I would like to ask you something about the Floating University project: how do you think temporary uses interface with ecology and urban change?

CM The ecological perspective was not there from the beginning. But being situated in a water basin, of course, we learnt from the site. This place in the middle of Berlin is really impressive. It's something like a 'biotope paradise', although it is completely contaminated from all the dirt coming in from the former airport. Within the ring of allotment gardens, the site is protected, and that's really stunning. I believe that's why it became a success. During the years, the place developed a new agenda and ecological issues became

stronger and stronger. Especially with the project "Climate Care" by Gilly Karjevsky and Rosario Talevi.

In 2007, we were working on *Templhofer Feld* and for us it was a natural consequence to be interested in the water basin as part of the airport infrastructure. This place had already attracted attention back then. The first year was successful. We already had a good network of schools that wanted to come and work there. It was wonderful how people responded to this opportunity. We call it Floating University but it must be conceived as an infrastructure or support structure to invite people to be there for working on different issues. The second edition was a bit smaller because the first year was really exhausting and demanding to all the people and we didn't have the financial means.

By planning law, the site is a *Außenbereich*. It's not a 'kind of urban land', it's treated like a rural area. And we were not allowed to do anything except for research and energy production. We thought we have to do research and it has been accepted because it was only meant to be temporary. As a temporary project in 2018 and 2019, it turned out that it was not temporary anymore. So officially, we didn't have the permission approved for this year, and then the Corona crisis hit.

When you open up these hidden spaces, investors usually want to develop them. And there are plans for 'housing, housing, housing!' And like I said previously, of course if you look at it as an architect, I can imagine having an experimental housing typology on the site. But what I believe now is that we need these areas as they are, and this is an urban quality we have to preserve as long as we can.



The greenhouse designed by the Raumlabor collective in the former *die Gärtnerei* area at *Jerusalem V* cemetery, now used by *Prinzessinnengarten Kollektiv*.
(EF, 2021)



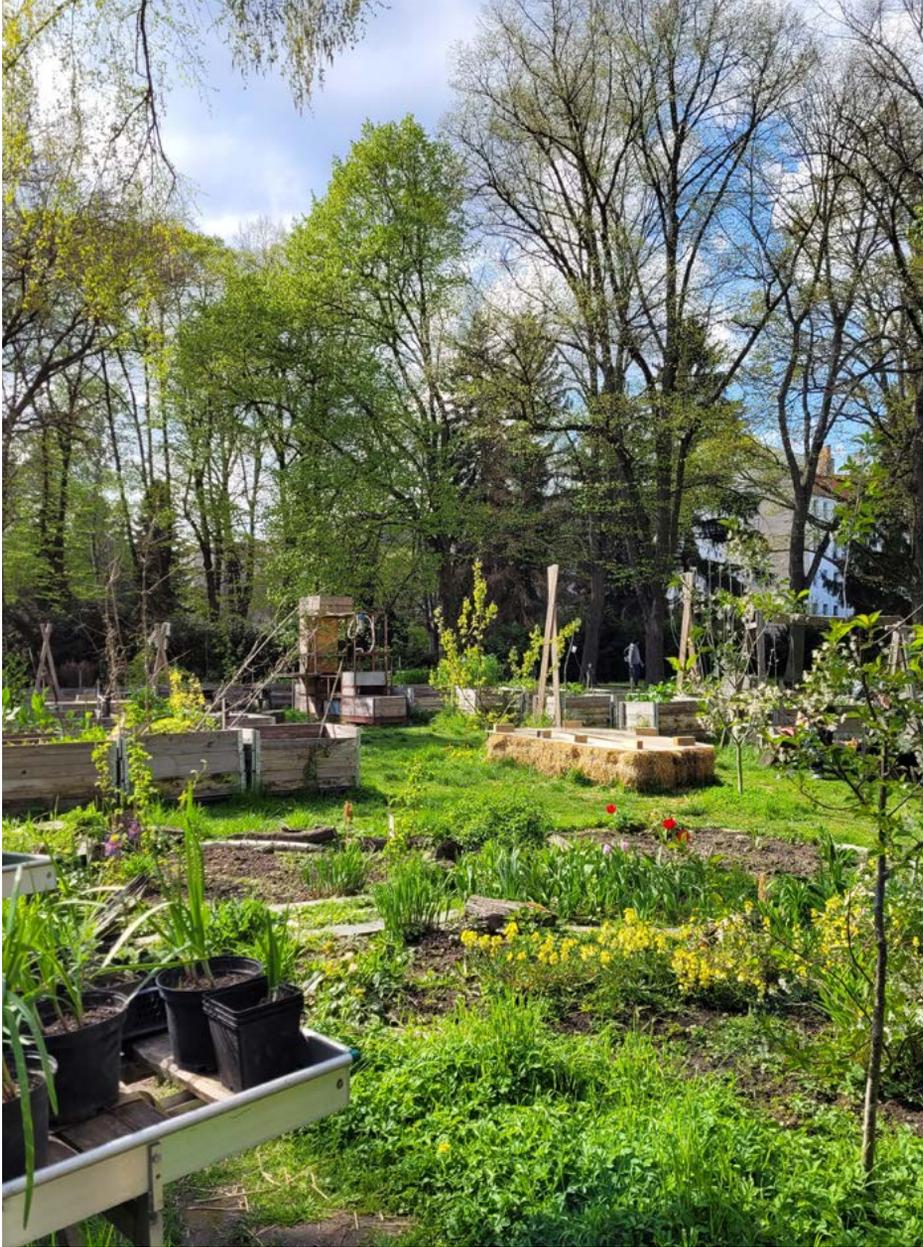
New garden established during the first lockdown due to the COVID-19 pandemic in the area of the former *die Gärtnerei* at Jerusalem V cemetery.
(EF, 2021)



Gardeners at *Jerusalem V* cemetery.
(EF, 2020)



St. Jacobi cemetery, main promenade.
(EF, 2020)



Prinzessinnengarten Kollektiv's garden area at St. Jacobi cemetery.
(EF, 2020)



Prinzessinnengarten Kollektiv's agricultural crops at St. Jacobi cemetery.
(EF, 2020)

The Floating University: a fragile ecosystem

The Floating University is a project located in the former water basin of the Tempelhof airfield.¹⁰⁸ After the closure of the airport, the site was an inaccessible ground: about ten metres below street level and crowned by allotment gardens that made it almost invisible to passersby (Map.12). The basin is not a natural space. It is a man-made landscape whose underground surface is sealed by a concrete platform, which, as contaminated water and waste were deposited, over time transformed into an unusual ecosystem. While during the years of the airport's operation, it was regularly cleared, with the state of abandonment nature began to reclaim the area.

The project started when the Raumlabor office began to work on the *Tempelhofer Feld* design proposal commissioned by the Berlin Senate and became aware of the potential for development of the adjacent abandoned site. Floating University opened in 2018 as a collaborative project between numerous partners, including more than twenty European universities, artists and other professionals, and as a place to explore conjoining different forms of expertise. Following the working approach of Raumlabor, the core of the project was to establish a multidisciplinary workshop on contemporary practices in the use of public space. It assumed the name of a 'University', a move highly contested by academic institutions, to underline its character as a campus, both as a site of knowledge production and in terms of its architectural composition. The structure is formed by several low-cost material pavilions built above the water level that rises in alternating phases when the area gets flooded. The use of the space was conceded by the public agency *Tempelhof GmbH* for two years; and after a break the activities resumed in 2021. The intermittency of the project was marked by several architectural design phases and changes in the curatorial programme. The Floating University is now organised in an association involving a diverse range of professional figures.

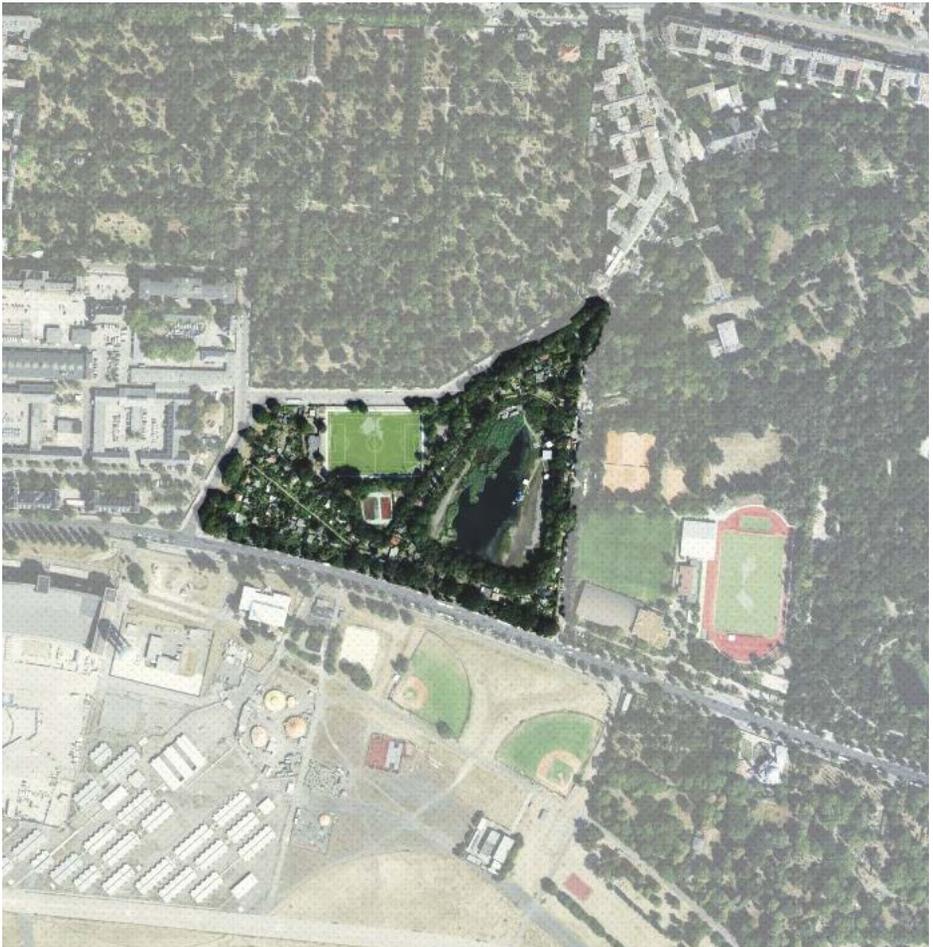
The site shifted its focus when the "Climate Care" festival, curated by Gilly Karjesvky and Rosario Talevi, was introduced into the campus activities. Through this event,¹⁰⁹ the basin itself has become the object of investigation for artists, academics and practitioners. It became a place to expand the analysis of an extremely peculiar nature—the "natura basina"¹¹⁰—to global themes. Ecology as a subject was introduced into the project specifically in order to interrogate the fragile relationship between humans and the environmental breakdown with the ambitious long-term goal to address the deconstruction of political, economic and social patterns in the era of the Anthropocene. At the

108 The *Floating University*, in 2021, has been awarded by the jury of the Venice Architecture Biennale with the Golden Lion for the best contribution.

109 There have been two editions of the festival so far, in 2019 and 2021.

110 So it was renamed by the curators (Karjesvky and Talevi, 2021).

Map_12 Water basin and allotments



Source: Bing Map (2021)

heart of the curatorial activity is the enquiry into the intersection of climate challenges, ethics of care and environmental humanities.

The temporary use of the water basin initiated a process of multidisciplinary reflection on how such a fragile and marginal ecosystem could be transformed, but also as a way to investigate site specificities in depth. The biodiversity of the area was monitored not only with quantitative methodologies but through cohabitation experiences¹¹¹ of artists and experts who documented the multifaceted aspect of the contrast between artifice and nature by producing various materials.¹¹² The collection of texts, works of art and scientific research was intended to capture the evolution of the space rather than to investigate the status quo. The area is a wetland whose water level rises and falls depending on the season alternating with times of greater drought. The entire aquatic ecosystem consisting of algae and amphibians is surrounded by dense grassland which in the future may extend and thicken (Floating Berlin, 2021).

The last edition of “Climate Care” entitled “The Rewilding Years” looked at this transformation process through the concepts of environmental philosopher Andrea R. Gammon (2018) according to whom ‘rewilding’ should be discussed and understood in both natural and social terms. This investigation was meant to interrogate the future prospects for the area for which future redevelopment is envisaged and to imagine its transformation from a ‘fragile ecosystem’ to an ‘ecosystem of practices’.¹¹³ Care practices were understood as working in solidarity with the nature on site and with the community that inhabits it. They reflected on how the re-naturalisation of the basin can be understood as dynamic and mutual between species while still preserving its physical and structural qualities. The main criticism of the possible transformation of the area was—paradoxically, if understood in engineering and planning terms—the eventual removal of the concrete surface beneath the basin which would have altered the current ecosystem structure. The programme may be to find intellectual solutions on how to live in the ruins of the past (Tsing, 2015) and take advantage of them in order to promote new visions and design approaches for the future. “Can we reclaim wildness and rewilding as an attitude to shape our cities and our lives? Can qualities such as openness, otherness, togetherness, joyfulness and playfulness, without romanticising the past, bring us together to foster bonds and interconnectedness, on both the local and the planetary

¹¹¹ Here, I refer to *cohabitation* as a term that was explicitly used by the curators.

¹¹² Part of the documentation is collected on the archive section of the Floating University website <https://floating-berlin.org/>.

¹¹³ See Copenhagen Architecture Festival (2021). *CAF × The Fragility of Becoming an Ecosystem of Practicess*. [online] www.cafx.dk. Available at: <https://www.cafx.dk/post/the-fragility-of-becoming-an-ecosystem-of-practicess>.

scale?” the curators asked ¹¹⁴ (Karjesvky and Talevi, 2021:4).

Both conceptually and practically, the water basin became within the “Climate Care” programme an area for investigating the hybrid aspects of the site. Artificial and natural, public and community, designed and wild, institutional and non-institutional (Karjesvky, 2019), the Floating University over the last year has been a site where a multitude of agents could spontaneously assemble. But it also provided a laboratory where the concept of “Natureculture” (Haraway, 2003) could be addressed in different formats: through lectures, videos, reading groups and workshops. Although the fate of the site is still uncertain, the concepts and ideas elaborated over the last few years have certainly laid the foundations for an effective counter-proposal for the use of the ‘abandonment’ and for the understanding of the evolution of wilderness and its potential relationship with humans and different urban communities within such a ‘learning site’.¹¹⁵ Thanks to its marginality between theory and practice the water basin has become, through the curatorial project “Climate Care”, a field to explore local and planetary issues.

114 See the curatorial text available at <https://floating-berlin.org/files/2021/08/program-climatecare-2021.pdf>

115 From the title of the curatorial text “Climate Care 2021-The re-wilding Years-Theory and Practices of a nature-culture Learning Site”.

In conversation with

Rosario Talevi

Co-curator of “Climate Care: Theory and Practice on a Natureculture Learning Site” at Floating University

EF I would like to address with you in this conversation the connotation of *fragile*, that has been attributed to the Floating University in its broader conceptual meaning. Why is it important to refer to the idea of fragility to grasp the significance of the “Climate Care” festival?

RT I would begin with the definition of fragile. Fragile is something that is easily broken or damaged. We connected this to the idea of the ‘damaged planet’ by Anna Tsing. We explore the idea of fragile in the “Climate Care” program in terms of when something is fragile, we have to handle it with care. We recognise in this concept the interdependency between humans and nonhumans, between the humans and systems, between infrastructures and institutions, which are fragile bonds. Moreover, according to urban developments and the politics that come with that, this piece of land and the basin ecosystem are really fragile.

EF When I approached the festival you co-curate “Climate Care” I realised that the density of content it brings together cannot be reduced and described with just a few concepts.

Can you tell me more about the curatorial stance? And how does “Climate Care” strive to build a bridge between a ‘fragile ecosystem’ and an ‘ecosystem of practises’?

There are three main things that the festival is resting on. One thing,

which is very important for us, is the idea of ‘theory and practice’ and we understand that as a constant relay and feedback between them. There is a second important thing, which is the ‘climate challenges’. We like to call it ‘climate challenges’ and not crises. Because the crisis relates to an impossibility to act. We called it “Climate Care” to infuse a sense of hope. And this concept was elaborated across scales; from the micro, the personal, to the collective, the urban and the atmospherics. The third is a very specific situation, which is the basin. The festival was in ‘symbiosis’ with the basin. So that’s why the first edition in 2019 was about getting to know this place as much as possible. We were doing algae workshops with kids, bio-based material lab, exploring all the materials that the basin has, etc.

For the second edition, in 2021, we learnt that this site was going to be transformed. The government wanted to ‘re-naturalise’ the basin—this is the term they used—and we thought that was a very problematic issue. We ask ourselves what is nature? What does it mean to bring back nature to a space, ethically and politically? So we proposed this festival as a counter-narrative to this. We’re not experts in ‘re-wilding’, but by curating the festival, we explore many different meanings of ‘re-wilding’, for example social ‘re-wilding’.

The bridge between a ‘fragile ecosystem’ and an ‘ecosystem of practises’ has been used to describe the plurality in the Floating University association. There is no one way of practising. We come together from many very different disciplines and we come together in an ecosystem. Meaning that there are interdependencies and interrelationships.

EF How has your work rooted in feminist practices shaped “Climate Care” curating?

RT The Floating University was a project initiated in 2018 by Raumlabor. Later, we consolidated an association. Gilly (Karjevsky) called it ‘becoming an association’—this eternal process of ‘becoming’. To turn a pyramidal structure into a ‘rhizomatic’ one is a long process. I think that’s when it was very important to introduce feminist methodology as for example open budget situations or participatory sessions. And of course, the whole ‘ethics of care’ is a feminist theory. It comes from equalising productive with reproductive work, making visible what it’s invisible, etc.

EF There is another definition of Floating University that captures the hybridity of this project (meaning the difficulty in being able to categorise it); that of ‘almost institution’ (Karjevsky, 2019). Referring to this, it was stated that it is possible to develop an ‘ex-titution’. Could you expand on that?

RT The ‘ex-titution’ idea comes when we tried to define what the Floating University will be beyond a temporary project. As what do we institutionalised ourselves? What kind of form do we take? Some people were against the idea of being an institution, as something extremely closed, robust, that cannot change. By ‘ex-titution’ we wanted to stress the idea of the hybrid and temporary character of the project. The hybridity is linked to the fact that the Floating University is a public infrastructure and it used to serve a very mono-functional purpose: collect rainwater and delivering it to the canal system. By hybridising, I mean that we were able to invite other people, to take

care of this place but it still serves the initial purpose. We didn’t turn it into a public space, like a park. That was never our intention. It’s neither public nor private. It’s a common space. That’s how we reclaim it: as a commons. We’re not claiming ownership, that’s not what we’re interested in. In my opinion, a public asset should be owned by the city. But then the citizens should be able to create and negotiate their own routines within the urban territory.

EF If nature conservation policies are not always feasible in protecting areas such as the water basin, how do you believe the Floating University project and the “Climate Care” festival have played a role in offering possible new perspectives in this regard?

RT The complexity of this place is what we love. Because as we entered this place, we created a ‘mess’. We complicated the matter. It was an infrastructure, then nature took over, so it became a habitat for frogs and different species and later we claimed it as a social and cultural space.

There are many different claims that need to be protected: technocrats want to protect the infrastructure (and the budget); the ecology department wants to protect the frogs; us, as a group of artists, want to protect the history of this basin. So the question that we posed is: would we consider the basin an entity? In terms of the infrastructure, the algae, the mug, the frogs, the people.

I don’t know if nature conservation policies apply to this place. That’s why we’re talking to lawyers and we’re talking to legal scholars that can look at this complex situation without needing to stub out the complexity of it.

Zoom videocall, December 2021



Floating University seen from the nearby allotment colony.
(EF, 2022)



Opening day of the last edition of *Climate Care The Rewilding Years* at Floating University.
(EF, 2021)



Floating University.
(EF, 2020)



Floating University.
(EF, 2020)

Chapter 4

the garden

Gardens in transition

Gardens along transformations

Berlin gardens bear witness to the urban transformation of the last century. Across different historical periods as well as different political and economic circumstances, the city soil has been understood as a cultivable and a productive resource. From the shockwave of modernisation that accompanied industrialisation onwards, urban gardens have been established in response to specific uncertain urban dynamics and are thus closely related to the social reorganisation of cities after crises. Indeed the garden “has always been a metaphor of the city and society” (Secchi, 2000:12). The garden needs to be contextualised as an urban but above all a social matter: a place of subsistence, self-determination, recreation. In a context of progressive urban concentration and land consumption, garden areas are increasingly called upon to meet accessibility requirements and become more integrated into the public services infrastructure. This chapter analyses the historical and political context of allotment gardens and community gardens in Berlin. Despite considerable differences they are both vulnerable to the valorisation of city space in a neoliberal economic environment.

Notably, urban gardens perform significant environmental functions, but they also constitute a socio-ecological infrastructure that supports local food production, social interactions, and the preservation of biological and cultural diversity (Vierikko et al., 2016; Egerer et al., 2020). Although they provide some important services and enhance spatial, social and environmental justice in the

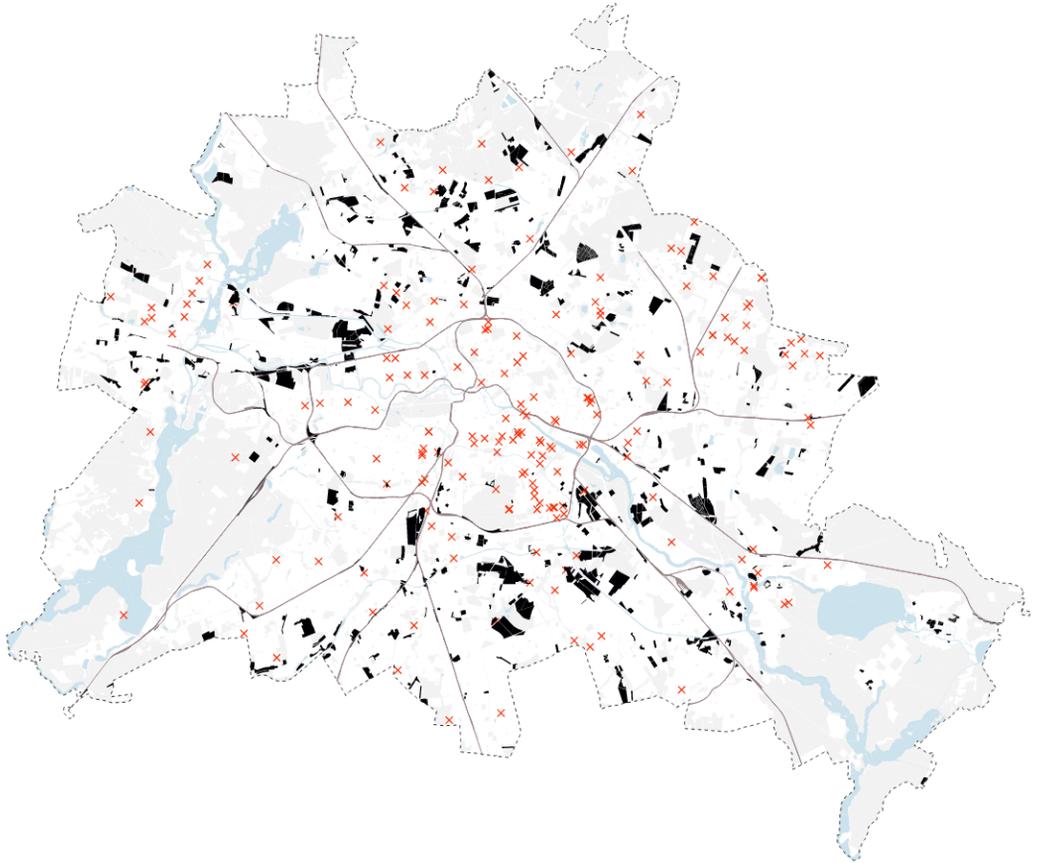
densest urban areas (Certomà and Martellozzo, 2019; Kronenberg et al., 2020), they are barely taken into account in urban planning, and they gain only limited legal recognition in city policies. According to Berlin's current development plans, many gardens are considered suitable areas to accommodate new infrastructure. The tension between urbanisation and the preservation of spaces have fuelled a growing sense of urgency among garden communities to both reclaim and to share the space that is still 'left'. Emerging activist campaigns, new political agendas and new design solutions converge in the recognition that Berlin's gardens are in a transitional phase.

As the definition of "Hands-on Urbanism" (Krasny, 2013) suggests, the urban garden has historically been a context for claiming the 'right to green' and specific urban life qualities via civic organisation. Intra-urban agriculture has shifted from a subsistence practice to a means of generating a new kind of urbanity. The garden has indeed become a 'way of living' with nature in the city. Unlike the park or the private green, it constitutes an intermediate dimension between the domestic and the public sphere. Two very different types of garden are predominantly found in Germany. The allotment gardens [*Kleingärten*], formed in the early 1900s and the more recent community gardens [*Gemeinschaftsgärten*] of the 2000s. In today's city fabric, extensive allotment colonies lie along transport infrastructures and mainly on the fringes of the inner-city. In the city centre they are smaller in size as a result of the continuous city growth. Community gardens, instead, are located on formerly wild or underused sites more densely distributed in more disadvantaged neighbourhoods of the city, such as Kreuzberg and North-Neukölln (Map.13). During the last century the garden situated itself in a new relationship with the city space, setting a new course for joining nature and culture (Muller, 2012:33).

Despite the differences, human work with nature in both allotments and community gardens manifests itself through everyday practices and constant commitment. Driven by different motivations, the gardens present variegated approaches to design and use of space. The oldest allotment structures are currently places for family units or elderly, thus in addition to urban agriculture they also provide spaces for leisure facilities. Community gardens, on the other hand, usually welcome a younger audience. They are often designed according to ecological approaches. In community gardens, new attitudes towards soil, plants, insects are experimented with.¹¹⁶ These urban spaces are in fact recognised for their wildlife. Gardening practices, which happen in contexts separated from other public environments, foster and implement

¹¹⁶ In Luisa Geodon's master thesis (2018), the main differences between allotments and community gardens are analysed, particularly with regard to the different use of space and the motivations of gardeners.

Map_13 Berlin allotment and community gardens



Allotment garden
2.900 ha
27% of the city's greenery

- Green area
- Allotment garden
- Community garden



Source: (Senatsverwaltung für Umwelt, Verkehr und Klimaschutz, 2019)

biodiversity.¹¹⁷

In ecological terms, the gardener portrays the role of ‘steward’. ‘Stewardship’—the mutual relationship between humans and nature—is observed as a process that contributes to the formation of differently managed territorial patterns that together compose the heterogeneity of the urban landscape by promoting ecological processes across spatial scales (Berkes, Folke and Colding, 1998; Andersson et al., 2014; Blum, 2021). Gardens are places in the city where cohabitation between species becomes explicit and is expressed through what the philosopher Emanuele Coccia defines as the “metaphysics of mixing” or common life (2018).

Such constant work with nature and the soil is accounted by Clément as in “movement” (2011)—thus following the rhythm of nonhumans shaped by the need to protect the living beings¹¹⁸—and with a strong educational significance. Gardens are in fact today places of social learning and integration for people of different generations and cultural backgrounds (Bendt, 2010). They have become arenas for experimenting with new ways of using natural resources in the face of environmental crisis awareness. Within these urban contexts, new techniques of composting, the circular use of water and the reuse of waste materials are implemented. As “learning grounds” (Marco Clausen in the interview included in this chapter), gardens prompt the formation of new forms of ecological knowledge. Allotment gardeners usually rely on more traditional methods of space management, as they are mostly cared for by older people. Despite this, contact with new generations within the colonies means that gardeners can share their expertise (in terms of, for instance, plant pruning and botanical knowledge).¹¹⁹ In community gardens, on the other hand, new philosophical approaches in plant culture are proposed. Some initiatives are applying the permaculture philosophy, becoming in themselves institutional sites for certified training courses.¹²⁰ All these activities can only be observed in their essence by coming into contact with single realities and understanding

117 A growing scientific interest in Berlin is concerned with biodiversity in urban gardens. One of the most significant, which is directly involving collaboration between academia and gardeners, is that of Monika Egerer (Technische Universität München) on wild insects in community gardens (see also (Buchholz and Egerer, 2020; Philpott et al., 2020).

118 In a recent conversation with philosopher Emanuele Coccia (Coccia and Clément, 2021).

119 This phenomenon was discussed within the research project “Integration of allotments and community gardens”, observing the practices of gardeners in both Warsaw and Berlin.

120 One of the most significant examples is the Peace of Land community garden, which I got to know through personal contact with the gardeners during my years of research, through activities promoted by Feld Food Forest initiative, of which I am a member, and within the research “integration of allotments and community gardens”.

the motivations of the individual actors implementing these practices.

During the years of this research I was able to observe the garden sphere from different angles (as a practitioner, researcher and gardener). This has led to an in-depth understanding of the relationship between the gardening practices, the city and its transformations. Working in gardens and coming into contact with the people who experience them on a daily basis has reinforced my belief that the relationship human-nature takes on different roles within this context, influencing its political, ecological and spatial dimensions. Indeed, the work of gardeners consistently shapes the spatial, naturalistic and governance arrangements of areas heavily present in the city centre. Usually self-organised, gardens present themselves as ‘autonomous islands’¹²¹ within the city, welcoming a consistently different public than other green areas. At the same time these realities are strongly intertwined through networks of associationism and activism. The next sections address how community and allotment gardeners cope with current urban transformations, contributing to the progressive recognition of gardens as commons and influencing innovative approaches to governance. Grasping the topic from the perspective of the actors involved in these practices, two stories are reported: the experience of community gardens *Prinzessinnengarten* and a new typology of allotment, “integrated garden”.

Berlin community gardens

Community gardens are a more recent form of gardening with heterogeneous morphological forms and fluid structures. They are plots of land cultivated by a group of people whose existence presumably dates back to the history of human gardening (Bendt, 2010). However, the origins of the community garden movement can be traced back to a phenomenon that emerged in the early 1970s in New York City, USA, when guerrilla fighters occupied land abandoned by landowners during a crisis aggravated by the city’s bankruptcy in 1975 (Smith and Kurtz, 2003). The community gardening movement has always been an international phenomenon and its recent expansion needs to be contextualised against the broader backdrop of urban decay, neoliberal property-based regeneration and demands by communities to re-appropriate land for public and communal use (Cumbers et al., 2017). Berliners have been actively involved since the mid-1970s and again since the late 1990s, demanding public green spaces that can be designed and cultivated by everybody collectively and whose space value is not subordinated to private expectations of return in what has been called a claim for *Umkämpftes Grün* [contested green] (Kumnig, Marit Rosol and Exner, 2017). Community initiatives have emerged as part of the political commitment to social change in property and production relations. In West-

121 By ‘autonomous’ I am referring to the idea in particular the concept elaborated by Ginn and Ascensão (2018) of gardens as “autonomous commons”, which I will mention later in the chapter.

Berlin they arose out of counter-cultural and urban protest movements in the late 1970s and early 1980s,¹²² but strictly speaking, the real first community garden in Berlin was the *Kid's Garden* established in 1999 on a wasteland in Neukölln (Rosol, 2020).

A year later, the conference on micro-agriculture and gardens as a women's economy at Humboldt University in 2000 can be seen as a catalyst for this new form of gardening in Berlin (Meyer-Renschhausen, Müller and Becker, 2002). Müller accounts for the value of a community garden as a "place itself in relation to the city, which enters into a dialogue with it and wants to be perceived as a genuine component of urbanity, not as an alternative to it" (Müller, 2011:23). The *Rosenduft* garden run by women, as described in the previous chapter, was one of the first representations of such new intellectual efforts, followed by the *Allemende Kontor* founded by the same group of activists, which became the first reference for a community garden based on urban commons principles (Lichtenstein and Mameli, 2015; Halder, 2018). As part of the phenomenon of temporary uses, the number of community gardens has continued to grow since the early 2000s, as have the non-governmental organisations that support them.¹²³ The number of community initiatives now stands at around 200 in the city centre (SenStadtUm, 2021).

Community gardens are based on forms of shared interests, stewardship and voluntarism (Sanecka, Barthel and Colding, 2020) and the participants normally belong to different social and generational groups (Geodon, 2019). Internally they are structured around a high degree of personal responsibility and a non-hierarchical framework, which is also reflected in the freedom of spatial design (Karge, 2015). While allotment gardens are spaces defined by a specific typology, community gardens embrace all other garden categories and different forms of cooperation.¹²⁴ Community initiatives acquire recognisable value by creating new forms of social relations within neighbourhoods, and their degree of inclusivity/exclusivity varies greatly from project to project (Ernwein, 2014). Their heterogeneity makes it difficult to regulate them legally. In fact, in Berlin they do not enjoy an official policy or *ad hoc* procedure for being established and preserved, and the lands are normally granted to communities on short-term leases. However, their unofficial status guarantees a certain

122 An urban farm for children in Berlin-Kreuzberg was started in 1981 by squatting on derelict land right beside the Berlin Wall. A registered association (Kinderbauernhof Mauerplatz e.V.) was founded in the same year. Organised mainly by single mothers, the aim was to create an educationally supervised green space for small children in the densely built-up inner-city borough (Rosol, 2020).

123 Among the most important: *Grüne Liga, Anstiftung, Netzwerk Urbane Gärten Berlin*.

124 They include, for example, intercultural gardens with a vocation for social integration, or school gardens, used for educational activities.

independence which often results in innovative forms of self-governance.¹²⁵

The first step towards the recognition of urban gardens on Berlin land was the grassroots map compiled in 2014 by *Kollektiv Orangotango* (Kollektiv Orangotango, 2019), which for the first time recorded the presence of this type of activity in the city. The same year, the manifesto *Die Stadt ist unserer Garten* [the city is our garden] (Anstiftung, 2014) was signed by activists to claim spatial justice and ensure the permanent stay of the gardens in the city. Although the activists' demands have been met at the political level.¹²⁶ In 2019, the guidelines for the future development of green spaces—*Charta für das Berliner Stadtgrün* (SenStadtUm, 2020a)—include urban gardens as part of the city's green infrastructure but relegates them to temporary use. In response to the new document,¹²⁷ Kerstin Meyer (activist of the 100% *Temelhofer Feld* campaign) and Marco Clausen (*Prinzessinnengarten*)¹²⁸ developed a project, supported by different initiatives, for a permanent garden contract for Berlin. The so-called *Berlin Dauertgartenvertrag* [Tenure Treaty for Berlin Gardens] aimed to secure urban gardens and create new ones. "The aim is to finally understand communally oriented and self-organised greenery as part of the social and ecological infrastructure and to take it into account in planning in a binding way"—Marco Clausen explains (2019). The proposal remained on paper but strengthened the debate about a broader consideration of gardens as commons in city politics.

It was only in 2020 that community gardens gained visibility within the administration, following the appointment of Toni Karge¹²⁹ (urban planner and gardener) to the Berlin Senate in the Department of Open Space Planning and Urban Green Space. Karge drew up the first formal map of community gardens published in the new open access platform *Produktives Stadtgrün* (SenStadtUm, 2021) with the objective to establish a more transparent communication between garden communities and the municipality. In spite of these developments the

125 See the interview with Toni Karge (Senate Department for the Environment Transport and Climate Protection) in the next section.

126 Since 2017, politicians have shown interest in recognising the importance of the community gardens in the city's development strategies, such as the proposal for the protection of these areas presented by the SPD, Die Linke and Bündnis 90/Die Grünen parties, referring to the activists' demands in the manifesto *Die Stadt ist unserer Garten* (Abgeordnetenhaus Berlin, 2017).

127 The initiative was also grounded within the research board *Gemeingut Grün* [Green Common Good] of the Centre for Art and Urbanism (ZK/U).

128 Interviews with Kerstin Meyer and Marco Clausen can be found in the previous chapter and in the next section.

129 Toni Karge is one of the founders of the Himmelbeet garden in Wedding and his role in the Berlin Senate is the first to deal specifically with community gardens in the city. The interview with Toni Karge is reported in the next section.

status of community gardens has not yet been formalised. Thus these practices fall within informal activities just as other temporary projects.

Prinzessinnengarten: from Brache to commons

Prinzessinnengarten is a prominent example of a community garden in Berlin. It occupies a 6.000 square-metre area at the intersection of *Prinzenstraße* and *Oranienstraße* at Moritzplatz which is located in the historically working-class district of Kreuzberg. The site transcends the singular and local reality of a garden and encompasses the complexity of a very rapid metropolitan transformation. Formerly fringe land between East and West Berlin, the site has since 2012 become a focus of investors' interests. Now the area sits among new buildings (Map.14). Amid rapid urban changes, which have accelerated processes of displacement, rent-stripping and gentrification, the urban garden has become a symbol of the struggle against privatisation and for claiming spaces as urban commons for ecology and informal education. Narrating the story of *Prinzessinnengarten* is illustrative to portray the phenomenon of community gardens in Berlin and their short history from innovative practices related to the culture of temporary uses to increasingly emerging realities in the city's design. But also to elucidate the transition of the wild landscape of a *Brache* to the progressive mechanism of natural and social resources commodification within the neoliberal system.

Garden history at Moritzplatz

The Prinzessinnengarten site is the repository of a historical urban memory that dates back as early as the first decades of the 20th century. In the early 1900s the area symbolically represented the transition from trade-based and small manufacturing enterprises to the emergence of large commercial stores. The industrial era had in fact led to a different use of local commerce. New architectural models for large-scale retail enterprises, so-called *Kaufhäuser*, emerged in the city and were usually the result of initiatives by small traders¹³⁰ (Ladwig-Winters, 1997). In 1913 the Wertheim *Warenhaus* [department store] was built at the location of today's garden, changing the urban meaning of Moritzplatz, which became one of the city's most vibrant commercial zones (Hahn and Simonis, 1994). The bombing of the 3rd of February 1945 by the US Air Force's 3rd Airborne Division heavily devastated the city centre and irretrievably damaged the Wertheim building. The ruins of the former department store stood for five years only to be transformed into the typical Berlin wasteland in 1950. A decade later the Berlin Wall was erected nearby. Moritzplatz became a fringe area of West Berlin and an underground station, a terminus (Hahn and

¹³⁰ As in the case of the Kardstadt family, whose department stores in Charlottenburg on Kurfürstendamm and the one in Neukölln on Hermannplatz are two well-known examples (Ladwig-Winters, 1997).

Map_14 Prinzessingarten at Moritzplatz



 Densification (2009-2021)



Source: Bing Map (2021)

Simonis, 1994).

Since the 1950s, Berlin's plans have focused intensively on the design of a motorway network for the inner city (Bodenschatz et al., 2020). In 1969 the *Prinzessinnengarten* area was included in the utopian project for a huge motorway link intersecting the A106 bypass in a west-east direction and the A102 in a north-south direction at the nearby Oranienplatz (Fig.4.1). It was assumed that if Berlin was reunified, the infrastructure could connect the divided city's two parts. The project remained on paper. In Kreuzberg the poor environmental conditions that characterised Moritzplatz's surroundings at the time were taken specifically as an opportunity to reconsider a new urban design approach within the IBA. In 1986, the square was the focus of plans for the implementation of a pioneering *Ökologiekonzept* (Ecology concept) that was finally never realised. According to this plan, *Prinzessinnengarten* block (Block 61) was drafted as a commercial building divided into three main units, connected by green courtyards and covered by roof systems allowing ventilation and climatic comfort (Hahn,1994). At the beginning of the 1990s, the site was still empty, the phenomenon of *Zwischennutzungen* was about to take hold more insistently. The Raumlabor office among three proposals suggested a utopian dense forest and tree-house typology: "our forest makes things green and dark; it gives this location a simple, yet unexpected sensory quality [...] the Berlin treehouse will emerge. Narrow living units will nestle in clusters on their long legs around shared stairwells among the treetops" (Hofmann et al., 1999). As with Raumlabor projects, the concept of forest was an advanced vision of a new space of nature at Moritzplatz (Fig.4.2).

The garden

The empty site at the corner of Moritzplatz, throughout the first decade of the 2000s, was marked by a typical configuration of a Berlin urban wasteland. However, the use of it changed when *Prinzessinnengarten* was founded by Marco Clausen and Robert Shaw in 2009. The area was cleaned and reclaimed with the help of volunteers from the Kreuzberg district, gathered later in the association called *Nomadisch Grün* [Nomadic Green]. The name concealed the instability of bottom-up practices within urban policies under the increasingly formalised phenomenon of temporary uses. At the same time, the name articulated a precise political will to potentially colonise other city spaces with urban agriculture actions. The project was thus born as a 'mobile urban agriculture garden'. Plants were grown in boxes and bags using recycled materials and specific DIY systems. Behind the collective project there was a structural motivation to claim citizens' rights to public space in order to contest the mechanisms of the commodified and speculative city, which was leading to a substantial change in Berlin's urbanity (Clausen and Muller-Frank, 2012).

The initiative started without any financial support and the publicly owned area was granted a yearly renewable contract by the Berlin Real Estate Fund. In



Figure 4.1 1950s design of a motorway intersection close to the *Prinzessinnengarten* area. (Bodenschatz et al., 2020)

Figure 4.2 Raumlabor proposal at Moritzplatz. (Hofmann et al., 1999)



the words of Marco Clausen in one of the first interviews (Anstiftung, 2010), the space was intended as an area different from a private garden or an allotment—a place that relates to and communicates with the city, in short, a hybrid site characterised by an atmosphere of slowness and calm—*Atmosphäre der Ruhe*—in contrast to the rhythm of the urbanised environment. *Prinzessinnengarten* was envisioned as a ‘learning ground’, a space for different kinds of knowledge to arise out of collective practices and for developing undervalued forms of expertise and professional skills, such as beekeeping, organic gardening, composting, seed diversity preservation. Activities run by the association were understood as a bond with society, agriculture and especially the soil, that later became the matter for both ecological and political claims (Clausen, 2015) (Fig.4.3).

In light of the last ten years, the first innovation that the project has introduced into the landscape of temporary uses and community gardens is its economic stabilisation as a niche activity. Unlike other urban gardens, from the very beginning voluntary forms of work were criticised—as Marco Clausen explains in the interview at the end of the section. Although the association was non-profit, the underlying shared idea was to guarantee a minimum wage to the people involved on the board team and to cover rent and utilities. The first income generator was the *Gardencafé* (2010),¹³¹ a catering business offering organic and vegetarian food with products partly produced in situ, which subsequently made the site an attractive place for residents and tourists.¹³² Alongside, the community established various forms of collaboration and partnerships with public and private institutions over the years offering paid ecological and environmental education courses and hands-on gardening work. *Prinzessinnengarten* became the first ‘enterprise garden’ where generated extra revenue was put towards the non-commercial goals of the organisation. The formalisation of activities was steered by a structured social internal organisation and formalised against the conventional neo-liberal political economy forces.

Land struggles

In 2012 a series of struggles against the privatisation of land began and significantly harmed the garden’s future perspectives. When Berlin Real Estate Fund wanted to privatise the city owned plot, the activist campaign “Let it grow!”, in a very short time, gathered 30,174 signatures to support *Prinzessinnengarten* and protect the garden from commodification (Prinzessinnengarten, 2020). This led to a lease agreement with the district Friedrichshain-Kreuzberg

¹³¹ For the chronology of the project see the Prinzessinnengarten website, used as a blog and with detailed information on the history and activities that took place from 2009 to 2019 (Prinzessinnengarten, 2020)

¹³² Up to 300 visitors a day (Clausen, 2015).



Figure 4.3 Prinzessinnengarten in 2012: *Garten café* and community garden. (Marco Clausen 2012)

until 2018, and the area to be defined as *Daseinsvorsorge* [public service].¹³³ The activists' victory against property speculation was a key step toward official recognition of the garden as a valuable space for the city and the neighbourhood by Berlin's administration. This expanded the political aspirations of the garden. The momentum generated by the mobilisation was transformed into durable forms of praxis and into the formalisation of the shared idea that space should be considered and preserved as a common good (Harrison, 2019). In 2013, the association *Common Grounds* was initiated by a group of activists from *Prinzessinnengarten*, including Marco Clausen. It was dedicated to urban socio-ecological transformations and co-production with the aim to declare self-organised and self-managed spaces as commons. The group has securely established itself within the community as a body dedicated to political issues by drafting the "Urban Gardening Manifest-The City is Our Garden" (Anstiftung, 2014) to apply for recognition of the permanent status of gardens in the city.

From 2015 to 2017, a wooden structure called *Laube* was built in the western part of the area in collaboration with volunteers and students from TU Berlin University. It was to become a space where groups from various social movements—ecological, anti-racist, feminist, or broadly anti-capitalist—could host talks, film screenings, workshops and festivals, fostering alliances between multifaceted struggles (Herbst and Teran, 2020). It became the main venue for the educational activities of the *Neighbourhood Academy*, a collective learning platform bringing together critical artistic practices and rural and urban activism, and the *Evening school*, a self-organised community of practitioners inspired by the work of Paulo Freire (Clausen et al., 2019; Harrison, 2019). Both the *Neighbourhood Academy* and the *Evening school* were sites created to gather '(un)common'¹³⁴ and 'non-institutional' knowledge with the goal to criticise neo-liberal investments, spatial privatisation and above all the idea of temporary uses—by now emptied of the creative meaning with which it was charged in the early 2000s. The writer Melissa Harrison who was, part of the initiatives, explained that "by engaging in a collective (re)production of our common spaces and natural world, we highlight the often-suppressed experience and articulation of our everyday lives as social and cooperative, delving into questions regarding our alienation from each other, the space of the city, the land, and our own subsistence—under capitalist relations—in order to explore different ways of organising the common(s)" (Harrison, 2019).

All of these initiatives have helped to situate the localised micro-political

133 *Daseinsvorsorge* is a German administrative term to declare the exclusively public use and quality of a good. However, does not hinder the possible construction of the area.

134 According to Melissa Harrison, referring to Harvey, D. (2013), "(Un)common knowledge refers to subjugated knowledge: knowledges from the peripheries and the depths, knowledges that de-center power and hegemonic capitalocentric, anthropocentric, patriarchal, and white/ Western discourses." In Harrison, M. (2019). *The Ground beneath Our Feet. Upping the Anti*, 1(21).

struggle for *Prinzessinnengarten* within a broader sequence of trans-local articulations of the commons. However, the adherence to political actions caused the internal organisation to split into two groups. The first, *Prinzessinnengarten Kollektiv* together with Robert Shaw, one of its founders, continued with the original idea of an urban agriculture project and moved to the private land at the *St. Jacobi* cemetery in Neukölln (Chapter 3). A new association, *Prinzessinnengarten Kreuzberg*, with Marco Clausen instead focused on the fate of the area at Moritzplatz, starting a campaign to demand a 99-year contract (Herbst and Teran, 2020). The demand for gardens as commons became more insistently linked to socio-ecological reasoning, and the soil was considered a good, both material and immaterial, worth protecting. At the closing ceremony of the *Prinzessinnengarten* Clausen explains: “We would like to show once again the richness/fertility of our soil, the importance of uniting the ‘social humus’ of all past commitments, and the ‘roots’ that are already deeply embedded in the neighbourhood, and far beyond” (*Prinzessinnengarten Kreuzberg Initiative*, 2019).

Garden as commons

In 2019 Marco Clausen and Kerstin Meyer¹³⁵ drafted the “Tenure treaty for Berlin gardens” (Clausen and Meyer, 2019), the first proposal submitted to the Berlin Senate to protect both allotment and community gardens as common goods (Fig. 4.4). The document laid out specific criteria and demanded that garden spaces should be accessible and that they serve an ecological purpose. The proposal was inspired by the contract of 1915 which protects Berlin’s forests from speculation and deforestation to this day (Von Lührte, 2015).¹³⁶ Demands for the protection of gardens thus dovetailed with principles of environmental justice. The proposal failed and the administration’s first argument was the difficulty of applying such a measure to the heterogeneous landscape of different garden types in the city. In contrast to natural assets such as forests, which can be understood applying the traditional notion of commons as spaces opposed to enclosures (Ostrom, 1990; Bromley, 1992), gardens correspond to variegated models of self-governance, resulting in different attitudes toward space use.

The case of *Prinzessinnengarten* suggests that the relation to the land is more

135 Kerstin Meyer is one of the activists at the forefront of the winning campaign against the partial building of *Tempelhofer Feld* in 2015. See interview in Chapter 3.

136 On 27 March 1915, after long negotiations, the “Berlin Permanent Forest Contract” was signed between the City of Berlin (at that time in the form of the *Zweckverband Groß-Berlin*) and the Prussian Forestry Treasury, which then came into force on 1 April 1915. This contract regulated the sale of over 10,000 hectares of forest owned by the Prussian state to the *Zweckverband Groß-Berlin*. In the contract, the *Zweckverband* undertook not to cultivate these forest areas, but to preserve them in perpetuity for the local recreation and drinking water supply of Berliners (Von Lührte, 2015).

articulated than the notion of commons. It does not simply refer to ownership but includes issues of sovereignty, knowledge, ecology and identity. Drawing on this, Brighenti argues that the property and the claims for land correspond to the act of “inhabiting what remains under the modern capitalist system” (2010:2019). That is indeed what the *Prinzessinngarten* initiative stresses in one of its latest publications: the desire from “Growing from the ruins of Modernity” (Herbst and Teran, 2020). The traditional concept of commons as in opposition to enclosure takes on different meanings in urban gardens. *Prinzessinnengarten*, like many other gardens, was an area enclosed and whose accessibility was regulated by the initiative. As in its archetypal figure, the garden is a fenced land. The concept of ‘fence’ or ‘boundary’ stimulates continuous discussion in the urban garden landscape. Studying *Prinzessinnengarten* in 2013, Bendt, Barthel, and Colding define the initiative as one of the representative examples of PAC—“public access community gardens”. Public access is defined by the authors according to both spatial framework and to the activities and relations that the community establishes with the neighbourhood and surrounding urban contexts—what they call “boundaries activities”. The degree of inclusiveness and accessibility thus depends on both the spatial and social garden organisation. Geographer Hilda Kurz (2001) suggests that more attention should be paid to the socio-spatial framework of the gardens, as the internal organisation of the community and spatial openness are linked. Indeed, she insists that a fenced garden is not necessarily an exclusive environment.

In a continuous struggle against the liberal system, which has revealed itself in different political ambitions within the organisation, the initiative today has lost many of its qualities. Since 2019, *Prinzessinnengarten Kreuzberg* has adhered to the radical idea of urban space almost permanently accessible, without a central organisational structure and commercial activities to ensure its self-financing. In an attempt to interpret the commons and proposing an alternative model against capitalist economy, the garden nowadays is an area without services, drinking water and electricity, frequented by a niche group of people. The piece of land, where vegetation has started to grow back wild due to the decrease in management, stands as a reminder of a vibrant past which marked a new model of urbanity and agriculture. Today, however, it seems unlikely to cope with city policy’s growth—as Marco Clausen, one of the initiators, notes in the follow-up interview.

TENURE TREATY FOR BERLIN GARDENS

A Draft

Preface

As an integral part of Berlin's social and ecological infrastructure, the urban and intercultural gardens are to be secured permanently as spaces of public good and commoning. The Tenure Treaty for Berlin Gardens presents a cornerstone to the necessary social-ecological transformation toward a future oriented, diverse, liveable, carbon neutral, socially and ecologically just urban-rural-region.

§ 1

To provide the growing population of Berlin in the long-term with an opportunity for community gardening, out-door-recreation, and the collective care for the green commons, the 113 existing urban and intercultural gardens shall be permanently secured.

§ 2

By 2022, 200 additional spaces shall be allocated to establish further gardening projects in all districts, in order to ensure access and participation for all Berliners close to their homes. Community gardening areas in public parks, on school grounds, connected to social facilities, and in the allotment gardens of Berlin ("Kleingärten") can, if they pledge to adhere to the social and public good objectives of this contract (§ 6), become party to the Tenure Treaty for Berlin Gardens and the Trust for Urban and Intercultural Gardens (§ 5).

§ 3

For the necessary acquisition of further plots an adequately endowed land trust shall be established.

§ 4

The dedication of "community garden for the common good" shall be integrated into urban planning processes as part of services to the public good.

§ 5

The gardens protected under the provisions of the Tenure Treaty for Berlin Gardens shall be integrated into the Land Trust for Urban and Intercultural Gardens and permanently dedicated to the fulfilment of common good objectives.

§ 5.1

The board of the land trust shall be comprised of gardeners, representatives of the Senate and the districts from the corresponding departments (green spaces, nature, environmental and climate protection, education, social affairs), and corresponding representatives of civil society, each accorded a third of the voting power. The board ensures that the gardens fulfil the common good objectives.

§ 6

The intended use of the urban and intercultural gardens party to the Tenure Treaty for Berlin Gardens is for the common good, with public service objectives. The gardens shall establish democratic organizational structures and pledge to

- guarantee low-threshold access, by being free of charge, having regular opening hours, hosting public events and offerings for everyone to get involved and participate,
- establish and maintain interculturality, inclusivity, and freedom from discrimination,
- offer social and educational programming, especially in cooperation with schools, day-care centers, social and research-focused organizations,
- realize ecological objectives such as: implementing organic gardening/farming, environmental protection measures, promotion of biodiversity, and measures for climate adaptation.

§ 7

To ensure the implementation of common good objectives, continuous and sufficiently equipped funding programs shall be established. The use of the designated areas shall be free of charge, i.e. free of rental and operating costs.

§ 8

The Tenure Treaty for Berlin Gardens forms part of an agenda for the social-ecological transformation of the city, a sustainable, future-oriented food strategy for the Berlin-Brandenburg region, and a concept for the transformation of Berlin into a carbon-neutral city.

●

Figure 4.4 Tenure treaty for Berlin gardens (Clausen and Meyer, 2019)

In conversation with

Marco Clausen

Co-founder of the *Prinzessinnengarten* in Kreuzberg

EF 2009 and 2020, what was, what is, and what will be *Prinzessinnengarten*?

MC I'm not actively part of it anymore, which makes the answer a little bit easier.

In 2009, it was just a concept, a general idea that Robert and I had developed. Is it possible to transform an urban wasteland into a community garden? It was called 'urban agriculture' back then—you can play with words—and it combined community work, educational work and also commercial activities to finance the non-profit part.

There were a lot of unused spaces at that time, but it was really hard to have access to land. Moritzplatz was our last chance when we talked to Bezirk Kreuzberg. They redirected us to the real-estate fund (city owned company). Back then we didn't have any idea about how the 'game' was played: district institutions, real-estate funds and investors. But we were determined because we invested a lot of work to get to implement the concept. We had figured out many issues that we didn't know about when we started, for example legal aspects, a business plan, or urban agriculture technologies. That took almost half a year of a full time unpaid job to have a contract with the real estate fund. It was a really precarious one, which allowed them to kick us out whenever they wanted.

The idea to garden on a wasteland and make a non-profit company that could pay waitresses was unheard of. *Prinzessinnengarten* started in 2009,

with no funding, no infrastructure, and no public support. We were relying on a lot of people supporting us, being on site, cleaning up, starting to garden. We started to establish different innovative collaborations with state and non-state actors. Our activities were economically viable and aimed at knowledge production. And there was always the objective to pay the people who were working. Since the beginning, that was one the core idea. A lot of people were irritated by what we were doing: "How does it work? You are a non-profit organisation, but you want to make money out of it". Since we were not from a NGO or an academic background, we were not into this game of looking for funding and to do what someone else asked us to. We wanted to build our own organisation, independent from economical funding. That was *Prinzessinnengarten* for almost ten years at Moritzplatz; to build up this kind of structure, to open the place to as many activities as possible in the field of environmental education.

It was a kind of professional structure. Later, it became something 'like a company'. It was totally democratic. There was only income for people like me and up to 25 people who were employed. We designed the company in a way in which all the surpluses had to go to the group activities. I think the gastronomy was one of the key parts of the concept and it created income. Before, we had to invest money we didn't have. It took a lot of time before it started to work financially, three to four years, maybe.

Over the years, there were a lot of great people who worked on different activities within *Prinzessinnengarten*. The place rapidly became an 'action

ground' for this kind of competences that had no place in the city before, specifically as jobs. People were able to create their own professions in between gardening and social work. There was a range of activities next to gardening. The idea was to have a place to show 'practical approaches to change'—how we use resources, how we deal with urban nature, how we deal with food, how we deal with waste and so on.

Prizessinnengarten in its core, especially for the people who were active, was a 'learning ground' for working with the differences, even contradictions between education, political ambitions and being a business. And that was the most interesting part of it. We were working in between this clear separation of fields and purposes. There were a lot of conflicts and it was extremely stressful. We became this new role model for urban agriculture.

In 2012, the piece of land had to be sold. That was not so surprising because when we started in 2009, there were hundreds of places underdeveloped in the city. Those were times of a financial crisis and for the city the crisis. So, suddenly the whole city was changing ownership and the municipality itself was fuelling this process by privatising without any form of long-term planning. In 2012, while the land had to be sold, the Berlin Senate decided to send the *Bundespräsident* of the Federal Republic to the *Prinzessinnengarten*. It was the contradiction of the city, that is using all these projects to advertise this 'alternative Berlin character'. We managed to prevent privatisation. That was unique. I think nobody before was able to stop a privatisation process so late. We managed to do that because there was a lot of attention

and support (40.000 signatures). We had this small victory. For us it was a big one and that allowed us at least to have the land for another five years.

Back then, I got involved into the civil society mobilisation and conversations around privatisation. Privatisation, especially when we talk about real estate, was overlooked as a political topic. I mean, it was not a public and broad discussion. We had discussions around privatisation of water, electricity... Florian Schmidt was the district councillor of Kreuzberg. He was an important figure in these processes. We formed the network *Stadtneu Denken eV*. to bring this discussion into the parliament and we asked to stop selling public property. The whole neoliberal agenda was so strong, like an ideology.

From that time onwards, I have focused on the political discussions in Berlin on the 'right to the city' and on privatisation of land. I tried to combine it with the ecological perspectives. Because when one puts a price on land and you auction it, no tree can compete. This is consistently implemented as a policy and nothing else. This, for me, is a neoliberal city: to just use nature as it happens now, as a decoration, a greenwashing scheme. That has nothing to do with nature and it has nothing to do with environmental justice. I started seeing this political process as an educational process as well. So I was trying systematically to combine the gardening education—related to the soil working with hands and experience—to more global issues. With a focus, for example, on what's happening in the countryside. I was more and more aware of the fact that everybody was talking about urban agriculture but not talking about

the countryside. We have to go out of the city just half an hour with the train, then the real discussion starts. What's happening in Brandenburg? Why do we only see monocultures? Who is working now? For what kind of money? By living as urban dwellers, we take over land outside the city, a lot of land.

In the last five years, there were different ideas within the active group of *Prinzessinnengarten*. The core group of people proposed to stick to the original concept, which was a 'mobile garden', and to find another place, a possibly better one. We were a social business, and the idea was to create jobs and of course, to save jobs. And there was the possibility to move to the former graveyard in Neukölln. Everybody but me decided to go. There were tough discussions. I was still thinking that we had the responsibility for this piece of land that we had saved, and we had to make sure that what we started will have a future. That was also my learning process when it comes to the ecological approach on "how you do things". It's like when you plant a tree: You do it because it will grow for maybe a hundred or two hundred years. So for me, it was also like this political ecology goal. The purpose was not just to do a great project, maybe to do something you didn't foresee, but you kind of have a responsibility for it.

We had an agreement because we were two owners of this 'company' (that didn't have any value because it was a non-profit). In 2018, we decided that I leave and give my share to the employees. We split the name and we kept the Laube at Moritzplatz. I remained at Moritzplatz with the association Common Ground. My personal vision was not to keep the

area completely as a garden. I really believe that just the garden at this site in the middle of the city was not enough. Because a garden will be used by a very limited number of people. I thought about making a culture and educational centre for social-ecological transformations, in order to get other people involved and other groups involved: to do this together—to make a 'much more complex thing', including building something on site and to run this kind of activity all year long. That was my personal belief or vision. Our group claimed to be on the site for the next 99 years. I thought that if we wanted to do this, you had to do something else and that people had to be paid. I'm not a huge fan of unpaid work or volunteering. Who can afford to do this? Who will be integrated if you have this voluntary structure? The idea was to use the *Laube* architecture as a seed to expand the program and to use it as an educational cultural centre.

But I underestimated that. The group wanted to have a garden and not to be part of this kind of capitalist society, which I understand, but it's an extremely privileged position. Who has this kind of choice? What I see now is that people enjoy being there, but it is a very limited number of people. It's a very specific people. I don't think that this group sees the responsibility when it comes to a long-term solution. You can't be anti-capitalist by name, but if you have to deal with this power, you have to be 'successful'. I think at the end of 2020, the right to be 'naive' will become very limited. People have a higher responsibility now than ten years ago. It's a completely different city now. You see what has been constructed at Moritzplatz during the last two or three years. It's another game. It's not just investment. Its financial assets

with the value of several hundred millions, and that is not a joke.

EF Do you want to say something more about the major challenges and difficulties of your experience at Prinzessinnengarten?

MC Actually the amount of unpaid work, stress and responsibility. Usually, people only handle this stress and responsibility if they are really making a lot of money in this world. And it was actually constantly too much. On the one hand, it's the thrill, every workaholic knows it, but on the other hand it's also not sustainable on a personal level. It impacts the private relations you have.

Talking about money, I was lucky because I had the funding from the Job Center during the first year of Prinzessinnengarten project.

EF Nature and urban agriculture, can you expand on it?

MC In 2009, with urban agriculture, we wanted to deal with food production. I was reminded of my own family background in small scale agriculture in the North of Germany. Agriculture is for me, by definition, growing food to make a living. People do this. They toil away on it not because of some spiritual meaning but to eat—not to be just self-sufficient, but to also produce something to exchange at the market. For ourselves the questions were: Where does the food come from? Who is producing it? What does it take to produce food in a way that is not destroying the planet? We're not talking about food production. We have to talk about transformation, radical transformation of the countryside. The sad thing is that it is doable. We can transform food

production in a country like Germany but there are really strong economic and political forces preventing this from happening, including speculation on land. When I talk about urban agriculture, I talk about community gardens as a bridge in terms of discussion and education, a bridge to the countryside, the region and the global countryside.

We start to talk about urban nature, when we see the garden from the perspective of the beekeepers at Prinzessinnengarten, for example. They open up a perspective on what kind of plants have to be cultivated not for human food, but for bees and wild bees to survive. That's urban nature as a part of urban agriculture. A lot of plants are useful for insects. In the garden you can find biodiversity.

I also started this project because a lot of Berliners have an historical and romantic idea of what a wasteland is. The wasteland in Berlin was something that was so omnipresent that it almost 'designed' the city. It was also a reminder that Berlin was not about capitalism and about profit. It was not a normal city. So we all had this kind of sentiment about how this kind of urban nature was taking over former industrial landscapes and also a melancholic picture of the end of industrial capitalism. Nature has all these meanings and layers, not so much the nature alone but also its relations with the history of the city. *Robinia* for example is not an interesting plant ecologically speaking, but it's a signifier of this kind of historical dimension of the city of Berlin. Now there are some examples like *Park am Gleisdreieck* or *Südgelände* that are a 'hybrid version' of a wasteland and a park, which reminds us of the darkest sides of the city.

Grunewald forest became for me a

way to reconnect with the situation of the gardens and a long history of fights for green areas. To fight not only against construction but against speculation with the aim of not giving away the city to investors, capital, to people who push us out the same way they pushed nature and wastelands out. We need to explain to people that one can be successful even on a bigger scale, because nowadays we have to fight for ten years or for a few square meters. When we talk about urban nature, what we tried to do with the *Dauergartenvertrag* [Tenure treaty for Berlin gardens] was also to protect small green areas from being developed.

EF Could you tell me something more about the legal framework of the *Dauergartenvertrag*?

MC It's simple. There is no legal framework for community gardens. Community gardens in Berlin and Germany don't have the same legal framework as allotment gardens. And what that means is that community gardens are something not defined and there's a lot of freedom for the people to develop projects. The dark side of it is that the area cannot be protected.

The main argument is always that gardening is a form of privatisation, which it's true, there is the risk of creating gated communities of very few people who have the privilege to enjoy this. The same happens to allotment gardens. With the *Dauergartenvertrag* the idea was that specific groups could have access to the land for the common good. Gardens would become something that belongs to all of us, so we have to make sure that some criteria have to be guaranteed. That should go through a negotiation process with

different people at the table, a mixed board to define what the common good is about. For me, it means sitting down and putting it into law.

EF Nowadays 'commons' is used as an alternative to conventional ownership regimes, namely public and private. Can you elaborate on this aspect? Especially with regard to urban gardens.

MC Ownership is a quite a Western idea. Colonisation history is about this misunderstanding of what ownership is about. There are people or entities who are not part of the legal discussion. A Rainforest, for example, doesn't have legal rights, it cannot 'have ownership' so you can do whatever you want with it. I think there's no short answer and no simple solutions to that extremely tricky question. Ownership translates into the right to exploit nowadays. And we have to find new forms of ownership—it sounds romantic—that includes the duty to restore or heal the damage we have done. This idea comes from people who are not accustomed to our notion of ownership and property rights. From indigenous activists, for instance, who are on the front line to protect what 'is left' of the earth's surface. They have the role of protectors of the earth, they go away from ownership to being something like a stewards. Capitalist property means not just the right to extract, but the necessity to extract as much as possible. Being a steward of the earth means the exact opposite. It is the ability to get everything from a piece of land everything that nourishes us: water, plants, insects... That's easily said. But how to get there? Going back to the urban gardens, what we can do is at least showing in some places that we are not losing by enriching profit processes.

EF Do you think commons could be really be an alternative?

MC A problem of being active on the ground is that we have to work in very limited frameworks. Common good is 'such vague'. It doesn't mean anything at the end. It is an idea that has to be used to get specific concrete political benefits on the ground. But it's not helpful per se. To use common good as a (planning) tool, one has to define what it is about.

The *Fridays for future* movement is interesting to me because even if they don't use the word common good, they actually politically reformulate what it is: it's about future generations. It is not even a democratic decision-making process. It intersects ecology with the question of 'responsibility'. I believe that *Fridays for future* is an example of how a global environmental justice movement can reformulate such a concept.

Kreuzberg, September, 2020



Prinzessinnengarten during the closing ceremony in 2019.
(EF, 2019)



Move of the *Prinzessinnengarten* activities to the *St. Jacobi* cemetery.
(EF, 2019)



Prinzessinnengarten in its current state.
(EF, 2021)

Berlin allotment gardens

Allotment gardens, or *Kleingärten*, are older forms compared to community gardens, officially recognised in Berlin as early as 1919. One of the earliest allotment models was proposed by the pastor Schröder from Hesse-Kassel in 1814. He divided pastoral land into parcels, and together with the gardeners he drew up garden rules, set the rent and helped in the organisation of a board team (Krasny, 2013). Since their beginnings, the spatial arrangement of allotments has been based on a rigid structure: the partitioning of land into lots serves individual tenants, particularly families. Even if their management is originally based on a sense of community, common practices and a shared sociocultural background, this system of land use is directly opposed to the original notion of the commons.¹³⁷

The rapid industrialisation of the late 1800s and a steady population growth had led to higher urban poverty due to the increase in the cost of food and housing. The first gardens had been established in response to the overcrowded, dense industrial city structure in order to provide the working classes, who mostly came from the countryside, with hygienic places and a resource for food self-sufficiency within the urbanised context. In fact, the term *Schrebergarten*, still used today in reference to allotments, dates back to the Leipzig orthopedist Daniel Gottlob Moritz Schreber. Schreber called for the designation of places where the sick children of working-class families could play outdoors and let off steam (SenStadtUm, 2012; Schafer-Biermann et al., 2016). In Berlin, early allotments patterns can be differentiated into four organisational forms: the grassroots movement of the *Laubenkolonisten* [garden shed colonists] or *Pflanzer-Bewegung* [planting movement], the *Eisenbahngärten* [railway gardens] provided by railway companies for their employees and the *Pachtgärten* [leased allotment gardens] leased by private landlords. While the grassroots movements were informal ways to self-supply with food and housing and often illegal, the *Eisenbahngärten* and *Pachtgärten* were formal top-down methods to provide a means of self-help while also benefiting from the situation of the tenant allotment gardeners (Gogl, 2016).

Following the defeat of World War I and during World War II, Berliners not only made intensive use of allotments but of all areas in the city available for cultivation. This practice was further encouraged by the fallow land ordinance of 1945 which stressed the need to cultivate every square metre of land in Berlin and made it possible to expropriate non complying landlords. Intra-urban agriculture became sizable, but still not effective enough to meet Berlin's supply needs. Later, to ease the housing shortage of the devastated post-World War II city, Berlin's councillor Hans Scharoun introduced a building directive which

¹³⁷ It is worth mentioning in this context where the concept of the commons originates from. Commons derives from the feudal system of medieval Northern Europe, in German *Allmende* that denoted unparceled land cultivated together by the peasantry (Pelger, Kaspar and Stollmann, 2017).

allowed allotment holders to upgrade their allotment hut to a small house and to live there for a maximum of five years (Baumbach, 2012).

Nowadays the *Kleingärten* are semi-enclosed green structures covering a considerable part (27,2%) of the public greenery (SenStadtUm, 2019b). The areas are legally regulated at the federal level by the *Bundeskleingartengesetz*¹³⁸ [federal allotment garden law] and are independently organised under the statute of the *Gartenfreunde* [Garden Friends] association—an umbrella organisation that operates on the federal, city and district level.¹³⁹ In turn, each individual garden colony normally consists of an independent association. Through long-term contracts, which can be inherited through family succession, garden plots are leased for a derisory amount per square meter—0.36 € per year, (SenStadtUm, 2012) which fosters a rather little generational turnover.¹⁴⁰ The internal spatial division into lots, in some cases separated by tall hedges, and the limited availability of common spaces do not favour social cohesion. While the common areas, such as pathways and lawns, can sometimes be open for the public to enter, individual gardens never are. This restricts the access and use of the garden colonies by the public and consolidates small and mostly non-multicultural user communities. Once predominantly used to produce homegrown food and keep small animals, allotment gardens now increasingly serve as places for recreational and private activities (Lorbek and Martinsen, 2015; Hilbrandt and Wiley, 2021).

Older tenants usually live in the vicinity of the colony, which has changed only recently. The demand for the allocation of gardens, also driven by the population increase, has grown exponentially in recent years, particularly in the city centre (SenStadtUm, 2019b). This has motivated people to apply for gardens in neighbourhoods far from the one where they live, resulting in a substantial change in the use of these spaces, which are increasingly being repurposed as holiday and leisure homes. The allotment colonies are mainly on public land with a few exceptions for areas along the train infrastructures of the *Deutsche Bahn* railway company. The fact that they are mainly privately run spaces casts doubt on their role within the public infrastructure and their traditional function. Allotments in Berlin do not always reflect their agricultural original purpose and are instead understood as dwelling places on the borderline between formality and informality, challenging models of private and public ownership (Hilbrandt and Wiley, 2021).

138 The *Bundeskleingartengesetz* defines an allotment garden as a plot of land smaller than 400 square metres and at least 1/3 of the land must be used for agriculture. A hut of maximum 24 square metres can be erected on the plot. (*Bundeskleingartengesetz*, 1983)

139 *Bundesverband Gartefreunde e.V., Landesverband Berlin der Gartenfreunde e. V., Bezirksverband Gartenfreunde e.V.*

140 The allotment gardens age average is between 50 and 80 years old. (SenStadtUm, 2019b)

Kleingärten fall into a specific category of land use. Although they are generally secured in relation to urban transformations, the latest official guidelines collected in the *Kleingartenentwicklungsplan* (KEP) document that only 80% of allotment areas will be preserved by 2030 (SenStadtUm, 2019b). This unstable scenario has forged new alliances between different grass-roots organisations—in particular between allotments and community gardens—to urge the municipality to recognise the social and ecological capital that gardens hold for the city.

Integrated Garden: a hybrid landscape

Werner Bigell (2015) describes the allotment gardens in Berlin as spaces opposed to the city, which instead form a kind of village, included but separated from the surrounding environment. They are landscapes on the margin (Hilbrandt and Wiley, 2021), often acknowledged in the common ideal of natural public space by many citizens. This is also due to the fact that *Kleingärten* are mostly difficult to access. Although by regulation¹⁴¹ they should be open to the public, many of these areas remain with their gates closed at the discretion of the self-governance policies of each individual organisation. Indeed, allotments, mostly on public land, demonstrate a certain complexity in their management. Their highly regulated structure divided into plots turns the land to be constituted of individually customised and diverse terrain patches, representing the intentions of individual gardeners. Very different from the German idea of open space (*Freifläche*, or free space), garden colonies constitute a peculiar use of public space. The single plots overlook walkways, which appear as narrow corridors between different types of natural settings. Walking through the allotments, it is easy to recognise how these spaces are fundamentally different from other types of urban greenery. Bigell points out: “the landscape of allotment gardens is incoherent; there are different types of hedges, and the alleys often have a maze-like structure” (2015:109). The internal walkways are ‘transects’,¹⁴² in which one can tangibly experience how the interweaving of private practices and collective spaces influence the complex conformation of an inherently hybrid landscape.

From 2019 to 2021, as part of the research project “Integration of allotment

141 § 6 Abs. 1 AZG, 15th December 2009, Berlin Senate

142 The use of the transect metaphor (Gandy, 2020), used in the previous chapter in the case of *Park am Gleisdreieck*, referred to the walk conducted, both between the preserved wild area in the park and along the inner walkways of the nearby POG allotment. POG, in fact, constitutes one of the first examples of garden colonies that was integrated into the public infrastructure. Different from the cases I present in this section, it nevertheless constitutes an example of the transformation of *Kleingärten* following recent urban changes.

and community gardens”,¹⁴³ I investigated the transformation of allotments along current urban changes. The first objective was to draft a strategy for turning the existing colonies to be more inclusive, accessible and integrated to the city fabric. Indeed, due to the pressure of urbanisation on garden areas, a new phenomenon of collaboration between allotment and community garden movements is emerging and substantially changing the use of existing colonies. Some allotment gardeners have started to open the colonies’ gates to nearby residents, improve the common infrastructure, publicly accessible parts and organise community plots to share with external groups. Community gardeners, due to the insecure spatial situation of their gardens, have started to see opportunities for co-working or using space within allotment colonies. Such multidimensional phenomena influence the production of new hybrid urban natural spaces.

“Integration of allotment and community garden” is conceptualised as a broad spectrum of interactions but also structures that emerge between these two different garden communities, in particular the processes of sharing spaces and resources, as well as joining forces for the strengthening of the position of urban gardens as parts of the urban green infrastructure within urban political ecology. The research has put forward the idea that a reconfiguration of allotments as “integrated gardens”—resulting from the integration of two different typologies—could provide a more equitable use of existing urban natural resources and promote new ways of green space governance following novel forms of common systems.

The transformation of allotment areas into spaces that can serve a larger population in dense urban settings is an issue that is also being addressed at the federal level (Weeber+Partner/W+P GmbH, 2019)¹⁴⁴ through proposals for new policies to integrate garden colonies into the green infrastructure as part of the city’s public services. The integration of the two garden types is also envisaged in new strategies proposed by the Berlin Senate. So-called *Mehrfachnutzung in Kleingartenanlagen* [multiple use in allotment gardens], the programme promotes mixed use of allotments and fosters dialogue between institutions, recognising the peculiarities and needs of different associations. The long tradition of gardens has meant that the two types are nowadays regarded as culturally distinct approaches towards the use of green areas, both worthy of preservation. As reported in the following interview, Toni Karge of the Berlin Senate explains how integration is not only a spatial fact, but primarily an aspect that should take into account the personal motivations of gardeners. “How the integration could potentially look like is very different. I think it is

143 See the annexes for a description of the project.

144 The study *Kleingärten Im Wandel Innovationen Für Verdichtete Räume* (Alternatives for allotment gardens in transition in densely urbanised areas), commissioned by the Federal Institute for Building, Urban Affairs and Spatial Development Research (BBSR), aims to illustrate a possible change of existing allotment gardens to cope with increasing urban density.

not only meant to be a spatial integration, to find mixed patterns. It's mainly about people's 'biographies' of gardening'. This also conceals the intention not to promote predetermined top-down projects, but rather to leave scope for the conception of different socio-spatial typologies.

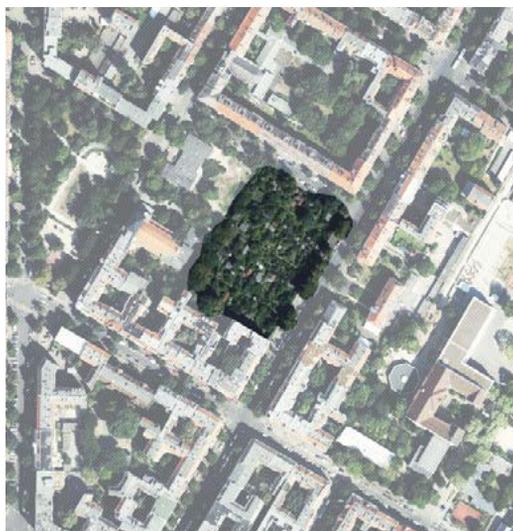
Attitude of gardeners towards integration

The research focused primarily on an in-depth understanding of gardeners' attitudes towards space and the motivations that drive them to implement integration processes. The analysis was conducted on six case studies in Berlin: three allotment gardens and three community gardens (Table 4.1). The overall objective was to investigate among the substantial differences, the similarities between the two gardening movements in the transformations of existing green socio-spatial structures. The research therefore relied on a qualitative methodology, through interviews, visits, active participation in practices and public events. Coming into close contact with the gardeners was necessary to grasp that the change in use of the colonies depended on grassroots actions that are currently not reflected in local policies. The study also included different stakeholders, such as state actors and activists. Although the phenomenon of integration is increasingly in demand within the city's endogenous development dynamics, these practices remain non formalised. From the outset, the research developed with a certain sensitivity to the cultural aspects of the two garden types, assuming that top-down strategies would not consider their social capital.

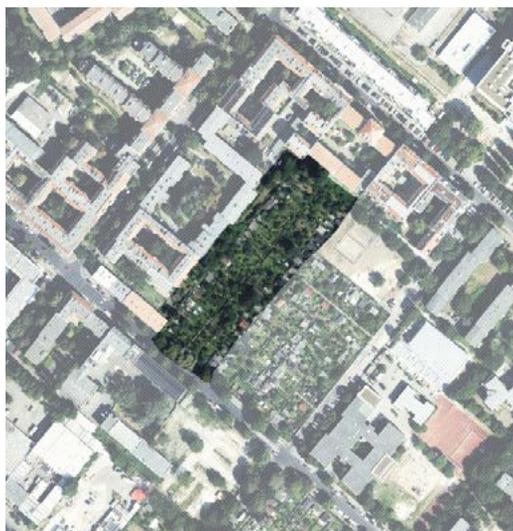
The six cases studied show diversity with regard to their characteristics and geographical location, which influences their social structure. The analysis began with a study of the socio-spatial framework of the gardens, in terms of accessibility, internal social organisation and the relationship of the communities with local and city initiatives. It was noted that the spatial access to gardens varied between individual projects and ventures. This depends on the garden's geographical location, spatial structure and its scope of action. For instance, in the Neukölln district the two cases analysed—*Harzthal-Wilde Rose* and *Freie Stunde* allotments—are relatively small colonies with only one main entrance. The internal walkways are therefore *cul-de-sacs* and located in areas characterised by social stigma that make gardens prone to vandalism. The allotments therefore generally keep the gates closed, except on specific occasions. In the case of the colony in the Wilmersdorf middle-class district—*Am Stadtpark I*—, however, internal paths are permanently opened because they ensure spatial connectivity between different blocks in the neighbourhood. The allotment gardeners interviewed also explained how many tenants perceive the space as private and are sceptical about the inclusion of new social groups. Socio-spatial inclusion/exclusion thus depends on the internal organisation of each individual association, despite regulations and their status as public areas.



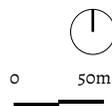
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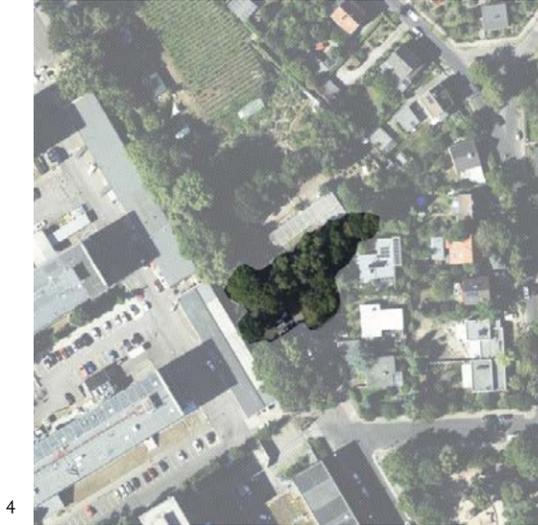
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3



Source: Bing Map (2021)



4



5



Source: Bing Map (2021)

Garden	Location	Area	Year of establishment	Internal management	Land ownership	State of the land
1_Allotment Stadtpark I	Charlottenburg-Wilmersdorf	2.7 ha	1919	Am Stadtpark I e. V.	City of Berlin	-Long-term perspective of use until 2030 (SenUVK, 2019) -Building area according to Land use plan (SenUVK, 2020)
2_Allotment Freie Stunde	Neukölln	0.7 ha	1896	Kolonie Freie Stunde Neukölln e. V.	City of Berlin	-Long-term perspective of use until 2030 (SenUVK, 2019) -Building area according to Land use plan (SenUVK, 2020)
3_Allotment HarztaI - Wilde Rose	Neukölln	0.9 ha	1902	KGA HarztaI - Wilde Rose e.V	City of Berlin	-Long-term perspective of use until 2030 (SenUVK, 2019) -Building area according to Land use plan (SenUVK, 2020)
4_Community garden Peace of Land	Prenzlauer Berg	2,765 m ²	2017	Peace of Land e. V.	City of Berlin	The area will be built in 2023
5_Community garden Himmelbeet	Wedding	3,335 m ²	2011	Himmelbeet	City of Berlin	The area will be built in 2022

Table 4.1 Case studies analysed

Despite this, examining the ongoing processes of integration reveals how contact between gardeners from different backgrounds leads to various benefits. A community gardener stressed: “allotments are an important type of garden, we can connect and learn from each other—cooperate, exchange material and knowledge. We can offer permaculture design skills and learn about plants, garden tools and techniques” (Stefan, Community garden *Peace of Land*). The allotment gardeners embraced the integration strategy as a way to protect the colonies from urbanisation: “we argued that the garden colonies have to open to the outside world to be well-perceived by the neighbourhood. In Berlin, allotments are in danger” (Antonia, Allotment garden *Harzta-Wilde Rose*). In the allotment *Am Stadtpark I*, people who run a community garden in the colony were interviewed. They show a peculiar attachment with place: “after four years, I must say that I identify a lot with this piece of land. I also identify with the colony [...] even though we are in a big city, I can feel the neighbourhood environment” (Brigitte, community garden *Mitmachgarten* inside *Am Stadtpark I* allotment).

Three possible forms of integration

Mapping how integration processes are currently performed in Berlin, it emerged that the phenomenon is multifactorial. It intertwines both intangible dimensions (gardeners’ common interests and struggles, cultural proximity, etc.) and physical dimensions (sharing of space, resources and infrastructure). The interviews and field observation shows that both dimensions of integration processes can be grouped into three complementary forms. These have been identified as the most relevant for both modes of gardening to intertwine and ultimately result in a space of commoning.

The first form has been categorised as (i) ‘dialogue and cooperation’ and concerns the motivation that the two garden communities share in the integration process. Due to the progressive urban densification that threatens many gardening areas, allotment and community gardeners together have begun to establish meeting formats and activism networks. As part of the *Forum Stadtgärtnern* [urban gardens forum],¹⁴⁵ the two communities meet to discuss current issues concerning the garden’s sustainability. Integration strategies are included in these meetings as a way to cope with urban transformations. This initiative resulted in the activist campaign *Berlin braucht MEHR Gärten* [Berlin needs MORE gardens], which united people in the political goal of recognising and preserving the socio-ecological qualities of gardens in the city.

The second form concerns (ii) the ‘opening of allotment gardens’ understood as the reinforcement of boundary activities (Bendt, Barthel and Colding, 2013), i.e. the negotiation between external actors and gardeners and the physical opening of the gates. This is implemented in different ways. Allotment tenants join local cultural events or invite citizens into the gardens. The aim is to make

¹⁴⁵ See www.forum-stadtgaertnern.org

the colonies more visible to the public and change the common opinion of spaces that are mostly understood as private. But also to turn inner walkways in new urban spaces, different from public environments.

The third form is (iii) the ‘establishment of community gardens within the allotments’. It requires the conversion of plots from individual to community use. It concerns joint actions between the two communities of gardeners to manage a common space. This strategy is initially driven by a small group of motivated people (usually part of the allotment board), who take care of the organisational activities. The difficulties encountered by those in charge of this process is the scarcity of resources—financial and time—and dealing with a narrow legal and regulatory framework that does not provide official paths for the implementation of these practices. Even if integration actions are accepted by local authorities, the establishment of a community garden within a colony is usually achieved in an informal way, which involves further difficulties in its operation. The gardeners interviewed stated that a space managed jointly by different groups of people could become a context of resource sharing, circular economy and solidarity, but also of cultural and social exchange.

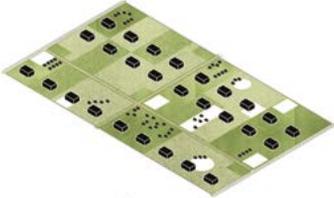
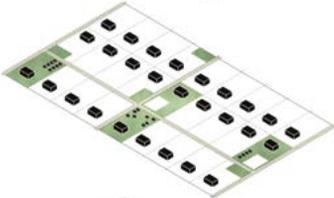
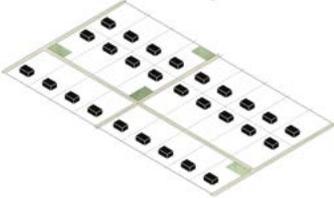
The three different forms have been designed on existing practices as part of a process that can be implemented in steps according to the internal resources of each individual community. Together they serve as guidelines towards the project of a common space but also represent the constituent parts of the urban commons’ concept per se. In fact, they are closely intertwined and illustrate how people could self-organise to manage natural resources sustainably. Complementary with each other, they concern ongoing practices of reinventing relational processes based on shared values, interests and struggles of different communities and the attempts to govern the distribution of benefits and goods such as land and nature among different people in order to counteract the state of enclosure and private use of public lands. What is defined as an “integrated garden” is an allotment that embodies the three forms of integration, in which gardeners change their use of space (Scheme.2).

The integrated garden, accessibility and commons

Allotment and community gardens differ fundamentally by spatial arrangement and property rights. The notion of the commons can therefore be interpreted and declined quite differently. As mentioned above, the accessibility of allotments and the control over shared space with external communities are dealt with by the plot holders on public land, despite regulations. For this reason, the colonies are typically considered closed structures, and therefore not capable of strengthening encounters with the public through their practices (Bendt, Barthel and Colding, 2013).

Spilková and Vágner (2016) draw attention to the spatial accessibility of allotments, and they define it as a “special” (DeSilvey, 2003) or “third space”, thus a conglomerate of private and public realms (Szczepeńska et al., 2021).

Scheme_2 Three possible forms of integration

<p>Possible future development</p>	<p>Space characterised by different ownership regimes and green areas' management.</p>	
<p>(iii) <i>establishment of community gardens within the allotments</i></p>	<p>Joint actions between gardeners to manage the common space and resources.</p>	
<p>(ii) <i>opening the allotment gardens</i></p>	<p>Strengthening of negotiation activities between external actors and gardeners and the guarantee of accessibility of the colony's internal paths.</p>	
<p>(i) <i>dialogue and cooperation between gardeners of different types</i></p>	<p>Sharing of common interests, values and practices.</p>	<p>Intangible dimension</p>

Chiodelli and Moroni (2014) in their study of “toleration”, mentioned in Chapter 2, propose a more comprehensive articulation of the urban spaces property regimes—according to accessibility and users behaviour—that can be taken into account to influence spatial management decision-making policies. Within this framework allotment gardens can be identified as “privately run public space” (Barchetta, 2017), i.e. areas owned by a public authority and managed by private or collective actors.

Further reflecting on the different ownership regimes or dichotomies between property models that characterise urban gardens as well as on the behaviours that define their functions, the idea of commons could be further articulated. As reported in the case of *Prinzessinnengarten* in the previous section, the idea of the commons as a space opposed to enclosure clashes with the spatial situation of many urban gardens. Precisely because of their variety, gardens have been defined as “autonomous commons”, thus “they are appropriations of land (either public or private) and involve self-organising groups of residents managing access and distribution of benefit” (Ginn and Ascensão, 2018:7). In the case of gardens, accessibility and land ownership are therefore not binding for claiming the space as a commons; rather, the collective right to manage the land is the key (Colding and Barthel, 2013). Referring to Brighenti the very boundaries of gardens can be understood as not objects but forms and patterns of social interaction—not the opposite of openness but rather critical “thresholds” (2010).

The “integrated garden” is defined as a frame articulated according to different green space management, within only some parts can be considered commons: the areas that are most accessible and shared with other external communities. Some plots are used in the traditional private way, others are open to the public (e.g., internal walkways), and still others are the result of claiming urban common spaces and acts of commoning. The practices of negotiation and relationship between the two types of communities will result in a hybrid structure, which will not exactly follow the traits of either the allotment or community gardens, but by a more articulated structure of toleration (Scheme.3).

The “integrated garden” is intended as a garden ‘in transition’ from the traditional privately used colony structure to urban green commons that promotes greater social inclusion, learning practices and sharing of resources. It results in a hybrid dimension through a wide range of rules in use, self-imposed norms and social mechanisms (Berkes, Colding and Folke, 2000). It is defined as ‘in transition’ because the three dimensions of integration that we have come to understand as fundamental for the production of commons are not static. The integration process follows a time development specific to each individual social context, it depends on different factors and it is framed in the time scale of urban transformation (Ossola, Cadenasso and Meineke, 2021). Through the three proposed forms, it can be repeated over time by making more spaces in garden colonies easier to access and use and enhance connections

along the surrounding urban fabric. The “integrated garden” is therefore not a finished project, but a socio-ecological evolving system. It can also be seen as a container that has created itself through the repetition and sharing of experiences and narratives, which can produce social capital. It is in the space and the properties of the network of relations that emerges the potential of allotment gardeners to create new forms of social life, to open gardens, to make common spaces available to non-allotment holders, and on the other hand, in similar actions taken by community gardeners.

Scheme_3 Integrated garden

Community garden

Commons

Space managed by allotment and community gardeners

Public access internal walkway

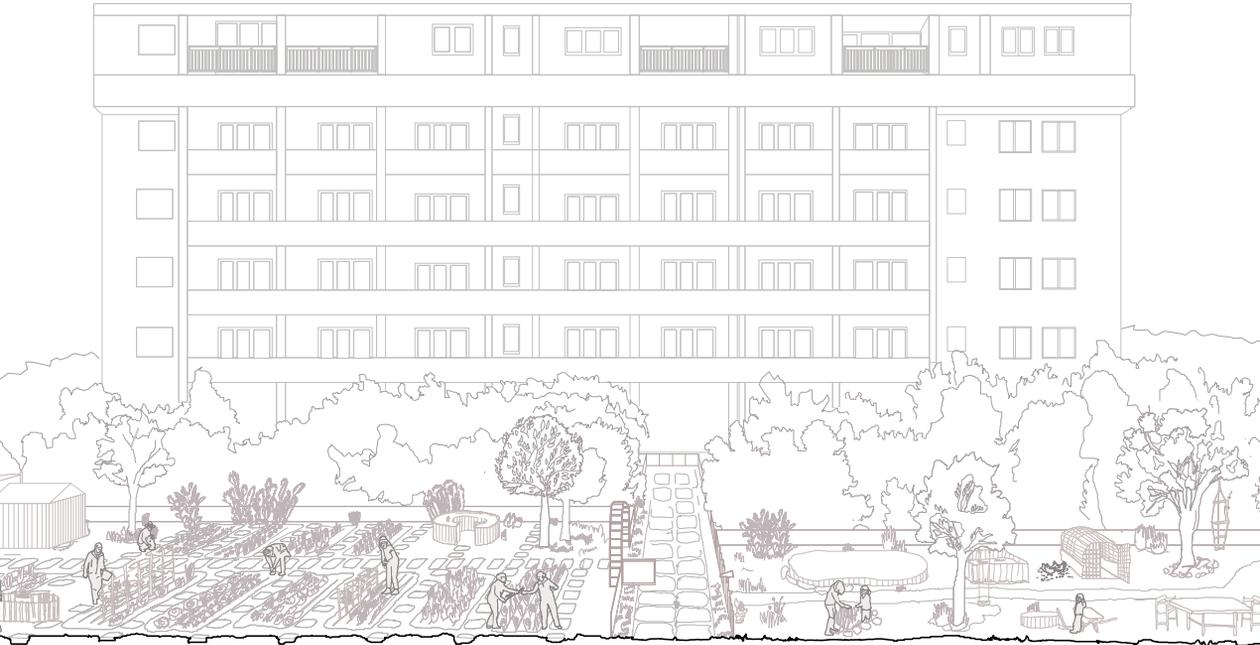
Public

Space managed by allotment gardeners

Conventional allotment plot

Privately run space

Space managed by allotment holder



○ 2.5m

In conversation with

Toni Karge

Urban planner, gardener and officer at the Berlin Senate Department for the Environment, Transport and Climate Protection - Department of Open Space Planning and Urban Greening

*allotment garden (AG); community garden (CG)

EF Tell us briefly how it happened that you started to be interested in urban gardening?

TK It developed from my studies in urban design. We were thinking about how to integrate more sustainable solutions in city-planning. Now it sounds very basic, but it was some years ago already and the practice of urban planning was not really focusing on ecological sustainability. When I had to decide about the topic of my master's thesis, I chose to work on *Himmelbeet* garden. The *Himmelbeet* community wanted to start the activities on the rooftop of a shopping mall. In the end the fire regulations were too strict and we couldn't start. But this brought me to community gardens. Besides that my parents are gardeners. They even met when they were studying gardening and landscape architecture. It is a family thing. So that's how I came there and I stayed with the topic. And it is very diverse, it is a global phenomena; this is also what interested me.

EF There are different types of CG, you also have an AG, could you tell us more about garden typologies?

TK I think the activity of gardening itself is essential to human beings. And that's why they are so different. Everybody finds his/her way to do

some gardening: some people do it on their balcony; some people want to do it in community gardens because they want to meet the neighbours; some people don't want to meet their neighbours, they want to be 'behind the fences'. I think all of these different garden types are also for different personalities or needs. They also serve different political and societal aims, like sustainability or integration of marginalised groups.

EF Do you feel like you belong to one type of garden?

TK I personally like the act of creating something but also the harvesting of course. I think many people like gardening to have something nice to share with friends. In the CG I like that it is a self-made space. The same with the AG, it is a space where you, your friends and your family create something together. But CG is more like a neighborhood atmosphere that makes it a very lively urban space.

EF Now as a representative of a Senate Department: How do you understand the integration of AG and CG?

TK There are political goals already set in the public discourse by politicians and garden associations—and they are working together. I think it is very good that something is developing, because there is no reason to have conflicting ideas.

But what was also said at the last *Forum Stadtgärtnern* it is that AG and CG in Berlin are still very different.

When I think of my neighbours in the AG, I see them as really different from me, they have different needs, different interests. I think more integration is needed.

How the integration could potentially look like could be very different. I

think it is not only meant to be a spatial integration, to find mixed patterns. It's mainly about people's 'biographies of gardening'. I started on my balcony, then in a CG and then I went to my own private garden. And maybe one day it will be too much to manage the work in the allotment and I'll go back to the CG. That is what some people do. It is like testing. From a gardener perspective I think you have to integrate it into your own biography. And spatially, there are possibilities, but in Berlin there is not much space for it. At the moment we have the political aim to open up the AG areas.

EF Can you explain us the programme for multiple of AG implemented by the Senate?

TK This year we started the pilot project of 'opening AG', where we work on the so-called *Mehrfachnutzung*, so multiple use of AGs. The aim is to make AGs spaces of public use, to do so we identified three possible steps: one is for people to be able to walk through the colonies; second is to use the garden's green more diversely, so to have public or semi-public areas; third is to really open up plots (maybe plots that are not easy to rent). How can we do it? We don't have many resources. We are thinking of doing small pilot projects. To ask associations, and garden NGOs, if they have ideas that fit into this topic. Three associations came back to us with ideas. One is in south Neukölln, there will be a bike repair station in the AG and there will be signs on a big bike lane next to the garden—one of the main green paths of Berlin. So when one will have a problem with the bike and is going somewhere outside of Berlin, then one can go there and repair the bike. This is the idea behind

what we mean as multiple uses. Bike repair doesn't have anything to do with gardening spaces but it brings people there.

EF Why the integration between AG and CG is needed in Berlin?

TK Berlin is the capital of both AG and CG movements. And that's just something very astonishing. The waiting lists for the AG are very long. We have to think about how to address the needs of people that want to garden and therefore we have to find new ways. My colleagues and I are not happy with the current use of some AG. They don't follow the law, many of them, maybe 80%. And the law is not very strict. 1/3 of your plot has to be a vegetable garden (which does not only include vegetables, but also fruit trees). Many AGs are used to have a pool for the kids and big lawns. They are not productive spaces. This is sad. They are on public land that is on a very cheap lease and it's very secured. It is a privileged position to have an AG in the city. We are not in a very nice time in Berlin: climate change, the city is overheated, the topic of food is not addressed in politics enough... I think AG can have a really big role in it and they have to change, focusing on addressing some challenges: food, climate, biodiversity.

EF How should, in your opinion, the integration be organised?

TK It is a process that has to start from the people who run the spaces. But pressure helps sometimes. We need to focus more on the integration in the inner city, that's where the need for green spaces is the biggest.

EF What can make the integration process possible?

TK I believe that people should have to be willing. They have to understand the aim of it and the problem. They have to agree with it. And it is not something you can dictate. That's why in the AG we maybe need a change of generations. Some CGs have prejudices about AGs. But these prejudices are based on the truth. The discourse between these two types of gardens is important. They will not become one type. It's utopian. There can be different gardens, they don't have to be equal, the way they work is different.

About the legal status, I would be cautious about having CGs in the zoning code. When one regulates it too much, one has less freedom. We also discussed it for the open-air parties in the parks. The district could declare part of a park as an event area. So the same could be done for CG, but we need the consensus from the district.

EF Who are the actors involved?

TK The gardeners of course, from different gardens, the neighbourhood, the district administrations and the Senate, the land owners—they can be very different. In the case of AG, the land is mostly public, but in the case of CG it is different. To find new spaces for CG we need to be creative with what land we have to use. One aim of everybody who does gardening is to be permanent on a piece of land, not solely use it temporarily.

EF What are the main obstacles and difficulties for integration?

TK People come from different backgrounds. There are different

social groups with different experiences in gardening. My old neighbour in the AG, she lived there since WWII and she cannot imagine what to do in a CG. There are very different people involved in gardening, it is an obstacle to find a common language. It could be useful to agree on common principles.

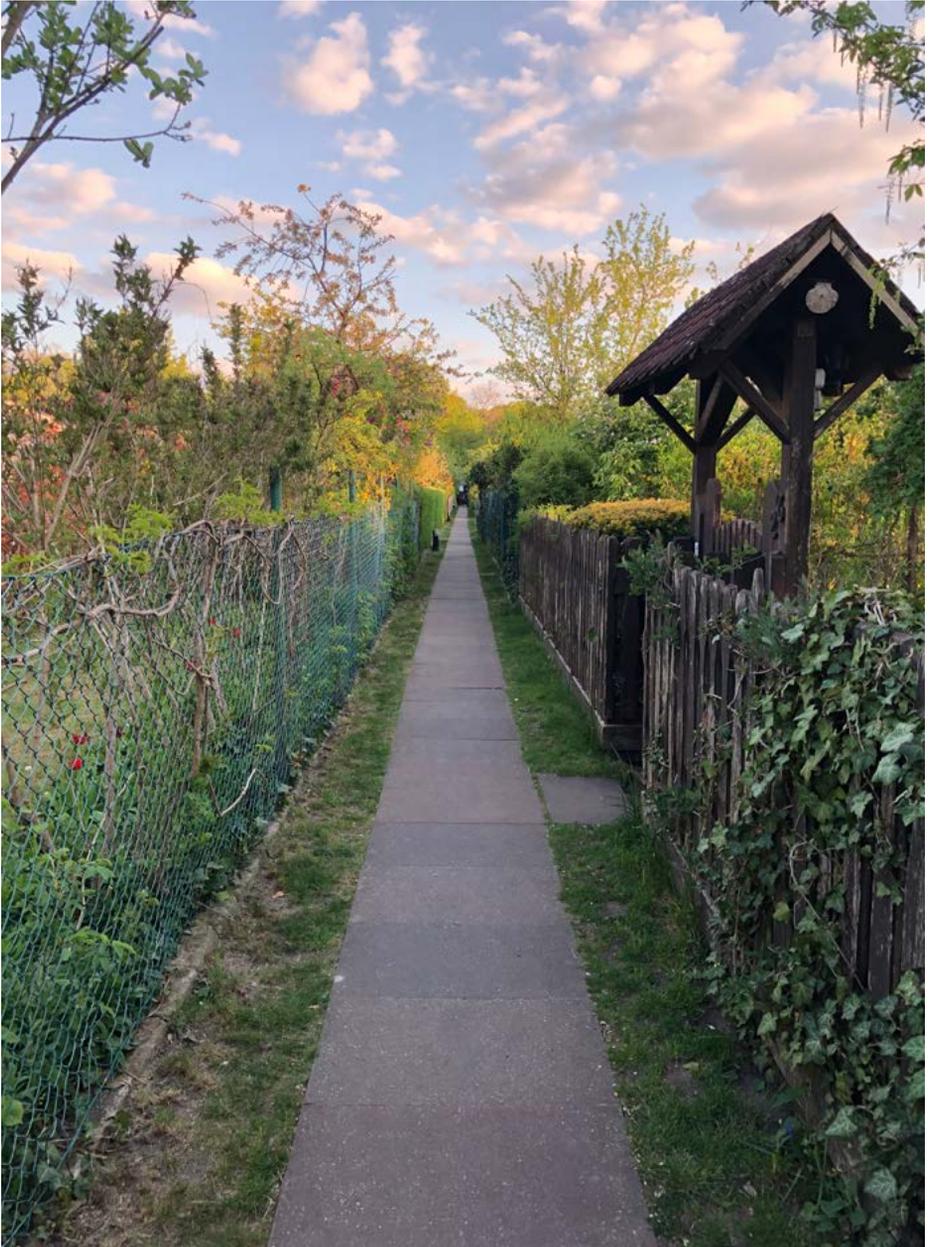
We also need a handbook for AG associations to address the legal questions. It is not clear how AG plots could be rented by a group of people, for example. It's hard for us to clarify it. Legally we are not so much in charge / we cannot be in charge since the federal law regulates the use of AG. I don't see the possibility that the law will change soon. The legal issue is really complicated.

EF How do you see gardens in Berlin in the future?

TK There will be different forms. Berlin is a city where we can have various different green spaces that are managed by people themselves or by groups. Berlin has a long history of self-organisation and people don't want the government to run everything. Berlin is still not super dense, yet, compared to London or Paris. So there are many possibilities on how to integrate green areas. In many places one can have gardens. We can green the city, this would be my vision. But not only as decoration, also for harvesting, either social- or plant-wise. It would be a production of benefits for the entire society. Also from an economic point of view, new sustainable economic paths are created within the gardens.

Mitte, October, 2020

Interview conducted with Agnieszka Dragon and Anna Dańkowska



Allotment *Am Stadtpark I's* internal walkway (Wilmersdorf)
(EF, 2021)



Allotment *Am Stadtpark I* (Wilmersdorf)
(EF, 2020)



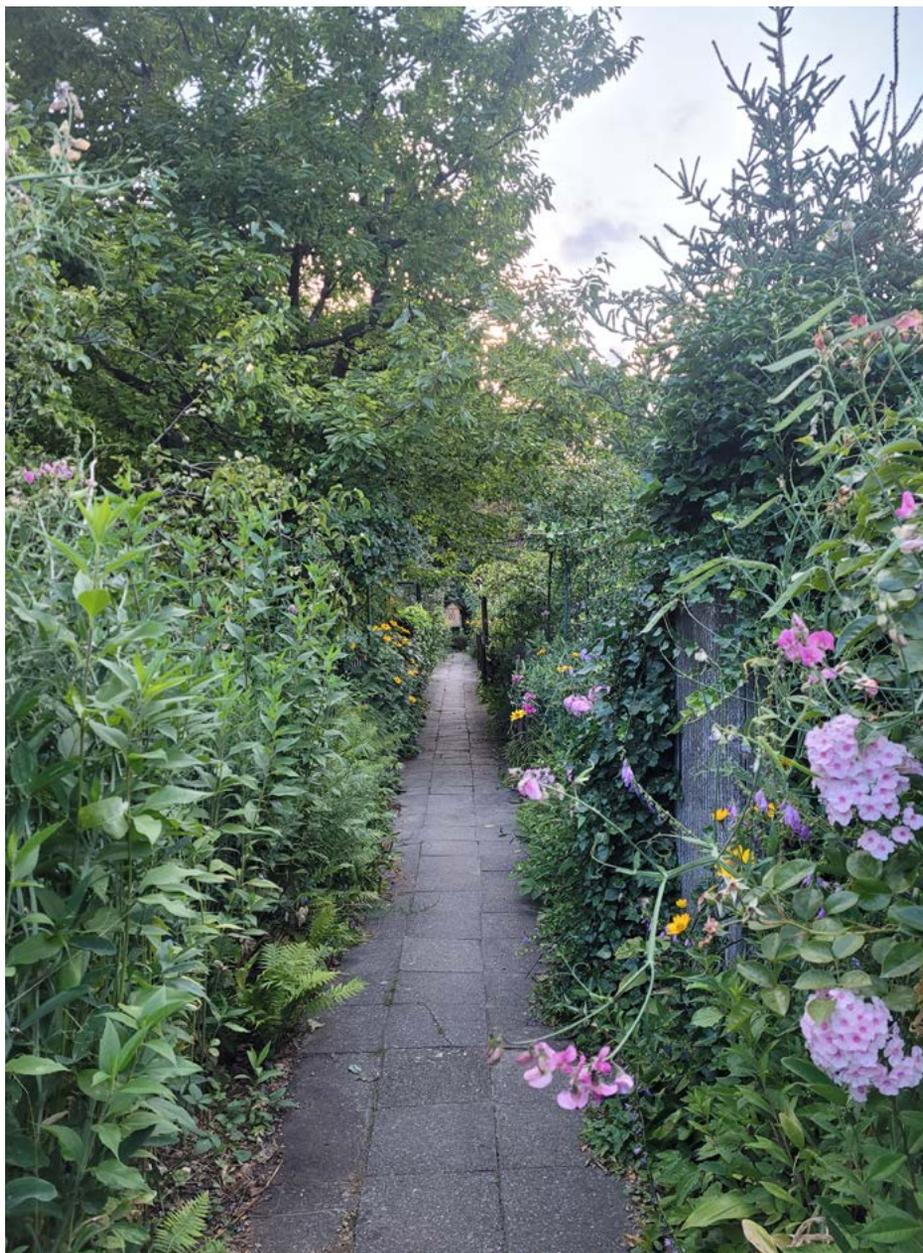
Allotment *Harzta-Wilde Rose's* internal walkway (Neukölln)
(EF, 2020)



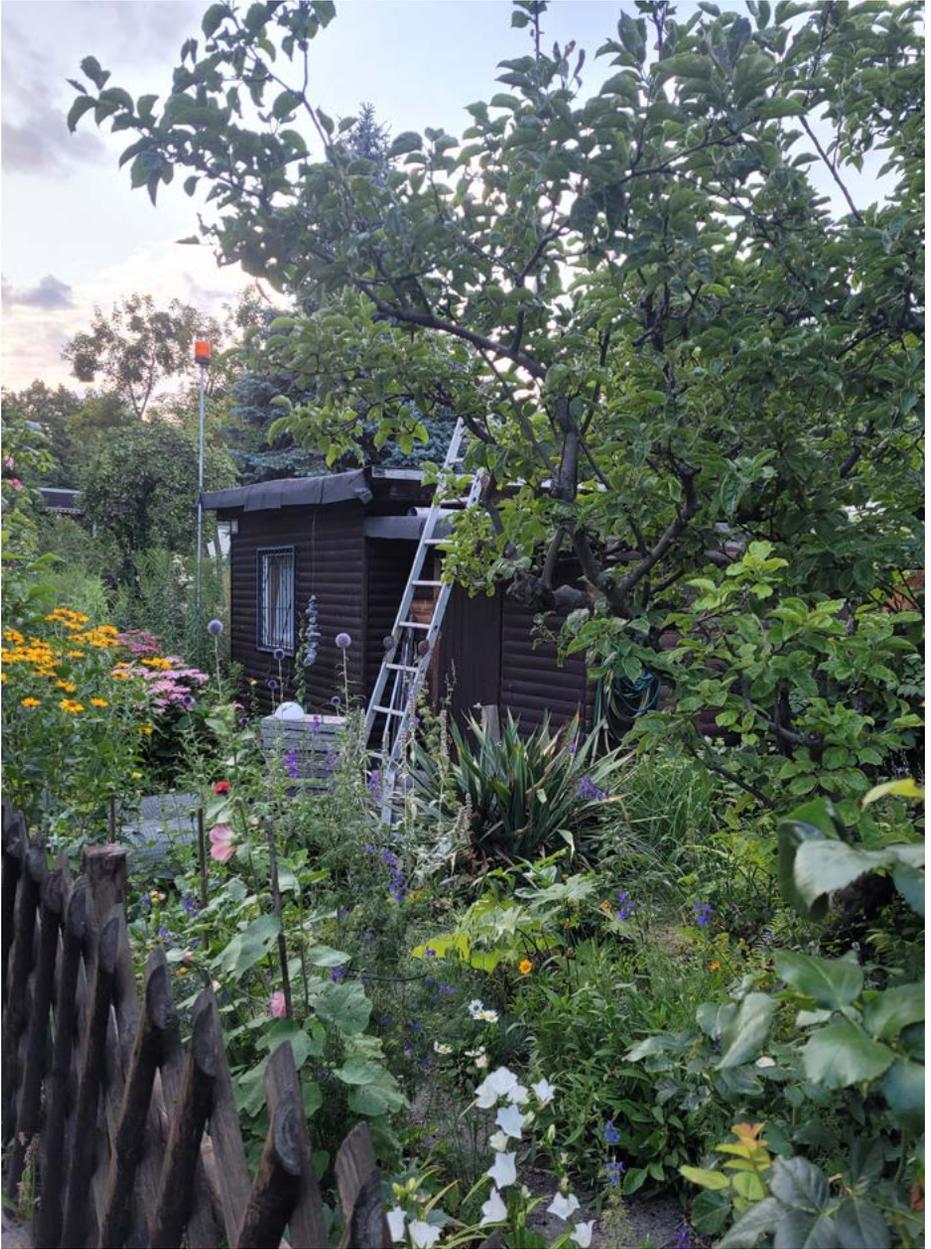
Antonia's garden at *Harzta-Wilde Rose* allotment (Neukölln)
(EF, 2021)



Community garden at *Harzta-Wilde Rose* allotment (Neukölln)
(EF, 2020)



Allotment *Frei Stunde's* internal walkway (Neukölln)
(EF, 2020)



Allotment *Frei Stunde* (Neukölln)
(EF, 2020)

The gardens in the urban project

The garden continues to be re-appropriated within the design of the city and its study. In the title of the publication “Licht Luft Scheiße” [Light, Air and Shit], inspired by the hygienist approach of the 1920s (Light, Air, Sun), Bartoli, Linden, and Wußt (2020) employ the word ‘shit’ as a turning point in taking a contemporary reading of the city’s history. It explicitly refers to the urban soil as a possible compostable and metabolic element, aligning the tradition of ecology in Berlin with that of its urban gardens in the Lebrecht Migge perspective (Chapter 1). The visions of Migge, who imagined the margins of Berlin as a continuous landscape of allotments between urban and rural, and the garden as a metabolic sphere, a means of enabling social and economic self-sufficiency (Gogl, 2016), have recently been echoed in the second entry of the “International Urban Idea Competition Berlin-Brandenburg 2070 urban planning competition” by the Smaq office.¹⁴⁶

The planners envision a multifunctional buffer zone along the city’s outskirts—a ‘metropolitan ecotone’. The project is intrinsically embedded in the need to rethink the city facing environmental and political challenges. “How can we envision a future of the metropolitan city-region Berlin-Brandenburg at the transition from a fossil-fuel based neoliberal economy to a future based on ecological principles, social justice, a more diverse economy, a more generous public realm, and more effective collaboration between government and all stakeholders?” (Smaq, 2020). The project draft re-imagines the city edges as a mosaic of flexible development zones where cooperative and regenerative typologies of residential, agricultural, commercial and industrial services gather. New forms of humans and nature dwelling, as innovative garden types are imagined. Allotment-like spaces are organised into clusters within a 150x150 metre matrix and are thought of as shared by different users to guarantee energy self-sufficiency for the surrounding areas (Bodenschatz et al., 2020) (Fig.4.5). Public, private and collective spaces are divided by natural corridors and marked by tree and vegetation patterns. The urban-rural landscape designed by Smaq represents a ‘non-stop garden’, that offsets the new city growth encouraging a social, natural and productive development. The planners call for an ecotone to possibly be an “incubator” in which ecology, diversity and substantial participation form the basis of “living together” (Smaq, 2020).

Overlaying a map of the existing garden distribution in Berlin with the Smaq proposal highlights the congruent green structures (Map.15). Recognising the transformation of gardens as more inclusive contexts, integrated with the city’s green structures, is not only a strategy concerning specific areas.

¹⁴⁶ In collaboration with Kopperroth, Alex Wall, Office MMK and Stefan Tischer Landschaftsarchitektur.

As Marion Ernwein (2014) puts it,¹⁴⁷ depending on the activities and internal organisation, urban gardens relate differently to a local, neighbourhood but also metropolitan scale context. They offer the cue to be reconsidered within a wider territorial framework as devices that could be included in the planning schemes and support energy, material and food flows. From Migge's visions of the 1920s, to contemporary project proposals, the garden as an evolving sphere is configured as a field in which to draft productive scenarios of cohabitation between humans and nature along socio-spatial urban transformations.

147 Studying gardening activities in a densely populated area of Geneva, Ernwein discusses that each project analysed refers to very different spaces as a scope for action. She related it to the argument of "politics of scale". See also Neumann, R.P. (2008). Political ecology: Theorizing Scale. *Progress in Human Geography*, 33(3), pp.398–406.

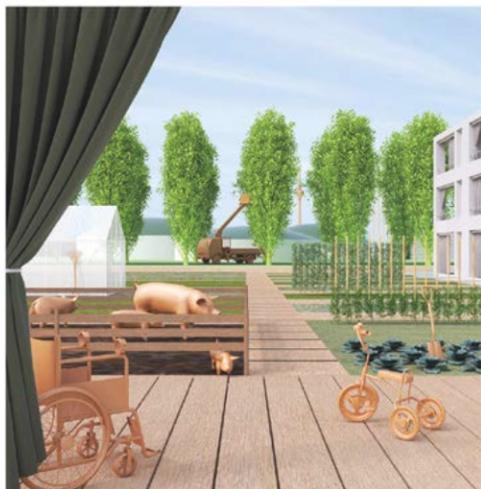
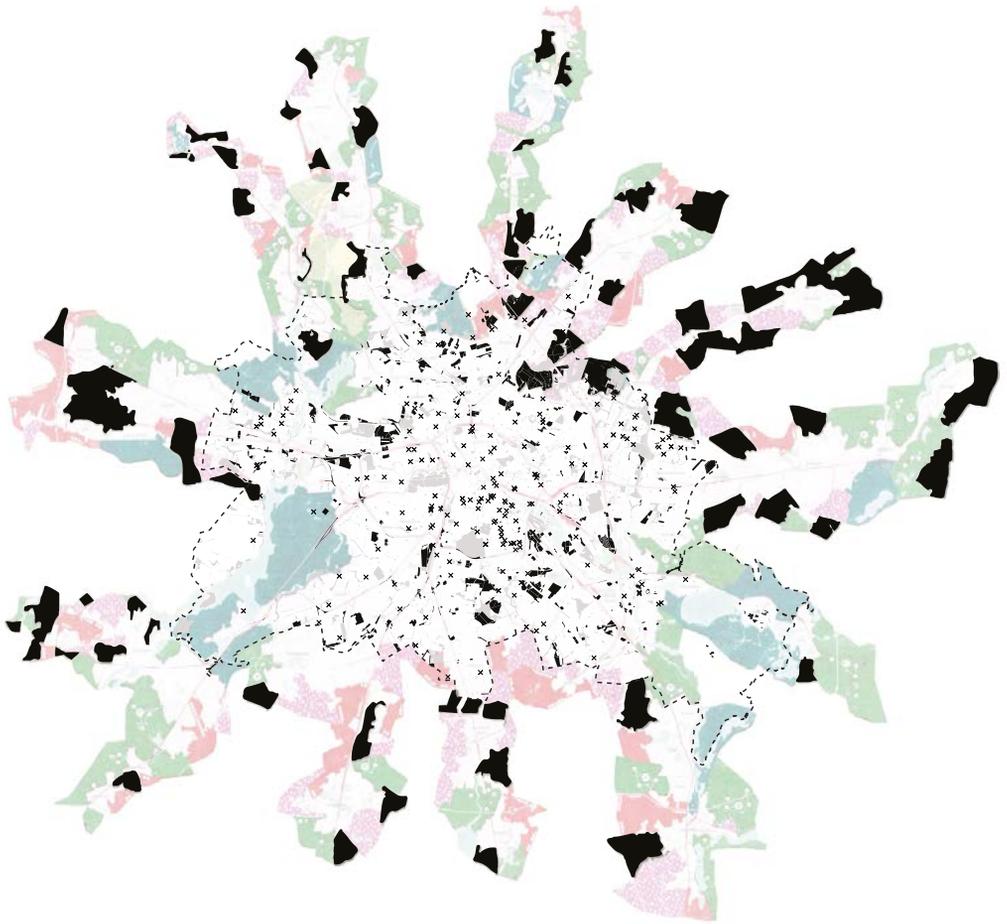


Figure 4.5 "Vision for a metropolitan Ecotone" by Smaq, Kopperroth, Alex Wall (Unvollendete Metropole, 2020a)

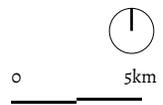


Map_15 Metropolitan ecotone



Overlapping of areas of existing urban gardens with the second winning entry for the international ideas competition Berlin-Brandenburg 2070 "Vision for a metropolitan Ecotone" by Smaq, Kopperroth, Alex Wall

-
 Existing allotment gardens within city borders; Regenerative microagriculture along city fringes (competition proposal)
-
 Protected natural areas
-
 Forest
-
 Areas converted to special uses
-
 Urban densification
- x
 Community gardens



Chapter 5

the street

Greening North-Neukölln

Marginal North-Neukölln

The northern part of Neukölln is one of the urban areas of Berlin reported to have the lowest supply of public green spaces.¹⁴⁸ Various phases of urbanisation following the World Wars have not always been coordinated with an overall vision. Rather, they have focused on the implementation of individual settlements, neglecting landscape planning (Goßwald, 2020). The district's landscape structure is today characterised by fragmented natural areas, many of them on private property or with limited access. In this context, liminal, informal spaces or the streetscape have become part of the inhabitants' everyday life. Especially in the central part of the district, which is the most deprived of public parks, the green areas along the streets have gradually acquired value, becoming a focus of interest for individual and community activities, as well as recognised in the new local green agendas. The streets of Neukölln are places where one can observe the cultural diversity of the district and the social conflicts that characterise its recent history.

Indeed, the urban history of North-Neukölln can be traced through the road infrastructure. The urban fabric is organised along three main axes: *Hermannstraße*, *Karl-Marx-Straße* and *Sonnennalle*. *Hermannstraße* and *Sonnennalle* were the first roads planned to connect Neukölln to the city centre during the 19th century. *Karl-Marx-Straße* was designed later in the 1930s after the inclusion of the urban area within the administrative boundaries of the city following

148 Less than 3m²/inhabitant (Standard 6m²/inhabitant) (SenStadtWohn, 2019a).

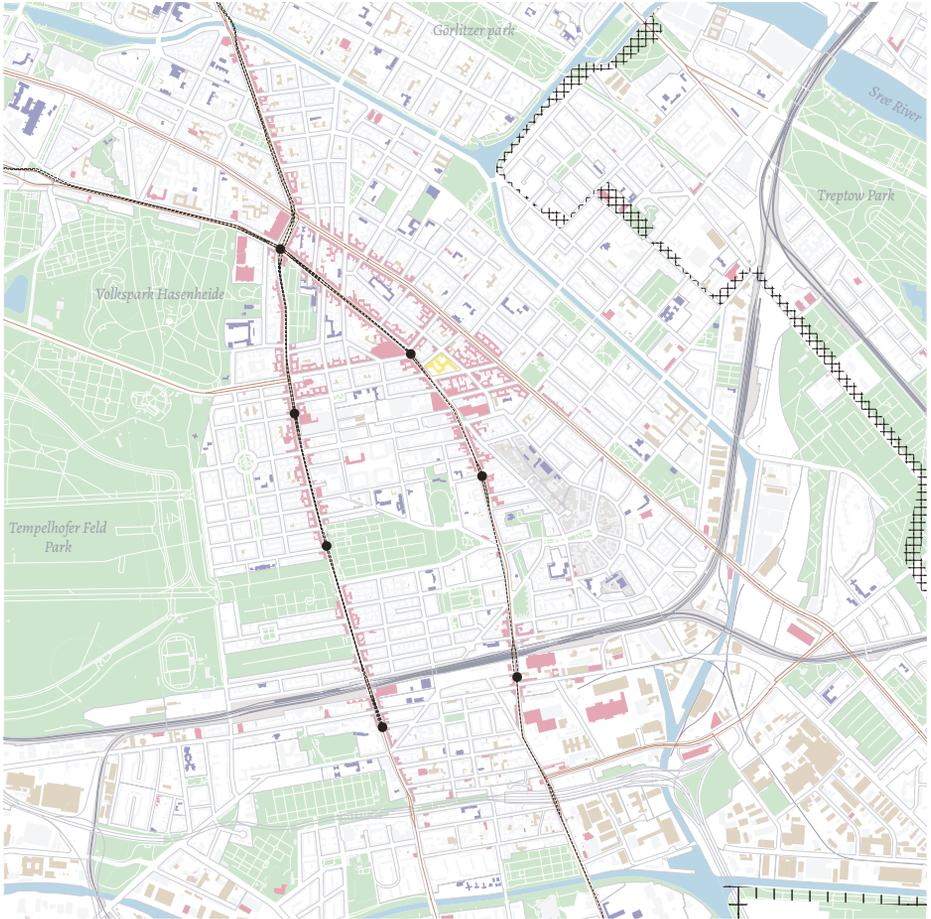
its expansion in 1920. The Greater Berlin Act incorporated *Rixdorf* in the city, which is today one of Berlin's oldest historic centres¹⁴⁹—embedded between *Sonnennalle* and *Karl-Marx-Straße*. From the early 20th century onwards, the axes developed as a mixed-use street with five-story residential buildings, commercial spaces on the ground floor and smaller production spaces in the backyards (Steigemann, 2017) (Map.16).

After World War II, the borough received a large number of Palestinian and Arab refugees from the Lebanese civil war, who were accepted in Berlin as *Gastarbeiter* [guest workers], employed as labourers in the reconstruction of the city. This immigration flow is also primarily responsible for the fact that North-Neukölln now hosts the largest Turkish community outside Turkey and its social milieu is one of the most diverse in Berlin (Hinze, 2013). On the edge of the American sector of West Berlin, North-Neukölln was a 'middle ground' between East and West. The near collapse of Berlin's manufacturing industry in the 1990s left many low-skilled people unemployed. Many middle-class households moved to Neukölln, leaving the central districts of Berlin towards the edges of the city (Haüßermann and Kapphan, 2002). This development generated a moment of opportunity for (post-)migrant entrepreneurs with low investment capacities. Steadily the area was revitalised by immigrants who, often very explicitly, used ethnicity as a marketing strategy—which today is notable along the three main district axes. Today businesses are mainly run by people with a non-European cultural background very vividly reflect the multicultural makeup of the district (Bergmann and Kemmer, 2018).

As long as the nearby *Tempelhof* airfield remained in operation, the neighbourhood enjoyed a bad reputation, being considered "Berlin's ghetto" or "slum" (Soederberg, 2016). Later a significant wave of expats who emigrated from western countries due to the financial crisis began moving into North-Neukölln, radically transforming it into a 'gentrification hub'. Rapidly, the neighbourhood became the zone of 'hipsters' and young, creative foreigners, leading to social and cultural contrasts (Slobodian and Sterling, 2013). This process is part of a broader urban dynamic that has affected Berlin since the late 1980s. As Holm (2013) explains, the gentrification of the northern part of Neukölln came after that of Mitte, Prenzlauer Berg, Friedrichshain and Kreuzberg, although with different implications for the district's social, economic and cultural development. He accounts for the social and economical complexity of this dynamics in a low-income district. "All the expat immigration is not only important because it transforms the linkages between cultural perceptions, mediatisation and gentrification [...] what is even more important that they set into operation a new market dynamic, in which rents are not only

149 Rixdorf was founded around the 1200 as a stronghold by the Knights Templar, but saw official recognition at the end of the 13th century. Later granted to the city of Cölln, hence the name Neukölln (New Cölln), it was destroyed during the Thirty Years' War and only became part of Berlin surrounding in the early 16th century (Goßwald, 2020; Kessinger, 2015).

Map_16 Along three axes



Source: (Senatsverwaltung für Umwelt, Verkehr und Klimaschutz, 2020)

determined by local demand — but in comparison to places like London, New York, or Barcelona” (Holm, 2013:185).

Following the conversion of the former *Tempelhof* airfield into a park in 2010, land prices in the surrounding areas have increased sharply, more than tenfold until today.¹⁵⁰ As green gentrification phenomena (Ali, Haase and Heiland, 2020; Kabisch and Haase, 2014), it resulted in progressive real estate market interests along the park edge. Urban densification development since 2010 and those projected until 2028¹⁵¹ in North Neukölln is taking place in two main ways: by infill of small vacant areas or on the stock of existing buildings, i.e. through the construction of upper floors¹⁵² (Map.17). The latter is indeed the case in the area around *Tempelhofer Feld*—*Schillerkiez*—where the most housing units are being built. The few wastelands left have been progressively and rapidly filled in over the past decades. New urban transformation on existing green areas mainly will happen at cemeteries—as illustrated in Chapter 3—and some allotment gardens.¹⁵³

Despite rapid urban change North-Neukölln has remained a neighbourhood characterised by several problematic social habits and dynamics, such as crime, the problem of waste collection in public spaces and especially the consumption of hard drugs along the metro lines. Along *Hermannstraße* and *Karl-Marx-Straße* on the U7 and U8 metro lines the heaviest drug consumption and distribution in Berlin can be observed (Germes, Klaus and Guarascio, 2020). Moreover, many residents have very low access to the formalised employment market. The area between *Sonnenallee* and *Karl-Marx-Straße* has an over-proportional unemployment rate. This affects young people the most: Almost 68.7% of residents under the age of 15 years receive social benefits, meaning that their parents are not able to fully support them with their income.¹⁵⁴ North-Neukölln area fall under the *Milieuschutz*¹⁵⁵ social protection

150 In 2010, 340 euro / m² in 2020, 3600 euro / m². Data available at <https://fbinter.stadt-berlin.de/boris/>

151 Data given on request by Bezirksamt Neukölln (26.05.2020).

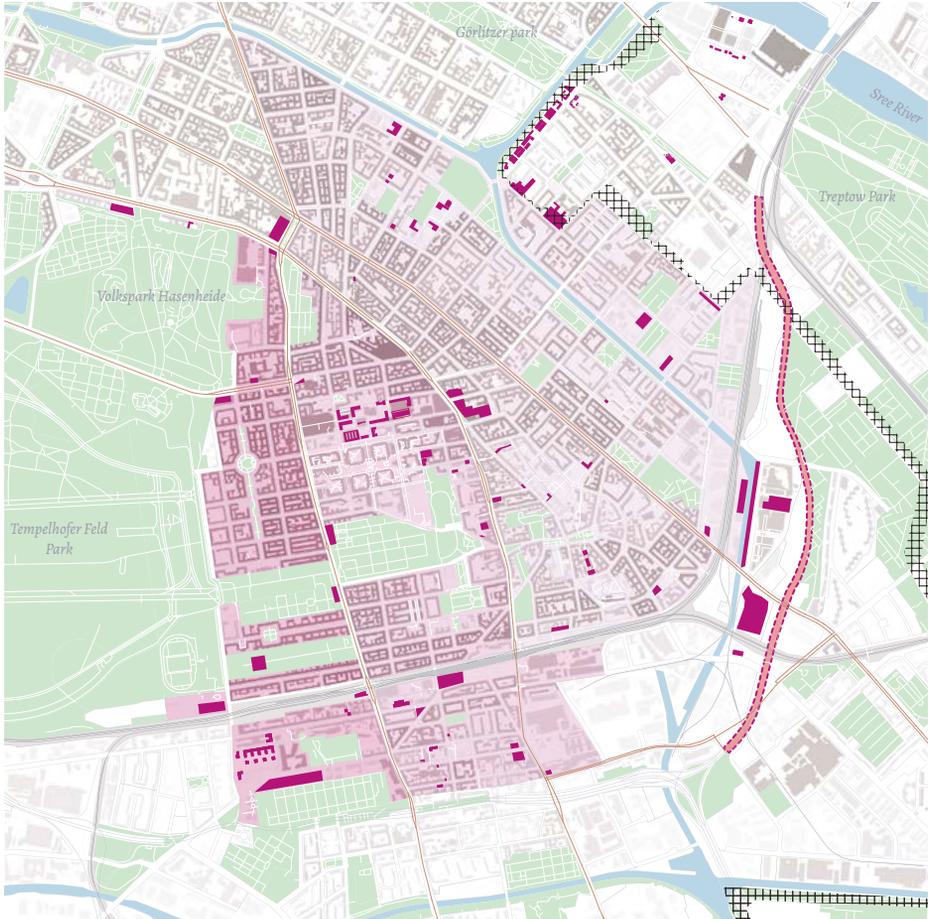
152 Densification data on existing buildings (construction of high floors) cannot be spatially mapped due to privacy policies. The data provided by the Neukölln district refer to the number of housing units per sub-district.

153 In the case of allotment gardens, plans for the construction of these areas are not yet planned. Despite this, the document regulating these spaces in Berlin, KEP (SenStadtUm, 2019b; 2015), states that many of the allotments in North-Neukölln do not enjoy permanent status. This information was confirmed in an interview with an official of the Neukölln district planning department. (May 2020)

154 All numbers are based on a micro statistical investigation (LOR) by the *Amt für Statistik Berlin Brandenburg* from the year 2019 (Quartiersmanagementgebiet Donaustraße-Nord/Berlin-Neukölln).

155 §172 para. 1 sentence 1 no. 2 of the Building Code (BauGB).

Map_17 North-Neukölln urban densification



Source: Data given on request by Bezirksamt Neukölln (26.05.2020)

law that should aim to maintain the composition of the residential population for preventing displacement mechanisms due to urban transformation. Despite this, gentrification and densification are currently strongly changing the demographic structure of the urban area.

While endogenous development concerns the implementation of housing structures, gentrification is made explicit through the renovation of old buildings. One of the most significant projects of urban renewal is the old Store House on *Hermannplatz* at the square where the three main axes of the neighbourhood converge, constituting the junction between North-Neukölln and the city centre. The project is selling the image of the neighbourhood's multicultural and diverse environment as a proposal for the new private development (Tajeri, 2021). Through slogans such as *Nicht ohne euch* [not without you], the Sigma real estate company is alluding to citizen participation in planning. The project instead will propose luxury housing and commercial functions and will serve a substantially different target population than the actual of North-Neukölln. Greenwashing strategies are also part of the promotion of the future project at *Hermannplatz*. The real estate fostered the building renewal by proposing new green spaces on the roof, advertising this new strategy through a map of the neighbourhood in which the existing community gardens are marked together with the one proposed by the new project. While this image refers to a strategy of commodification of non-profit community projects, at the same time it suggests how in the common idea of the neighbourhood gardens and liminal green spaces are a representative part of nature of the district.

North-Neukölln's social and natural ecosystems

North-Neukölln is located between large green infrastructures: the *Tempelhofer Feld*, *Hasenheide* and the *Treptow Park*. Besides parks, the most relevant green areas are cemeteries and allotment gardens. Despite this, the district enjoys one of the most vibrant scenes of green activity, in fact it is one of the urban areas reported to have the largest number of community gardens. Compared to the official map compiled by the Berlin Senate, the number of gardens in the district is actually larger. Activities of practitioners and activists occur in socio-cultural niches not yet known to the wider public. This is, for example, the case with some gardens in the cemeteries that subtend *Tempelhofer Feld*, which I discuss in Chapter 3. Although they are in areas that have become central, some of them are still regarded as informal activities and spaces used by a restricted audience of interested visitors. Some allotment gardens still remain unnoticed by residents, despite promoting communal practices that tend towards integration and social inclusion (Chapter 4). In the central part of the district social green spaces represent varied typologies. They are located on private land, in interstices between old buildings in the centre of *Rixdorf* and newly housing complexes or in inner courtyards.

Much of the work in the study of the urban landscape of North-Neukölln was grounded in walking, visiting, mapping unknown spaces (Map.18), and establishing relationships with their inhabitants. In the first instance, the qualitative analysis focused on the main features of existing urban gardens. Community activities in the neighbourhood form today an infrastructure of socio-ecological ecosystems, albeit not spatially connected.¹⁵⁶ They are spaces uneven in terms of their internal organisation, cultivation techniques and are all mostly self-sufficient in financial sustainability. They function as largely self-sufficient systems both in terms of administration and natural resource management. Even so, autonomous community gardens are connected to each other through a network of personal relationships, cooperation and in some cases through productive commerce, establishing local-scale agricultural fairs. The dense network of actors active in sustainable gardening practices configures North-Neukölln as a landscape of biocultural diversity; in which the local values and practices of relating to the biodiversity of different cultural groups are evident and stand in contrast to a context stimulated by a progressive consumption of natural resources (Elands et al., 2019).

North-Neukölln also represents a peculiar Berlin geological structure. It lies on two areas, the Teltow Plateau and the Glacial spillway, which shape the topographic structure (Map.19). In the central area, the Glacial spillway, the soil is particularly sandy and groundwater almost reaches ground level. Rainwater is not retained and causes progressive drying out and loss of biodiversity. The central urban section is also included in the areas with the lowest environmental justice indicators (thermal air pollution, green and open space provision, social issues) in Berlin.¹⁵⁷ Gardening activities are thus of multiple value, both in terms of environmental aspects—soil protection and the implementation of biodiversity—and as social catalysts. Since 1999 the Berlin Senate and Neukölln's district authorities have begun implementing different urban renewal schemes, choosing neighbourhoods based on their socio-demographic and socio-economic statistics. The central area of North-Neukölln is today supervised by the *Quartiersmanagement*—Neighbourhood Management programme—which promotes participatory projects for the use of urban spaces.

Liminal green spaces (Map.20) acquire a strategic role in this context and greatly extend the lack of park supply. Spaces on private land are only accessible during certain hours and days of the week, as in the case of the *Silent Garten* and the *Café Botanico*. The former is run by a lady who inherited a piece of undeveloped land and currently runs it as a vegetable garden and

156 See Egerer, M., Fouch, N., Anderson, E.C. and Clarke, M. (2020). Socio-ecological Connectivity Differs in Magnitude and Direction across Urban Landscapes. *Scientific Reports*, 10.

157 Dat available at <https://www.berlin.de/umweltatlas/en/human/environmental-justice/2013/summary/>

Map_18 Green supply

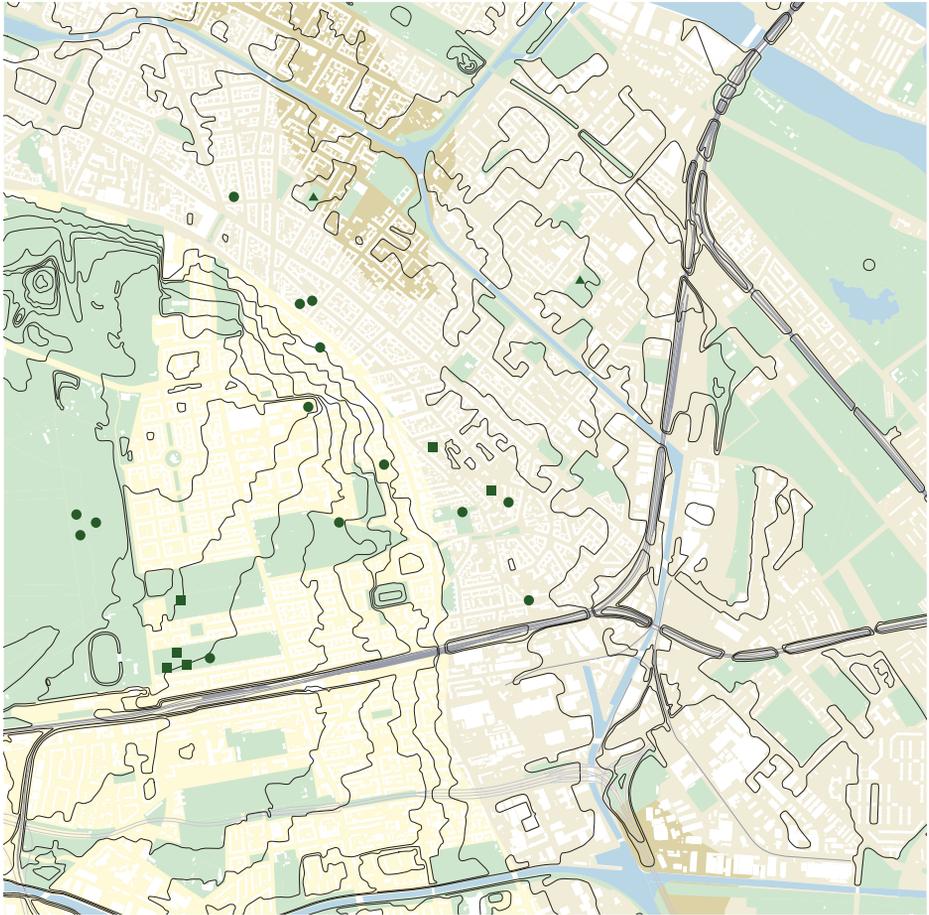


- Park
- Cemetery
- Allotment gardens
- Sport facilities
- Community garden
- Community garden not officially mapped
- Community garden in allotment garden not officially mapped



Source: (Senatsverwaltung für Umwelt, Verkehr und Klimaschutz, 2020); data from the fieldwork conducted

Map_19 Geology



- Green areas
- Glacial spillway and ancillary valley: Sand
- Teltow Plateaus: Bolder clay, Glacial till
- Bod deposit: Sand
- Community garden
- Community garden *not officially mapped*
- Community garden in allotment garden *not officially mapped*

In the Glacial spillway th of groundwater is almost up to ground level. There are ponds that are gradually drying out due to the rising temperatures. Rainwater is not retained by the soil and causes progressive dryness and loss of biodiversity.



Source: (Senatsverwaltung für Umwelt, Verkehr und Klimaschutz, 2020); data from the fieldwork conducted

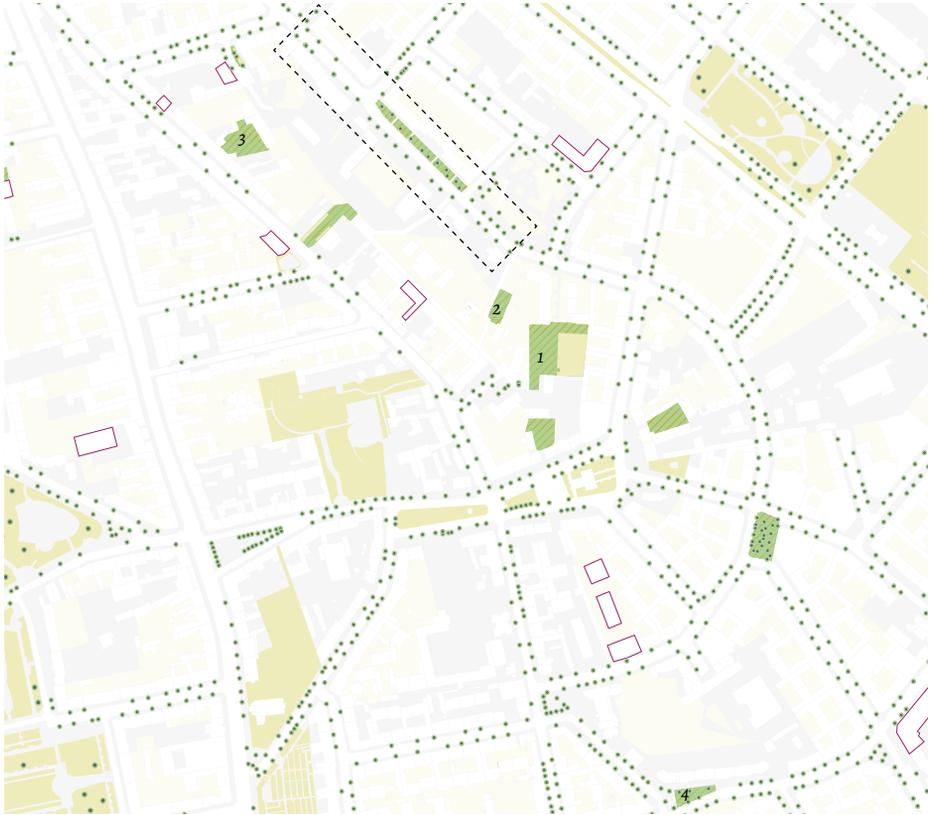
breeding of small animals and bees. On some occasions it is opened for events and visits and has become a food-sharing collection point. The *Café Botanico* is a permaculture garden located in the backyard of a restaurant. In recent years it has become a place run by the owner together with experts and volunteers. It has shaped itself as an edible forest¹⁵⁸ whose essences and vegetables are served in the restaurant's dishes.

Over the past few years, *Rixdorf Quartiersmanagement* has been financially supporting the *Karma Kultur* community garden, which currently stands between public and private land and is one of the most valuable projects in this neighbourhood (map). Established by a community of local residents, the garden is tucked between buildings, some of which have recently been renovated. The area creates a spatial connection between two main streets in the neighbourhood and as it is not visible from the street, it accommodates a rather diverse milieu, including visitors, dog owners or socially fragile individuals such as the homeless or drug addicts. How recent urban changes have affected the socio-spatial aspects of liminal places is particularly visible at *Karma Kultur*. Indeed, the private stretch of the area has recently been transformed from a wild site to a playground for residents, substantially altering both its appearance and its natural qualities. The community project now stands as a banner of cultural integration within an increasingly gentrified estate.

Along with substantial transformations and the actual lack of public green areas, an emerging phenomenon can be recognised in North-Neukölln, namely the consistent use of street greenery by citizens. Quite different from other gardening patterns, in recent years actions of care for naturalistic settings along neighbourhood roads are gaining an emerging importance within civic networks and local policies. Starting with an account of the contemporary landscape of North-Neukölln, which embodies specific characteristics of marginality, this chapter focuses in the next sections on the analysis of street greenery (in *Donaustraße*). The study illustrates the use of counter-mapping to investigate citizen care practices through the soil. The discussion then extends to a theoretical framework that embraces through the concept of care a path to give new meaning to unknown practices and environments.

158 Forest gardening is a low-maintenance, sustainable, plant-based food production based on principle of agroforestry system and employed in permaculture.

Map_20 Liminal landscapes



-  Green areas
-  Community gardens, private gardens open to public, school gardens, not mapped in land use category.
-  Green courtyards
-  Urban densification infill
-  Street trees
-  Donaustraße

Most notable gardening projects in the district

- 1_Karma Kultur
- 2_Silent Garten
- 3_Café Botanico
- 4_Garten Labor



Source: (Senatsverwaltung für Umwelt, Verkehr und Klimaschutz, 2020); data from the fieldwork conducted



Silent Garten on private land (Neukölln)
(EF, 2020)



Public land on which the *Karma Kultur* community garden is located (left), newly designed private area (right).
(EF, 2020)



Café Botanico permaculture garden
during a visit with students from the Humboldt University of Berlin (Neukölln)
(EF, 2020)

Street gardens

Street greenery includes areas such as front gardens, green verges and tree pits [*Baumscheiben*],¹⁵⁹ and it is found both on private and public land.¹⁶⁰ Urban ecologist in West Berlin categorised it under the label of *Biotope der Straße* [street biotopes], considered valuable for flora and fauna connectivity, protection of street trees and reduction of impervious surfaces (Arbeitsgruppe Artenschutzprogramm Berlin, 1984). Later studies have detected the biological richness of natural streetscapes (Böse and Schürmeyer, 1984; Langer, 1992), more recently associated with the influence of human action in fostering biodiversity (Ise, 2006; Marshall, Grose and Williams, 2019) and in providing valuable ecosystem services (Säumel, Weber and Kowarik, 2016). In Berlin, as in other progressively dense settings, permeable street soils are included in planning strategies to tackle climate risks, such as mitigating heat islands and reducing flooding effects, as well as supporting socio-ecological transitions (SenStadtWohn, 2016b). In urban areas segregated by larger green public spaces, nature in the street also has an impact on human health and well-being. During the COVID-19 pandemic, for instance, semi-public spaces in Neukölln encouraged more active appropriation, such as meeting neighbours and co-creating community refuges and chance encounters (Säumel et al., 2021).

Crossing the streets of North-Neukölln, although mostly modest in size, green spaces broaden the aesthetic perception of the district's diverse cultural landscape. Sometimes they appear as wilderness areas, sometimes they are empty and collect litter. When they are maintained, however, they present varying degrees of design. The literature dealing with these phenomena is growing, albeit fragmented, and focuses mainly on aspects of public space governance. Streetscape design usually refers to as “guerrilla gardening” (Reynolds, 2008), hence informal appropriation of neglected areas through ‘re-greening’ actions. Raynold (2008) understands ‘guerrilla’ as a claim to the “right to the city” (Lefebvre, 1968), which goes against the intentions of planning and land use and is usually understood as illegal and in opposition to forms of urban space control. However, the social background and motivations of the people also include the relationships with other users of the surrounding space (Adams and Hardman, 2013), sharing a sense of neighbourliness and responsibility towards the public environment. In Germany these practices are formally or informally accepted. People engaged in these activities are seen as “green godfathers”, namely part of a form of cooperation between the urban community and municipality which sees citizens as caretakers of small green areas (Gruber, 2020). In fact, in Berlin, sociologist Lachmund (2022) defines

159 The *Baumscheibe* is an unsealed area of public open space, usually one to a few square metres in size, surrounding a street tree.

160 Street greenery here refers to all permeable soils that are available for use and part of the road environment. In particular, front gardens are often on private property.

these behaviours as a form of stewardship,¹⁶¹ which sustains public concern and can produce a range of environmental and social benefits.¹⁶²

Urban dwellers engagement in streets includes actions such as planting, watering, weeding, or removing litter, while tree management remains the responsibility of the municipality. The climate crisis has influenced the increased consideration by public institutions of these forms of civic responsibility. One of the reasons is the progressive loss of street trees, affected by soil desertification among other complex anthropogenic factors (SenStadtUm, 2020d).¹⁶³ For instance, the Berlin Senate appeals to the will of private donors to raise funds for the planting of new species within the campaign *Stadtbäume für Berlin* [Street trees for Berlin] (SenStadtUm, 2021b). Hands-on voluntary forms of maintenance are instead recorded in the open-source platform *Gieß den Kiez* [water the quarter] (CityLAB Berlin, 2020).¹⁶⁴ Developed in cooperation with the municipality, *Gieß den Kiez* consists of a digital map where citizens can check the health of trees and their water requirements and thus take care of the irrigation actions themselves (recording information such as amount of water, frequency of watering on the platform). Eco-responsibility is accepted and encouraged by the municipal administration and has effectively become part of the governance strategies to reduce green management costs. Yet, the care of minor street areas is still poorly regulated. Official guidelines only state that plants should not exceed 50 centimetres in height so as not to impair the visibility of pedestrians, cyclists and motorists and that the surface level of the flowerbed should not be higher than the surrounding pavement to not compromise water absorption during rainfall (Bezirk Mitte, 2017). Other rules depend on the local districts, as does the appearance of these spaces in different contexts of the city.

Poor governance leaves open the way for citizens' creativity in different forms of design. The *Baumscheiben* are often highly customised depending on the use to which they are put. Sometimes they are decorated in front of shops out of a purely aesthetic sense, or they are maintained by pupils in front of schools, other times they are seeded with perennials expressing botanical sensibility. Supportive gestures towards urban animals are also visible in

161 Stewardship can be defined as “the act of an individual or an organisation that takes care of the local environment” (Fisher et al., 2015: 8).

162 Also in the European context, citizen commitment to protect and improve natural road assets is increasingly considered part of “Nature Based Solutions” (Buizer et al., 2015), a means to foster alliances between civic organisations, developers and local governments with a focus on green care.

163 In the publication “Berliner Bäume” [Berlin trees], Sandra Bartoli brings to light the problem of the progressive loss of street trees in the area surrounding the *Park am Gleisdreieck* (2021).

164 In the section “Dwelling in proximity to nature” in Chapter 1, I discuss this project as an example of emergent participatory practices.

these contexts, such as breadcrumbs or seeds scattered under trees as bird feed, 'hotels' for wild insects, water bowls for dogs. These forms of awareness towards other-than-human lives show explicitly the interests of individuals and communities related to ecological concerns. Far from being insubstantial and isolated motions, these practices continue to stimulate imaginaries and design approaches of recognising the street as a multispecies domain in the Anthropocene.¹⁶⁵

Gardening associations recognise tree pits as *Die Gärten von nebenan* [the next door gardens], claiming that they constitute alternatives to the lack of more common garden types in the inner-city, such as allotments and community gardens (Grüne Liga Berlin e.V., 2014). *Baumscheiben* and other maintained street areas in fact represent intrinsic characteristics of urban gardens. They are highly diversified, serve different scopes and represent a strong motivation for the involvement of nature-related human work in everyday life. Their widespread presence in neighbourhoods nowadays offers the cue to count them under a different type of garden: the "street gardens". Indeed, in North-Neukölln, tree pits are mostly cared for by individuals, while larger rooms are also places for community activities. One of the most significant examples is *GartenLabor*, a green strip which has become the gardening seat of the non-profit association *Kulturlabor Trial&Error*. Other projects also include network and collaboration with university institutions, or cultural integration programmes.¹⁶⁶ Neighbours have started forming associations to share their interest in these practices and to spend leisure time together.¹⁶⁷

The multiple social and cultural values that street gardens hold within the neighbourhood is reflected in the increasing requests from citizens for financial support related to tree pits design, particularly during the COVID-19 pandemic. Recently (2021), within new local green agendas, small grants have been made available for applicants by the *Quartiersmanagement*, who recognise the benefits of these interests in a context affected by environmental and social

165 For example, the "Re-wild my street" programme coordinated by London Metropolitan University consists of giving practical guidance to citizens on how to convert the street environment into a wild living space. See www.rewildmystreet.org

166 Examples are: *Livable Ossastraße*, a greening project undertaken by student of Critical Sustainability at the University TU Berlin in *Ossastraße* that envisaged a car-free zone (summer 2021); *Kiezzgarten*, a meeting space for the neighbourhood along *Donaustraße* designed with raised beds and benches, coordinated and located in front of the seat of the the public institution *Quartiersmanagement Donaustraße-Nord*. All information reported is the result of fieldwork and direct contact with urban practitioners involved in these activities.

167 One example is *Project Elsterstraße*. It consists in informal group of citizens who live in the same street and share interests and actions on greenery care. The information was given by Victoria Casodino from *Quartiersmanagement Rixdorf* (August 2021).

conflicts.¹⁶⁸ Citizens use these funds to buy plants and especially materials to fortify the borders of these areas. Many spaces are in fact fenced off, sometimes with wooden boards or simpler materials such as ropes. These ‘boundaries’ of separation from the public environment allow people to protect the areas from vandalism, littering or dogs. Very often waste bins or warning signs—like “take care” or “water me!”—are placed on the fences to request respect from volunteers. The fences themselves often become benches for passers-by or elements for sharing second-hand objects, such as books, clothes, with the public. The fence itself is the archetypal figure of the garden. Within the public realm and in the context of Berlin’s street greenery—particularly tree pits—it acquires a specific meaning that is to be understood differently from the pure act of land enclosure and appropriation, but instead of civic care and responsibility.

As reported in the interview at the end of this section, Max Schützberg, explains how the work of urban street practitioners appeals to multiple personal motivations. Max Schützberg is the initiator of the aforementioned community garden project *GartenLabor*, located along a not highly frequented road. He is also the first volunteer to take an active interest in the *Baumscheiben* project in North-Neukölln.¹⁶⁹ He explains that in a context of a lack of greenery, natural streetscapes are “idyllic islands”. His work consisted of a daily effort to manage a space often frequented by drug addicts and dealers or used for meetings and informal late-night parties. He makes clear that green areas along the street are often not protected and their quality depends solely on unpaid voluntary work. Building benches and fences and watering plants daily is instead a way of ‘taking ownership’, which he intends as a form of care: “Here ‘ownership’ is a key tool, it’s a ‘form of care’. I take care of my environment: If it is not mine, why should I take care of it? Public space belongs to everyone but also to no one”. His commitment also has a strong environmental motivation. He recognises that not taking care of street greenery also means not protecting urban soils. Finally, these actions, like those of many urban gardeners, also have an educational purpose: to show citizens how to live with nature in the city as a form of responsibility for future generations. Recognising street-side spaces as gardens enabled their repositioning in the study of design processes and governance of the public environment. It takes into account not only their spatial value but also their social, ecological and cultural one, linking people emotional care work to sustainable long-term approaches.

168 Interview with Victoria Casodino from *Quartiersmanagement Rixdorf* (August 2021).

169 Max Schützberg is also a friend and co-creator of the Feld Food Forest project of which I am a member. In addition to the interview below, I was able to reflect with him and share many of the information I report in this chapter.



Tree pits in *Richarstraße*, Neukölln
(EF, 2021)



Community garde *Garten Labor*, Neukölln
(EF, 2021)

In conversation with

Max Schützberg

Economist, urban practitioner, gardener at GartenLabor in Neukölln, coordinator of the Feld Food Forest project

EF How did you start to get into urban gardening?

MS I studied economy, I was interested in the startup scene. A friend of mine told me about urban gardening. I thought: Why are super educated people wasting their time in urban gardening? That was my opinion at that time. I understood later on, how important it actually is. We have these huge problems of climate change and industrial agriculture...

Urban people are disconnected from nature. I was born in the city. I have never had a really good connection to nature. I didn't know any species of trees, where the food came from, the importance of the soil. I felt exactly part of the problems we are facing globally.

EF How did you come to get interested in the *Baumscheiben*?

MS Riding my bike, I saw many places in Berlin where there were beautiful *Baumscheiben*. This is the way people take care of their environment, in this *small nature*, just a few square meters in a completely paved area. In the streetscape there are only these *idyllic islands*.

In Neukölln they are often used as rubbish and cars park on these areas. The soil in the *Baumscheiben* is compact and lifeless. Working in these spaces also means to show children how to take care of our environment. How can a child experience nature in Neukölln and learn something from

these spaces? That's why I started with *GartenLabor*, building benches and planting plants. These spaces are generally not protected, so people are used to destroying everything. Everyday I had to repair something and water the plants again, but at the end of the work I used to think: This is the most beautiful place in the world!

EF You have always done this work voluntarily. What do you think about voluntarism in green care practices (within the neo-liberal city)?

MS All the volunteers are doing it for themselves, because they like to work with plants and also for the community. They get something out of it. And all of them have other jobs. But I would like if more if citizens could take care of urban nature and get a minimum wage. It would be nice.

EF Who would you expect to receive the budget from?

MS The question is: For whom do these projects create value? And I believe they create value for the city. *GartenLabor* is a community garden. These are places for people that want to have a community. Maybe people that come from other countries. Community gardens are places for the city, where different kinds of people find a place, maybe also people who don't fit somewhere else, eventually. In these contexts everyone *sits around the same table* and you could get to know people from very different circles. This creates a sort of *togetherness* hard to find somewhere else. I believe this is definitely the most important value that should be considered by the authorities.

A collaboration with the *Grünflächenamt* (district green spaces

department) for example would be optimal. They have a budget for green maintenance and they normally pay private companies or professionals. That is a work that can be done by a community. The *Grünflächenamt* could pay some selected communities to have a minimum budget to work. It would be cheaper for them. I'm thinking more about a compensation, not something intended as a full job. It could be even compensated in a different way than monetary, for example covering material costs or small expenses. I believe that in this way, volunteers could take more responsibility by taking care of the environment and for the public space they want to build.

EF How do you think urban densification and gentrification are affecting community practices in Neukölln?

MS I believe that as capitalism grows in the city, places like *GartenLabor*, which are not consumerist, will move. The power lobbies that are managing the city don't grasp the value of these practices. It's not easy to evaluate or to calculate the value of a community. It seems that the development dynamics of the district totally ignore the needs of its population. It is funny, seeing these 3D renders that represent images of new projects for the neighborhood and in which people are also represented. Who are these people? Nobody here in Neukölln looks like the people depicted in the renderings.

Today there are all these new Cafés in the district where the water costs three euros. And who goes there? Just the same kind of people. And where do the *others* meet? In front of the

Späti? Can they be creative there? Can they take ownership of this place?

EF In what sense do you think ownership is important? What do you mean by ownership?

MS Doing community work, one fosters a feeling of self-efficiency, meaning to be capable of changing the environment by working with other people. Here ownership is a key tool, it's a *form of care*. I take care of my environment: If it is not mine, why should I take care of it? Public space belongs to everyone but also to no one. It can become collective when people together start to take care of it. When I build a bench under the tree, I like the idea that people will enjoy it. Recently at *GartenLabor*, passers-by have stopped trashing the space. Now they just sit there and keep it clean. To occupy the space is also a form of owning it. It's ownership outside of their own little homes or own apartments. It's ownership in the public space.

These projects developed within communities cannot come up from people who are sitting in their offices. All of these ideas are in the heads of those who walk these roads everyday.

Neukölln, June 2021

¹ A *Späti* or *Spätkauf* is a small store that sells drinks, snacks and tobacco products. Most of them stay open until late.

The street soil through counter-mapping

Lacking official recognition, street greenery care practices are not monitored and charted. They are often based on temporary actions. In the case of North-Neukölln, this is notably linked to the district urban development. Constantly rising rent prices, which produce displacement dynamics and foster temporary subletting arrangements, affect the social structure of the neighbourhood, which is mostly unstable. This effectively impacts citizens' commitment to green care, which often relies not long-term commitment.¹⁷⁰ Eco-responsibility actions, although valuable in the protection of tree species and vegetation within the climate crisis, therefore remain marginal and largely unknown.

As in case of other temporary projects in times of urban restructuring, counter-mapping techniques have in Berlin's history been a tool for claiming meaningful socio-ecological concerns. The first maps of community gardens in Berlin—as mentioned in the previous chapter—was in fact conducted through the counter-mapping methodology by *Kollektiv Orangetango*. Driven by activist motivations to claim spatial and environmental justice, the cartography *Berliner Gartenkarte* (2014) supported a subsequent recognition of these contexts within the green infrastructure of cities on an institutional level.¹⁷¹ In Chapter 1, it is explained how in the Berlin and the European context, participatory mapping design, combined with grassroots forms of knowledge, such as citizen science, is an incrementally recognised analytical tool within the social and natural sciences. It was also stressed how in the context of the study of the street environment, open-access platforms such as *Berlin-Entsiegeln* [unsealing Berlin]—to propose the removal of impervious surfaces—or the aforementioned *Gieß den Kiez* [water the quarter]—to provide for the watering of street trees—proved instrumental in tracing civic actions and intentions.

Starting from the idea of considering gardening as forms of care—the daily engagement with soil, plants and people—the analysis of street natures is suggested here as a field for reconsidering the human-soil relationship and how this can positively affect the health of vegetation and the qualities of public space at large. Although there is a growing discussion about 'urban grounds' in the context of sustainable city planning, according to scientists, geographers and social theorists, the soil and its relation to everyday life is still an almost unknown matter (Kucharzyk and Makki 2012; Meulemans 2020; Salazar et al. 2020). In Berlin, soil open-access data are often out of date and based on single

¹⁷⁰ In many of the informal meetings with Max Schützberg, he stressed how the rapidly changing demographics of the neighbourhood were affecting the long-term lack of citizen engagement in street gardening practices.

¹⁷¹ The current digital platform *Plattform Produktives Stadtgrün* developed by the Berlin Senate (2021), shows a categorisation of gardening activities very similar to that proposed by *Kollektiv Orangetango* (2014). See www.berlin.de/gemeinschaftsgaertnern/karte/; www.gartenkarte.de

studies dating back decades.¹⁷² While scientists mainly rely on the territorial scale cartography (SenStadtUm, 2021), high resolution dataset for specific locations are generally not collected.

From March to August 2021, I was a co-creator of a citizen scientist soil counter-mapping project launched by the Feld Food Forest community who had initially sought to claim parts of the former *Tempelhof* airfield for an urban permaculture garden. After finding that no comprehensive soil data for the park were available, Open Soil Atlas (OSA) was launched by the community, gaining funding from the European Union Horizon 2020 framework.¹⁷³ OSA is a citizen science project with the main objective to educate the public and raise awareness about soil quality and fertility. During the six-months pilot, a soil test protocol was developed by the team in cooperation with soil scientists.¹⁷⁴ The main motivation was to make soil tests accessible to a wide public by using simple tools and not having to resort to laboratory tests. Through a smartphone application¹⁷⁵ the data have been uploaded by citizens in a digital entry form to generate a high-resolution soil quality open access map (Open Soil Atlas, 2021a). The soil assessment included ten parameters: GPS location, land use, anthropogenic impact (in terms of non-biodegradable human waste), soil erosion; biological activity, soil profile; soil colour, soil texture; soil PH. These have been defined as the most important to address the role of soil in relations to climate change and to possibly provide policymakers and urban ecology initiatives with indicators as to which areas are best suited for urban agricultural purposes and which require remediation activities. The purpose was to develop a test model that could be replicated and that new citizen scientists might in turn teach to other people.

Compared to traditional soil cartography, OSA generated datasets of specific sites, which enabled a final comparison between different sets of information collected. During the pilot project, 77 soil tests were conducted in park areas (41%), gardens (38%), cemeteries (9%), private gardens (10%) and green spaces not included in land-use categories (2%). A final analysis concluded that most sites that were not actively regenerated—through gardening techniques or maintenance—show some degree of soil degradation. The major discourse within the project team shifted from soil analysis to regeneration techniques. The question was raised as to what impact human practices could have on urban soil quality. The most striking findings came from a comparison between the

172 In Berlin, most of the soil data, in particular on the geological structure, are based on a doctoral thesis from 1987 (Grenzius, 1987).

173 See the annexes for a more accurate description of the project.

174 Under the supervision of soil scientist Dr. Ben Purinton (University of Potsdam), part of the OSA Team.

175 The application used was Epicollect , widely employed for the collection of data in different disciplinary fields.

soil in parks, generally characterised as compacted and almost always biological poor, and the community garden along the street in Neukölln, *GartenLabor*, which proved to be the richest in organic matter and biological activity (Open Soil Atlas, 2021a).

The methodology implemented in the OSA project was the starting point for a more in-depth analysis of how citizens' care practices towards natural assets affected soil health. Street greenery proved to be a suitable terrain for conducting site specific measurements and comparative results. In fact, despite the geological structure, the soil in many street areas is artificially replaced. Care practices notably influence its qualities, and this can only be verified on tests conducted on specific sites. In August 2021, I coordinated the soil testing project on *Donaustraße*.¹⁷⁶ The street was chosen because it runs along the central part of the district, marked by a shortage of public green areas. *Donaustraße* tree structure is typical for Berlin and includes Japanese corymb, Japanese pagoda, maple and black locust. Despite these being species suitable for the street environment, climate change has led to the loss of a number of them in the last five years. The municipality accordingly removed some trees and planted others. Some *Baumscheiben* are empty, others only accommodate the cut trunk of the old tree. Arboreal vegetation is rather young and has a greater demand for water.¹⁷⁷

The mapping process was conducted with an initial photographic survey. Six categories of space were recorded: *Baumscheiben* (1) maintained, (2) unmaintained with dense spontaneous vegetation, (3) unmaintained with poor spontaneous vegetation, (4) unmaintained without vegetation, (5) newly designed, and (6) maintained front gardens. The analysis focused on the topsoil or surface horizon, which is the uppermost layer of the ground and is the part with physical properties such as water infiltration and nutrient retention capacity for plants, animals and insects (Koenig and Isaman, 2010). It is a mixture of sand, silt, clay and decomposed organic matter—humus—and is most subject to erosion due to climate change and human factors; and it is the only soil component that can be impacted by short-term care actions (Fao, 2014; Rossiter et al., 2015). To track the impact of citizens' practices the test survey therefore took into account the (i) degree of soil erosion and the (ii) soil profile as the most significant. The test included an initial surface observation (lack of vegetation is one of the main indicators) by a 20 centimetres deep excavation where the stratification of the soil profile was measured and made the evaluation provable (Fao, 2020).

Along *Donaustraße*, 46 tests were conducted (Open Soil Atlas, 2021b) (Map. 21), which confirmed the hypothesis that citizen maintenance has positive effects on the soil. Interviews were held to investigate whether citizens used some

176 With the collaboration of Anna Verones and Arne Thiemann.

177 Interview with Guido Fellhölter from the Green Spaces Department in Neukölln (August 2021).



specific practices for soil protection and regeneration. Respondents stated that techniques such as composting, adding new layers of soil or simply spreading coffee grounds on the ground are used.¹⁷⁸ The results were associated with the degree to which the spaces are separated from the street environment through fencing, in the case of *Baumscheiben*, and hedges, in the case of front gardens. The enclosure of the areas, according to the data, is beneficial for the soil indicators tested and for preserving the spaces from anthropogenic impacts, in terms of litter. The boundaries between street greenery and public space have thus become the indicators for further analysis. The data was cross-referenced with the *Gieß den Kiez* open-access platform, which provides information that four areas, maintained and fenced in, with good quality topsoil were recorded as regularly watered by citizens (Map.22). The soil test on *Donaustraße* was a study for a possible new categorisation of street greenery according to citizen uses and space typology. The most significant result was a comparison between the spaces maintained by citizens and tree pits recently planned by the municipality. The latter, being covered with gravel pebbles—a technique normally used to promote water drainage—proved to be the poorest in soil analysis and the most polluted by non-biodegradable waste.

Making time for (soil) care

In one of his latest books, Vittorio Lampugnani calls attention to the *Kleine Dinge im Stadtraum* [small things in urban space]. He accurately describes the history of elements in public space that are part of the everyday life of metropolitan dwellers and paradoxically under-investigated and overlooked. The material boundaries enclosing urban liminal soils in streets, receive a similar attention. Within this study, they have been investigated as ‘signal of care’ or ‘boundaries of care’.¹⁷⁹ The construction of these barriers by volunteers—which often become seats for passers-by or places for solidarity economies in the exchange of plants and second-hand materials—separates the environment understood as public in *stricto sensu* from privately or collectively run areas.¹⁸⁰ They prefigure the street itself as a hybrid complex set of ways of ‘owning space and nature’ (Barchetta, 2017). Through the spectrum of care, however, as also urban practitioner Max Schützberg suggested in the aforementioned interview, the sense of ‘ownership’ in street greenery is linked to ethical drivers of soil and plant protection. It also depends on volunteers’ time resources.

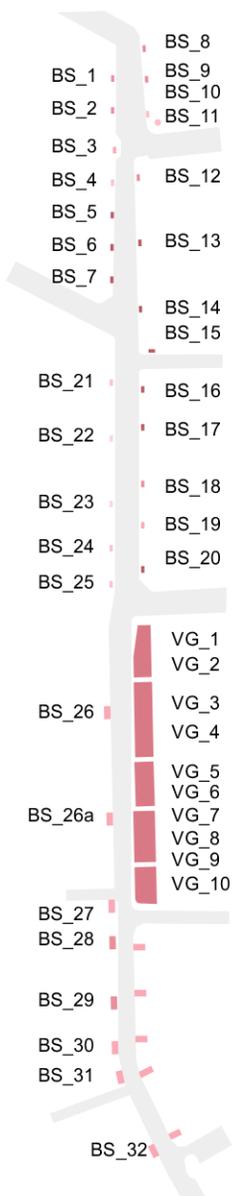
The investigation conducted along *Donaustraße* was a theoretical and

178 Interviews conducted along *Donaustraße* on 23 August 2021.

179 See also the conception of ‘moral boundaries’ proposed by Tronto to discuss the ethics of care. Tronto, J.C. (1993). *Moral Boundaries: a Political Argument for an Ethic of Care*. New York: Routledge.

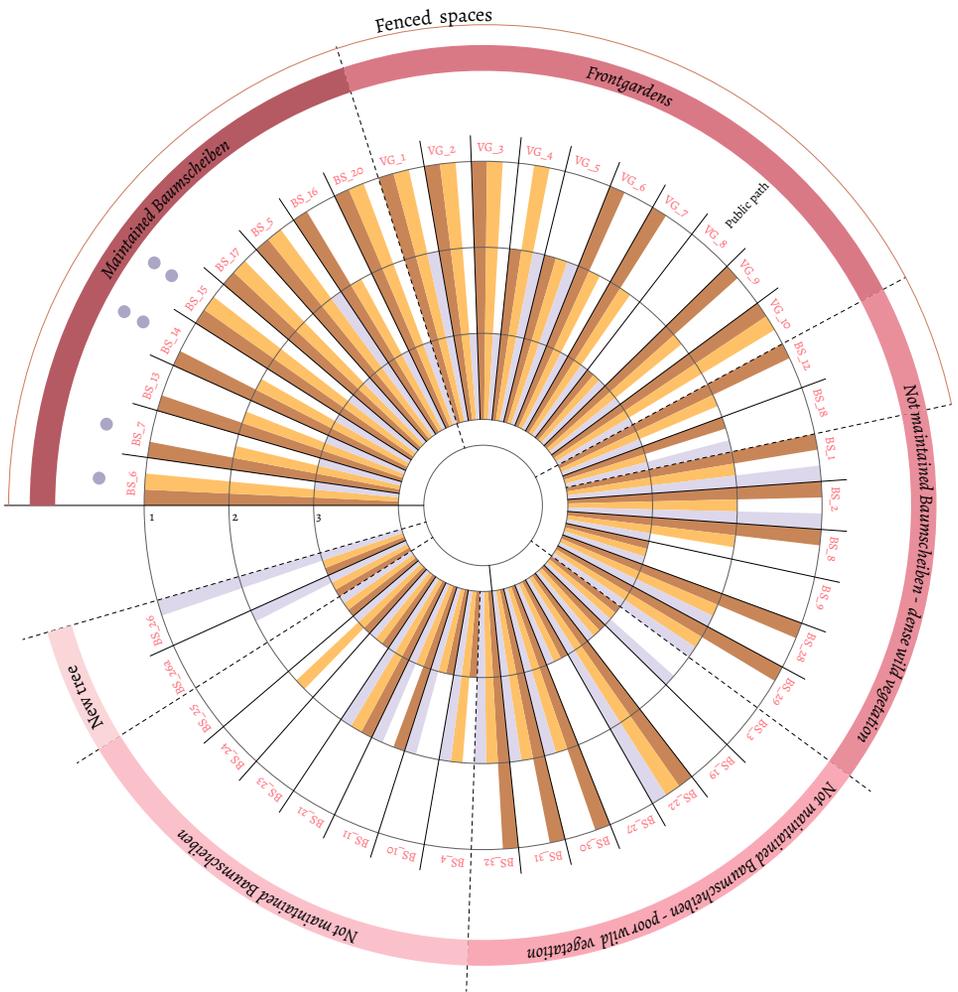
180 In agreement with Chiodelli and Moroni’s (2014) categorisation of property regimes according to the ‘toleration’ principle, explained in Chapter two.

Map_21 Donaustraße



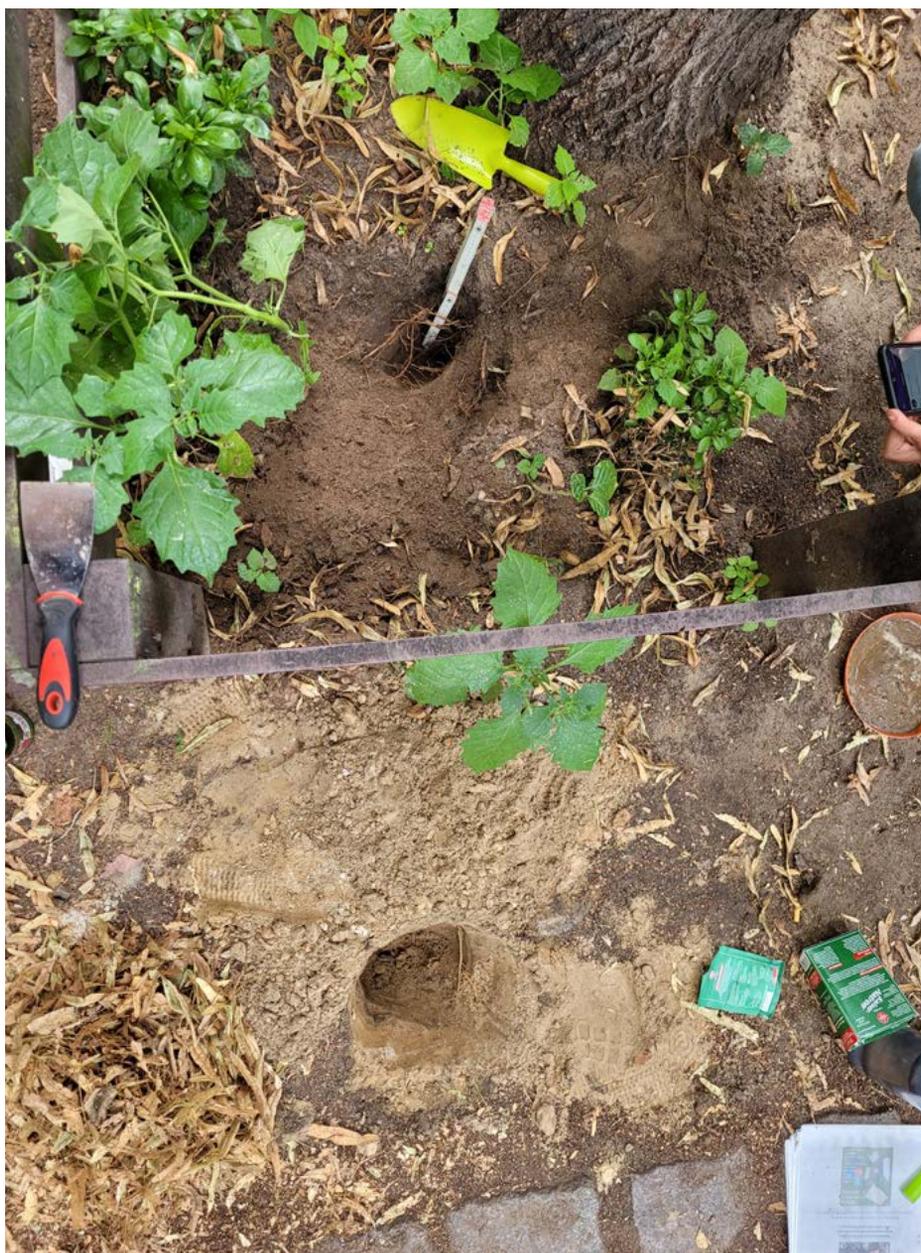
Source: (Open Soil Atlas, 2021b; See annexes with accurate data table)

Map_22 Donaustraße: soil test according to enclosed spaces



- Erosion (1) Little or no erosion of the humus layer (2) Some erosion of the humus layer is apparent (3) The humus layer is very eroded or non-existent
- Soil profile (1) Good layer of topsoil (5-10cm); not compacted (2) Compacted topsoil with low biological activity (3) No visible topsoil or poor quality of topsoil
- Anthropogenic Impact (non-biodegradable human litter)
(1) Massive (2) Relevant (3) Negligible
- Watering (2021) Watering (2020,2021)

Source: (Open Soil Atlas, 2021b; CityLAB Berlin, 2020; See annexes with accurate data table)



Donaustraße, 'boundaries of care', Neukölln
(EF, 2021)

empirical approach to expand the role of marginal activities to a broader discussion concerning urban soil, the relationship with humans and matters of care. During the mapping process, the Open Soil Atlas activities were integrated into the “Soil-identity” seminar of the master course in geography at the Humboldt University of Berlin.¹⁸¹ Within this academic collaboration, the Neukölln landscape and street greenery became the topics for discussing soil as a social and ecological unit, expanding the concept of care within the urban environment.

It is widely recognised that soils are now up on the list of environmental concerns calling for global care as a finite non-renewable resource on a human time scale under pressure of processes such as degradation, poor management and urbanisation. In the urban planning debate, Anthropocene-related soil protection is increasingly being considered. Especially along rural areas and city fringes, soil consumption cannot be sustained in the face of the major issues of climate change, environmental degradation and hydrogeological risk anymore (Pavia, 2017:57). It is known that topsoil erosion rates are much higher than soil formation rates, meaning its loss and degradation is not recoverable within a human lifespan. This process can be reversed only with the implementation of sustainable management and the integration into effective policies (Fa0, 2021).

The focus of this section is on the conception of “making time for soil”, quoting the work of Maria Puig de la Bellacasa (2015). She offers an investigation into different ways of “making time”, drawing on a feminist approach that engages with care as a way of bringing attention to the significance of practices and matters rendered invisible or marginalised by dominant or ‘successful’ forms of technoscientific mobilisation. In this perspective, by invisible and marginalised I am referring primarily to the soils and natures within the street environment themselves, which take a subordinate value within urban planning, and the process of maintaining these spaces which in fact requires time through physical, emotional and daily unpaid labour. Secondly, to the interrelationship between human actions and soil regeneration and protection.

The soil, and in particular the topsoil, contains organisms consisting of a variety of communities of biota. Or rather, as Coleman, Callaham and Hendrix (2004) note, the organisms themselves ‘are’ the soil. De la Bellacasa discusses “making time for soil” as a form of “care time” which helps to reveal a diversity of more-than-human interdependent temporalities, considering soil as living and which only exist with and through a multispecies community of agents that ‘makes it’. It is in this conception that Anthropos-centered constructs are called into question to foster transformative trends in human-soil relations: “attention to soils as a living multispecies world involves changes in the ways humans maintain, care, and foster this liveliness” (2017:191). These concerns include ethical relations with nonhumans who both pervade and create liveable

181 The seminar was coordinated by Dr. Laura Kemmer and Prof. Sandra Jasper (Kemmer, 2021). See the annex for additional information on the collaboration.

environments.¹⁸² De la Bellacasa suggests that the use of alternative land use practices, such as permaculture (Mollison and Holmgren, 1987) or agroecology, which are rooted in an ethical understanding of humans as part of nature, are more attuned to soil life. She emphasises that these practices do not follow a timeline divided into ‘before’ and ‘after’ interventions; but through care, temporality is established depending on the mutual bond between humans and soil (2017).

Along *Donaustraße*, tests have shown how personally motivated practices such as watering trees and beautifying the street environment have a positive impact on soil health. At the same time, although accepted and formally embraced by the municipality, care practices remain part of neoliberal governance policy schemes, which effectively do not assess their value but their economic worth within the cost savings of green street management (Rosol, 2011; Douglas, 2013). In this scenario, as with other forms of gardening, the citizen eco-responsibility is reduced to temporary and fragile forms of design in relation to broader dynamics of urban transformation and political interests. Observing these behaviours from the perspective of soil care, however, clashes with the idea of temporary design. What de la Bellacasa invokes in the notion of “making time” is instead a deeper understanding of the temporalities of soil remediation processes while arguing how the relationship between humans and nature can beneficially affect the lives of nonhuman species.

The study of both soils and practices was an attempt to reveal the set of interests that small urban green areas—which effectively sustain tree life—represent in contemporary terms. The idea of ‘care’ as a ‘form of ownership’ could influence policies closer to the recognition of long-term citizen commitment. Thus, the understanding of the street as a more complex space, articulated by different green patterns of governance, influenced by favourable behaviour towards urban sustainability goals. The Open Soil Atlas methodology, instead, was a way of revealing otherwise uncollected data. Manual excavation in the ground was also a key part of the counter-mapping, which, interpreting James Corner’s idea of cartography, made ‘visible’ what is ‘invisible’ (Corner, 1999). Finally, the employment of open-access platforms is firmly influencing possible design paths, combining different interests and favouring possible horizontal hierarchies of planning processes.

182 See also Krzywoszynska, A. (2019). Caring for Soil Life in the Anthropocene: the Role of Attentiveness in More-than-human Ethics. *Transactions of the Institute of British Geographers*, 44(4), pp.661–675.



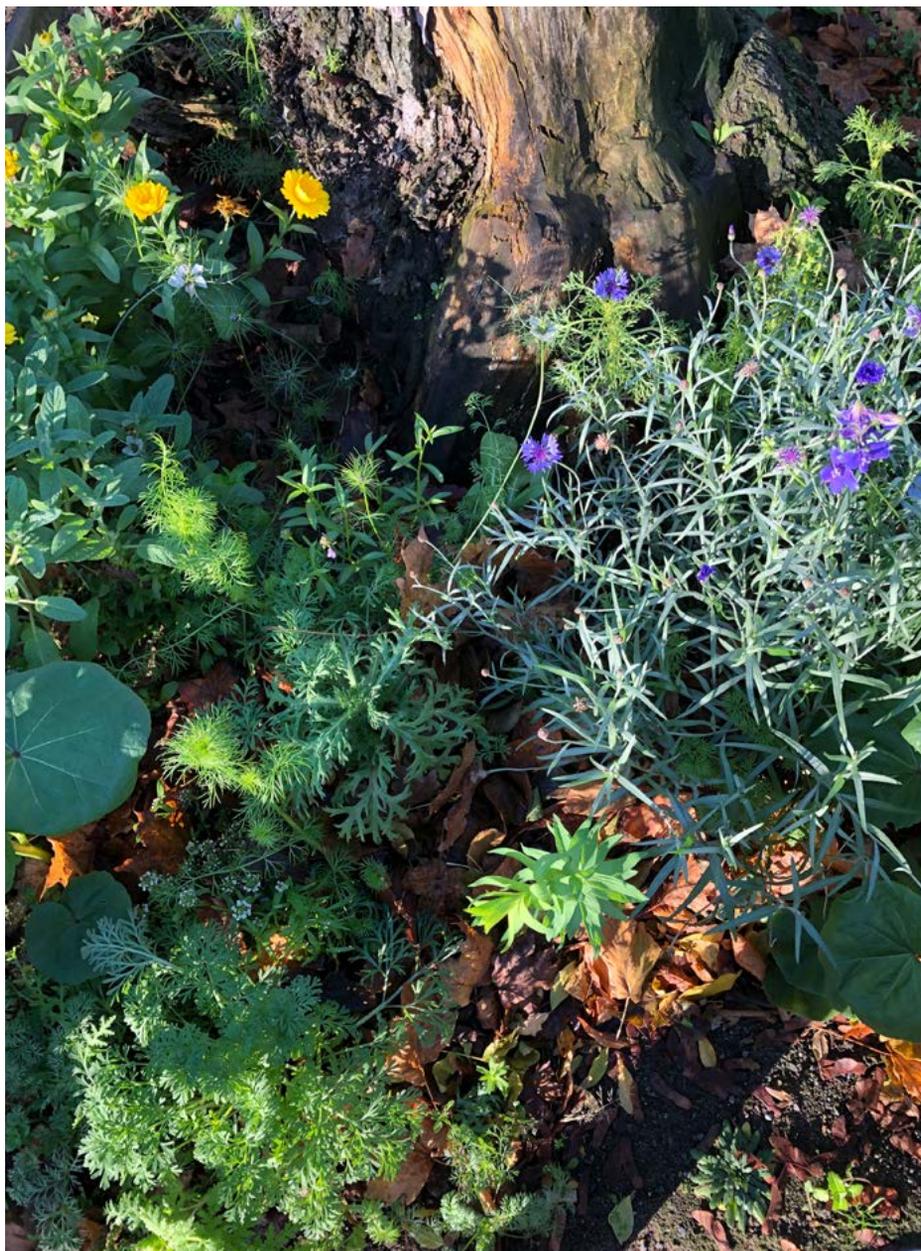
Donaustraße, Neukölln
(EF, 2021)



Donaustraße, Neukölln
(EF, 2021)



Donaustraße, Neukölln
(EF, 2021)



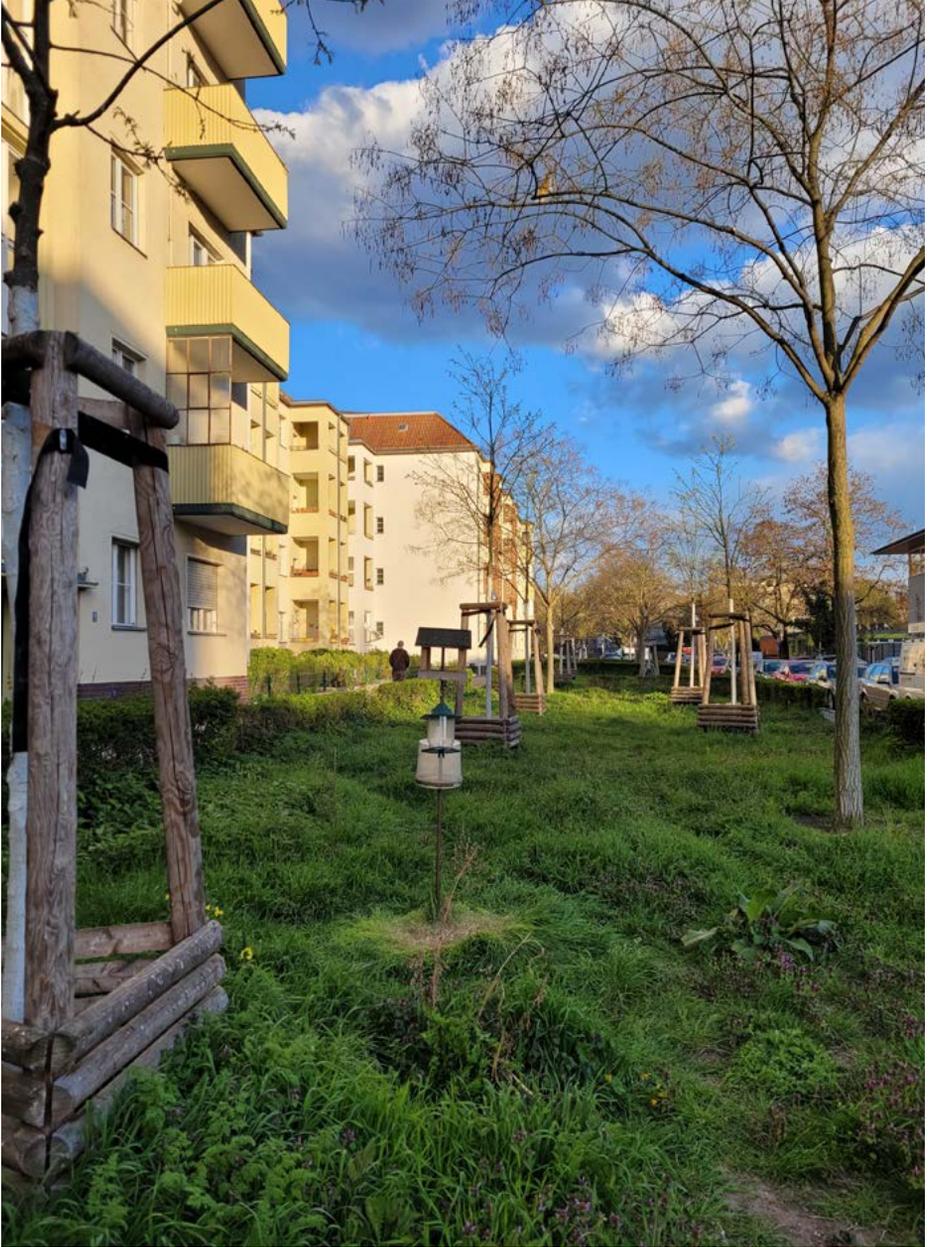
Tree pits in *Donaustraße*, Neukölln
(EF, 2021)



Frontgarden along *Donaustraße*, Neukölln
(EF, 2021)



Frontgarden along *Donaustraße*, Neukölln
(EF, 2021)



Frontgarden along *Donaustraße*, Neukölln
(EF, 2021)

Conclusions

In-betweeness

This study has traced the contours of the concept of the urban natural hybrid sphere through different narratives, methodological sensibilities and theoretical frameworks. “In-between nature” has been concerned with the analysis of contemporary spaces and practices amid rapid urban change. By defining an ‘intermediate state of urban nature’ the research has expanded the consideration of marginality across the spectrum of the human-nature relationship. While the first part traced the concept as a specific phenomenon throughout the history of the city of Berlin, the second part delved into the examination of the historical present. The reason for this choice lies primarily in the recognition that ‘the present’ in the ‘deep time’¹⁸³ of the Anthropocene is a difficult dimension to investigate, because the review of its past clearly does not produce sharp visions of the future. The sense of uncertainty that the planetary crisis has introduced into the study of the city has challenged theoretical epistemologies, methodologies approaches, analytical scales, and design cultures. Concepts such as ‘sustainability’, ‘resilience’, ‘mitigation’ are constantly being reformulated in the face of global emergencies that question

¹⁸³ ‘Deep time’ refers to geological time and its interference with human time, which is key issue and appropriated along different scientific discourses regarding the Anthropocene. See Heringman, N. (2015). *Deep Time at the Dawn of the Anthropocene. Representations*, 129(1), pp.56–85.

their validity.¹⁸⁴

In his presentation as part of the Anthropocene programme at the *Haus der Kulturen der Welt* in Berlin,¹⁸⁵ Latour stressed that in times when life itself is undermined on the planet, resurfaces a desire to 'go back'. Practices and approaches from the past, in daily life as well as in politics, are now again being re-evaluated as fruitful strategies for long-term implementation. The challenge instead—Latour continues—is to insist on new paradigms in sciences capable of embracing what is in fact yet unknown. This necessarily entails necessity of a new conception of the 'past' and the 'future'—a red thread which runs through t this dissertation. Therefore the analysis of marginality within the neoliberal city is not intended to suggest *ad hoc* visions for a successful development of landscape or urban strategies. On the contrary, it questions what is understood as 'valid', 'useful' and 'efficient' for implementing plans possibly attuned to times of restructuring. Certainly, urban studies has been giving greater consideration to the human bond with nature in the context of the environmental crisis. But it must also be taken into account that the practices and landscapes at the center of my research are temporary, fragile and probably destined to disappear in the face of more complex urban dynamics.

The case of Berlin is instructive for investigating how socio-spatial urban changes have been influenced by a very short history. Many project cultures that developed within the open spaces after the fall of the Wall created a shared sense of recognising the metropolis as a significant European case; and they have been rapidly embedded as pioneering design models into plans and strategies. One only has to think of the scene of artists with their range of creative activities, the early 2000s community gardens phenomena and *Zwischennutzungen* which laid the foundations for new bottom-up approaches of public spaces design. Temporary uses were then incorporated into more programmatic schemes consolidating a specific trait of the cityscape. Today, however, they often show merely an rhetorical shadow image of their former essence of their true essence. While these experiences constituted the empirical and theoretical impetus for the recognition of a specific trait of Berlin's urbanity, projects of thriving in

184 In this regard, it is worth mentioning three questions that Tim Ingold posed at a recent lecture titled "The sustainability of everything". 'How can we imagine a world that has a room for ourself and for everyone and everything else both now and for generation to come? What does it mean for such a world to carry on, to keep on going, to be sustained? What can we do for making this happen?' The world, Ingold argues, must be imagined as a 'plenum', not with the aim of achieving sustainability by means of targets or predictions but through an evolutionary and continuous process. And how to do this, the anthropologist discusses, is to review the meaning of citizenship and learn to 'live together in difference'. Design, he concludes, is about a 'conversation' between different agents and a research a cross-disciplinary field. See Ingold, T. (2021). *The Sustainability of Everything*. [online] CIAS. Available at: <http://cias.uc.pt/2021/02/16/the-sustainability-of-everything/>.

185 See Latour, B. (2018). *Anthropocene Lecture: HKW Berlin*. [online] www.bruno-latour.fr. Available at: <http://www.bruno-latour.fr/node/770.html>.

a state of temporariness within the neoliberal system have been progressively submerged by the drift of normalisation.

The study therefore of contemporary practices and spaces seems necessary today in order to be able to imagine possible future scenarios. The tension between past and present that Berlin's metropolitan open space embody was the basis for a possible reinterpretation of the landscape in contemporary terms. The multidisciplinary perspective introduced in this research offers a path to investigate how a certain way of 'inhabiting nature' peculiar to the metropolis can have significant implications in the age of the Anthropocene. This also involved reframing certain concepts and ideas. For instance, the 'urban void' as a multispecies realm according to the ecological perspective, the understanding of 'cohabitation' in posthumanist terms, and the meaning of spatial 'appropriation' and 'spontaneous' actions as forms of care in ecofeminist ethics. Examining contemporary urban processes from this perspective has revealed how a specific interplay between citizens and urban nature could influence or challenge current design approaches and governance models. It also highlighted how rapid urban transformations, while marginalising and rendering invisible certain dynamics, are on the other hand the engine behind new actions that in turn stimulate a rethinking of possible long-term sustainable scenarios. The 'present' observed as 'in transition' served to trace a frame and to unhinge the idea of what is normally considered fragile and unproductive in the urban system, both in cultural and spatial terms.

Field research, qualitative analysis, photography and direct participation were pivotal to this endeavour of reconceptualising a possible future in light of our fleeting present that appears as if through a prism in these projects and liminal spaces. Not only to grasp and document both the historical and contemporary relevance of grassroots developments in Berlin's urban plan, but to gain a deeper understanding of what the public sphere represents in this city. In the various case studies contained within this dissertation, I emphasised how specific behaviours in nature affect the articulation of property patterns or of what is conventionally meant by public, commons or private. "In-between nature" was intended to open a field of enquiry to discuss the socio-ecological complexity that the urban natural landscape embraces today, implicitly overcoming the public/private dichotomy represented by Western socio-spatial thought. This reflection has engaged with the re-evaluation of the 'boundary' construct from different angles. In particular in terms of inclusion and exclusion. Reconsidering the separation of public and private space through the articulation of the two models has expanded the idea of the natural hybrid as a sphere that could potentially challenge questions of spatial, social and environmental justice in the context of progressive concentration.

Another aspect that this research focussed on was the possible application of the "In-between Nature" as a 'cross-scalar domain'. The discourse around the Anthropocene is forcing the design to questions the reciprocities of scales between geosphere, biosphere and sociosphere, as a dialectic between the

materiality of the soil and the planetary dimension.¹⁸⁶ While ecological design has prompted urban planning to rely on urban metabolism as a cross-scalar approach, this study focuses on social and spatial attributes of ecological and cultural landscapes. In the second part of the research the three fields of observation—the ‘city’, the ‘garden’ and the ‘street’—aimed to uncover human and nature geographies that are officially not recognised. The three areas and case studies did deliberately not proceed with a territorial analytical approach but instead sought to compose emerging counter-narratives, useful for recognising the marginal contexts of the Anthropocene today—places that can be acknowledged along the progressive degradation of urban and planetary natural resources.

This research therefore introduced a possible interpretation of how the ‘hybrid’ and the ‘marginal’ could become a constituent part of urban design within neoliberal policies and urban densification strategies. The term ‘in-between’ has strategically been employed in diverse guises. First, as a cross-disciplinary terrain, whereas different sciences, and in particular the environmental humanities, firmly continue to influence planning theory within the new climate regime. ‘In-between’ suggests reading the landscape across different scales, spatial and temporal, embracing ‘transition’ as an analytical device for approaching contemporary social and physical urban transformations. Finally, ‘in-between’ opens up an arena to discuss the complexity produced by the dichotomies and binary logics of modernity, which has placed nature at the empirical and theoretical core of future city design.

186 In this instance, I refer mainly to the “Terrestrial” concept by Latour (2017), which stresses the interdependence between scales in the context of the Anthropocene.

Appendix

Description of activities and research projects conducted

Integration of Allotment and Community Gardens

“Integration of Allotment and Community Gardens” is a research project (2019-2021) which was coordinated by Humboldt University of Berlin (HU) and Łódź University (UŁ) and funded by *Deutsch-Polnische Wissenschaftsstiftung*. The aim of the study was to contribute to the sustainable development of allotment and community gardens in Germany and Poland. The work was conducted in a multidisciplinary team, together with Agnieszka Dragon (anthropologist, urban practitioner), and Anna Dańkowska (environmental engineer and environmental educator) and supervised by Prof. Dagmar Haase (Institute of Geography, HU), Prof. Jakub Kronenberg (Institute of Urban and Regional Studies and Planning, UŁ), Dr. Annegret Haase (Department of Urban and Environmental Sociology, UFZ).

The research addressed the transformation of community gardens in Berlin and Warsaw as a result of the urban transformations and the phenomena of integration between the two typologies that are currently unfolding in the two cities. The study tackles the socio-spatial dynamics of emerging grassroots projects and practices jointly implemented by groups of allotment and community gardeners, which are instrumental in envisioning new forms of common management and protection of garden spaces along urban changes. The study proposes a possible change of perspective regarding the use of closed allotment structures and the conceptualisation of a new form of hybrid urban landscape: an “integrated garden”. The findings fit into the general debate on gardens as commons and new forms of green space self-governance.

This research consisted of three main stages of investigation that included: 1) mapping and studying the internal organisation and function of urban gardens, 2) an in-depth analysis of the different forms of garden integration, 3) an analysis of how integration practices produce spaces of commoning. Methods used at each stage of the study were of qualitative character. The first phase was conducted through face-to-face interviews (gardeners, activists, members of gardeners’ associations and local government) and participatory observation. The latter included repeated visits to gardens and participation in public events and in activist networks. In the second phase, significant case studies were selected and more in-depth interviews were conducted on the topic of integration. The third phase consisted of meetings with the respondents and group interviews, in which different people came into contact and shared their experiences on the beneficial and hindering factors of integration processes.

The results of the project were compiled in a ‘Handbook for Integration’, useful for gardeners, institutions and policymakers to design the inclusion of new forms of gardens within allotments and to make them more accessible spaces. People who supported and collaborated on this project include Dr. Eva Foos from the federal association of allotment gardens *Bundesverband Deutscher*

Gartenfreunde e.V., Gudrun Walesch from the German association of community gardens *Anstiftung*, landscape architect Prof. Jennifer Schulz (University of Potsdam), one of the first people to promote an 'integrated garden' typology in Berlin, and urban planner Toni Karge from the Berlin Senate.

Feld Food Forest

The Feld Food Forest project was launched in September 2019 with the shared vision to establish a self-sustainable food forest on the grasslands of *Tempelhofer Feld*.¹ Based on permaculture principles, the food forest aims at providing ecosystem services (such as biodiversity enhancement, humus generation, and local food production) and be a place for education and experimentation, where the community can get together and build up self-efficacy and self-organisational competencies. The *Tempelhofer Feld* offers a unique opportunity and potential for collaboration and collective action, whilst keeping the relationships between the people of Berlin and their environment at the forefront.

In 2021, the Feld Food Forest community after discussing the design with policymakers (responsible for making decisions about the *Tempelhofer Feld* are the Berlin Senate, Gruen Berlin, and the Feldkoordination), gained the area of the West Feld Garden, in the west side of the park. The design of the space has been co-created using a sociocratic participative approach, which allowed an equal end efficient cooperation among the different initiatives involved (the *Berliner Tafel*, *THF Vision*, *100% Tempelhof*, *Grüne LIGA e.V.*, the carpenter organisation *Kernzone*, *Ernährungsrat Berlin*, *Workstation Ideenwerkstatt e.V.*, and the *Koch Kollektiv Torhaus*). Through an enriching co-learning process, the different associations will share knowledge on climate-related topics and social inclusiveness and hopefully contribute to the discussion around permaculture and soil regeneration within the city of Berlin.

Open Soil Atlas

Open Soil Atlas (OSA) is an urban soil counter-mapping project led by citizen scientists. It was initiated by the Feld Food Forest community in 2021. The project launched its pilot in Berlin which is supported by the Action program² under the supervision of King's College London and funded by the European Union's Horizon 2020 research and innovation programme. The main objective of OSA is to increase knowledge of urban soil quality and to empower citizens in soil analysis and mapping techniques, correlating the principles 'healthy soil' and 'healthy communities'. OSA consists of a website presenting guidelines in

¹ The board team is composed by Anna Verones, Fenja Freiin Grote, Elena Ferrari, Liz Eve, Olivia Grandi, Max Schützberg, Arundathi Sharma.

² <https://actionproject.eu/citizen-science-pilots/open-soil-atlas/>

a textual and infographic form. Citizens have been trained on how to make observations, test the soil, interpret results and draw conclusions. Soil quality data and GPS locations have been uploaded from citizens to a digital entry form, using 'Epicollect' platform, for the generation of a high-resolution soil quality open-source map.³ The entire research and data collection process is made available in open source mode, so that it can be replicated and possibly expanded in other cities worldwide.

OSA was started in response to the actual lack of open-source data of Berlin's urban soil. Feld Food Forest saw the need to address this issue when some community members, in order to establish an urban permaculture garden on the land of the ex Tempelhof airfield, found the shortage of comprehensive and readily available information on soil quality. OSA is intended to help other eco-initiatives reclaim space in the city, by providing scientific evidence about the impact of local actors on the health of urban natural ecosystems.

The OSA community is a team of around 10 people, sociocratically organised in the following working groups: research and development, outreach and networking, communication and social media, graphic design, impact assessment.⁴ During the six-month pilot project (March-August 2021), the team developed a methodology for soil testing, which can be undertaken with simple tools. The strategy for involving citizens in the map process followed a detailed plan that was improved and updated over the six months. In order to contribute to democratising soil science, our team sought to reach a wider range of audiences, following principles of equity, diversity and inclusion. Through free of charge workshops, citizens were taught how to conduct the test by the OSA team and were then able to teach it to others.

Test methodology, under the supervision of soil scientist Dr. Ben Purinton (University of Potsdam), was designed according to ten indicators in order to assess soil qualities and develop the map: GPS location, land use, anthropogenic impact (in terms of non-biodegradable human litter), soil erosion, biological activity, soil profile, soil colour, soil texture, soil PH. The tests were conducted on site, through sensory observations and hands-on practice. At the end of the six-month trial, 77 tests were collected, yielding high-resolution results that can vary substantially from sample to sample. As a positive correlation was found between the level of human maintenance of certain areas and soil fertility indicators, OSA was a way to identify urban soil as an element of ecological and social cohesion. The mapping process not only achieved the objective of educating citizens about soil quality, but also provided a new tool to recognise where remediation processes are needed and where care practices are found to have a positive impact on soil.

The involvement of different stakeholders and the empowerment of citizens

³ <https://five.epicollect.net/project/open-soil-atlas-action-2021>

⁴ Anna Verones, Fabio Volkmann, Fenja Freiin Grote, Elena Ferrari, Sara Busnardo, Liz Eve, Ben Purinton, Selina Gellweiler, Lynsey Dunn, Alice Secchi.

in the mapping design have been central aspects of the project. During the time of the accelerator, a network of different experts, policy makers and co-operators was built. This ensured that the OSA was supported and known within the Berlin 'soil experts' community, including academic actors from various disciplines. For instance, the OSA methodology was applied as part of an interdisciplinary course about "Soilidarity" (2020-21), and the international spring school "City and Care" (2022), coordinated by Dr. Laura Kemmer (Humboldt-Universität zu Berlin), that explored practices of mapping and improving urban soil quality. Following this experience, the OSA team was invited by Dr. Laura Kemmer and Prof. Dr. Sandra Jasper to participate, together with other international academics and practitioners in the workshop "Mapping Planetary Health" (June 2022), designed to discuss and elaborate critical cartographies of socio-environmental conflicts in cities around the world. As part of the "Atlas do Chão" [Ground Atlas], a Brazilian virtual mapping platform that documents the historical and cultural meanings of 'soil' in different geographical and thematic contexts, Prof. Ana Luiza Nobre (Catholic University of Rio de Janeiro) inviting the OSA team to lead a lecture on mapping processes and to translate the OSA methodology for a community project in Rio de Janeiro (August 2022). Since 2021, OSA has been part of *Bürger schaffen Wissen* [citizens create knowledge], the central platform for citizen science in Germany.

Name	Setting	Activity	Duration (hrs)	Date
Alina	Neuer St. Jacobi cemetery (Neukölln)	Community gardener	1,5	June, 2020
Anna Verones	Neukölln	Urban practitioner	2	June, 2021
Antonia Humm	Allotment garden Harzta-Wilde Rose (Neukölln)	Allotment gardener	1,5	May, 2020; October, 2020
Bernd Machatzi	Neuer St. Jacobi cemetery (Neukölln)	Officer at Berlin Senate at the Department for Nature Conservation	1,5	May, 2020
Blanka	Bauhütte community garden Kreuzberg eV (Kreuzberg)	Member of Circles UBI: Basic Income on the Blockchain	1,5	June, 2020
Brigitte	Zoom call	Community gardener in allotment garden	1	December, 2020
Christa	Zoom call	Community gardener in allotment garden	1	December, 2020
Cristof Meyer	Zoom call	Architect at Raumlabor	1,5	December, 2020
Eva Foos	Kreuzberg	Activist, Federal Association of German Garden Friends employee	1	December, 2020
Frank Radix	Allotment Harzta-Wilde Rose (Neukölln)	Allotment gardener	1,5	May, 2020; October, 2020
Gabriele Gutzmann	Allotment garden Am Stadt Park I (Wilmersdorf)	Allotment gardener	1,5	January, 2020; October, 2020
Gudrun Walesch	Interview conducted via Zoom call	Anstiftung employee in the field of community gardens	1	December, 2020
Jennifer Schultz	Park am Gleisdreieck (Schöneberg)	Landscape planner, environmental scientist	1	August, 2020
Johannes Rupp	Wedding	Community gardener	1	January, 2020
Kerstin Meyer	Prinzessinnengarten (Kreuzberg)	Activist	2	June, 2019
Marco Clausen	Kreuzberg	Activist, community gardener	2,5	September, 2020
Marion	Wedding	Community gardener	1	January, 2020
Matteo Ciprandi	Interview conducted via Zoom call	Urban practitioner	1	June, 2021
Max	Interview conducted in Neukölln	Community gardener and urban practitioner	2	June, 2021
Michaela Kirschning	Neuer St. Jacobi cemetery (Neukölln)	Community gardener	1	June, 2020
Olivia Grandi	Interview conducted in Neukölln	Community gardener and urban practitioner	2	June, 2021
Rosario Talevi	Interview conducted via Zoom call	Artist curator	1	December, 2021
Sabine	Interview conducted via Zoom call	Allotment gardener	1	December, 2020
Stefan Fischer	Peace of Land Community garden (Friedrichshain)	Community gardener	1	June, 2020
Toni Karge	Berlin Senate (Mitte)	Officer at Berlin Senate at the Department of Open Space Planning and Urban Greening employee	1,5	January, 2020
Victoria Casodino	Interview conducted via Zoom call	Quartiersmanagement Rixdorf employee	1	August, 2021
Wielfried Buettnner		Allotment gardener		December, 2020
Yvonne Griephan	Berlin Senate (Mitte)	Officer at Department of Open Space Planning and Urban Greening	1	January, 2020

Table 6.1 list of interviews

	Title_of_the_test_	Species	Age	Water dem;	Watered	21_How_would_you_def	24_Humus_layer_erosi	
▼ Maintained Baumscheiben								
	Bs-6	Japanischer Schnurbaum	51		1	8	Negligible	Little or no erosion of the humus layer
	Bs-7	Japanischer Schnurbaum	8		3	10	Negligible	Little or no erosion of the humus layer
	Bs-13	Japanischer Schnurbaum	5		3		Negligible	Little or no erosion of the humus layer
	Bs-14	Japanischer Schnurbaum			3	65	Negligible	Little or no erosion of the humus layer
	Bs-15	Japanischer Schnurbaum			3	47	Negligible	Little or no erosion of the humus layer
	Bs-17	Japanischer Schnurbaum	51		1		Negligible	Little or no erosion of the humus layer
	Bs-5	-					Relevant	Little or no erosion of the humus layer
	Bs-16	- Robinie (cut)					Negligible	Little or no erosion of the humus layer
	Bs-20	-					Negligible	Little or no erosion of the humus layer
▼ Frontgardens								
	Vg-1						Relevant	Little or no erosion of the humus layer
	Vg-2						Negligible	Little or no erosion of the humus layer
	Vg-3						Negligible	Little or no erosion of the humus layer
	Vg-4						Relevant	Some erosion of the humus layer is apparent
	Vg-5						Relevant	Some erosion of the humus layer is apparent
	Vg-6						Negligible	Little or no erosion of the humus layer
	Vg-7						Negligible	Little or no erosion of the humus layer
	Vg-8						Negligible	The humus layer is very eroded or non-existent
	Vg-9						Negligible	Little or no erosion of the humus layer
	Vg-10						Negligible	Little or no erosion of the humus layer
▼ New Baumscheiben								
	Bs-26 a	Säulenförmiger Schnurbaum	2		3		Relevant	The humus layer is very eroded or non-existent
	Bs-26	Säulenförmiger Schnurbaum	2		3		Massive	
▼ Not maintained Baumscheiben - wild vegetation								
	Bs-12	Japanischer Schnurbaum	8		3		Negligible	Little or no erosion of the humus layer
	Bs-1	-					Massive	Little or no erosion of the humus layer
	Bs-2	-					Massive	Little or no erosion of the humus layer
	Bs-8	Ahorn (Acer)	34		2		Negligible	Little or no erosion of the humus layer
	Bs-9	Ahorn (Acer)	21		2		Negligible	The humus layer is very eroded or non-existent
	Bs-28	Japanischer Schnurbaum	8		3		Relevant	Little or no erosion of the humus layer
	Bs-29						Relevant	Little or no erosion of the humus layer
▼ Not maintained Baumscheiben - poor wild vegetation								
	Bs-3	Robinie	34		2		Relevant	The humus layer is very eroded or non-existent
	Bs-19	Japanischer Schnurbaum	8		3		Negligible	The humus layer is very eroded or non-existent
	Bs-22	-					Massive	Little or no erosion of the humus layer
	Bs-27	Robinie	34		2		Negligible	The humus layer is very eroded or non-existent
	Bs-30	Robinie	37		2		Relevant	Little or no erosion of the humus layer
	Bs-31	Japanischer Schnurbaum	8		3		Relevant	Little or no erosion of the humus layer
	Bs-32	Japanischer Schnurbaum	8		3		Relevant	Little or no erosion of the humus layer
▼ Not maintained Baumscheiben								
	Bs-4	Robinie	35		2		Relevant	The humus layer is very eroded or non-existent
	Bs-10	Ahorn (Acer)	36		2	1	Relevant	The humus layer is very eroded or non-existent
	BS-11	Gleditsia triacanthos	28		2	1	Relevant	Some erosion of the humus layer is apparent
	Bs-21	Robinie	14		3		Relevant	Some erosion of the humus layer is apparent
	Bs-23	Japanischer Schnurbaum	14		3		Negligible	The humus layer is very eroded or non-existent
	Bs-24	Robinie	17		2		Negligible	The humus layer is very eroded or non-existent
	Bs-25	Säulenförmiger Schnurbaum	2		3		Negligible	The humus layer is very eroded or non-existent

Table 6.2 Results of soil analysis conducted in *Donaustrafße* (1/2)

31_6_Soil_profile	45_Soil_texture	Category 2
Good layer of topsoil (5-10cm); not compacted	Sandy loam	Maintained Baumscheiben
Compacted topsoil with low biological activity and organic matter	Sandy loam	Maintained Baumscheiben
Compacted topsoil with low biological activity and organic matter	Silty loam	Maintained Baumscheiben
Good layer of topsoil (5-10cm); not compacted	Loamy sand	Maintained Baumscheiben
Good layer of topsoil (5-10cm); not compacted	Silty clay loam	Maintained Baumscheiben
Good layer of topsoil (5-10cm); not compacted	Silty clay loam	Maintained Baumscheiben
Good layer of topsoil (5-10cm); not compacted	Loamy sand	Maintained Baumscheiben
Compacted topsoil with low biological activity and organic matter	Silty clay loam	Maintained Baumscheiben
Good layer of topsoil (5-10cm); not compacted	Silty clay loam	Maintained Baumscheiben
Good layer of topsoil (5-10cm); not compacted	Silty clay	Frontgardens
Good layer of topsoil (5-10cm); not compacted	Clay	Frontgardens
Good layer of topsoil (5-10cm); not compacted	Silty clay loam	Frontgardens
Good layer of topsoil (5-10cm); not compacted	Silty loam	Frontgardens
Compacted topsoil with low biological activity and organic matter	Sandy clay	Frontgardens
Compacted topsoil with low biological activity and organic matter	Silty clay loam	Frontgardens
Compacted topsoil with low biological activity and organic matter	Silty clay loam	Frontgardens
No visible topsoil or poor quality of topsoil	Loamy sand	Frontgardens
Compacted topsoil with low biological activity and organic matter	Silty clay loam	Frontgardens
Good layer of topsoil (5-10cm); not compacted	Sandy clay loam	Frontgardens
No visible topsoil or poor quality of topsoil	Sandy clay loam	New Baumscheiben
No visible topsoil or poor quality of topsoil	Sandy clay loam	New Baumscheiben
Compacted topsoil with low biological activity and organic matter	Loamy sand	Not maintained Baumscheiben - wild vegetation
Compacted topsoil with low biological activity and organic matter	Loamy sand	Not maintained Baumscheiben - wild vegetation
Compacted topsoil with low biological activity and organic matter	Loamy sand	Not maintained Baumscheiben - wild vegetation
Compacted topsoil with low biological activity and organic matter	Sandy clay loam	Not maintained Baumscheiben - wild vegetation
No visible topsoil or poor quality of topsoil	Sandy loam	Not maintained Baumscheiben - wild vegetation
Compacted topsoil with low biological activity and organic matter	Sandy loam	Not maintained Baumscheiben - wild vegetation
Compacted topsoil with low biological activity and organic matter	Silty loam	Not maintained Baumscheiben - wild vegetation
No visible topsoil or poor quality of topsoil	Silty loam	Not maintained Baumscheiben - poor wild vegetation
No visible topsoil or poor quality of topsoil	Silty clay loam	Not maintained Baumscheiben - poor wild vegetation
Good layer of topsoil (5-10cm); not compacted		Not maintained Baumscheiben - poor wild vegetation
No visible topsoil or poor quality of topsoil	Sandy loam	Not maintained Baumscheiben - poor wild vegetation
Compacted topsoil with low biological activity and organic matter	Sandy clay loam	Not maintained Baumscheiben - poor wild vegetation
Compacted topsoil with low biological activity and organic matter	Sandy clay loam	Not maintained Baumscheiben - poor wild vegetation
Compacted topsoil with low biological activity and organic matter	Silty clay loam	Not maintained Baumscheiben - poor wild vegetation
Compacted topsoil with low biological activity and organic matter	Sandy loam	Not maintained Baumscheiben
No visible topsoil or poor quality of topsoil	Loamy sand	Not maintained Baumscheiben
Compacted topsoil with low biological activity and organic matter		Not maintained Baumscheiben
Compacted topsoil with low biological activity and organic matter	Sandy clay loam	Not maintained Baumscheiben
No visible topsoil or poor quality of topsoil	Sandy clay loam	Not maintained Baumscheiben
Compacted topsoil with low biological activity and organic matter	Sandy loam	Not maintained Baumscheiben
No visible topsoil or poor quality of topsoil	Sandy clay loam	Not maintained Baumscheiben

Table 6.2 Results of soil analysis conducted in *Donaustraße* (2/2)

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