

The design of Relation

coexistence of differences in Berlin's Tiergarten

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Abstract

Human relations are part of our everyday. They manifest in a plurality of forms, movements, institutions and spaces. Thus if they have a reality, they can be studied as such. This thesis explores the so-called “design of relation”, arguing that in certain contexts - such as that of metropolitan cities in countries with evolved economies - the most intense forms of social interaction are exchanged within opaque contexts, where different social categories can find their own niches or insides to gather. In this framework, specific relational phenomena can be related to as spatial local thoughts, perceived as objects that could be extracted from their own contexts, broken down and re-assembled basing on different conditions and according to other spatial local thoughts.

This work describes an analysis on Tiergarten in Berlin, identified as a specific spatial thought of the German capital. Here is reported a survey on its spatial conditions, characters, communities, practices, spontaneous uses and multiple practices. The survey is conducted along with the activation of three key-concepts to talk about the matter of relation: “agonistic public space” by Chantal Mouffe, “opacity” by Édouard Glissant and “membrane” by Richard Sennett.

The result is a study of Tiergarten’s functioning as a device - term borrowed from Foucault - that generates a great degree of coexistence within a multitude of social diversities, tackling matters of socio-spatial inclusion, tolerance and equality. In addition, a design experiment around such device, its functional mechanisms and its logics, taken apart and set up in different environments.

In conclusion, the analysis on Tiergarten leads to a reflection on the matter of relation and how it involves different contemporary issues, in particular that of spatial, cultural and environmental proximity, further identifying new innovative strategies for the design of relation.

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This thesis tackles a discourse, in an explorative tone, around the so-called “design of relation”.

In the disciplinary field of urban studies and architecture this is an issue that holds a central task. Relations are the ground of social exchange processes as well as indicators of spatial quality. It concerns widely known matters, shared and experimented in the practice of design with various aims: connecting ecologies, production processes, enforcing exchanges of economic or social nature.

Clearly *we do not see relations walking hand-in-hand*, but we do know that they exist with a certain consistency, not only because they manifest concretely in a form, movements, spaces or social institutions, but also because we experience them. They are contingent, but it does not mean that they do not have a physical consistency. Thus, if they have a reality, they can be studied and analysed as such. They could be referred, for instance, to explain how a certain local society is and how, within it, specific forms of exchange or conflict are defined. Every dwelling practice – or of spatial production – happens in a relational context.

Relation as a concept implies that of relationship, interaction, multiple connection:

- A relation is a link that combines;

- Relations happen at a specific time;
- What happens within a time has a duration (be it small or big), occupies a space and has a history;
- A relation that has/includes a story carries under its historical/temporal dimension, emotions, desires, expectations, interpretations of facts, values, meanings, requests, behaviours and is at the same time completely open to evolution or regression;
- It is never neutral, thus, it is strongly conditioned by spatial, environmental and ecological features as well as individual or group subjectivities.

Today – within our design practices – designing relations gained at the same time a pervasive and blurred character. The recent affirmation of various discourses around practices and projects concerning the idea of “sharing” in many urban-regeneration design proposals in Europe, as well as the raising of the concept of “spatial proximity” in the design practice, express the power of such matters, behind – or against – which conceals Melvin Webber ideas of what the so-called “community without propinquity”.

More specifically, relational exchange is most commonly associated with public spaces. The hypothesis that many architects and urban planners, more or less explicitly, promote is that public space would be the

privileged place in order to trigger relational practices.

A public space that is almost always envisioned as aestheticized, transparent, lacking of conflicts. This is the case of “environments” that mainly trigger relations of economic nature, failing at reaching the very aim for which they are evoked: that of being a place of confrontation (conflict and composition) between imaginaries, values and different desires.

In this thesis the term “relation” (and its design) is intended in its socio-ecological sense, i.e. as part of an argumentation and a project around what Bernardo Secchi, in his design proposal for the Grand Paris, termed as “*socio-diversità*”. A concept that explicitly recalls the intellectual context that influenced Secchi in his practice and research (in particular: Bourdieu, Barthes and Foucault). In the case of Grand Paris, interpreting the city as “porous” could be considered as a strategy

to redefine characters of spatial proximity; here urban interstices are attributed the role of redefining forms of relating and dwelling at the proximity scale through a complex strategy of ecological and functional densification¹. Thus socio-diversity is a concept associated with that of “right distance” (between buildings, people, functions, imaginaries).

Starting from such considerations, two hypotheses are supported:

1. That in certain contemporary contexts, as that of metropolitan cities in countries with evolved economies, most intense forms of relation and social exchange happen within opaque spaces, dense and permeable, in “insides” where different social groups and individuals can shape their niches and spaces.

¹ Conceptually, the notion of porosity recalls and renovates that of compactness and density. Such definition is borrowed from physics and literature – that is from Walter Benjamin in his descriptions of Naples – it is as analytic as a designing tool and refers to the percentage of open spaces in relation to the build environment and the eventuality of having differentiated flows (of people, public transport, water, activities, practices, differences and vegetation). Porosity does not only comprehend green areas and agricultural lands, or abandoned, empty or misused plots; instead, it does implicate the possibility to give new meaning to unbuilt areas as an ensemble, particularly to spaces for mobility. Moreover, porosity is strictly related to permeability, represented by the single connections between “pores”. A porous city is widely accessible thanks to a new public transport structure – a net described with a metaphor by a sponge – and new biological corridors highly sustainable, as well as water system and humid lands. In a word, a porous city is “isotropic”, which means that it supplies an equal distribution of the infrastructural and environmental conditions and thus of urban opportunities.

2. That, in certain conditions, spaces or “devices” (term coined by Foucault) are configured for relation and could be intended as specific “local spatial thoughts”. Such spaces and devices could be intended as “objects” and exported or assembled in other places and with other “local spatial thoughts”.

An investigation of the Tiergarten in Berlin is presented to support these hypotheses. The Tiergarten, for the way it developed in particular after the second World War, could be considered as an example of a specific Berlin “local thought” about the discourse on relation. It is a device that defines specific forms of connection between individuals, collectives, imaginaries, desires.

The Tiergarten is a 210 ha park located at the centre of the German capital, integrated within the urban fabric as a wide green lung. Its appearance is similar to that of a forest, characterized with a bushy and thick vegetation, a tangled layout of allays, paths, channels and a plurality of uses and practices. Close to families and joggers, nudist sunbathers lay in the sun during warm summer days; within fronds and shrubs birdwatchers walk quiet and in the respect of nature, together with gay cruisers looking for encounters; many botanists spend time at the park to study its vast biodiversity, as

well as homeless who find a temporary sheltered refuge within dense bushes and trees. As a consequence, the Tiergarten is analysed sometimes with the eye of the architect, sometimes with the eye of the anthropologist. In order to identify characters and mechanisms of relation in the Tiergarten a series of top-down and bottom-up surveys are produced: spatial, environmental and historical analysis are tangled with observations around the life manners of local actors and individuals. Contemporarily, three concepts are activated: “agonistic public space” by Chantal Mouffe, “opaque space” by Édouard Glissant and “membrane” by Richard Sennett.

The interest in studying the Tiergarten started during an academic design studio – held at the Technische Universität Berlin during an Erasmus mobility – titled Political Spaces: Urban Frictions and organized by professor Charlotte Malterre-Barthes, who also tutored this thesis in its first steps as an Erasmus advisor during the period abroad. The subject matter of the studio dealt with the consideration of architectural spaces as “devices” (as defined by Foucault), i.e. considering particular buildings and urban spaces not only as architectural forms but as an ensembles of decisional processes,

policies, institutions, social and relations, agencies, etc. So, starting from what was learned during the design studio, the scientific survey on the spatial qualities and the practices of the Tiergarten started first with a bibliographic and cartographic research, secondly with a proper on-site observation – developed over the year spent in Berlin as an Erasmus student – of the materiality and the behaviours that characterize that space. The findings obtained are graphically rendered through drawings that identify selected “moments” of relation, emblematic of particular spatial situations and recurrent fruitions, nevertheless with images that testify specific practices and uses.

The result is in the first place a survey on the spatial and environmental conditions of the Tiergarten, as well as on its uses and dwelling practices, making explicit the conditions of this particular “device” of social relation. Secondly, an experiment around such device, around its functional logics and its features in different contexts and locally adapted.

The deduced conclusion is that urban design cannot have a direct impact on matters of inequality and socio-spatial exclusion, still it could affect those situations or devices that aim at either producing or replicating it:

spatial, jurisdictional, procedural and institutional devices consist of – mentioning some of them – zoning, distribution of public equipment or welfare, construction of qualitative-quantitative parameters, traffic or public transport policies, etc.

The Tiergarten case leads to a wide reflection on the issue of the relation design, involving matters of spatial, cultural and environmental proximity and identifying some innovative strategies for the design of relation.

Finally, it is also possible to establish a direct link between the notion of relation as it is proposed in this thesis and that of “social and cultural capital” by Pierre Bourdieu and “spatial capital” by Edward Soja, concerning the effects deriving from environmental/ecological goods (webs), cultural (public equipment) and spatial (places for leisure and mobility). Such juxtaposition frames the relationship topic as part of a wider strategy of production, accumulation or redistribution of spatial goods – be them ecological or cultural – through specific connections or disconnections. In other words, defining specific conditions of urbanity.

1 // The matter of relation

This chapter, as the very starting point of the thesis, is aimed at creating a solid terrain composed of theoretical notions in order to talk about the characters and problems of socio-spatial relations and its design and its design. The purpose is accomplished starting from a research of what has already been written about the topic, *lo stato dell'arte*. In particular, this discourse focuses on the activation of three fundamental concepts in order to introduce the analysis of the Tiergarten and, generally, the discourse on relation itself. Therefore, the following pages deal with the matter of relation following two main directions: “arguments” and “devices”. The former is articulated around three theoretical positions on the discourse about relation, in order to activate three important terms to tackle such topic: “agonistic public space” by Chantal Mouffe, “opacity” by Édouard Glissant and “membrane” by Richard Sennett. The latter analyses a series of architectural projects dealing with the design of relation – intended as a process of densi-

fication that produces a collision of different communities, activities, practices or imaginaries within the same space and according to two main spatial distributions, vertically and horizontally.

The first conclusion obtained from this chapter is a thematic map on the topic of relation, a starting point to tackle Berlin Tiergarten as device.

As anticipated in the introduction, architects and urban planners tend to consider public space as the privileged place to trigger relational processes, although it is commonly imagined as extremely “transparent” and lacking conflicts. Public space – as this thesis refers to it – is intended as “agonistic”, as Chantal Mouffe terms it in order to describe a public sphere that is characterized by conflicts, debates and hegemonies within different imaginaries or identities. The second term is that of “opaque space” as described by Édouard Glissant in his studies of Martinique and the dwelling practices of its inhabitants. Opacity is conceived as the condition that allows different groups to dwell within the same agonistic space, which is generated and characterized by the very identities of the ones who inhabit it. Thus the appropriation of different places by various communities derives from exclusions, confrontations and frictions.

The third and last concept introduced in this first chapter is that of “membrane” as explained by Richard Sennett. Communities who live within opacity must not be imagined like isolated clusters, but on the contrary forms of social exchange and interaction are made possible through systems termed as “membranes”.

1.1.2 Chantal Mouffe. Agonistic public space

Chantal Mouffe is a Belgian professor and political theorist, best known for co-authoring with Ernest Laclau the volume *Hegemony and Socialist Strategy* (Verso, 1985). Her writings mainly focus on the dimension of the political and the processes that govern it, which according to Mouffe are ruled by a strongly hegemonic relation without the possibility of a final reconciliation. According to this model public space is the terrain where forms of debate and social exchange happen, it is “agonistic” as it is intended as the dimension where hegemonic forms

of relation confront each other.

In order to understand Mouffe’s discourse, it is necessary to understand first what she means by “public”. The definition that the author gives to this word is similar to that of the German correspondent *Öffentlichkeit*, which generally means “public” as opposed to “private”. More specifically, it is possible to trace three different contexts within which this opposition is inscribed. In the first place, public as “common” or “general”, as opposed to “individual”; secondly the meaning of *Öffentlichkeit* refers to something that is manifested and visible, distancing the concept of “privacy” or “secret”; lastly, “public” is intended as “open” or “accessible” rather than “closed”. Those three different meaning of the term *Öffentlichkeit* are correlated with each other, but they do not overlap: something could be “public” in the sense of just two of these senses¹.

Moreover, in order to fully understand what Mouffe means in her conception of the “public”, it is also necessary to reflect on the meaning that she attributes to the terms “politics” and “political”. There is a lot of disagreement between various thinkers, such as Chantal

¹ Those three different forms of *Öffentlichkeit* have varied and shifted through the years, starting from the Greek *polis*, where the meanings of common, visible and open would all be included in the word “public”, until the construction of the State which established a new type of separation between the public and the private.

Mouffe and Hannah Arendt, about what actually constitutes the “political” and this condition reflects on the way the “public” is conceived. Is it a space of freedom and public deliberation or a space of power, conflict and antagonism? Mouffe’s position is clearly oriented towards the latter. Thus, she defines the politic on an “ontic” level as “*the set of practices and institutions through which an order is created, organising human coexistence*” (Mouffe, 2015, p. 153) within an antagonistic conflict that is provided by the political, intended on an “ontological” level as the dimension of antagonism constitutive of human societies (*ibid.*), that is the conflictual context itself within which politics operate². As a consequence, issues addressed to the former are simply tasks who need the contribute of an expert to be solved, whereas matters related to the latter always imply to make a decision between two alternatives contrasting each other.

Now Mouffe points out how the inefficacy of today’s

way of political thinking³ could be traced back to the hegemony of liberalism⁴. What she criticizes about liberalism is that – being characterized by more of a rationalist and individualistic approach – it would be inadequate to deal with the pluralistic nature of the social sphere and, specifically, to the plurality of conflicts that it entails. From discordances, that never solve in one rationalist solution, derives the antagonistic dimension that characterizes societies.

The typical liberal understanding of pluralism is that we live in a world in which there are, indeed, many perspectives and values and that, due to empirical limitations, we will never be able to adopt them all, but that, when put together, they constitute a harmonious a non-conflicting ensemble. This is why this type of liberalism must negate the political in its antagonistic dimension.

(Mouffe, 2015, p.154)

² This means that the “ontic” concerns the regulative practices of conventional politics, whereas the ontological concerns the actual manner in which society is symbolically instituted

³ i.e. addressing the problems in our society in a political way, to think “politically” does not mean to address mere technical issues that could be solved by some experts.

⁴ “Liberalism” in the way Mouffe uses the term in the present context refers to a philosophical matter with many variants that are connected by a plurality of “family resemblances” (using Wittgenstein expression) and not by a common essence. This means that there are several liberalisms that differ one from the other, but they all have, as a common character, a tendency to tackle social matters with a rationalist and individualistic approach.

The contemporary liberal thought developed two main paradigms describing societies: the first is called “aggregative”, which envisions societies and their politics as capable of establishing some sort of compromise between competing parties. Society is portrayed as composed by rational human beings, whose acts aim at maximizing one’s own interests, according to an instrumental model. As a reaction, the second paradigm, the “deliberative” one, links morality and politics: it argues that political is a specific field of application of morality and that it could be possible to reach a final and general consensus through means of free debate. In the first case politics are concerned within matters of economy, whereas in the second one they are apprehended within the field of ethics. Mouffe, who criticises both models, argues that what is left outside in there two paradigms is what she terms as “passions”, i.e. the affective dimension which is a crucial topic when it comes to the constitution of collective identities, within which is comprehended political identification as well. This is a crucial conception in Mouffe’s thinking, as she believes that a political identity is always collective and the liberalistic approach, with its individualism, could never be able to grasp such specificity that constitutes the political.

According to the Belgian thinker, the political is always connoted by a form of antagonism which cannot be eliminated. This antagonism is expressed by the relation “we/them”, that has at its base the idea of identity, grounded on the processes through which the diversity is recognised, based on a hierarchical system (e.g. black/white, man/woman, etc.). Politics always deal with a “we” that differs and is opposed to a “them”. The same way, the political always derives from the recognition of the difference between the two, although none could exist without the other. “*Once we have understood that every identity is relational and that the affirmation of a difference is a precondition for the existence of any identity (...) we can understand why politics is concerned with the constitution of a “we” which can only exist by the demarcation of a “them”*” (Mouffe, 2015, p. 155). Democracy’s task is not about how to solve this conflict, but rather overcome the different paths according to which this opposition is established. This line of reasoning does not imply that the relation “we/them” is necessarily antagonistic, as could be that between “friend/enemy”, although it could become such in certain conditions: the possibility of antagonism can never be eliminated, it is an ever-present condition and must be taken in account as such when dealing with matters of politics. This even-

tuality is finally realized when “them” is perceived as something that questions “we” in its identity, be it a religious, ethnic or economic matter.

Secondly, to introduce the notion of “agonistic public space” is very important to understand that, according to Mouffe, every form of social organization is based on a hegemony and every society is the product of a series of practices aimed at establishing an order within contingency. Every kind of social order must not be considered as folding to a logic exterior to itself, but as a temporary and precarious articulation of practices dictated by contingency. As a consequence, all political orders are based on exclusion: there will always be possibilities left on the side waiting to be revalued⁵. The relation in this case is a power relation: power is intended by Mouffe as the constitutive element of every social relation, as *“the social could not exist without the power relations through which it is given shape”* (Mouffe, 2005, p. 156). What might be considered as a “natural” order is nothing but the sediments of a hegemonic practice.

Once that the chance of a final reconciliation within a political context is acknowledged, it is easier to un-

derstand what is the main task of political democracy, i.e. finding solutions in order to diminish the potential antagonism that characterizes social relations. In other words, this means to find a way to accept conflict as legitimate and make it assume a form that does not imply destroying the political association. This kind of relation is called by Mouffe “agonism”. In an agonistic relation “we/them” do not see each other as opponents who should be eradicated, as it is typical in the relation “friend/enemy”, but they do not consider mere negotiation as the key to solve their conflict either, as it would imply a reconciliation – which would just eliminate the antagonism. An agonistic relation takes distance from an antagonistic one in the sense that, in the former, the two parties “we/them”, although they do not envisage a final solution, at least recognize the legitimacy of the opponent. Thus they are “adversaries” and not “enemies”.

What are the consequences of the previously delineated model in the perception of the public space? The most important is that it upsets the canonical misconception – according to Mouffe – that envisions public space as

⁵ The very meaning of a hegemonic practice include that a counter-hegemonic force could always rise, i.e. a practice that would attempt to break the existing order to establish its own hegemony.

the place where consensus emerges. On the contrary, according to the agonistic model, public spaces are the battlefields where the hegemonic nature of the relation manifests most fully and without any chance of a final reconciliation. The agonistic opposition could happen on a plurality of discursive surfaces, meaning that it would be more correct to refer to “public spaces” in the plural form, as it doesn’t deal with just one public space. This plurality of public spaces is striated and follows a hegemonic structure, without any centre or unity principle within this variety of conflictual situations. Every form of hegemony has its specific articulation and this implies that every new hegemonic challenge consists in finding a different solution for the organization of the agonistic public space.

Spaces that are envisioned as lacking conflicts and excessively peaceful – as it is really common in the design practice of commercial places – are not agonistic public spaces. Also, Mouffe points out that a public space to be “agonistic” does not require a geographical location, but could also be virtual too. Internet as a platform for discussions is an agonistic public space.

Such conception of the agonistic public space is upstream to those theories that identify public space the place

where a final consensus can be reached. Those of Jürgen Habermas and Hannah Arendt are the most well-known.

Similarly to Mouffe, Habermas theorized what he calls the “public sphere”, the place where deliberation is aimed at reaching a final agreement within the different parties involved within the political. The difference here lies in what is termed by the author as “regulative idea”: although Habermas recognizes the impossibility of a common consensus, he still perceives communication as “regulative” within dissent. Mouffe negates such idea, as she believes that general approval cannot be gained without exclusion, which is the meaning of the relation we/them itself.

Hannah Arendt instead uses a vocabulary similar to Mouffe’s, arguing about agonistic public space in her theory as well. Nevertheless, the same way as Habermas, she distances Mouffe in her thinking and the reason relays on the hint that both Mouffe and Arendt give to the term “agonistic”. While, as it was previously explained, according to Mouffe is the possibility of antagonism that bears agonism, Arendt does not admit this chance. The latter insist on the fact that politics are concerned with a plurality of different human beings aggregating, but on the other hand she does not believe

that such plurality depends on an antagonistic conflict and, like Habermas, she indeed imagines that at the end of every conflict there could be a final reconciliation.

1.1.2 Édouard Glissant. Opacity

Now that it has been dealt with Chantal Mouffe's conception of agonistic public space, the argument of this chapter follows with an explanation of another term that is necessary to activate in order to support the thesis on the topic of relation: that of "opacity", as it is defined by Édouard Glissant.

Édouard Glissant (1928 – 2011) was a French poet, writer and philosopher from Martinique, whose work mainly focused on the analysis of the Caribbean, of its characters, spaces and societies. His studies and writings are mainly structured around the topic of "Relation" as related to the Caribbean context, one that mixes within the same space different identities, languages, ethnicities, cultures, etc.

That of the Antilles is a context that Glissant terms as

"Creole space", as it underwent a process called "creolization" and defined by the author as "*one of the ways of forming a complex mix – and not merely a linguistic result – (...) exemplified by its processes and certainly not by the "contents" on which these operate*" (Glissant, 1997, p. 89).

Creolization is a process that brings into relation but, at the same time, does not universalize, and links together bigger generalizing concepts as Frenchness, Latinness or negritude.

Although Glissant does not provide a clear definition of what a "relation" is, regarding these cultures he specifies that "*each particular culture is impelled by the knowledge of its particularity, but this knowledge is boundless*" (Ivi, p. 169). Thus, each particular culture cannot be broken down into prime elements, as its limits are not defined. The relation is what links each culture to its prime elements ("internal relationship") and, at the same time, each culture to other cultures that affect it ("external relationship"). It is really important not to confuse relation with cultures, nor with their internal relationships economy, nor "*the projection of their external relationships nor even the intangible results of the intricate involvement of all internal relationships with all possible external relationship (...) Relation is all these things at once*" (Ivi, p. 171).

The term "opacity" in particular plays a key-role in the

description of the Antilles' context, as Glissant argues it in the essay *Poétique de la relation* (Gallimard, 1990). According to his discourse on relation, opacity as a condition is strictly correlated to difference, a theory that has allowed the human thought to struggle against reductive misconceptions as, for instance, racism. Writings and theories as *Éloge de la différence* (Albert Jacquard, Éditions du Seuil, 1978) made it possible to demonstrate how absurd it was to claim a scientific basis for such beliefs as that of racial superiority and at the same time allowed the entitlement to recognition of ethnical minorities. Nevertheless, difference itself – without opacity – is not enough to let the existence of such minorities to be fully considered. Difference alone can still lead to the "Transparent". Considering the western approach of understanding things, ideas and concepts, it is clear how this is based on a process at the bottom of which lays transparency. "*In order to understand and thus accept you, I have to measure your solidity⁶ with the ideal scale providing me with ground to make comparisons and, perhaps, judgments. I have to reduce*" (Glissant, 1997, p. 190). This hierarchy is clearly upset by the acceptan-

⁶ "Solidity" as opposed to "viscosity" is also used by Zygmunt Bauman to provide a definition of the "foreigner", where he recognizes the latter term as the characterizing quality that generates fear and eventually hate against foreigners, making them difficult to be identified. (For any further clarification see Bauman, 1997)

ce of the difference, as an understanding of something that is different supposes a relation with a norm, related to an ordinary condition. Now, the condition that is created within opacity allows the understanding and the acceptance of differences to move another step further: it displaces all reductions. The "right to difference" and the "right to opacity" differ from one another as the latter defines a "*subsistence within an irreducible singularity*" (Glissant, 1997, p. 190). In this very concept lies the innovation in Glissant's thinking, giving up on the obsolete duality existing between the Self and the Other. What he hopes for would be to give up on investigating what lies at the bottom of natures and start a movement "*referring not to Humanity but to the exultant divergence of humanities*" (Ibid.). Such approach would nullify the mere conception of a Self as opposed to an Other, making every citizen Other and no longer a barbarian. Glissant does not refer to opaqueness as a synonym of "obscure" or "shaded", although it is possible to accept opacity as such. The definition of opacity is in this case closer to something which cannot be simplified or reduced, which guarantees confluence and participation.

Thus opacity leads to coexistence and convergence of different identities, societies and social groups, as it creates a condition that does not imply to reduce the Other to an image of the Self. “*I thus am able to conceive of the opacity of the other for me, without reproach for my opacity for him*” (Glissant, 1997, p. 193). Opacity is the actual foundation of relations and freedom, as well as the basis for “Legitimacy”, which implies a political hint in the meaning of the term.

The spaces which present the ideal conditions for relations tend to opacity and the agreement within opacities equals – according to Glissant – nonbarbarism. Creole space, which Glissant identifies as particularly characterized by opacity, is based on conflicts and contingency, on frictions between different identities, ethnicities and languages⁷. This means that Creole space was not generated by a strategy based on transparency and connections, neither is it a celebration of a specific territorial or cultural aspect; quite the opposite, spatial contexts originated here from interracial cohesion – or exclusion – and, as a consequence, those places turn out to be as diversified as the social value that is attributed

⁷ This conception of opaque space is not far from Mouffe’s idea of the agonistic model, as both oppose the idea of a public sphere, or space, that is excessively deprived of crashes and collisions: in other words, that is “transparent”. (For any further clarification see paragraph 1.1.1)

to them (Di Campli in AA. VV., 2011). For this very reason, Creole space cannot be traced back to any original model regarding its genesis and identity.

How can one reconcile the hard line inherent in any politics and the questioning essential to any relation? Only by understanding that it is impossible to reduce anyone, no matter who, to a truth he would not have generated on his own. That is, within the opacity of his time and place. Plato’s city is for Plato, Hegel’s vision is for Hegel, the griot’s town is for the griot. Nothing prohibits our seeing them in confluence, without confusing them in some magma or reducing them to each other.

(Glissant, 1997, p. 194)

Thus, opacity is a force that governs every community: it is the condition that brings humans together forever and at the same time make them permanently distinctive.

1.1.3 Richard Sennett. The membrane

Richard Sennett is a professor and researcher known for his studies in the field of urbanism and social ties in cities. He is a theorist of the so-called “Open city”, documented in the volume *Building and dwelling* (Farar, Straus and Griroux, 2018). His distinction between the “Open city” and the “Closed city” and his research about how to design including “open forms” is particularly important in order to activate the third and last term to talk about the topic of relation: the “membrane”.

Richard Sennett theory is similar to that of another well-known sociologist from the twentieth century: Zygmunt Bauman. Both recognized a condition that heavily characterizes contemporary societies, i.e. a com-

⁸ Bauman links the idea of freedom to one’s capability of moving freely within the urban context. According to Sennett the grid structure in the definition of the urban environment reflects the crystallisation in the architectural practice of conceiving the city as a uniform and neutral environment (Sennett, 1992). Although, contemporary urban contexts are highly diversified and heterogeneous, for this very reason the limits (between neighbourhoods, houses, collectives) are often point of contention subjected to new interpretations and shifts. Thus, a citizen’s capability of freely crossing borders is emblematic of his freedom itself.

⁹ According to Bauman, this condition is strongly reflected in spaces built for commerce or tourism. According to this condition, the pleasure that a *flaneur* seeks derives from the mutual maintenance of distances between foreigners and in the certainty that the temporary experience would remain as such. This is the case of the spectacular scenographic arrangements built up in city malls, or the amusement experienced in all-inclusive beach resorts or, again, in ethnic restaurants.

mon fear of exposing that, according to Sennett as argued in *The conscience of the eye* (Alfred A. Knopf, 1990), is reflected in today’s cities layout. In particular, Bauman recognizes two ways of experiencing the city for contemporary citizens: on the one hand as a *flaneur*, on the other as an *ante portas* stranger.

The former, like a tramp, wanders through the city looking for euphoria and entertainment, walks the streets only guided by contingency, encountering a life that “*passes by*” (Bauman, 1999); his satisfaction derives from exposing himself to other people’s realities and becoming object of attention, although in this case – like erotic pleasure – the attention is only superficial and does not last long enough to allow the other to compromise the *flaneur*’s freedom to move freely in the city. What allows the *flaneur*’s freedom⁸ is this very characteristic of his, of manifesting as ephemeral and distant⁹.

The latter, the *ante portas* foreigner, starts from the

concept of “interior” or “house” as opposed to “exterior”, where “interior” refers to that space that is only subjected to one self’s control coherently to his decisions and desires. The aspiration of a defensible space transforms non-familiar people – the same that for the *flaneur* represent an “*obscure object of desire*” (Bauman, 1999, p. 93) – in enemies. The way of the ante portas stranger opposes that of the *flaneur*; as here the city is perceived as a source of threats and dangers. Both visions led with the time to a simplification of contemporary cities to a proscenium of human life (Sennett, 1992), which is highly tolerated by citizens exactly because of their fear of exposing to other’s lives. Within this frame, an open question arises: how would it be possible to bear a sense of community within the ambivalence of ephemeral pleasure and fear of strangers?

Thus, the definition of “Closed city” by Sennett starts from a paradox: for him, the urban practice suffered – starting from the second half of the twentieth century – a decline, notwithstanding a remarkable improvement of the resources and the technological equipment at the designers’ disposal. The cause of this paradox lays in the professional practice, characterized by an over-determi-

nation of cities’ formality and of its social functions.

As materials for culture, the stones of the modern city seem badly laid by planners and architects, in that the shopping mall, the parking lot, the apartment house elevator do not suggest in their form the complexities of how people might live. What once were the experiences of places appear now as floating mental operations.

(Sennett, 1992, p. 2)

An example of such phenomenon is Le Corbusier’s *Plan Voisin* from the ‘20s, whose masterplan originates from a single X shaped building typology replicated infinite times, where all the regular ground floor functions are deleted, leaving no space for social interaction. The use of each building is regulated by a single big masterplan. In this instance, Sennett’s critique to Le Corbusier is of having removed from the ground floor exactly that only function that he recognizes as being the basis of an “Open city”; on the contrary, in the *Plan Voisin*, the inhabitants dwell and work isolated in the floors above ground. While Le Corbusier’s plan remained on paper, this dystopia is still representative of many cities’ realities: for example, in the new inhabited centres addressed to the middle class where commercial activities

that usually characterize streets have been replaced by big city malls, in gated communities, in university campuses completely isolated from urban agglomerates. An excessive division of the city fabric in functional areas, as well as a bureaucracy that leaves always less space for inventive, have led to a situation never seen before in city’s history.

A second paradox on which Sennett reflects is that contemporary urban fabric, so frenetically designed, has a life-span that is progressively reducing¹⁰ and is less and less capable of transforming and satisfying diversified uses. The renewal of urban centres, in the American continent as well as in Europe, often coincides with the relocation of the inhabitants who already dwelled in those areas, or the addition of new constructions without a proper old/new dialogue.

Moreover, a “closed system” as that of the “Closed city” has two main characteristics, i.e. stability and integration, to which Sennett attributes a negative acceptance. Stability – deriving from over-determination – risks to neglect important matters during the design process while giving the same importance to every specific issue considered an ensemble. Integration by definition

implies that every aspect of the project would be integrated in a general framework, causing a natural opposition of everything that is not comprehended in the overall picture, thus reducing the value of the anomaly and the difference. The paradox in the very meaning of “integration” manifests, according to Sennett, as compared to that of “context” – defined as an ensemble of historical, social, economic and architectural factors in which bureaucratic policies do not always allow the addition of distancing, offensive or provocative elements. Together, these three concepts (formal coherence, stability and integration) underpin the closed system, as well as bureaucratic policies that rule twenty-first century’s city development.

An “open system”, argues Sennett, is essentially defined by the following five points. First, the “openness” is intended as a synonym of “complexity”, meaning a system composed by different parts; secondly, those parts, or “units”, that compose the open system as a whole, are mutually related according to simple rules that result in a complex output; the third point argues that a known beginning always produces unexpected

¹⁰ Statistically, the life-span of new housing projects completed in Great Britain is estimated at forty years, while for New York skyscrapers only reaches thirty-five years. (For any further clarification see Sennett, 2013)

results; moreover, an small-scale event always triggers large-scale changes; lastly, an open system adapts to changes thanks to an auto-regulating system: this means that, by definition, an open system tends to adapting to chaos as a “lesson learnt”.

In science, an open system is defined by a succession of non-predictable events, that cannot be homogenized nor are interchangeable. An example of open system is Darwin’s Theory of evolution; in social studies, the idea of open system is often associated with that of “auto-poiesis” by Niklas Luhmann¹¹. Now what Sennett proposes is to transfer such idea to the conception of built environment, arguing that within an open system it would be possible to trace a relation between physical space design and its practices, i.e. the behaviours of which it is theatre. Thus, what is more commonly defined as a space “agency”, is actually a collision between both design and uses.

An Open city is dense and diverse. Its physical conditions lead towards the unexpected, discoveries, innovation. The Open city opposes those capitalistic ideals that are widely embraced by the Closed city, its homogeneous and predictable forms. Instead Open city’s pu-

blic spaces promote the juxtaposition of practices that traditionally wouldn’t match. For this purpose, urban planning plays a fundamental role in the delineation of the Open city. It is also very important to point out that it would be more correct to refer to “an” Open city, rather than “the”, as there is not only one model for an open city. *“The smart city is also open when it coordinates shifting complexities rather than reduces them to a single standard of efficiency”* (Sennett, 2018, p. 235). Here follows an explanation about how to design according to “open forms” as defined by Sennett, concentrating on three main topics: “ambiguous edges”, “uncompleted form” and “seed planning”.

Taking inspiration from natural ecologies, Sennett stresses the difference between two kinds of edge: borders and boundaries. The former is a porous resource; the latter is not. The boundary is a straight line, as that drawn by lions and wolves by peeing to mark their own territory: it is an edge where things end. On the contrary, borders mark a space of exchange, as for instance the border between water and lake shores, where natural selection is the most intense and organisms feed

¹¹ Luhmann argues that humans, through mutual verbal exchange, structure the system of values by which they live and that the more the exchange the more they become individualized. This is the phenomenon described with the term “auto-poiesis”.

off each other. Sennett believes that such ecological difference marks the human world too. Today’s cities are defined within closed boundaries – argues Sennett – cutting out the city into smaller airtight containers where inhabitants are not so much affected by external conditions, causing really low exchanges between racial, ethnic and class communities.

The urban habitat is cut up into segregated parts by streams of traffic and by functional isolation between zones for work, commerce, family and the public realm. “Octopus city” development in Delhi, as elsewhere, does not spread growth across an area, but rather channels it narrowly. Caracas in Venezuela employs another kind of sealed boundary in the form of high-speed walls of traffic which separate rich and poor. The most popular form of new residential development internationally, as we have observed, is the guarded gated community inside a boundary wall.

(Sennett, 2018, p. 220)

¹² Sennett relates the concept of “porous” to Nolli’s 1748 map of Rome. What makes a sponge porous is its capability of maintaining the same shape although it can absorb water; the same way, a building could be porous when it allows an open flow between inside and outside, still maintaining its shape of form and function. The Nolli map exemplified how porosity in these terms could appear in the city. The plan shows the porous relations between solid and void, it is at the same time an architectural and social representation. (For any further information, see Sennett, 2018, p. 218).

¹³ In order to support such argumentation, Sennett illustrates a case from its own planning practice: the design for La Marqueta in

ting the design practice and the addition of new activities on the edges rather than centres. Understanding the value of the edge and border aims to create neighbours who mix casually (Sennett, 2018).

Moreover – according to Sennett – even form and function should not be strictly connected, if not even not related. While a building functioning is naturally subjected to change with time, its form is unlikely to adapt if excessively over-determined. For instance, skyscrapers are characterized by a complex structural, machinery and spatial system, which can barely be adapted to other uses, as from office to residential. Nevertheless, Sennett points out how today’s technologies in the architectural field could still promote the designing of more flexible and adaptable buildings¹⁴, whose spatial organization should resemble that of a shell.

Shells create forms whose possibilities are not exhausted in any particular configuration imposed at the start. The shell also creates porosity within a building, since structurally there are few fixed barriers. Its making invites more making.

(Sennett, 2018, p. 230)

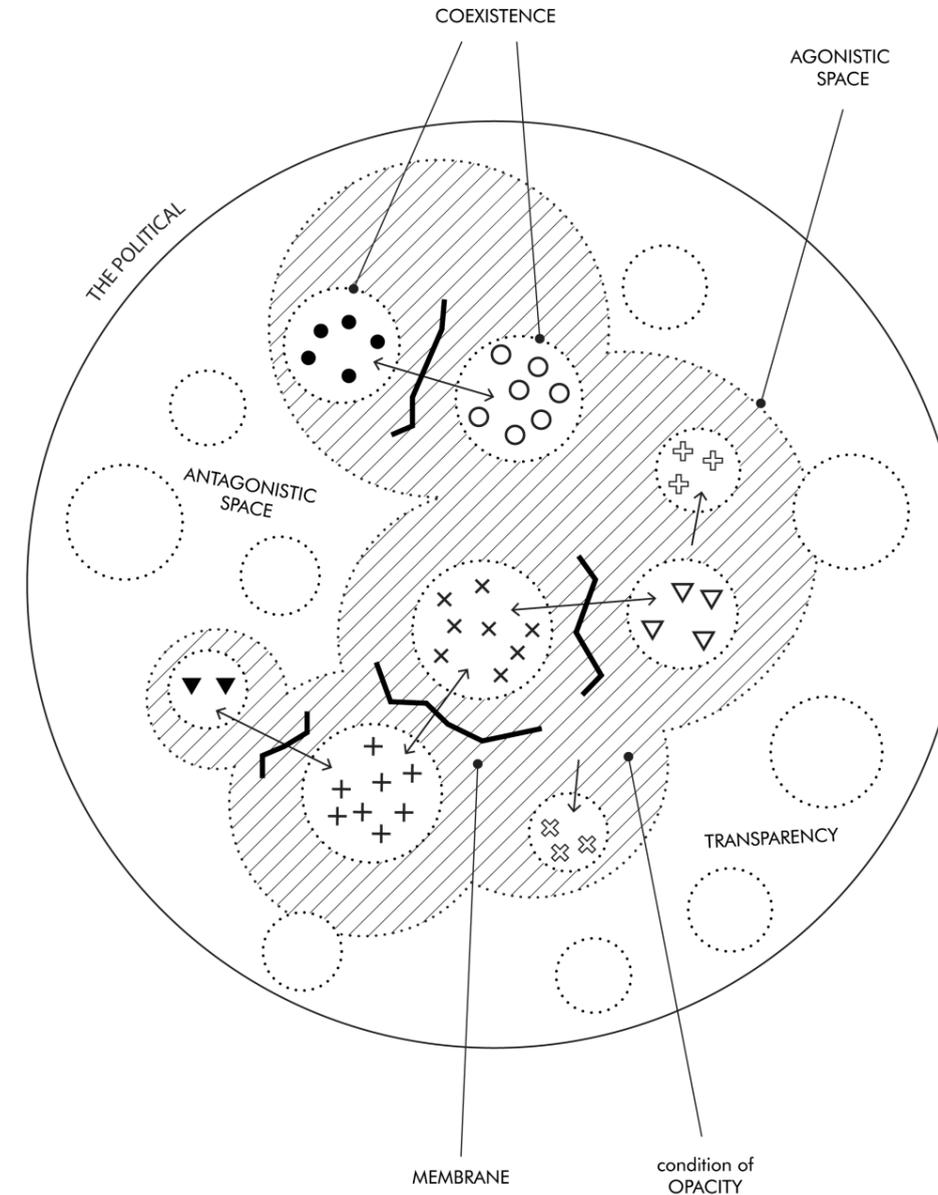
Lastly, “seed-planning” is auspicated as another open form of designing as opposed to “master-planning”. Such terminology is borrowed by Sennett from farming.

The master plan divides a city up into a closed system where each place and function relates logically to other places – which again ignores the farming reality that different colonies of the same seed will compete for water, mutate over time or die out by contact with one another: a farm has a dynamic rather than static ecology.

(Ivi, p. 236)

New York. In 2015 he was involved in the plans for designing a market to serve the Hispanic community of Harlem, which is located up the 96th Street on Manhattan’s upper east side; below the 69th Street, lies one of the richest communities in the world. The proposal for La Marqueta envisioned to locate the market at the very centre of the community, twenty blocks away from the 96th Street, regarded as a dead edge, a boundary. Sennett, critically analysing his own experience at some years’ distance, recognized in such decision a lost opportunity, as location La Marqueta along the edges of two communities could have contributed to the definition of a porous edge, a membrane where the poor and the rich could have related with each other during daily life.

¹⁴ For this instance, the given examples are Alejandro Aravena’s design for incomplete living units for Iquique, in Chile, as well as the Woburn Walk in London, designed by Thomas Cubitt, as an example of shell-design that supplied middle class users (For any further information see Sennett, 2018).



pic 1: diagram of relation (author’s work)

The essence of this idea is to leave minimum indications about how form relates to function. This argumentation is moved starting from a critique of renowned city masterplans, as those of Baron Haussmann, Albert Speer and Robert Moses, who disregarded people’s needs and desires while planning at such big scale, and a matter of how “big” relates to “good”. Through seed planning, diverse themes – as where to place hospitals, schools, housing, shops, squares, parks – are developed independently throughout the city, leading to a more complex image of the urban togetherness.

Richard Sennett’s definition of “membrane” is the last position on the matter of relation. In many contexts, such as the metropolitan one, “membranes” and “opacity” within multiple “agonistic public spaces” all contribute in the definition of a specific condition of urbanity. They avoid static forms and repetitions: they thicken the material conditions where people densely experience collective life.

As it results from what exposed in the previous paragraph, socio-spatial relations do not only entail exchanges of mere social nature, but can be traced within complex systems of ecological, political or economic nature. This second part of the first chapter analyses four projects that took into account the dimension of relation as essential for the definition of their programmatic solutions. In general, matters of relation design often result – in the architectural practice – in processes of densification aimed at intensifying practices of social exchange by the juxtaposition of different programmes within the same space, structured around two main spatial organizations: vertical and horizontal. Eventually relations become an evaluation parameter of spatial qualities, as a planning reflection around such matters generally leads to a merge or friction between diverse scenarios, communities, imaginaries, as well as the implementation of the context's condition – be them sanitary, economic, ecological.

The selected cases are divided according to their spatial programme, as follows: La Villette by OMA (1982) and Casa Familiar by Estudio Teddy Cruz (2001-ongoing) as examples of horizontal programme; SESC Pompeia by Lina Bo Bardi (1977-82) and Gimnasio Vertical by U+T+T (2004) as examples of vertical programme.

1.2.1 Horizontal. Parc de la Villette and Living rooms at the border

Parc de la Villette

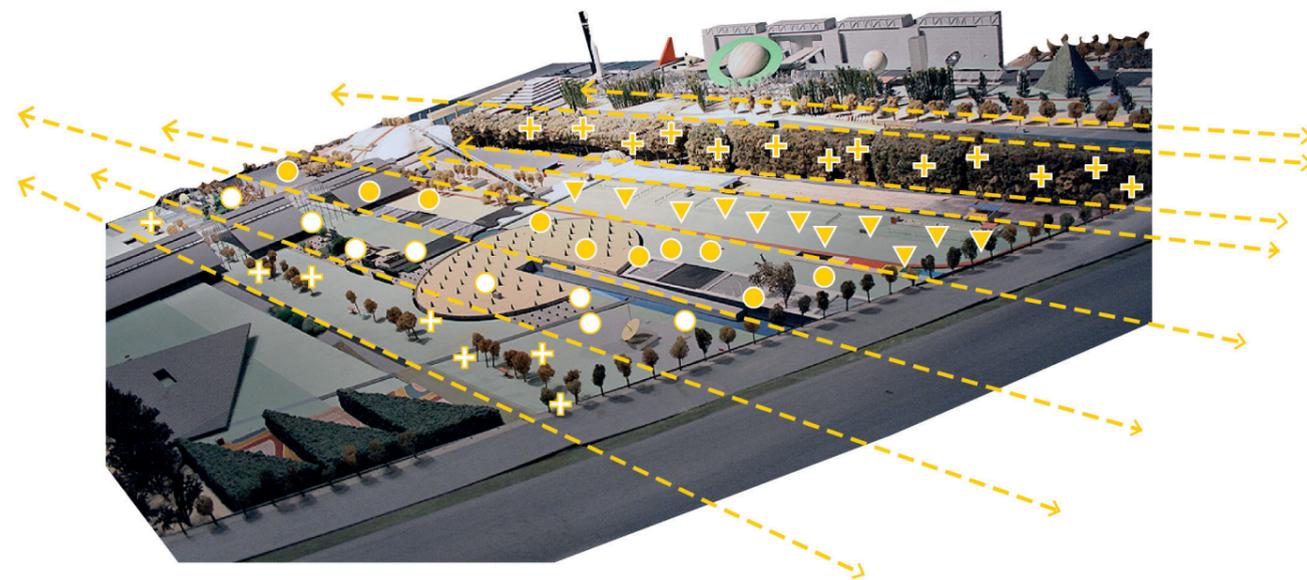
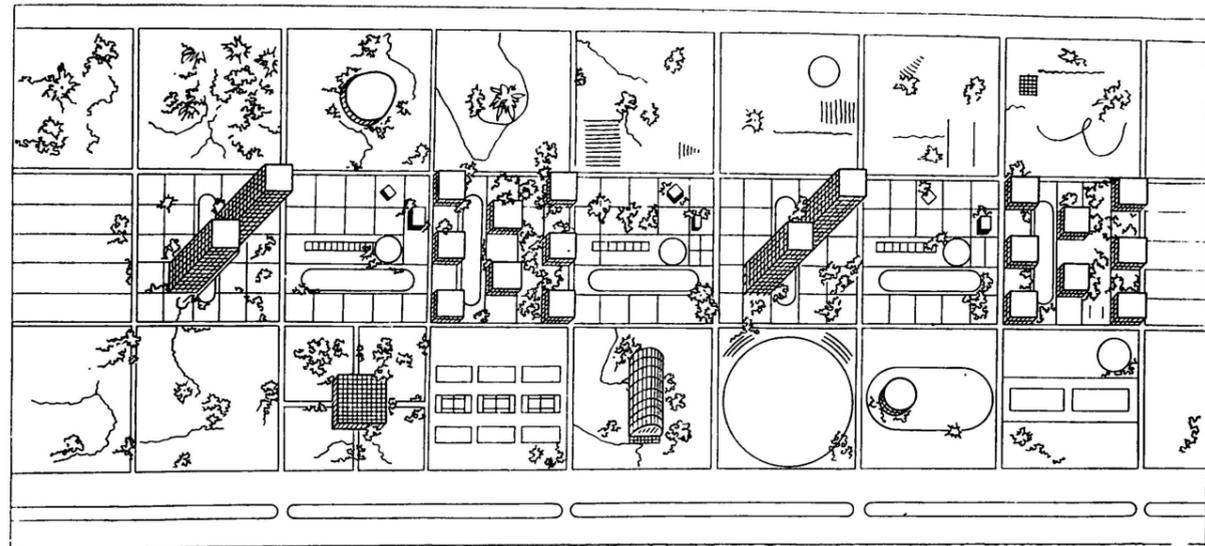
Parc de la Villette by OMA is the first project analysed. Such project was presented by OMA at the 1982 international competition for Parc de la Villette - aimed at creating a new park for the twenty-first century - was meant to express the new culture of metropolitan life. Attendants were thus required to develop a proposal for an innovative park, including not only natural elements but also integrating a cultural programme – a music centre and a technology and science museum – distancing Paris' traditional practice. Although this proposal

never won the competition, there are still many important notions – regarding the design of relation, densification and the metropolitan context in general – that can be apprehended by analysing this project. Rem Koolhaas, basing on what he learned from the study of Manhattan, opposed the 1960s' idea that the metropolitan context was not liveable because it did not favour a concrete relational life between its inhabitants. Instead, he believed that the metropolis was the only place on which modernity and its values were based. Moreover, he disliked old organic systems where parts

depend one on the other and cannot be substituted without damaging the entire structure. Instead, while designing la Villette, Koolhaas took direct inspiration from the 1920s Soviet projects for social condensers¹⁵. The project has become with the time a planning model that includes the juxtaposition of different layers placed one on top the other, mixing a wide range of programmes and situations. As he described the project for La Villette in *Content* (Taschen, 2004), Koolhaas claimed a copyright for his own conception of social condenser, defined as a:

¹⁵ The term "social condenser" refers to a spatial idea that was first developed in the 1920s by the Russian constructivist movement. In the Russian post-revolutionary context, the Constructivist movement started to integrate social matters into the architectural practice, aiming at "reorganizing the life of the mass population according to the direction outlined in the Bolshevik party's Marxist program" (Cooke, 1995, p.29). Such ideas led to a research of new forms of collective inhabiting, while the architect as a profession started to be intended as that of a "social catalyst" – as defined by Catherine Cooke. In the constructivist thought, a social condenser is an architectural or urban structure to which is attributed importance in the transition of society. Thus, the social condenser was at that time meant to accomplish a dual function: first foresee future developments on matters of architecture and town planning so that its users would grow accustomed to them; secondly influence the users through its spatial organization in order to push them towards new social habits (Kopp, 1985). Social condensers were designed at every scale, be it that of a single residential building, a sport or cultural facility, a city. What associates all these projects with each other is that they are all loaded with a multiplicity of programmes, interpreted as tools to foster relations and collectivization. Such projects expressed a will to not only redefine architectural and spatial programmes but also to open intellectual activities to workers and thus transform urban life's complexity.

A name that is most commonly associated with the idea of social condensers is that of Ivan Leonidov, known for designing the Club of a New Social Type and the masterplan for the linear town (see picture 2 in the following page). All his facilities included many cultural and educational programmes that, before him, were not usually mixed together: for instance swimming pools, laboratories and winter gardens dedicated to natural history and zoology, wide open areas for mass sport activities as well as political or economic events, fully equipped with open air-screens, radio transmissions etc. Leonidov – whose conception was directly recalled by Koolhaas in La Villette – interpreted such programmatic structure as tool to foster relations and collectivization.



Programmatic layering upon vacant terrain to encourage dynamic coexistence of activities and to generate through their interference, unprecedented events.
 (Patent for: Social Condenser. In Koolhaas, 2004, p. 73)

La Villette's spatial structure is generated by the superimposition of seven layers on the project's area, so titled: 1. Initial hypothesis; 2. The strips; 3. Point grids, or confetti; 4. Access and circulation; 5. The final layer; plus, two additional layers dealing with the natural components and the park's relationship with the surrounding built environment. The first layer is directly related with the definition of the park as a social condenser; the second layer explains OMA's strategic approach – the strips – and in particular how to embody the Soviet reference.

The diagram representing the "Initial hypothesis" states the impossibility "to create a park in the recognizable sense of the word" (Koolhaas et al., 1998, p.921) because of the programme's extension. Therefore, Koolhaas tackled the problem deriving from condensed and dynamic coexistence with horizontal congestion, within which the programme undergoes constant change and adjustment

(Koolhaas et al., 1998), or in other words, he developed a design proposal based on the frequency between different activities and their interrelation. Parc de la Villette should be socially interactive in order to introduce – as required by the competition programme – a new way of urban living; Koolhaas accomplished such purpose by emphasizing on la Villette's cultural initiatives as well as promoting mass culture. The mechanism of Koolhaas' social condenser generates diversities, establishes links between activities, fosters unprecedented events while maintaining an overall continuity and unity, yet allowing "any shift, modification, replacement, or substitution (...) without damaging the initial hypothesis" (Ibid.). Thus, the programme of la Villette is redefined as that of a social condenser¹⁶, outlining a flexible and unified strategy while still leaving space up for new interpretations. Such process is defined by Koolhaas as

how to orchestrate on a metropolitan field the most dynamic coexisting of activities x, y and z and to generate through their mutual interference a chain reaction of new, unprecedented events.

(Koolhaas et al., 1998, p.921)

picture 2 (above left): axonometric drawing for Magnitorsk new town's masterplan, also known as the linear town, whose design team was also joined by Leonidov. (OSA team, 1930)

picture 3 (below): Parc de la Villette's working model completed with the stripes and their different scenarios. (OMA, 1982, author's rework)

¹⁶ Even if Koolhaas' project belongs to different time than that of social condensers, it is clear how both aim at designing an organization apt at promoting diverse activities of various kind as well as cultural mutations.

The second layer programmed by OMA is that of the strips, which defined the most la Villette's spatial structure. The park was exclusively designed in plan, where each strip was conceived as an adjustable zone, each one arranging its own border, acting as a distinct unit within the whole and according to its own rules, structures, disposals. Within such space, an archipelago of activities and fragments was envisaged. In order to grant the maximum interaction within the park, the strips are placed parallel one to the other, running from east towards west. Each strip was composed of both natural and functional elements, used to create themed and surprise gardens, playgrounds or natural landscapes integrating the existent buildings (the museum and the Grande Halle). Moreover, the strips would allow, along their axes, a perception of the park as a whole, granting the maximum level of permeability along their longitudinal axes. The grid of points or confetti – including elements like kiosks, picnic areas, playgrounds, service points – was placed over the strips in an apparently irregular¹⁷ way. The next layers comprehended a system

of main paths or routes, intersecting the strips perpendicularly, a layer of *objets trouvés* – the museum sphere, Arianne's rocket, the rotunda, etc. – and a series of connections with other Paris' hotspots.

For Koolhaas, the experience imagined for the visitor of Parc de la Villette was that of a constant shifting within elements that belong to landscape and superimposed elements belonging to the metropolitan context, always arranged in mutable configurations and somehow conditioning human behaviours.

Living rooms at the border

The second project selected exemplifies how a design of spaces for relation can involve not only considerations regarding diverse activities and programmes, but also – and most importantly – issues of economic development, social inequity and the democracy of space. *Living rooms at the border* is an affordable housing project – started in 2001 and still ongoing – by Estudio Teddy Cruz and Casa Familiar¹⁸ in the historic heart

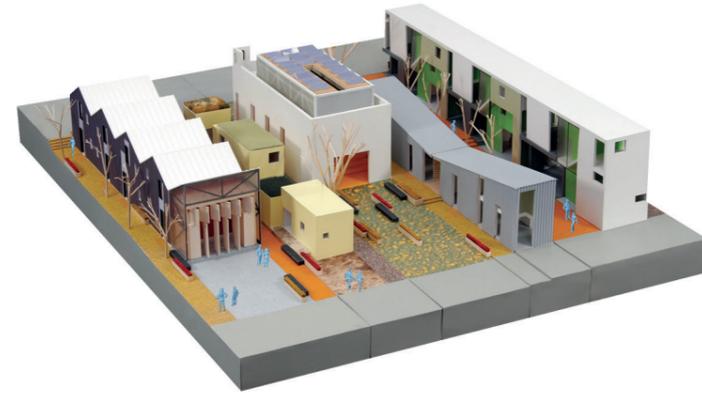
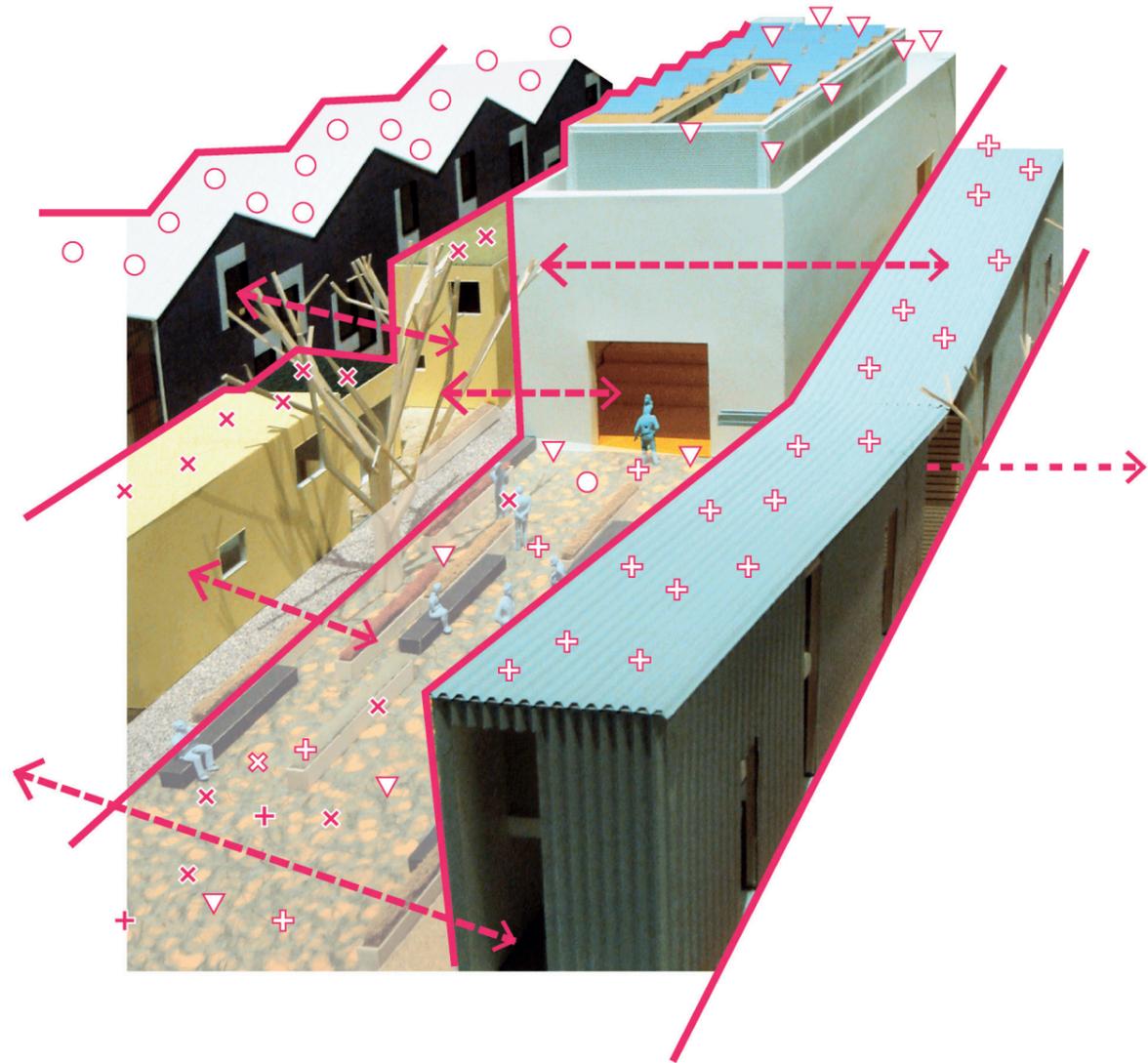
¹⁷ The positioning of the various points within the park depends on a mathematical algorithm based on the desired frequency for each single spot.

¹⁸ An NGO community-based nongovernmental agency that aids San Ysidro's population by providing immigration services, education and job placement.

of San Ysidro, a community in San Diego, California, located less than a mile from the American border and almost exclusively populated by immigrants from Latin America. Tackling the social and political dimension of housing and density, Cruz investigated how to transform a neighbourhood into a producer of new housing policies and economies. He did so by focusing on the design of small plots as infrastructures that, mobilising social entrepreneurship, create new space for housing, cultural production and political participation. Therefore, *Living rooms at the border* is a programmatic project acting as an economic framework for informal land use and development for its own neighbourhood and thus empowering San Ysidro, envisioning the community as developer of its own housing stock. In this context the involvement of the NGO Casa Familiar results of primary importance in the definition of a “micro-policy”¹⁹, facilitating construction permits, programmatic mixed uses and densification processes, as well as granting micro-loans.

Cruz aimed at designing a complex housing system, integrated with shared spaces, that would exploit the dense and often illegal development typical from the project's context. The site area lays in a large plot – acquired by the NGO Casa Familiar – where an old church is located. In the further subdivision and densification of the parcel, the conception of “striped space” plays again – as in the OMA example – a key role. While in the OMA example the strips are a superimposed layer referring to cultural activities as well as to undefined programmes, in *Living rooms at the border* each sliver defines a different degree of density, interpreted as the number of social exchange – rather than objects – calculated per acre. The small lot is therefore layered with different housing typologies and programmes organized along strips, each one addressing specific individuals or communities (e.g. families of three-four members, students, artists) and comprehensive of its specific programme or facility (e.g. communal kitchens, rentable additions, studios, workshops, etc.), sometimes happening in the

¹⁹ The so-called “micro-policies” comprehend a strategy for housing development involving different actors, i.e. city's administration, community activists and designing collaborators as well as neighbourhood participants. Such strategy could be resumed by the following four steps. 1. Translating the informal, by mapping and documenting all the illegal or non-conforming additions and spontaneous mixed uses in San Ysidro; 2. Defining new zoning categories through a new housing overlay in order to legalise the non-conforming units; 3. Allowing the NGO (Casa Familiar) to manage the new construction process, in order to facilitate the design; 4. Facilitating micro-lending through Casa Familiar's intervention: residents of the new units partner Casa Familiar to co-own the resources.



same strip at different times of the day.

Thus, unlike La Villette, nothing is left open to interpretation, but a development programme is designed as follows. The first step regards the existing church and its retrofitting into an “incubator of cultural production” (Cruz, 2010, p.116), meaning that it would be used by Casa Familiar to generate “new categories of socioeconomic programming” (*Ibid.*) by supporting it with a determined cultural and economic plan, since housing to be built as “units-only” would not be sustainable for the NGO. While creating a first core of social interaction around the church, a different strip is equipped with “open frames” or “social rooms” functioning as small infrastructures for housing, i.e. structures equipped with electricity, collective kitchens and communal gardens. In the preliminary phase, most of the space in this strip is left empty, left available for collective programming of activities that support social organization as well as relations. Such programming allows new interfaces with the public across time: community workshops, informal markets, gardening, collective kitchens etc., are all activities that take place in those structures at different times of the day. The “open frames” would then be completed in a further step, transforming them into residences specifically designed for young couples or single mothers with children. Yet, dwellers would not just own – or rent – the units, but also participate in

the co-managing programmes. Different housing typologies would be located on the other strips. A second housing type designed as live-work duplexes for artists would assure an exchange of rent for social service, as by collaborating with Casa Familiar they would contribute to the definition of educational programmes for children and families. Therefore, artists partner with families and Casa Familiar as co-producers. On a new strip a third housing type is meant to host two large families – for instance comprehending grandparents – equipped with shared kitchens. The fourth housing typology is the most flexible, comprehending accessory buildings as alternative housing, e.g. rentable office spaces or small studios.

The example of *Living rooms at the border* has particular importance in the discourse about relation, as it is a project that not only redefined housing as a system of economic and cultural interaction, but even interpreted relations as the element necessary to trigger the performance of a small plot into a social infrastructure, producing housing economies and social systems.

picture 4 (above): the model illustrate the diverse housing typologies designed for each specific strip and the different social exchanges they are dedicated to. (Estudio Teddy Cruz, 2010)

picture 5 (below): model's detail. (Estudio Teddy Cruz, 2010, author's rework)

1.2.2 Vertical. SESC Pompeia and Gymnasio Vertical

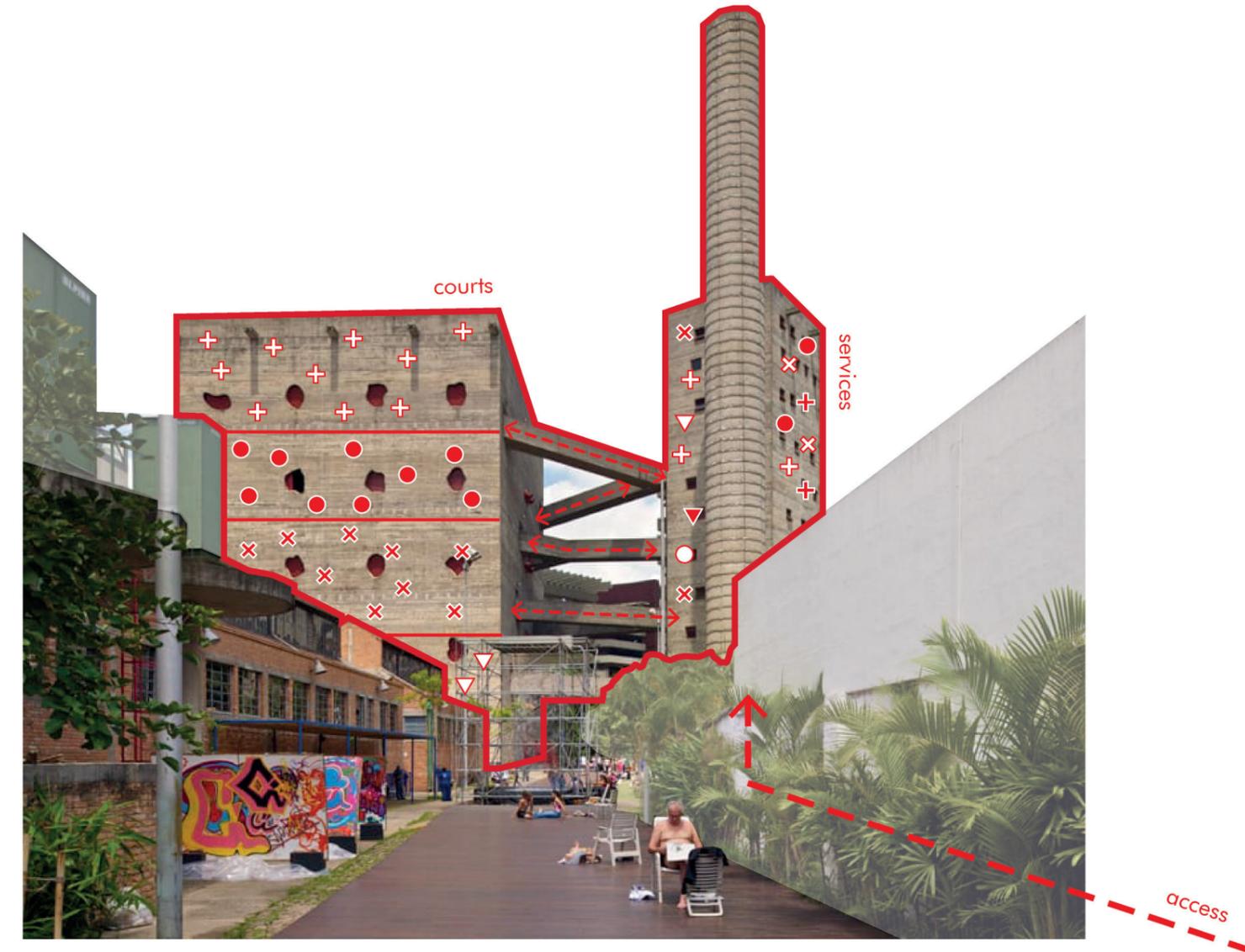
SESC Pompeia

In addition to the previously illustrated projects, two new cases are introduced as particularly exemplifying of densification projects enhancing relations along a vertical structure. The first case is SESC Pompeia (1977-86), a leisure centre designed by Lina Bo Bardi, most complete and mature work of the Italian-Brazilian architect. SESC (*Serviço Social do Comércio*) – a non-profit organisation supported by Brazilian trade leaders – commissioned Bo Bardi the task of restoring a dismissed factory complex into a leisure centre in Pompeia neighbourhood in São Paulo, an area whose inhabitants traditionally belonged to immigrants' groups or the working class. The programme envisioned by the commissioners was very wide: while a theatre, an exhibition space, a library and some workshops were accommodated on the ground floor in the restored industrial units, sport facilities were placed inside two newly built towers in the proximities. The latter were built on the opposite sides of the Águas Pretas creek, a potentially floodable

valley running along the western side of the industrial complex. Because of such ground conditions, the sport facilities could have been located only on two plots of different sizes and divided by the floodable area: thus, the only reasonable solution within many constraints was that of two interconnected buildings.

Both towers are designed with a concrete structure, recalling the image of Brazilian seashores military forts: like two silos, they are connoted of a strongly introverted character, retaining the social exchanges they imply within their borders. The circulation happens vertically within each building, as well as transversally through four double footbridges between the towers. The larger and lower one, based on a thirty by forty meters plan and five double-height floors above ground, hosts the sport courts: a swimming pool is placed on the ground floor, along with basketball, soccer and volleyball courts located in the next floors. Such facilities should be used, as Bo Bardi herself pointed out, for strictly leisure-related activities, and not for competitions. Only the swimming pool has a direct access from the boardwalk, whereas the others are only accessible through the adjacent tower. In fact, the circulation is vertically organized within the opposite tower and along the skywalks. Finally, within the concrete façade, unglazed irregular-

picture 6 (left): the two concrete towers seen from the outside.
(Iñigo Bujedo Aguirre, 2012, author's rework)



ly-shaped windows – recalling primitive caves’ openings – are cut out, without any further finishing addition. The second tower, taller and more compact than the first one described, works as the main artery of the complex. It lays on an irregular, almost triangular, plot and is rotated of forty-five degrees in relation to the other one. Apart from the public vertical circulation – happening on the north chamfered side through an helicoidal staircase – it includes services related to the sport courts, such as bathrooms, changing rooms and lockers, along with medical facilities, exercise rooms and – originally – a bar²⁰. The services are split throughout eleven floors. The very rigid and plain volume of the building is completed with irregularly placed rectangular windows. The four sets of skywalk branch out from the third, fifth, seventh and ninth floor: each set has a different layout, enforcing the dramatic passage between the two towers, although they are equally shaped like solid channel pre-stressed concrete flyovers. Moreover, they help users to identify each floor.

Still today, SESC Pompeia represents a place destined to collective life and social participation, exactly as Bo Bardi had envisioned it. Although after the comple-

tion of the towers she was excluded from the centre’s programming – because of her dominant intolerance on matters of space usage, even proposing to instruct visitors about the “*correct uses of the spaces and the conservation of the centre’s assets*” (Bo Bardi in Lima, 2013, p. 174) – individuals, along with their behaviours and practices, continued to live within this complex as protagonists. Framing architecture as a collective service, SECS Pompeia still promotes today a model of living and sharing within a general sense of community, entailing diverse programmes juxtaposed and sometimes overlapped, situations of cultural and social contact and participation.

Gymnasio Vertical

The Gymnasio Vertical is a vertical sport facility designed by Urban-Think Tank. This architectural practice, founded by Alfredo Brillembourg and Humber Klumpner and based in Caracas and Zurich, started as an NGO – Caracas Think Tank – aiming at conducting research on informality in Latin American environments. The Vertical Gym is one of their first projects aiming

at “*connecting the formal and informal city*” (Navarro-Ser-tich, 2011, p.106). The project’s initiative started from a quite diffused issue in Caracas – as well as in the rest of Latin America – i.e. that most of the built environment is claimed by housing, leaving only a little space for public facilities, spaces for social exchange and aggregation. Thus, the environment where the project intervenes is a conflictual area, an informal settlement in Caracas, whose potentials are though acknowledged, thus legitimatised, by giving local communities better accessibility to public spaces and structures. U-TT attempted to do so by developing “*best practices of typologies that can be repeated in different areas of the world, but which get adapted locally*” (Ievi, p.105). Such initiative started in 2004 with the opening of the first vertical gym in Campo Bello, Caracas, followed by other three gyms built in the city and many others around the world, making the Gymnasio an exportable model, a *kit-of-parts* adaptable to any context – especially that of densely built urban fabrics – satisfying diverse demands of financial, social or ecological kind. Such purposes are accomplished by encouraging sustainable developments, involving modular designs and using prefabricated elements in order to design a general framework open to be reinterpreted by municipalities or communities according to specific

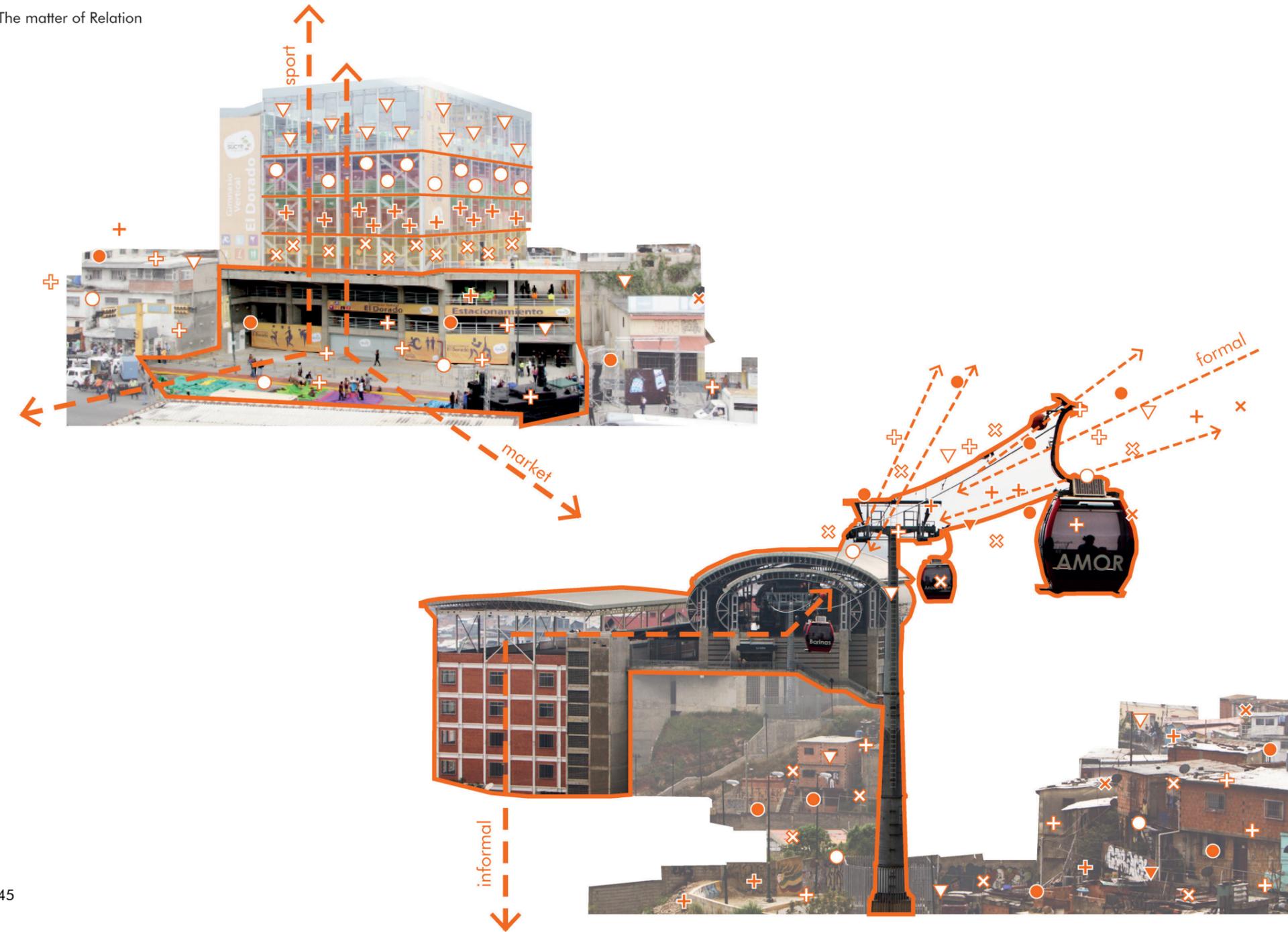
local needs.

The general scheme for vertical gyms includes a running trail, a basketball field and other sport facilities positioned one on top of the other. The gym with its multiple floors is usually superimposed over an empty plot, therefore transforming the void into a dense multi-layered complex aiming at accommodating hundreds of people at the same time. The default structure includes three floors and a rooftop court, providing a vertical succession of spaces for plural recreational activities. Moreover, it is designed so that it could be integrally assembled over a period of three months. Each vertical gym structure could be further integrated with specific facilities responding to needs of various kind, be them social, programmatic, typological or climatic. For instance, Gymnasio Vertical Petare (Caracas, 2007-11) includes on the ground floor a commercial base, providing small shops for informal vendors. Baruta Vertical Gymnasium #2 (Santa Cruz del Este, Caracas, 2007-11) was designed stressing particular attention to matters of sustainability including recyclable materials, rainwater gathering tanks, solar panels and wind towers. The one in San Augustin (Caracas, 2010) was integrated within the metro cable station La Ceiba, at the same time developing new public space and being a connection

20 The bar was later replaced by spaces for office work.

between the informal and the formal; thus, one building, whose programme is vertically organized including facilities of various kind, becomes a catalyst for urban and social change being integrated in the transportation infrastructure.

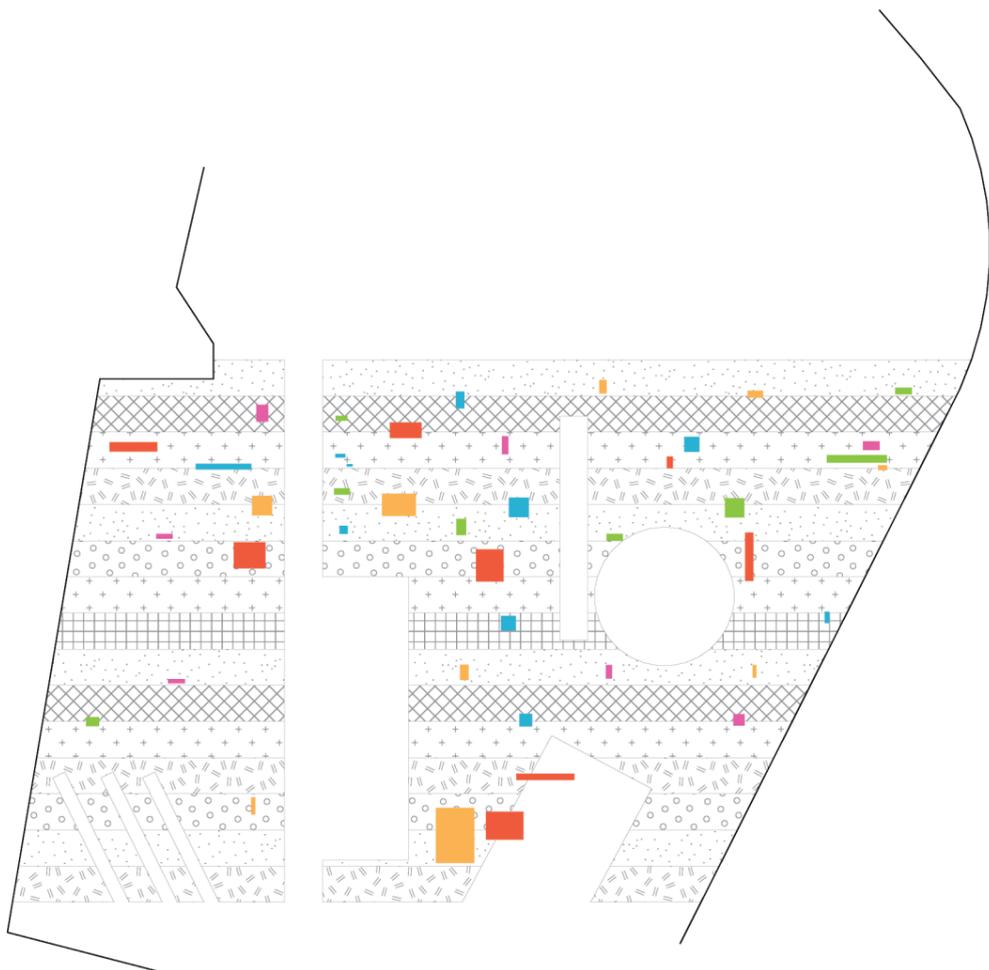
Therefore, U-TT in its practice investigates new methods to reconfigure the city, coming up with new experimentations that operate in the dimension of relations. Buildings such as the vertical gyms are actual devices that bring together and relate different stakeholders and disciplines involved in urban developments, such as municipalities, neighbourhood communities, architects, engineers, entrepreneurs, activists, etc. Again, the matter of relation results at the core of the practice dealing with informality: intervening in such contexts is a political act - and not just a mere physical transformation – that must take into account conditions related to ethnicity, internal hierarchies, cultures, standards, environments, values, etc. Therefore, *Gymnasio Vertical* – as reported by the architects who designed it on their website – is more than a building: it is a piece of social infrastructure that reduced crime rates, promoted healthy lifestyle and strengthened social capital.



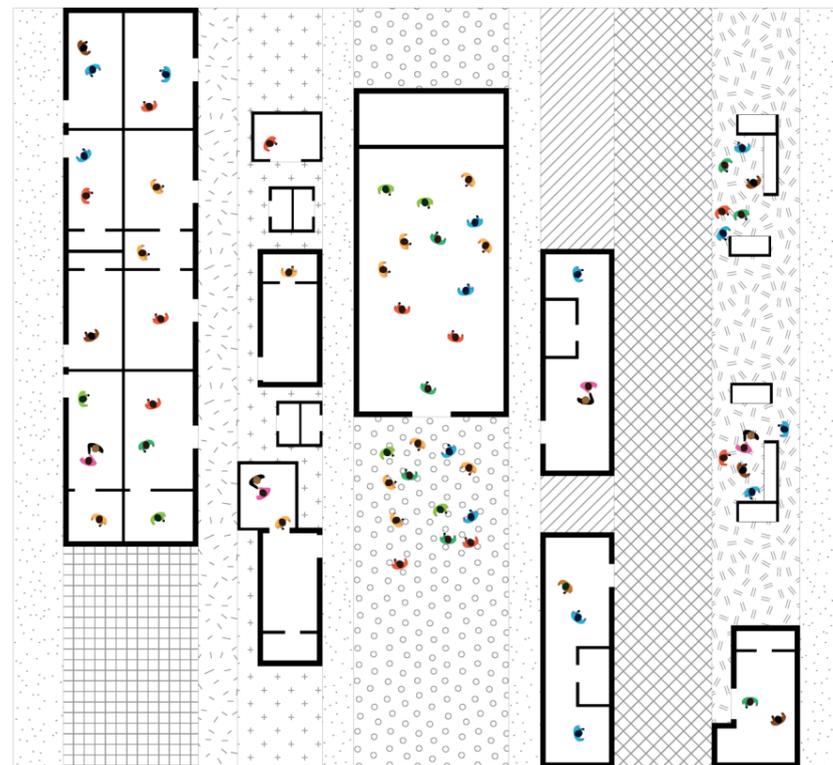
picture 7 (above): the Vertical Gym El Dorado in Petare, Caracas, provides spaces for informal markets on the lower floors. (U-TT/Daniel Schwartz, 2012, author's rework)

picture 8 (below): Vertical Gym in Barrio San Agustín, Caracas, connected with the rest of the city through a metro cable. (U-TT/Daniel Schwartz, 2012, author's rework)

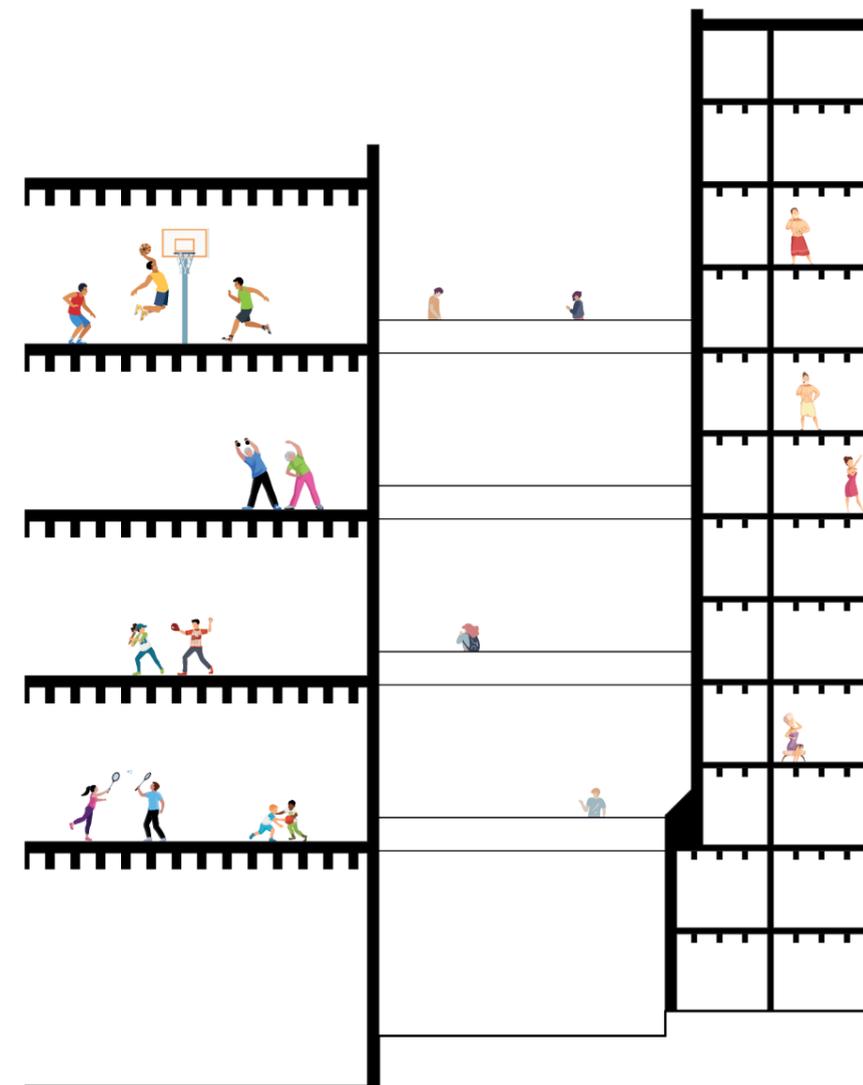
picture 9: spatial diagram of the four analyzed projects.
(author's work)



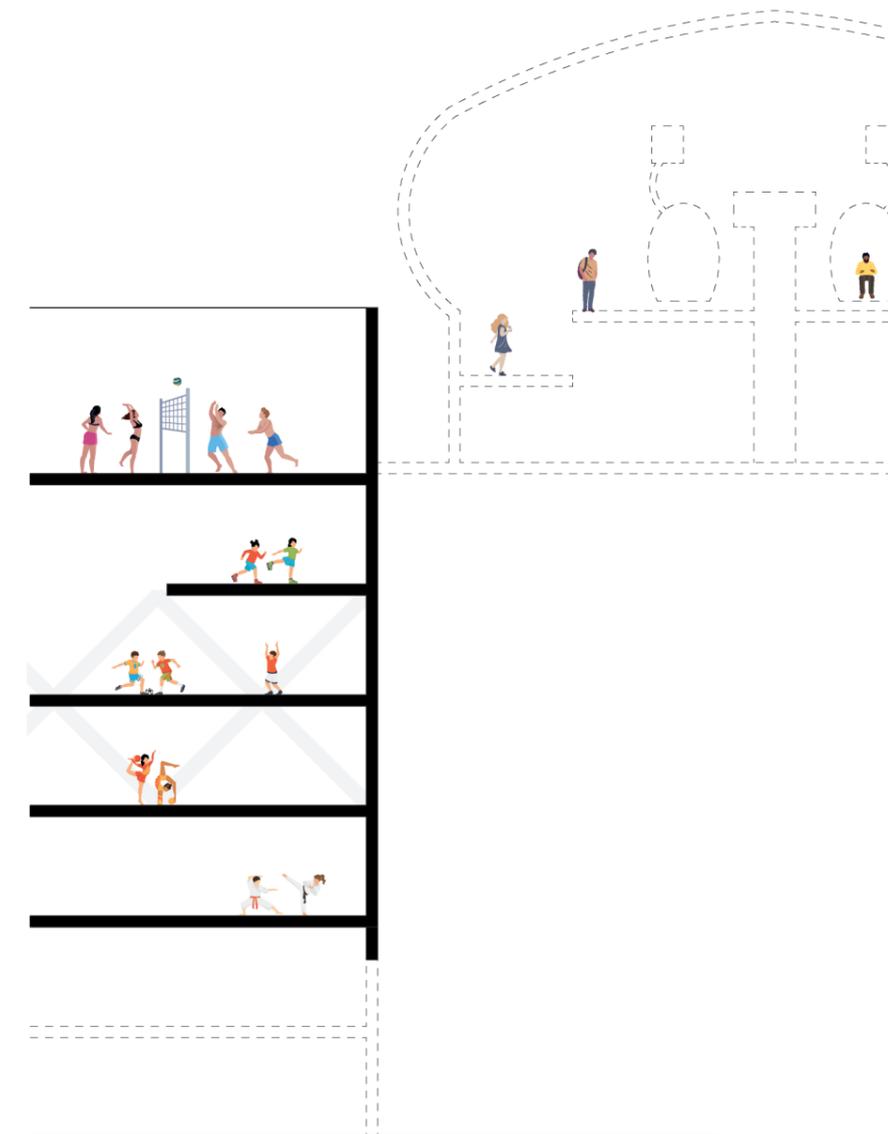
Parc de la Villette - OMA, 1982



Living rooms at the border - Estudio Teddy Cruz, 2001-ongoing



SESC Pompeia - Lina Bo Bardi, 1977-86



Gymansio Vertical - U-TT, 2004-ongoing

On the basis of the concepts explained in this chapter, it is possible to draw certain conclusions. As anticipated in the Introduction, public space is generally referred to as the privileged place for relations, where social exchanges assume a concrete form and thus can be experienced as such. However, such relational forms must not be pictured as extremely pacific or stagnant; on the contrary, they often imply a friction between a plurality of realities, communities, desires and imaginaries. They are in fact born – as all of the three cited authors point out – by the recognition of a difference. As Chantal Mouffe terms it, relations are always based on a “we/them” opposition, a contrasting collision within diversity that try to prevail one on the other. Each relation is thus hegemonic and finds in the public realm its battlefield. In this frame, Mouffe’s perception of the so-called “agonistic public space” results as a key element in the discourse on relation, being it the terrain where a plurality of diversities confronts itself. Moreover, it is important to point out that the use of the term “agoni-

stic” as opposed to “antagonistic” reveals politics’ task according to Mouffe, i.e. preventing such opponent forces from being enemies, yet enhancing their mutual perception as rivals or competitors. For this purpose – on the basis of the essays analysed in this chapter – Édouard Glissant’s idea of opacity is identified as the condition that grants coexistence within different groups. Opacity is a term that specifically refers to a situation in which opposed individuals – be those “we/them” or the “Self” and the “Other” – do not reduce each other at their own singular image. They do not fully understand one another, thus they are not “transparent”. Not only does opacity bound, it also enhances freedom, being it the foundation of relations. At this point, Richard Sennett draws a clear frame about how to recreate opacity within the context of the Open City. What is particularly important in his conception, is the concept of “membrane”, a term borrowed from biology to refer a system – be it a wall, a house, a neighbourhood – that gathers or exclude, divides or puts into communication diverse individuals.

At the same time, the description of four selected projects that function as relational devices points out how important matters of social exchanges could be for economic purposes, urban regeneration designs founded on the concept of “sharing” or processes of spatial

production in general. Relations usually matter in the design practice for those densification projects that aim at combining different programmes or communities within the same urban framework, structured around vertical or horizontal spatial organisations. More specifically, OMA’s design proposal for Parc de la Villette in Paris – taking as a reference the 1920s ideas for social condensers – exemplifies an attempt to influence human behaviours through urban space, designing different scenarios organized thorough horizontal strips and enhancing interaction by the insertion of certain relational devices – the so-called “points or confetti”. Teddy Cruz’s Living rooms at the border, is an innovative instance whose success is strongly based on the impact of human relations: in order to design new units for dwelling and public gathering, he redefined the concept of density as the number of social interactions exchanged per square meter. Lina Bo Bardi’s SESC Pompeia is an interesting case of a programmatic layering of activities distributed along a two separate vertical cores, yet granting a continuous connection within the two. U-TT’s prototype for the Vertical Gym, as the last example, shows how spaces for relation can be also addressed as spaces for urban regeneration, not only providing new public spaces for communities but even relating different social realities to each other within the urban fabric. What deeply

associates the analysed projects, is that they all refer to the general idea of agonistic public space, proposing a plurality of spatial situations that settle the demand of diverse groups and identities. Like membranes, they function as systems that sometimes combine different imaginaries, other times separates them yet allowing each social category to find its own corners and niches within the same environment.

The following chapter illustrates the Tiergarten analysis. It must be read and intended while keeping in mind the definitions of “agonistic public space”, “opacity” and “membrane”, being them fundamental key-concepts in order to understand Tiergarten’s communities, characters and conditions. It functions as a relational device that enhances social exchanges and coexistence within difference. It is an opaque space where different social groups have found niches for their gathering and practices. Not only it is an important instance within the general discourse on relation, but more importantly a space of agency that tackles important concepts within the context of contemporary cities such as inclusion, tolerance and sharing.

**2 // The place, the individuals.
Der Große Tiergarten**

This chapter deals with the survey conducted on Tiergarten, already referred to as a place within which a plurality of communities, imaginaries and differences gather. Its use by individuals that belong to diverse social categories recalls utopic qualities of tolerance, coexistence and freedom within a general sense of community. Nevertheless, Tiergarten should not be imagined as an idyllic park, but rather as an obscure forest, made of dense shrubs, intricate paths and shaded clears, where mobility is defined by ambiguous levels of permeability and relations happen within borders that constantly shift and overlap. As Sandra Bartoli termed it, Tiergarten is an “*obscure object of desire*”, a point of contention by individuals who have diverse needs, dreams and wants. Tiergarten might be the most public space in Berlin, 220 ha of forest located in the very heart of the city, where the most intense forms of social relation manifest. Thus it cannot be simply intended according to the canonical elements that define an urban park; it is indeed an ensemble of tiny and particular anomalies gathered in an open system – as defined by Sennett – in which flora, fauna, urban space and its users are linked by mutual dependency¹. Moreover, in Tiergarten mat-

ters of ecology, urban planning and politics manifest as transgression.

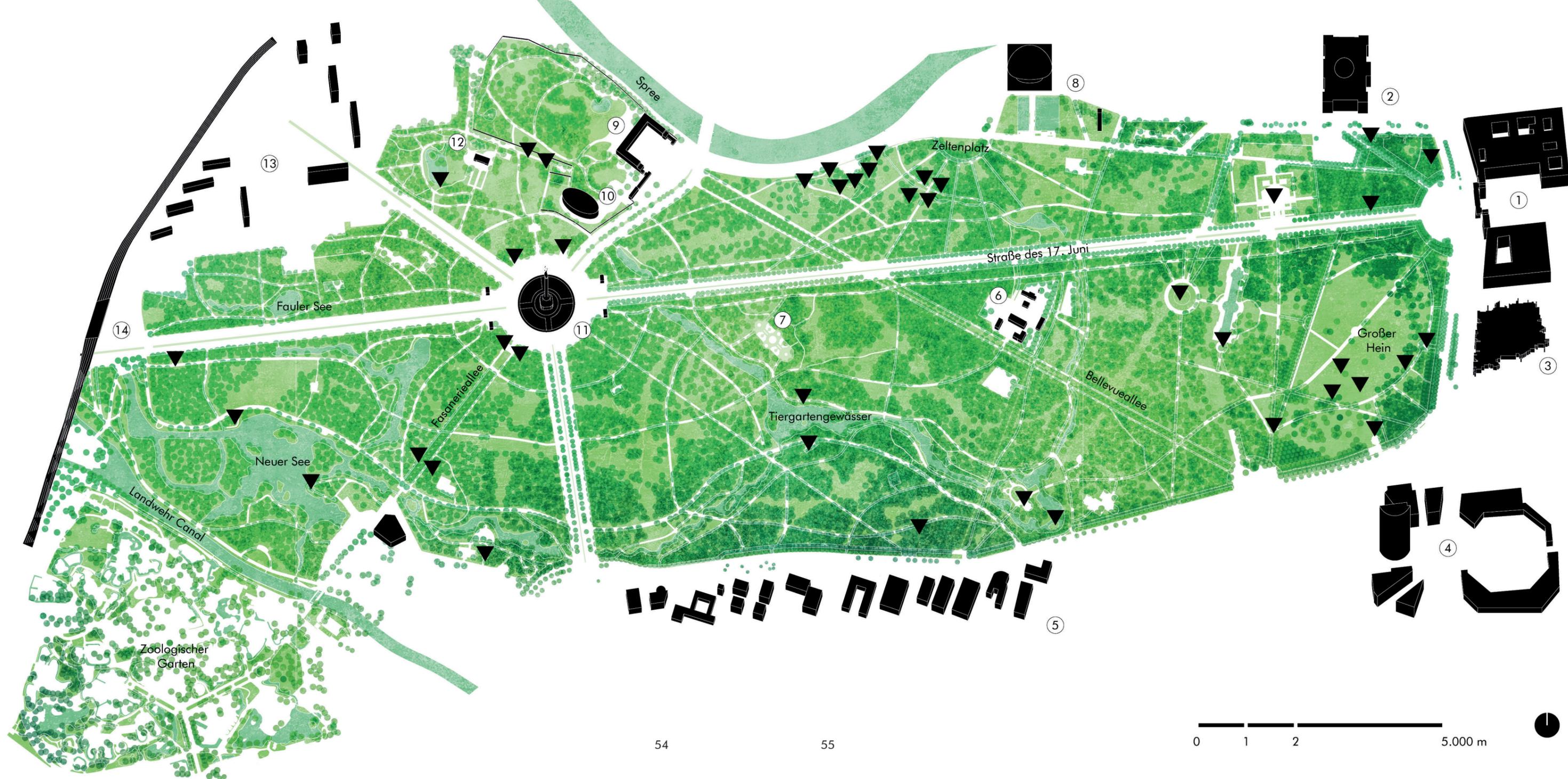
The study investigates Tiergarten’s spatial and environmental qualities, its practices and communities, its maintenance policies and management.

The argument starts from the park’s history with a particular focus on the latest developments, starting from 1950, in order to understand the characters and conditions that characterize the area. Follows a description of some typical Tiergarten practices – gardening, gay-cruising, nudist sunbathing, birdwatching, informal dwelling – and the places – materials, atmospheres, vegetation, conditions – they are related to. All the informations presented in this chapter were gathered proceeding with two analyses, one top-down – investigating the Tiergarten through cartographic and bibliographic sources – and one bottom-up – realised during on-site excursions conducted between April and August 2019. Eight moments – or zooms - emblematic of Tiergarten were selected at the end of the excursions and are now presented in the following chapter, completed with drawings in order to better understand each spatial context and its features, as well as the practices it im-

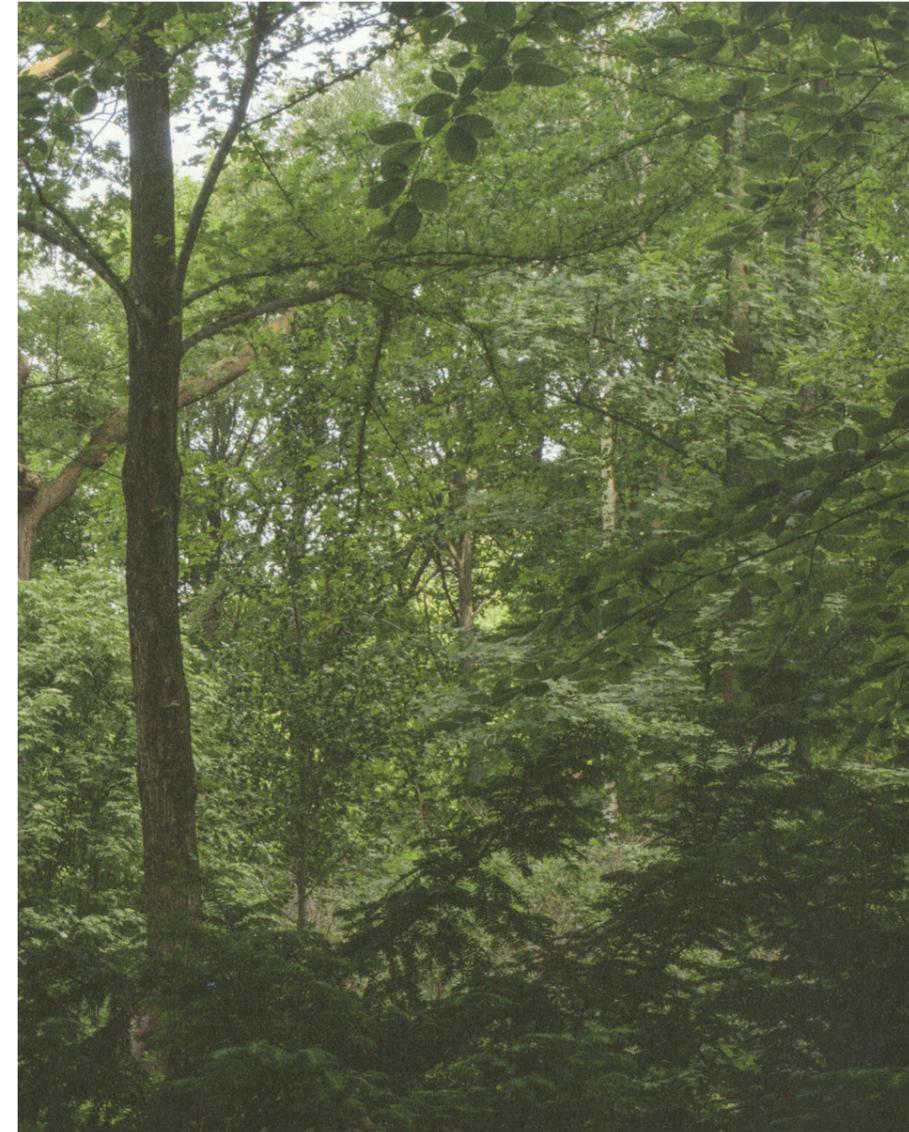
plies – specific dwelling forms, transgressive practices, spontaneous uses, etc. The park’s maintenance and restoration policies of the last 30 years are mentioned in order to introduce three further moments lacking those relation conditions previously described. The conclusion is that at the basis of Tiergarten’s functioning as a place for relation lays its spatial structure, source of innovation.

¹ A concept expressed by Sandra Bartoli during the symposium *Tiergarten. Landscape of transgression* (04/07/2015) held at the Haus der Kulturen der Welt, Berlin. (For any further clarification see Paragraph 2.3).

picture 10: der Große Tiergarten. The park and other significant buildings located within it.



- 1. Brandenburg Gate
- 2. Reichstag
- 3. Memorial to the Murdered Jews of Europe
- 4. Potsdamer Platz
- 5. World embassies
- 6. Gartenamt
- 7. Rosengarten
- 8. Haus der Kulturen der Welt
- 9. Bellevue palace
- 10. Bundespräsidialamt
- 11. Victory Column
- 12. Englischer Garten
- 13. Hansaviertel
- 14. Tiergarten train station
- ▼ Monuments



2.1

Formation and location

Berlin's foundations were built in the thirteenth century, although Tiergarten's origins can be traced back much earlier than the city's history. Before Berlin existed, a marsh forest lied where Tiergarten is today, on a fertile wetland along the river Spree, an area located on the ancient glacial valley flowing from Warsaw to Berlin.

In the fifteenth century the forest, sited just outside the medieval city's wall, was used as a private royal hunting ground. Tiergarten's first cartography dates back to this period. In 1698 the forest is represented enclosed by walls, but it is already possible to recognize some elements that are still present today in the urban fabric: for instance, the axis where today's Straße des 17. Juni, which crosses Tiergarten connecting the Brandenburg gate with Ernst-Reuter Platz,

and the Große Stern, where finds place the Siegessäule – the victory column – another iconic monument of the city; within the city fabric, today's Museumsinsel – the museum island – is as well visible in the Spree river.

This condition in the Tiergarten remained unchanged for three centuries, until 1765 when the forest was made public and opened to the city. Thus the fence was teared down and Wenzeslau von Knobeldorf - royal landscape architect between 1740 and 1786 - was charged of converting Tiergarten from a wild forest into a baroque pleasure garden (Rellensmann, in AA.VV. 2018): baroque salons, rooms, geometric alleys and labyrinths where extracted from the wild vegetation, within “insides” cut out through the dense woodland in order to make the forest more accessible, yet integrating them within the wilderness². As a matter of fact, Tiergarten's boggy forest-like character³ was still maintained in the parts where the vegetation remained untouched. The painting *Gesellschaft im Tiergarten* (Daniel Nikolaus, 1760), literally “community in the Tiergarten”, illustrates how spontaneously and informally this place

² For any further information see Wendland, 1993.

³ The botanist Maria-Sofie Rohner – in her essay “*Der Große Tiergarten – Botanischhistorische Exkursion in Berlin-Mitte am 1. Juni 2008*” – referenced old sixteenth century reports about Tiergarten which describe it as a swampy forest laying south of the Spree river, while another eighteenth century survey reports how diversified the park's biodiversity was at the time: specifically, 170 weeds, 34 mosses, 19 fungi and 44 different species of trees were registered.

pic 11 to 14 (previous page):
photographs of Tiergarten's
lush nature.
(Elizabeth Felicella in
AA.VV., 2019)

was lived by the society of the time: in the picture young aristocratic dressed in fine clothes chat while sitting on a moorland close to a pond; the majority is gathered around a statue, while a group of women is sitting on the dirt in a natural niche on the opposite side of the lake, hidden by the foliage.

At a later time, between 1833 and 1839, the landscape architect Peter Joseph Lenné⁴ further modified Tiergarten's layout: taking inspiration from English parks, he removed more plants to make space for new clears and introduced a new system of ponds and streams – still present today. Notwithstanding the attempt to domesticate the lush nature, Lenné himself recognized the difficulty of thinning out the Tiergarten, a forest – for him – with the mere character of park rather than the opposite (Bartoli, 2014). In the following years, still under Lenné's guidance, Tiergarten was integrated with a series of auto-celebratory monuments sponsored by the Prussian government, in memoir of renowned royals and war victories⁵. Probably such additions in the park provoked also changings in people's beha-

viours, as testified by a series of pictures from 1901 where Berlin citizens are captured with a more severe behaviour near a series of statues representing exponents of Prussian aristocracy.

Further modifications to the street axis were made during the 1930s, when the Große Stern and Straße des 17. Juni carriageway were significantly widened in order to contain as many people as possible when Nazi parades crossed Tiergarten during the Third Reich.

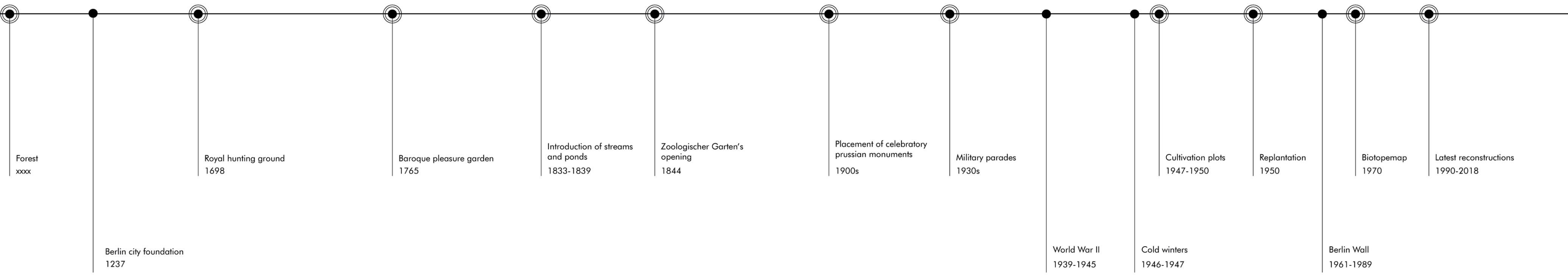
Like the rest of the city, Tiergarten was roughly damaged by World War II bombing. Still, the biggest loss in terms of ecological assets was inflicted in the following years, due to the extremely cold winters of 1946-47. Then, the government allowed Berlin citizens to cut down the still standing trees⁶ to be used as firewood, leaving a huge emptiness⁷ in the German capital's urban fabric. Those years lead Tiergarten to a situation of *tabula rasa*: after almost every trace of the ancient forest was deleted, a bare void was left without any *raison d'être*, ready to be given a new identity.

⁴ Peter Joseph Lenné (1789-1866) was the landscape architect who served the Prussian King Frederick William III of Prussia.

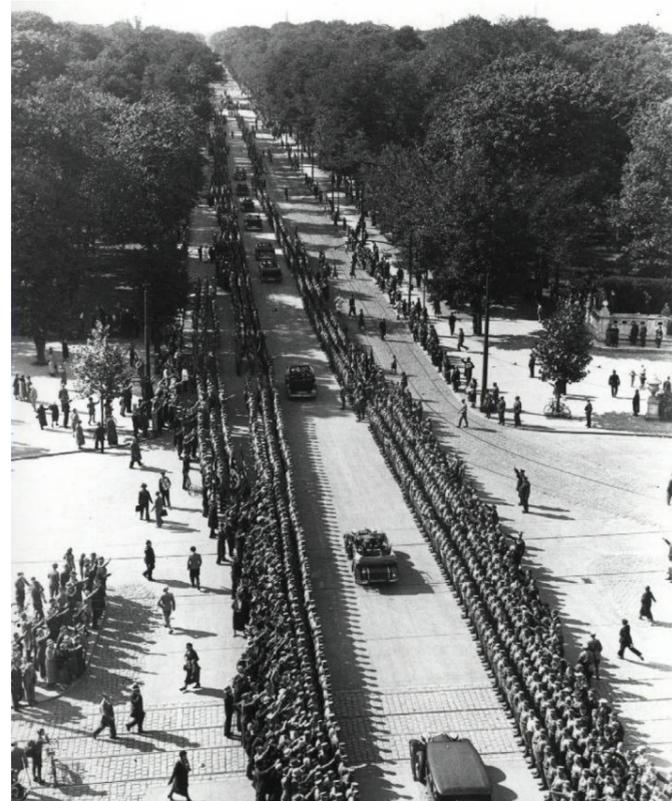
⁵ An example is the Victory column itself, which was built to remember the 1864 Prussian victory in the war against the Danish, and is still today an iconic Berlin symbol.

⁶ More than 200.000 trees were cut down and only a hundred secular oaks are still standing today.

⁷ Between 1945 and 1949, the park that remained completely empty was divided into smaller plots and could be rented by citizens to cultivate vegetables (Wendland, 1993).



picture 15: diagram of Tiergarten's historical evolution until current time. (Author's work)



picture 16 (above left): Citizens walking along the old Siegesallee, where celebratory statues were placed from the early 1900s. (Waldermar Titzenthaler, 1901 ca., Landesarchiv Berlin)

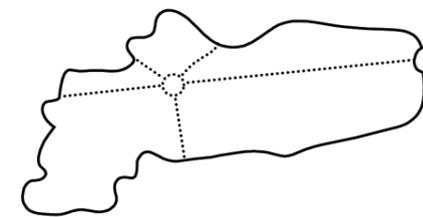
picture 17 (below left): Iceskating in Tiergarten. (Waldemar Titzenthaler, 1902 ca., Landesarchiv Berlin)

picture 18 (above right): a military parade hosted in Tiergarten. The picture is taken from the west end, in front of the Brandenburger gate. (Unknown, 1933, Landesarchiv Berlin)

pic 19-20 (next page, left and below right): Cleaning and reorganization of damaged Tiergarten. (Willy Kiel, 1949, Landesarchiv Berlin)



picture 21 (next page, above right): Berlin citizens cultivating Tiergarten's land. On the background, in a post-war scenario, the damaged Brandenburger Gate and Reichstag are recognizable. (Willy Kiel, 1949, Landesarchiv Berlin)



2.2

Processes: Willy Alverdes and the Biotopemap. *Tabula rasa*

A walk in Tiergarten in the time between 1946 and 1949 meant that one would stare into a horizon of endless ruins, no matter from which side of the park one would start, and Tiergarten itself, or better, what constituted its beauty, which is its forest growth, had all disappeared.

(Willy Alverdes in AA. VV., 2018, p. 221)

Tiergarten in its current situation is indeed a place whose morphology and conditions were delineated in very recent times. More precisely, it is the result of a process

started in 1950 with a reforestation plan designed by Willy Alverdes and of legislative decisions set out in the late 1970s.

Willy Alverdes was a landscape architect – and director of Tiergarten from to – who won a competition held in 1946 for the park’s reconstruction. His proposal must be considered within a wider context, defined by a process that started in 1946⁸ in order to define a strategy for Berlin’s future development and ended with the put in writing of the so-called *Kollektivplan*, i.e. the first masterplan for the reconstruction of the German capital after the war⁹.

Alverdes’ design proposal occupied an ambiguous position in its relation with the site history, as it took inspiration from every historical moment that characterized Tiergarten’s formation, yet it was far from being an historical reconstruction. The first issue addressed by Al-

⁸ Actually the planning for Tiergarten’s reconstruction started on the 2nd of July, 1945, less than two months before the end of World War II. Such priority could express the importance that Tiergarten always had for Berlin and its citizens, recognized by the public institutions as well.

⁹ The *Kollektivplan* derives its name from the group that created it, the *Planungskollektiv*. Such masterplan was exhibited in an event organized by the architect Hans Scharoun – who at the time was municipal building officer – in August, 1946. That was, a few months after the fall of the Nazi regime. The exhibition – titled *Berlin plant/Erster Bericht* (“Berlin plans/first report”) – comprehended ideas and projects from the ‘20s, in order to demonstrate the end of the Nazi hegemony in favour of democracy and, as a consequence, of a new manner of designing and thinking the city. Taking inspiration from the Garden city, the exhibit promoted a vision of the city that not only integrated in the landscape, but was part of the landscape itself: a really innovative concept for the time, to which was then referred as *Stadtlandschaft* (citylandscape). This connection results evident by comparing two proposals for the Tiergarten: Alverdes’ from 1952 and one by Reinhold Lingner, member of the *Planungskollektiv*, from 1947.

verdes in his design was the very need to fill the empty space left by the war damages as fast as possible. Thus, the *Großer Tiergarten*¹⁰ was meant as a place offered to the city and its citizens as a place for leisure and free time, while concealing the horrors left by the bombing stuck in Berliner’s memory. Through the replantation of the lost vegetation, Alverdes’ project started from a moment of “zero-history” (Bartoli, 2018), still maintaining as a reference the ancient history of the city itself.

Thanks to his great knowledge in botany and horticulture, Alverdes conceived a space that was meant as a habitat for plants, animals and humans all together. He – as Katrin Lesser-Sayrac writes¹¹ – believed in the “power of plants”: he considered each plant as an individual, whose growth should have been sustained by the gardener without forcing them into a specific shape – opposing the traditional gardening practice. Thus the landscape architect decided to recreate the complexity of plant species by matching and intersecting different

species of trees, shrubs, bushes and grass, recreating a wide biodiversity¹² within the new Tiergarten. What particularly fascinated Alverdes of plants’ world, was its complexity and life cycles. His design was completely based on the natural mechanisms according to which different species could grow together creating intricate patterns sustaining one another: his aim was to reproduce such processes within his design, investing “in the spatial structure of the canopy forests, the rich forest undergrowth, the wide lower edges of small plants, and the large meadows, which he opened to all kinds of use¹³” (Bartoli in AA. VV., 2018, p. 226).

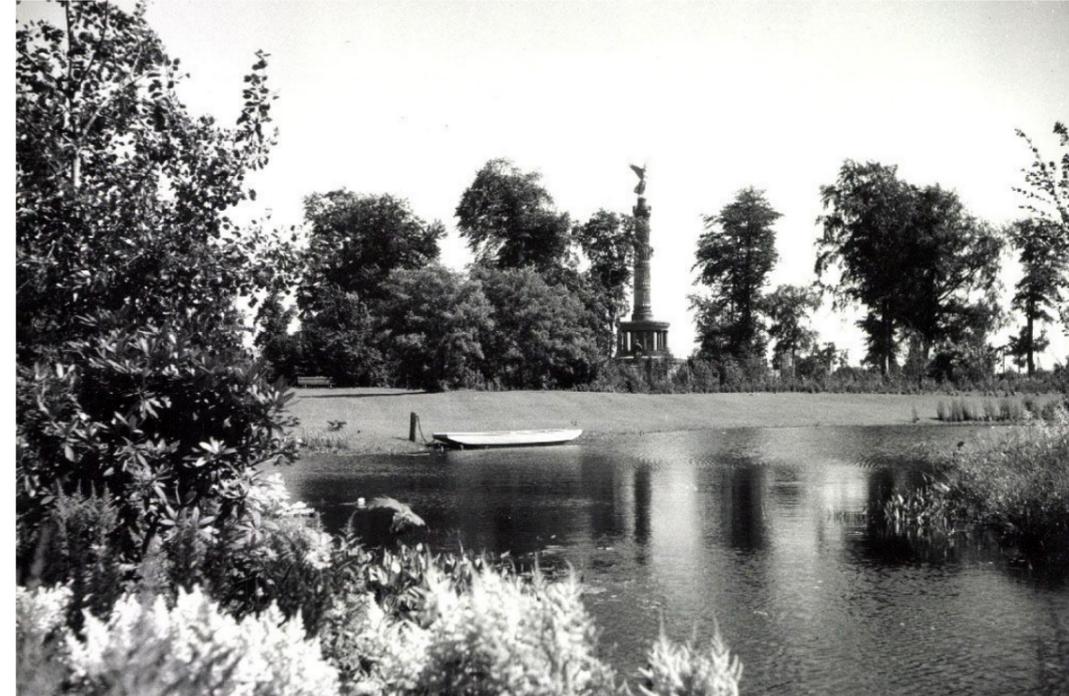
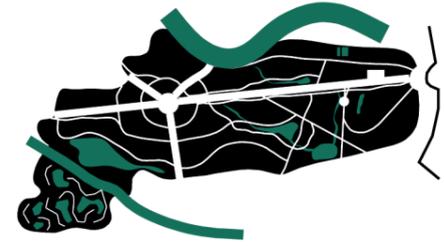
Six different plant societies were included in the design – all of which came from the Berlin region: oaks, maples, linden, ash trees, willows and birches were all integrated in the new park and distributed within the area according to the more or less favourable conditions of the soil; moreover, those species were integrated with non-autochthonous vegetable species, as the United Kingdom plants located around the *Englischer*

¹⁰ This is how the Tiergarten was renamed after the 1950 reconstruction, although today (as well as in this thesis) it is still generally referred to as simply “Tiergarten”.

¹¹ Lesser-Syrc, 1996.

¹² Moreover, Alverdes’ studies at that time implemented scientific researches on matters of biology, botany and ecology.

¹³ Most of the uses of Tiergarten is theatre today, such as gay cruising and nudist sunbathing, were before World War II strictly forbidden.



picture 22-23: Newly re-planted vegetation along water courses in Tiergarten - right after the 1950s reconstruction (Bert Sass, 1952, Landesarchiv Berlin)

picture 24-25: Englischer Garten in north-western Tiergarten, designed by Willy Alverdes with typical british plant species. (Willy Kiel, 1952, Landesarchiv Berlin)

*Garten*¹⁴. The key concept here was the basic rule for reforestation, i.e. granting an alternation of rapid and slow-growing species. As the soil itself had been heavily damaged from the bombing and the massive cut down of trees, the first step was necessarily healing the ground: this was made possible thanks to a selection of fast-growing trees, such as the poplars, whose roots could clean up the soil, regenerating the favourable conditions for the settlement of slow-growing species. The estimated time for such process was of thirty years, after which Alverdes disposed to gradually cut down the fast-growing trees in order to facilitate the rise of the slow-growing ones. In addition, the planting of dense vegetation along the perimeter of Tiergarten contributed – and does such still today – to creating an internal micro-climate in the park, necessary to enhance the plant’s growth, by sheltering it from the stronger west wind currents¹⁵.

Generally, Alverdes’ goal was that of triggering a com-

plete immersion of the visitors into nature, recreated in the new Tiergarten at an apparent virgin state. This was also made possible thanks to the creation of gradual levels of permeability, that allowed the citizens to slowly lose their-selves while penetrating in the deep foliage, through a succession of clears, woodlands, meadows and paths. Niches and secret spaces were also integrated within the shrubs, hidden from the most densely crossed alleys. The key was a variation of plants densities, which bore wide grasslands as well as more introverted spaces.

Moreover, Alverdes opposed the reconstruction of military axes¹⁶ and celebratory monuments, even ordering the complete destruction of all the still-standing statues after the war; on the contrary, he invested in the research for more naturalist forms, designing maintaining only the curvilinear axes.

However, the thirty years tree-falling plan was never

14 A teahouse designed by Alverdes himself during 1950s Tiergarten reconstruction, located in the north-western section of Tiergarten (location is marked on picture 10).

15 According to Hobert, the perimetral vegetation still accomplishes today its sheltering function in the park. Moreover, it affects the climate of the entire city by creating a cooling core attracting warmer winds channeled from the south by Park am Gleisdreieck and Tempelhoferfeld (Hobert *et al.*, 1982).

16 From 1989 and until the end of 2018, such elements have been completely reconstructed as disposed from the more recent restoration practices (for any further information see Paragraph 2.5).

enacted, due to legislative policies agreed upon in the late 1970s.

Right after the Berlin division in the two factions, Tiergarten remained completely included in West Berlin¹⁷. Thus the park’s eastern edge – in front of the Brandenburg Gate – faced directly the wall’s west side: it became a peripheral area within the context of the West, which partly unattended and neglected by the gardeners. In this frame, during the 1970s, a new ecologist movement started to influence the way the city and the urban environment were conceived and approached. As a consequence, the Berlin Senate commissioned the so-called *Biotope Map*, a mapping of all the biotopes present at that time in West Berlin, a tool that addressed the city as a habitat for animals and plants as

well as humans (Bartoli in AA.VV., 2018). In the Biotope Map all the unattended areas, such as Tiergarten, were conceived as a resource, a conception similar to that of “third landscape” as theorized by Gilles Clement in the *Manifeste du Tiers paysage* (Éditions Sujet/Objet, 2006)¹⁸. Such valorisation of the unattended and the abandoned brought the Senate to deliberate to stop the tree-falling programme in Tiergarten – as well as decreasing the maintenance programmes in other green areas of West Berlin. To such decision, one must also keep in mind that Tiergarten had already been left partly unattended, due to its proximity to the wall’s boundary. Consequently, nature in the park was left free to grow undisturbed, resulting in an intricate juxtaposition of plant species that – still today – characterize the park

17 The only exception made was for the so-called Lenné-Dreieck, Lenne’s triangle. This name designated a 4 ha empty plot located between Tiergarten and current Potsdamer Platz. Although the triangle belonged to the jurisdiction of East Berlin, it was cutted out of the wall’s perimeter and, subsequently, left empty for whole duration of Germany’s division.

In 1988 a series of processes for the property transfer from East to West started, while in West Berlin construction plans had already been made for the plot. This decision provoked a strong reaction from groups of biologists, scientists and ecologists, who used to attribute to the Lenneé’s triangle a third-landscape value. Thus they decided to demonstrate and occupy the plot with tents. When the property transfer was made official, the plot entered under the jurisdiction of West Berlin, whose police immediately attacked the occupants. In order not to get arrested, more than 180 protestants climbed over the wall and escaped to the east, where DDR armies waiting to receive them and offered them breakfast. The same night, DDR armies brought the demonstrators back to West Berlin through the regular checkpoint in Friedrichstraße. This episode constitutes the only case in which civils where allowed to climb over the wall during Berlin’s division.

18 Gilles Clement stresses the importance of neglected and unattended spaces. He attributes to such places a value, as privileged areas where biodiversity is set free to develop and grow, describing neglected places as planet Heart’s reserve, always open to new interpretations.



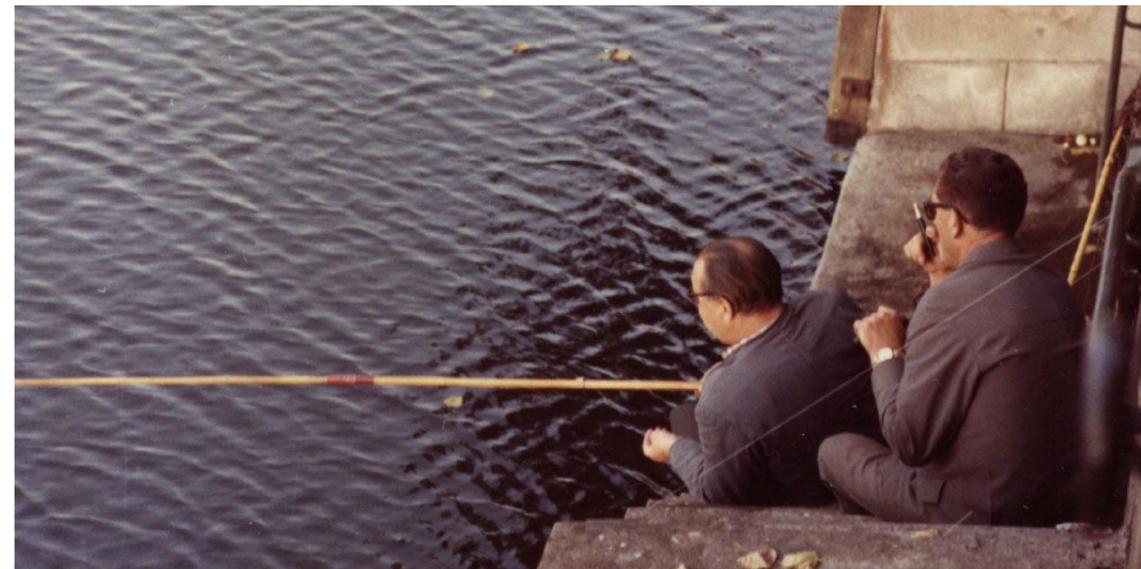
picture 26 (left): Interbau (Internationale Bauausstellung) in Straße des 17. Juni (Gert Schütz, 1957, Landesarchiv Berlin)

picture 27 (right): Visitors observing the elephants at Berlin Zoo in Tiergarten. (Siegmann Horst, 1959, Landesarchiv Berlin)



picture 28 (above left): Gardeners on a morning break by the Haus der Kulturen der Welt. (Horst Siegmann, 1957, Landesarchiv Berlin)

picture 29 (above right): Chess players in Tiergarten. (Horst Siegmann, 1968, Landesarchiv Berlin)



picture 30 (below): Men fishing in the Spree on Gotzkowskybrücke. (Horst Siegmann, 1969, Landesarchiv Berlin)

in its very essence and are not always easily accessible to humans.

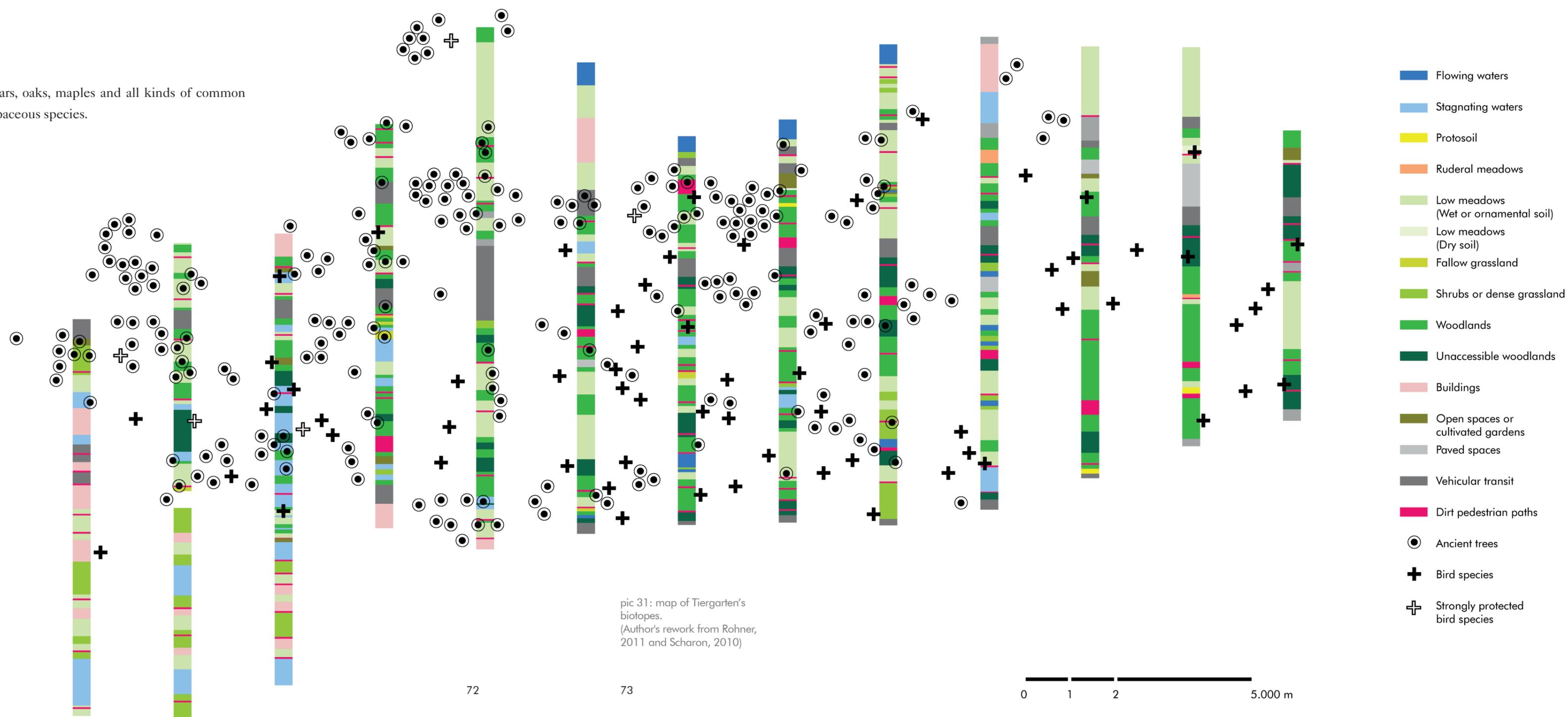
All these policies, events and decisions together enhanced the vast biodiversity that is still today beautifully luxuriant in Tiergarten, generating a multitude of different spatial situation. Both conditions – according to Bartoli – led to a plurality of usages, by different communities, of the spaces in Tiergarten, intended in this thesis as a particular “device” for relations. The term “device” – or “apparatus” – is referred to according to the definition given by Foucault.

A thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions.

(Foucault, 1972, p.194)

A very important point in this study is that such relations must not only be intended within humans, but also between the human and the non-human world. Tiergarten gathers all kinds of living species and – as argued in the following paragraph – functioning like a “device” it also relates humans with hawks, badgers, falcons as well

as with poplars, oaks, maples and all kinds of common and rare herbaceous species.



2.3

Practices, individual, characters.
Relations

In the introduction of this chapter, Tiergarten has been cited as the maximum expression – almost utopian – of public space in Berlin’s context. A public space that is, as it will be precisely described in the following parts of this chapter, clearly framed within Mouffe’s conception of “agonism”, where different social groups – along with their practices, imaginaries, desires and characteristics – constantly confront or take the distance one from the other. As previously mentioned, Tiergarten cannot be described only according to the standards of a city park: it is a forest, sometimes a place for demonstrations and mass events, a naturalist reservoir, a space for leisure and eventually a shelter. Notwithstanding such plurality of

uses, Tiergarten was never divided in themed areas, nor a zoning plan for the park was ever conceived. Rules of urbanism are being constantly transgressed, as the only key that defines the usage is contingency, in a place that bears spontaneous practices constantly subjected to new interpretations and shifts. Thus relations – of various kind, be them social, political or ecological – are defined within edges, or “membranes” constantly redrawn and disconnected.

Wandering on a warm Saturday afternoon through Tiergarten, it is possible to observe groups of parents sitting in the shadow and looking at their children playing¹⁹ on the grasslands and, a few meters further, nudist sunbathers laying in the sun on the *Fleischwiese*²⁰. Tiergarten does not only gather joggers and cyclists, but also homeless men that dwell in the deep and intricate vegetation – which offers them a shelter from the coldest winds – and sit close to the entrances of the park begging for money²¹. Walking further within the dark foliage, in the

19 One could observe children and families playing and relaxing in many of the grasslands around the park, as well as in the four playgrounds designed by Willy Alverdes. Each of them is not fenced and is simply marked by the presence of sand in the ground and kid’s games made of recycled wood – as well designed by Alverdes.

20 Literally “meat lawn” – this is the name given to a grassland located at the south-west of the Victory column where people gather the most to sunbathe naked.

21 Many homeless partly handle the cleaning of the park, gathering the empty bottles left by visitors, in order to exchange them for

twilight, gay-cruisers meet up, sit behind the shrubs and wait for encounters looking for intimate contacts. Moreover, botanists as well as gardening lovers visit the park to study and monitor its trees and grasses, sometimes even doing a bit of maintenance their-selves as volunteers²², as well as groups of birdwatchers that quietly move around the park looking for rare birds’ species²³ to observe.

Ambiguous layers of permeability as well as a reduced level of visibility within the tangled shrubs are key elements that characterize Tiergarten with a certain degree of opacity and, as a consequence, lead to the coexistence of such a plurality of diverse individuals. Each community or social group finds a way to carve out within a common terrain niches and “interiors” that are disconnected from each other and dedicated to the more varied uses. In such sense, Tiergarten is a place that bears relations, along with acts of inclusion and exclusion. Here nature – and the multiplicity of land-

money in supermarkets.

22 There are several associations of volunteers who spontaneously take charge of watering, trimming and monitoring Tiergarten’s vegetation, as well as planting new species in order to preserve the vast biodiversity. One of them is the Steppengarten Berlin: their designated area lays close to the Venus Basin in the south-east, where they cultivate and preserve plants that belong to the Steppes.

23 Protected birds’ species in the Tiergarten include the hawk, the common moorhen and the buzzard, along with other red-listed species such as the wagtail, the serin, etc. (For any further information, see Scharon, 2010)

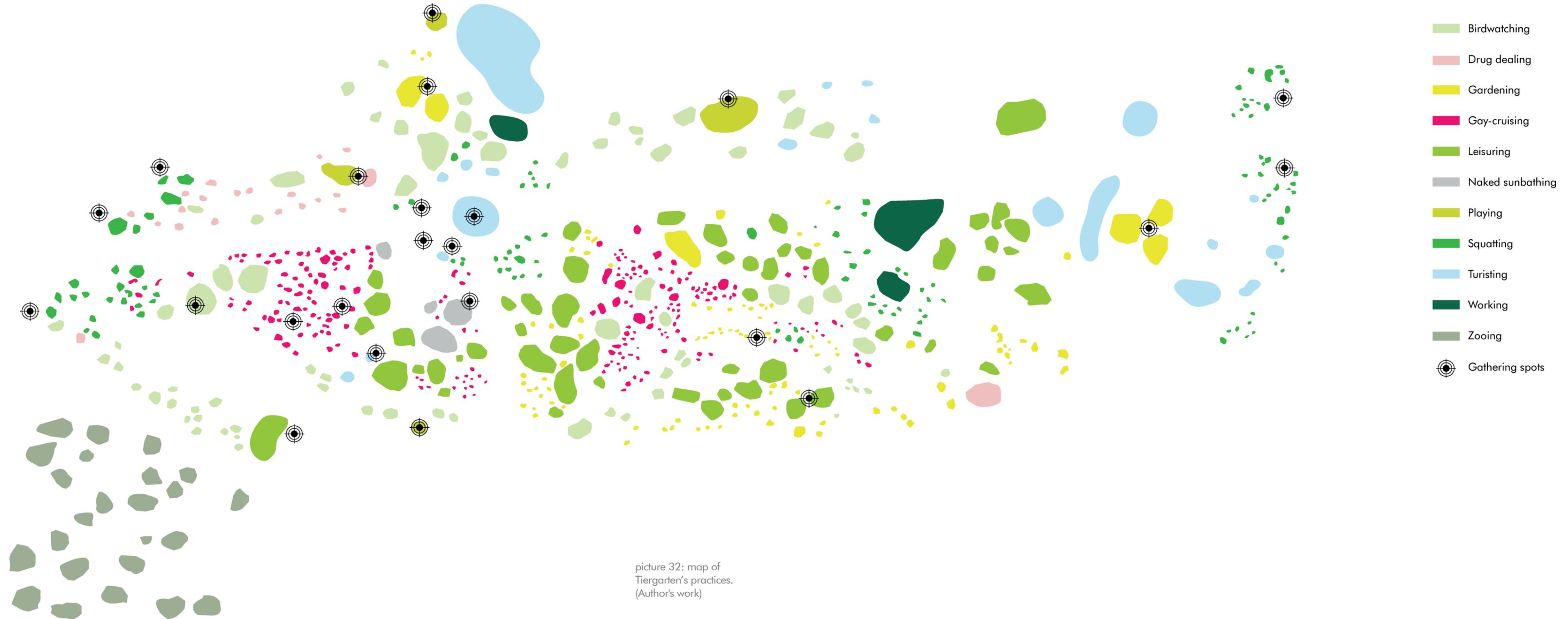
24 Such objects are marked in picture 32.

scapes it bears – can be considered as the relating condition that soften the frictions that such a diversified cohesion of different communities would involve. Quite often, social groups are divided within the spaces of the park, separated by natural shelters and filters. Thus Tiergarten is spontaneously divided in functional areas, although their edges are not clearly marked. They are dedicated to gardening, cruising, birdwatching, nudist sunbathing, sleeping, drugs dealing, etc., but their perimeters are marked by blurred lines, by ambiguous “membranes” that are constantly shifted, transferred, repositioned and broken.

Many objects, scattered around the park, attract certain individuals rather than others. They are not always related to the practices they enhance, although it could be argued that they function as particular “devices” for relations²⁴. For instance, the Löwenbrücke – located north of the Neuer See – is a popular gay-cruising meeting spot: everyday, during the daily as well as ni-

ght hours, men of various age – some of which as a sex worker – sit on the western side of the bridge and wait, cheering at the visitors that pass by, mutually relating to their stranger encounters by exchanging silent hints²⁵. Both the artistic and natural heritages accomplish the same function: while the former – comprehensive of the statues and sculptures positioned in the park – generate spaces for relation for tourists, the latter – its particular bird species and rare plants – is a device that gathers birdwatchers as well as gardeners. Thus, in Tiergarten relations happen not only within the human world, but also between humans and non-humans: they are the species' meeting point, manifested in the respect that birdwatchers have for the habitat and animal's quietness; in the activism that many amateurs have for monitoring and taking care of the plants; in the privacy offered for intimate encounters within shrubs and grasses, left growing undisturbed; and again in the cosiness provided by the trees sheltering homeless' informal settlements.

25 Even though since 2009 the bridge has been closed for a restoration due to a structural failure, it still functions today as an important meeting spot as described in this paragraph.



picture 32: map of Tiergarten's practices. (Author's work)



picture 33 (above left): amateur gardeners taking care of plants in the Steppengarten. (source AA.VV., 2014)

picture 34 (below left): a birdwatching tour in Bellevueallee. (Susanne Schinke, 2015, NABU Bezirksgruppe Mitte)

picture 35 (centre): nudist sunbathers in Fleischwiese. (author's photograph, june 2019)

picture 36 (right): children birthday party in Tiergarten (author's photograph, august 2019)



picture 37 (left): the love parade in Straße des 17. Juni with the Victory column in the background. (Barbara Esch-Marowski, 1999, Landesarchiv Berlin)



picture 38 (right): an informal settlement in Tiergarten. (Heba Khamis in *Black Birds*, 2018)



picture 39 (left): a homeless sleeping on a bench. (Heba Khamis in *Black Birds*, 2018)

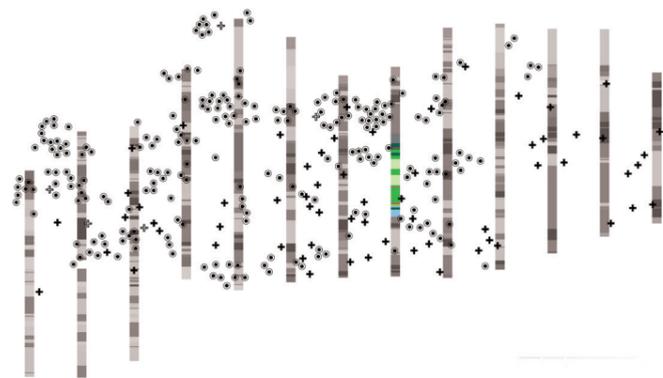
picture 40 (right): a gay cruiser and a sex worker. (Heba Khamis in *Black Birds*, 2018)



2.4

The place.
Eight Tiergarten moments

Here follows an in-depth description of Tiergarten's representative moments, emblematic of spatial situations and organisations that are recurrent throughout the whole area. Each moment is presented in its spatial structure, as well as in its materiality and uses. The selected cases are extracted from their context through coring: they are all located on the same axis, running from Straße des 17. Juni towards south, like Sudoku boxes: thus, they exemplify how different degrees of permeability, opacity and porosity can be experienced according to an irregular succession and not a gradient.



2.4.1 Straße des 17. Juni

Straße des 17. Juni²⁶ defines the strongest urban axes that crosses Tiergarten from east towards west. In its middle, from the Große Stern other three main roads spread out, dividing Tiergarten in other five smaller sections. After its widening to host military parades during the Third Reich, Straße des 17. Juni measures today about 45 m width, has two carriageways for each travel direction and hosts numerous demonstrations and public mass events. Every year on the 9th of October it hosts Germany's reunification day celebrations, as well as the Love parade and other demonstrations that start or culminate in this street. Between 2006 and 2015 Straße des 17. Juni hosted numerous *Fanmeile*, showing the football matches of the World Cup²⁷.

The separation of the green areas from the vehicu-



²⁶ The street derives its name from workers' strikes against the socialist movement started from 1953 in East Germany. On the 17th of June the first of many national strikes, involving more than seven-hundred cities around DDR and more than a million people. Such demonstrations were harshly repressed from the soviet army; thus, from 1953 until Germany's reunification, the 17th of June was always celebrated as national holiday all over West Germany.

²⁷ The most famous is the 2006 one, attended by about 3000.000 people. Such event was criticized by Sandra Bartoli be-



lar flows is marked by a strong border²⁸. Along Straße des 17. Juni's both sides, a tree line traces the division between car space and pedestrian and cyclist lanes. A bit further, a hedge that runs continuous – only interrupted in correspondence of the entrances – along the external edge marks the end of the road and the beginning of the proper green areas.

While Straße des 17. Juni is characterized by wider axial visibility – reason for which it is apt at hosting many mass events and marches – although it does not allow any visibility towards the inside of the park: as a matter of fact, along the edges the vegetation's density was increased in order to grant an internal micro-climate to enhance plants growth. This also contributes to enhance in the visitor's mind – who leaves the street side to penetrate the intricate vegetation – the sensation of entering an actual forest, as the sound of cars gets softer and softer, muffled by the tangled foliage. Finally, Straße des 17. Juni is also the only place in Tiergarten where night lighting is present, while the rest of the park is completely dark during the night hours.

cause of the damages that the artificial lighting as well as the elevated sound of the maxi-screen had on Tiergarten's animals (For any further information see Sandra Bartoli in AA.VV., 2015).

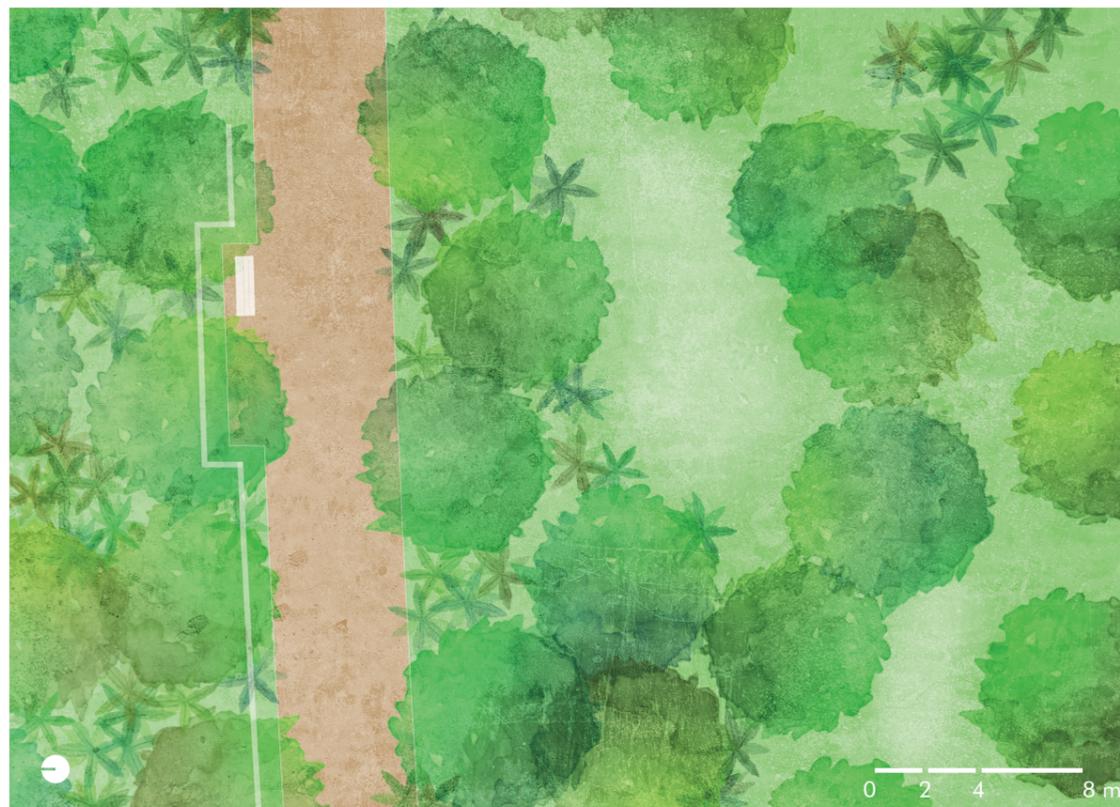
²⁸ Exception made for more recent reconstructions such as the Venus Basin (See paragraph 2.5.2).

2.4.2

Alleys

Before proceeding with the description of the connections internal to the park, it is important to point out that the current alley and path system already existed before Alverdes' design in 1950, although he decided not to reconstruct the straight axes characterized of a more military aspect (Bartoli in AA.VV., 2019). The latter were later integrally reconstructed, beginning from the fall of the wall until 2018²⁹, while the former – with which this paragraph deals – more curvilinear, are a result of Alverdes' project.

From the moment the park is entered, the paving is almost completely absent. The large alleys running throughout Tiergarten are thus simply defined by dirt ground and, sometimes, their edges are marked by a 20 cm high fence, underlining the beginning of grasslands and woods. One could abandon those alleys anytime by simply overstepping the short fence to enter the denser vegetation. They cross the park shifting from different spatial situations: sometimes they cross clears, sometimes they are completely surrounded by intricate vegetation and do not grant any visibility outside their own



29 For any further information see paragraph 2.5.1.

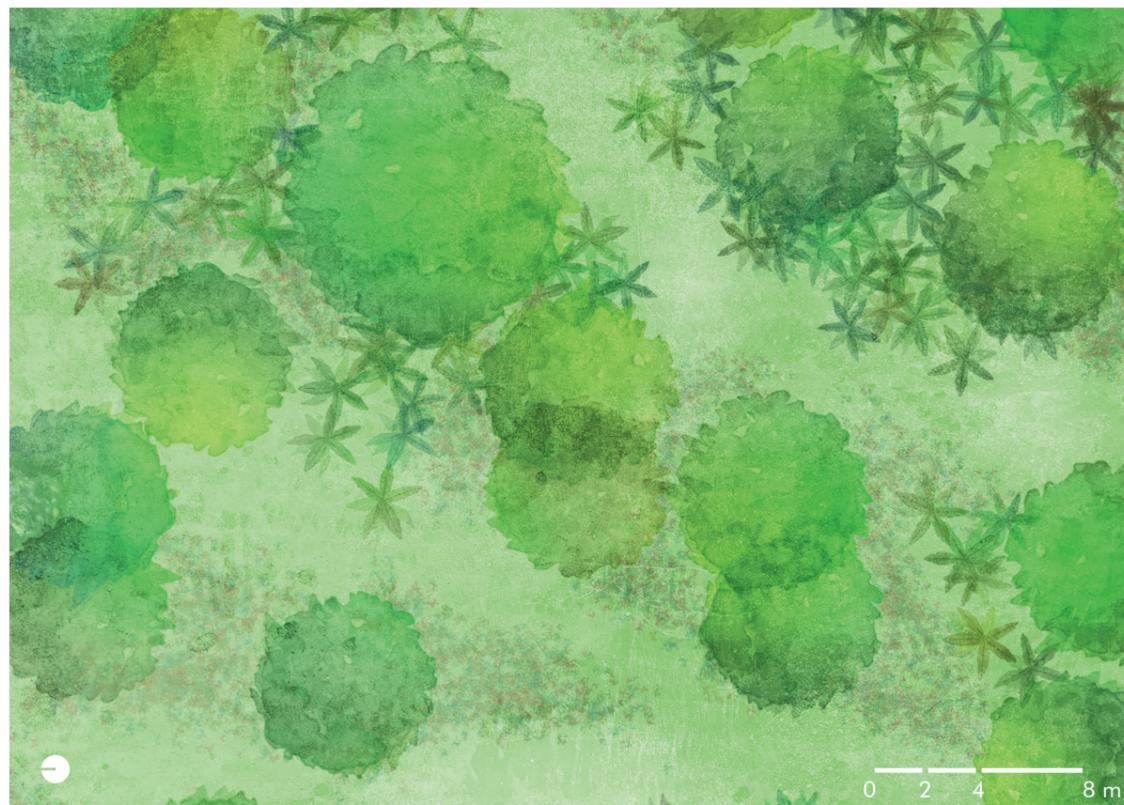


path, generating a sense of surprise at every turn. At the same time, there is no hierarchy that establishes a traffic order within the paths: every way is both cycling and pedestrian and there is no lane distinction. Only a few benches, trashcans, touristic maps and direction signs constitute the urban equipment placed along the alleys; anything else – street lamps or covered space – is absent.

2.4.3 Woodlands

Many forestry areas surround paths as well as woods clears, presenting inward an increasing degree of opacity. Biodiversity is here richer, as plants can grow undisturbed and supporting each other, creating complex patterns made of leaves, branches, foliage, shadows and colours. They adapt to human's passage as paths are no longer defined by design, but rather by visitors' perpetual walking along the same directions.

According to the geographical location within the park, woodlands host different activities that were born spontaneously. Close to the Venus Basin, Steppengarten's designated areas for gardening result almost impenetrable given the shrubs' density: a wide naturist moor just a few minutes' walk from Straße des 17. Juni. This is the only place remained in the Tiergarten – after 2006's reconstruction of the Venus basin – where plants typical from the Steppes - such as lavender, mulleins and a wide selection of weeds such as dwarf feather grass and the little bluestem - can be found; those are continuously cultivated and cured by many volunteers who freely joined the association. Other areas in the woods, especially those close to the Löwenbrücke, have been



an iconic gay-cruising meeting spot since the 1920s³⁰. Such context presents very thick shrubs and bushes, as well as dense foliage that contributes to creating a sense of secrecy and privacy within the twilight. Every day men of all ages and social status hang out in this part of the park looking for quick encounters, standing by the bridge statues or waiting further in the darkness, recognizing each other thanks to explicit signs and attitudes. Moreover, woodlands are also home for many protected bird species, some of which red listed. An analysis surveyed in 2010 revealed that at the time 82 different species of birds lived in Tiergarten. Birds attract to Tiergarten many birdwatching lovers, alone or in organized tours, looking forward to spot rare animals within the nature.

³⁰ Such practice started here in the late 1920s when many gay bars were opened in Berlin and, notwithstanding the harsh repression during the '30s, cruisers started meeting again after the trees were replanted in 1950. West Berlin's municipal authorities tried again during all 1970s to oppress such practice, as the police tried to banish from the park everybody who was caught cruising in Tiergarten. Later on, from the mid-1980s, cruising began again to be widely practiced near the Löwenbrücke, until today, becoming an iconic practice of the Tiergarten.

2.4.4

Clears

Dense woodlands always enclose clears, grassy areas with low weeds surrounded by thicker vegetation. Clears are mostly empty, except a few trees with large foliage that create shadowed areas around which people gather. Clears look like sponge pores within Tiergarten's vegetation. They grant a high degree of visibility within their own borders, although they are often sheltered from the outside by the shrubs and trees that surround them. Clears are usually lacking urban equipment, apart from a few small relational devices randomly placed: two showers have been installed in the western Tiergarten³¹, a few table tennis tables are scattered around the whole park.

The activities that happen here are the most diverse: playing, resting, reading, picnicking, as well as nudist sunbathing. This last practice mainly happens on the south-west of the Große Stern, in a relatively big area close to car streets: the so-called *Fleischwiese*, or flesh-meadow. This is densely attended during the warm

³¹ Both showers were built in the 1980s, when a generous donation was made to Tiergarten's administration at the condition that a certain amount of money would have been spent to install them (Bartoli, 2014).



seasons by the Berliners – of all ages, but mostly by men – to lay naked under the sun and socialize.

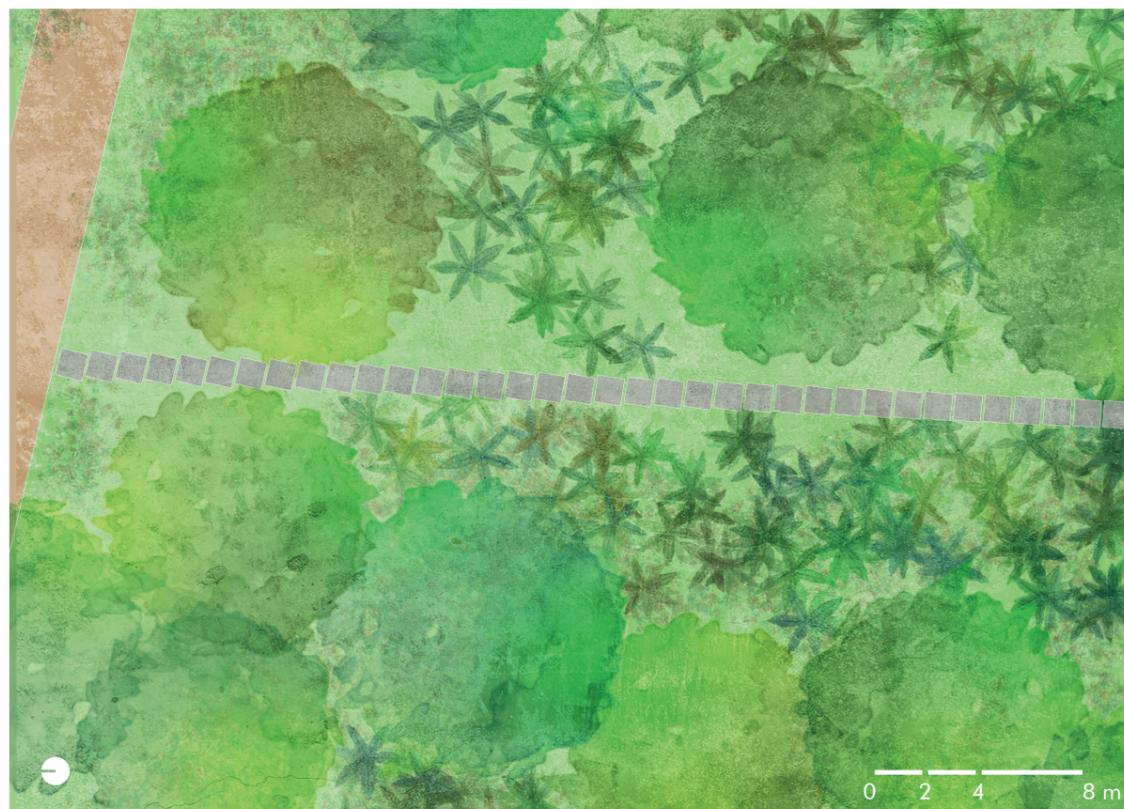
2.4.5

Paths

Many of the more intricate paths are not directly accessible from the clears, but it is necessary to walk further in the woodlands in order to cross them. Here trees, shrubs, bushes and leaves are so thick that one could barely see outside the path itself. Most of such paths are part of 1950's Tiergarten project, they are sometimes marked by a stone paving and always surrounded by higher trees or bushes. They represent the peak of the circulation climax - as conceived by Alverdes in his 1950 design - where visitors are guided from the built environment, through alleys, woodlands, clears and eventually paths to the most hidden spots within the dense vegetation. In such introverted areas, some of the most intense forms of social relation are exchanged. In northern Tiergarten, an open-air drug market finds place within the thicker vegetation (Baers in AA.VV., 2019), while some spots in the south-western section are commonly known as meeting places for male prostitution³².

In 2012 a survey revealed that, by then, thirty-two ni-

³² As described by the Egyptian reporter Heba Khamis, over a hundred customers visit the park every day to meet sex workers who are mainly Iranian or Afghan refugees. Prostitution



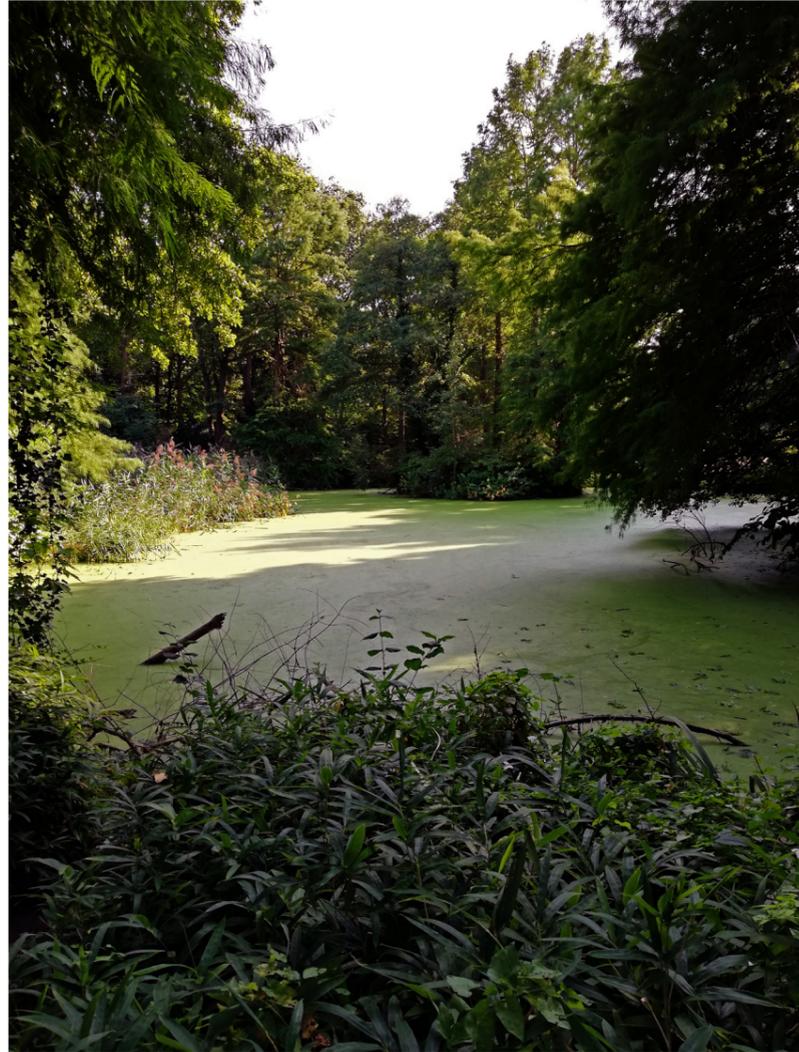
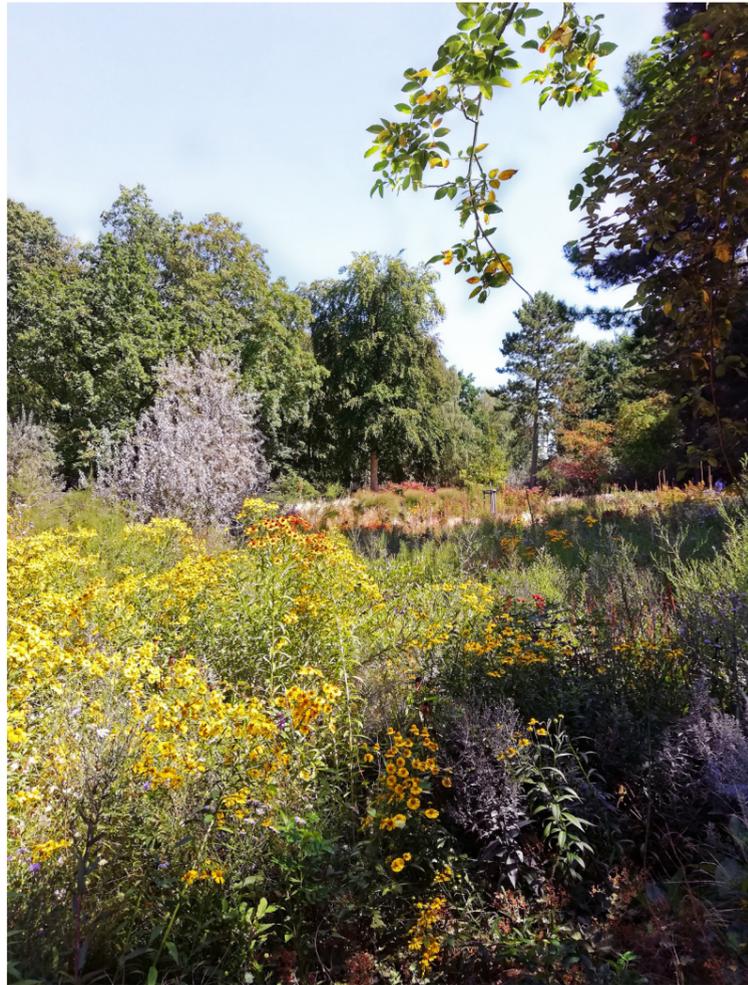
ghtingale couples used to live in Tiergarten, who found in the woodlands the materials necessary to build nests and reproduce. In the following years, the administration, in order to discourage certain kinds of behaviours, decided to cut down many shrubs and bushes. As a consequence, in 2015 only eight nightingale couples were surveyed (Bartoli, in AA.VV., 2019). This fact proves how strong the mutual relations between humans, animals and nature can be: an act of nature management coincides with an action of social control, having consequences on the fauna as well.

in Germany is legal for consenting adults since 2002.

2.4.6 Riverbanks

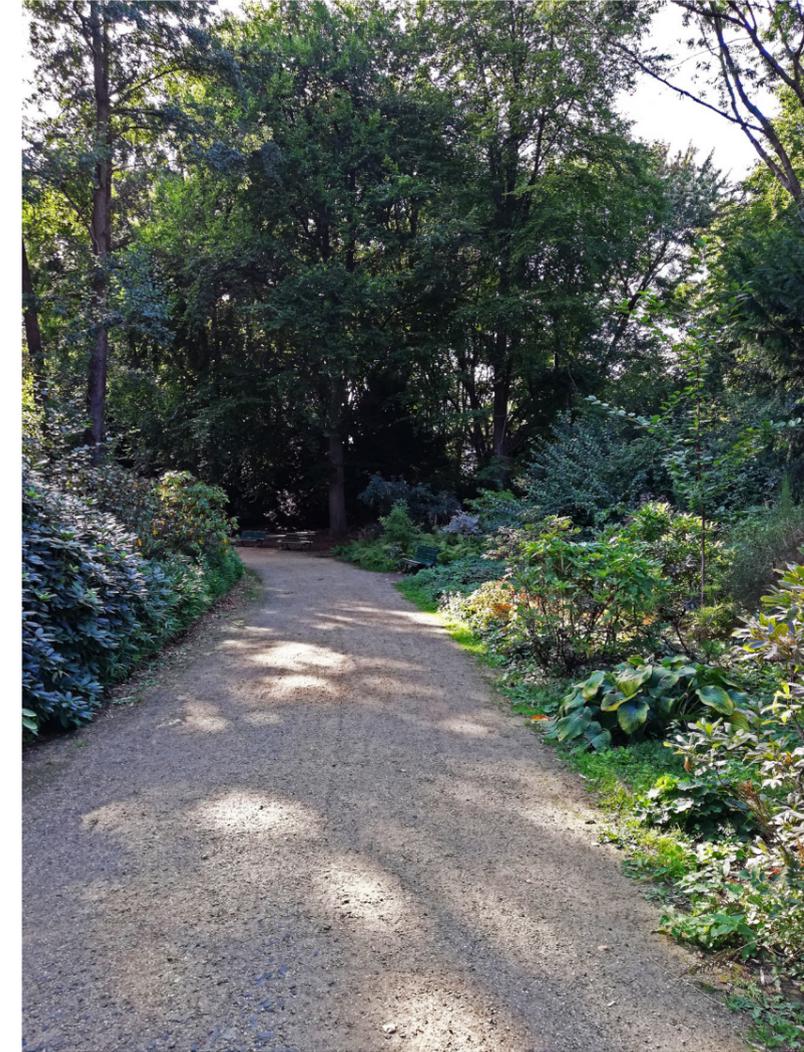
There are two main water streams in Tiergarten, Neuer See on the west and Tiergartenwässer on the east. Both include small islands that can only be reached by water, although most of them are protected areas because of the species of birds that inhabit them: in particular, on the small islands in the Neuer See live hawks, common moorhens and buzzards. Moreover, in the north-west of Tiergarten a marshy pond can be found: the Fauler See, whose surface is completely covered by green algae, thus making it impossible to look beyond its surface. Each stream with its riverbanks defines small niches that are always a bit hidden from the paths that run parallel to them, becoming an important place of social exchange. Sometimes a few benches are located along those edges, hidden behind high bushes and by the thick foliage.





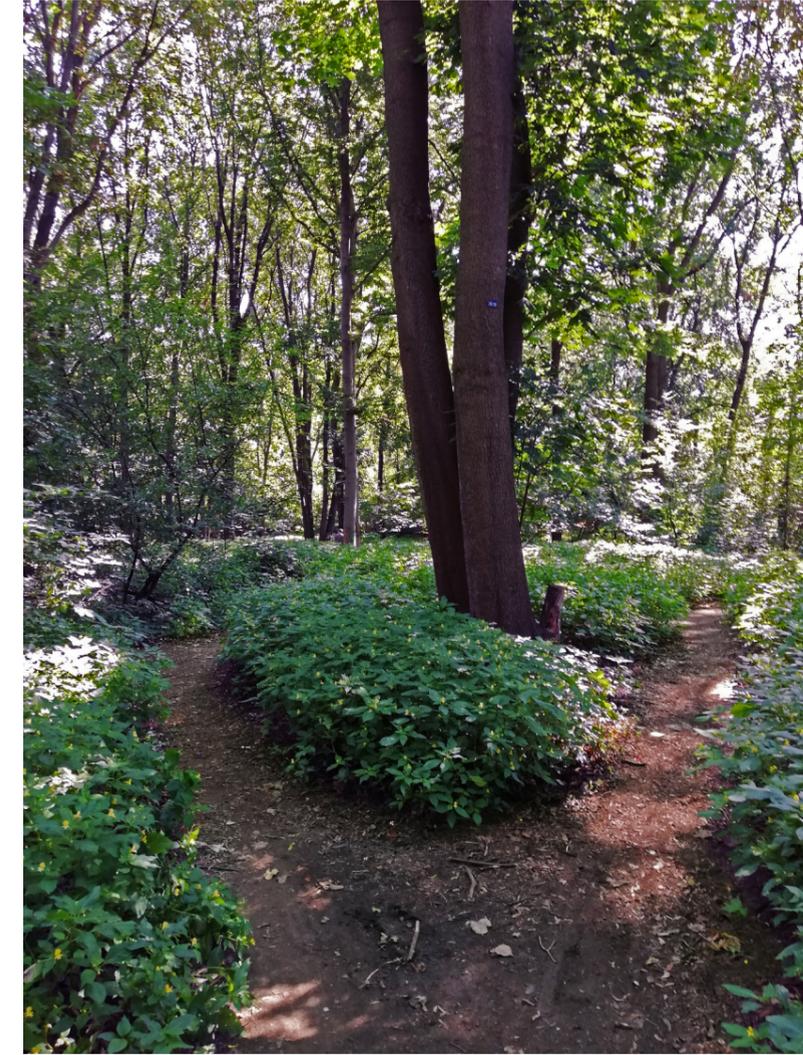
picture 41 (left): a bushy meadow in the Steppengarten Berlin's pertinence area. (author's photograph, august 2019)

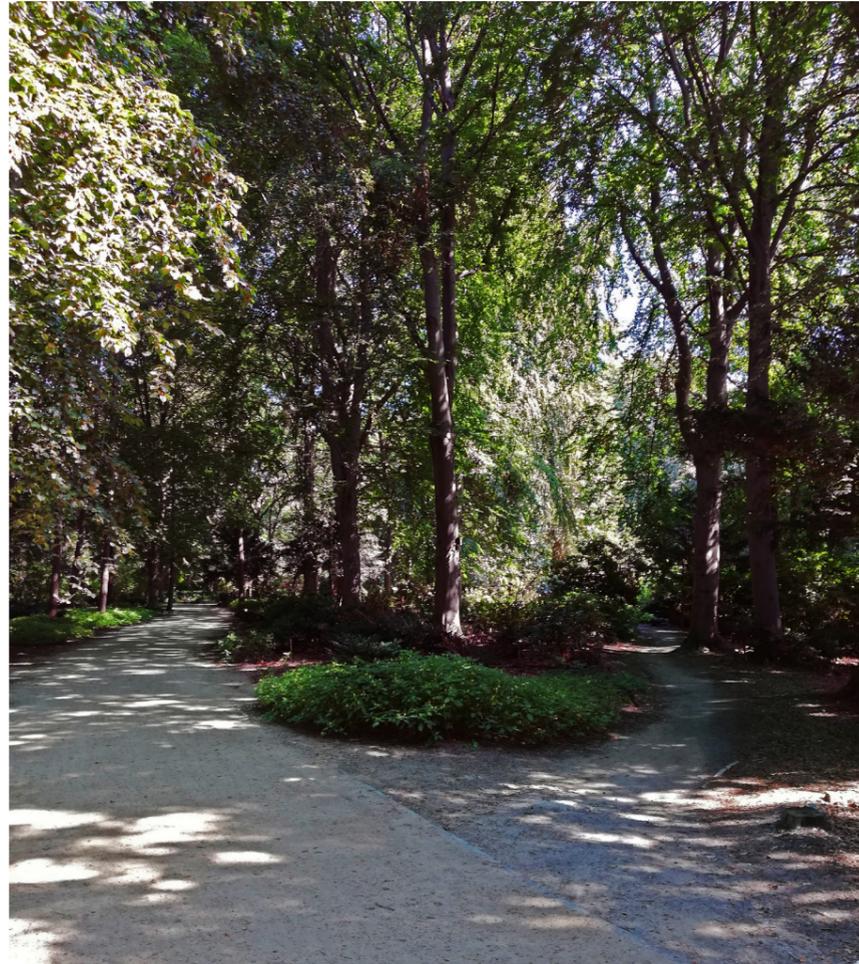
picture 42 (right): Fauler See, a pond in north-western Tiergarten; its surface is completely covered with algae. Daffodils grow on its edge, while a small island is visible on the background. (author's photograph, august 2019)



picture 43 (left): alley surrounded by thick vegetation. (author's photograph, august 2019)

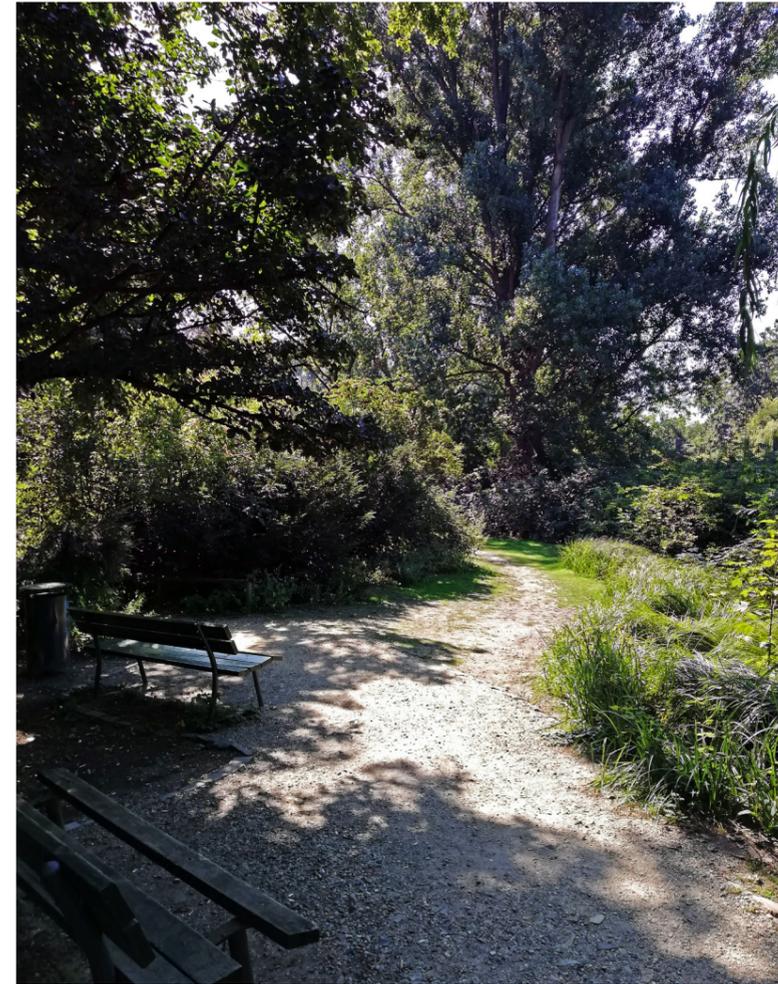
picture 44 (right): a path in the forest, defined by the visitors' steps rather than a design. (author's photograph, august 2019)





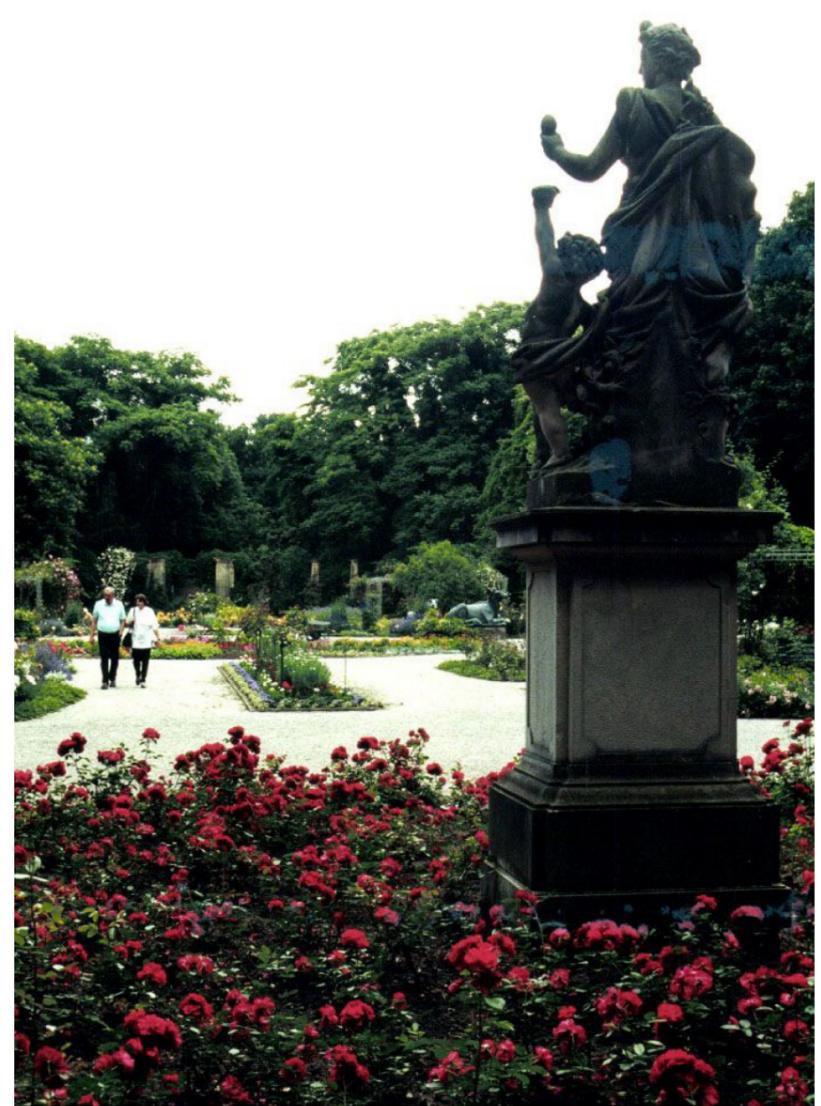
picture 45: one of many Tiergarten's meadows, a clear cut sheltered by the thick foliage. (author's photograph, may 2019)

picture 46 (left): an introverted path branching out from a wider sinous alley. (author's photograph, august 2019)



picture 47: a few benches and a bin are located inside a small niche, accessible through a path. (author's photograph, august 2019)

picture 48 (right): The Rosengarten. Located at the very heart of the park, it is surrounded by a thick layer of trees and bushes. Inside, a wide range of roses species as well as other flowers are cultivated by Tiergarten's gardeners. (Barbara Esch-Marowski, 2001, Landesarchiv Berlin)





picture 49 (previous page, left): some shrubs define a niche along the Neuer See. (january 2019)

picture 50 (previous page, right): a stone paved path surrounded by high grasses. (author's photograph, january 2019)

picture 51 (left): the path continues within thicker and higher vegetation. (january 2019)

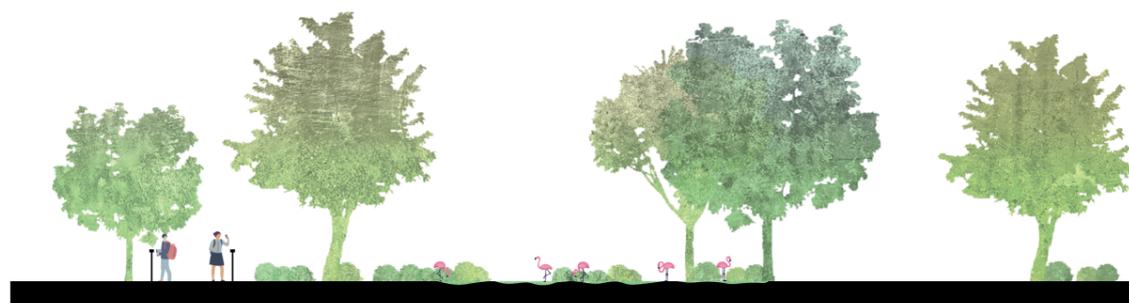
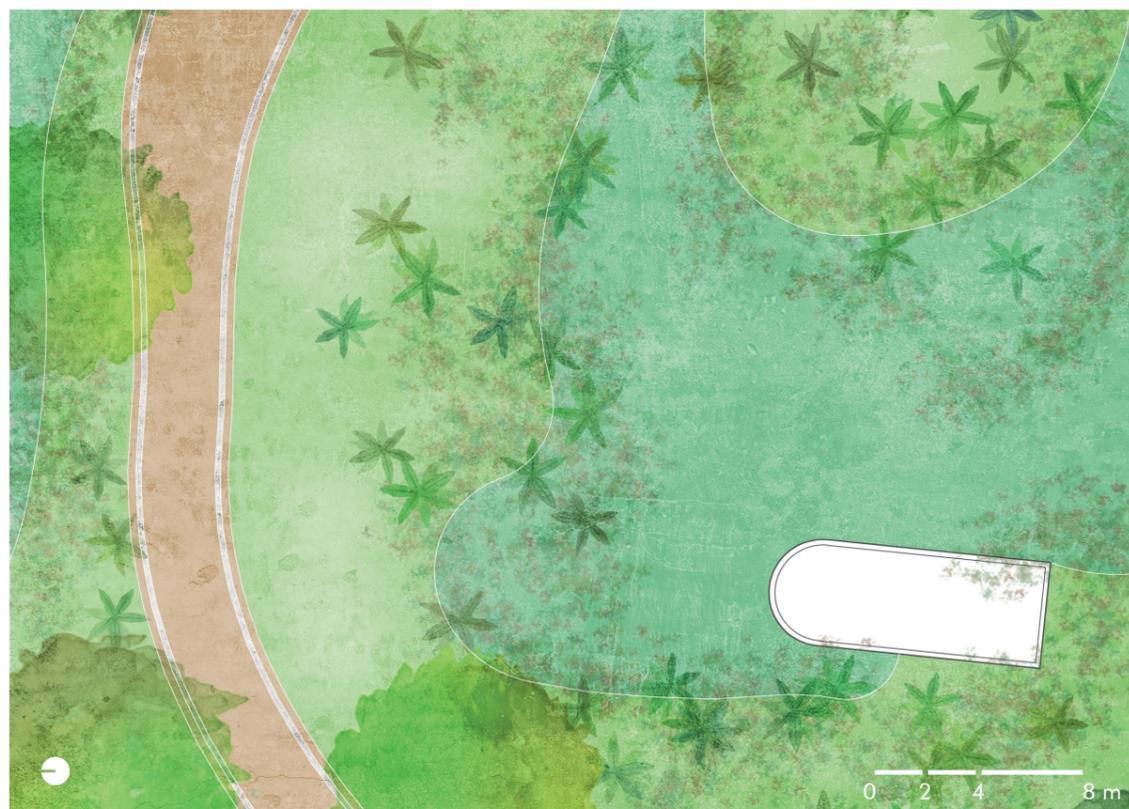
picture 52 (right): the path ends in a small clear by the water enclosed within thick shrubs. Thus visitors, walking along the paved way, are guided through different degrees of permeability and spatial situations enhancing diverse relational exchanges. (author's photograph, january 2019)



2.4.7

Zoo

The Berlin Zoo is on the south-western edge of Tiergarten. This hybrid structure is still today an iconic touristic attraction of the city; at the same time, it is a place dedicated to learning and scientific research. Nevertheless, when it was opened in the early '20s, the zoo represented a symbol of colonial power, whose pavilions' architecture directly recalled that of exotic countries subjected to colonial dominance. It was the zoo's directorate itself that in 1925 organized an expedition to Ethiopia in order to capture new wild animals to be exhibited and studied. Moreover, from the time of its opening, the zoo was also used to host parties and events organized by politicians and diplomats, who wanted to impress their guest by exhibiting exotic wild animals. Many of those were organized on the wide restaurant terrace, jutting out on the flamingos' fence, creating light illusions to impress the guests.

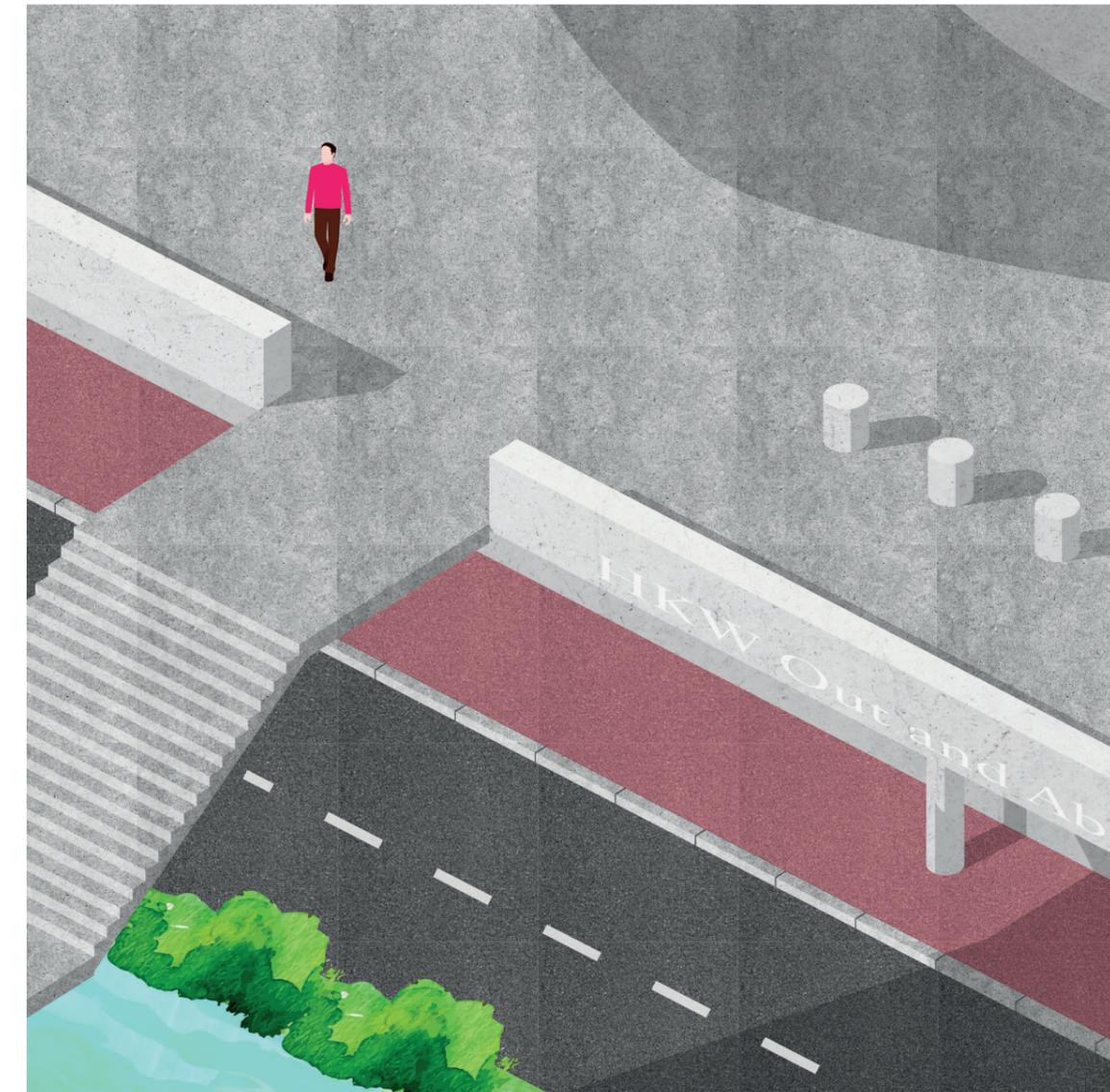
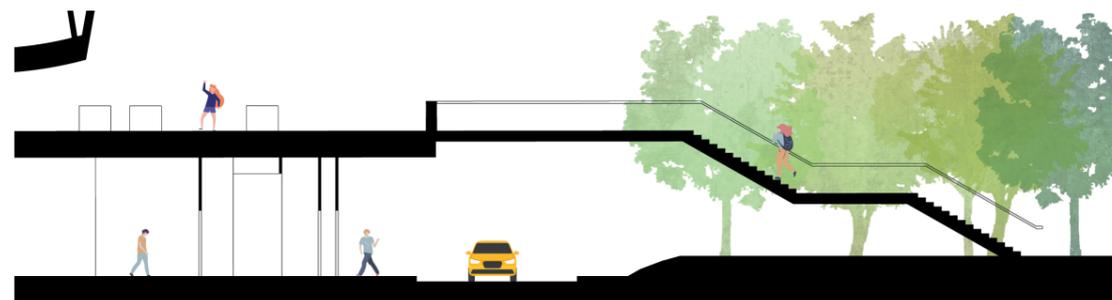
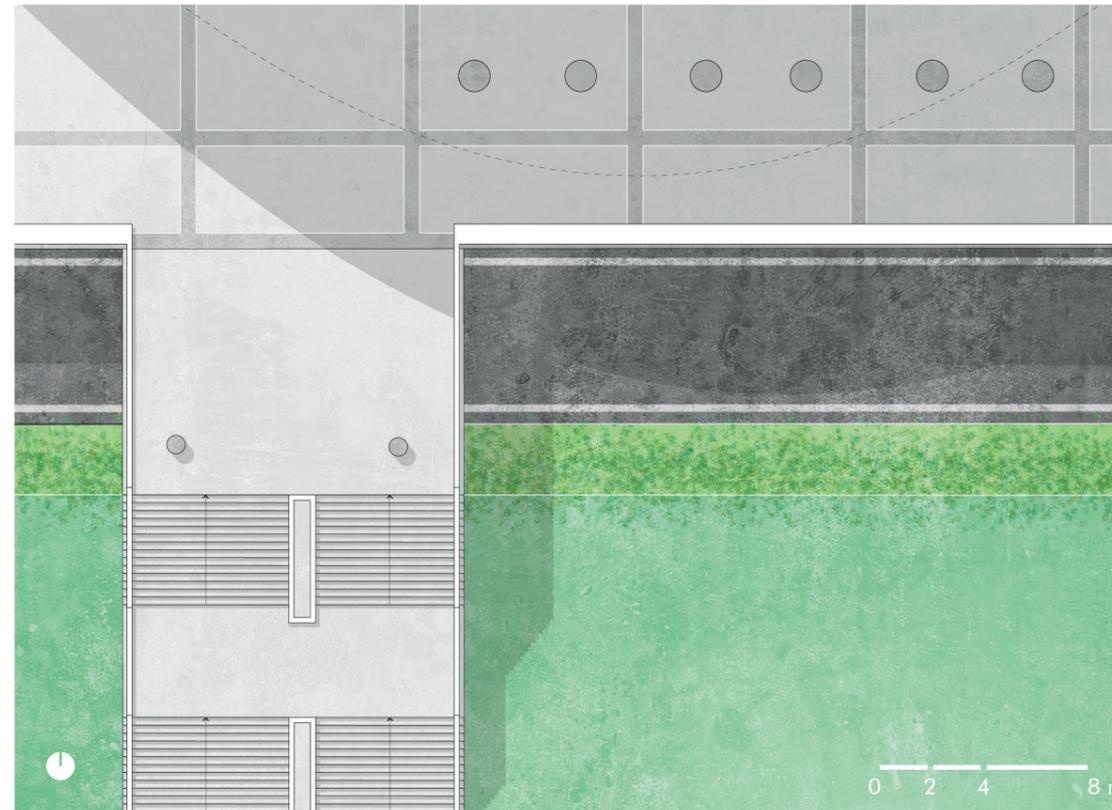


2.4.8 Haus der Kulturen der Welt

Characterized by a strong symbolism, the congress hall was built for the Internationale Bauausstellung (Interbau) in 1959 as gift from United States government representing their friendship and collaboration with West Germany.

The big auditorium is located at the north-western edge of Tiergarten, a strategic position as it could have been seen from the eastern side of the wall in the DDR section as well. A symbol of power, financial stability, collaboration and freedom, as well as of engineering innovation. American architect Hugh Stubbins designed the building characterizing it with a wide open terrace, on the top of which runs an hyperbolic wood in reinforced concrete³³. On the quadrangular ground floor can be found services, spaces for temporary exhibits and a restaurant. On the first floor, accessible through the terrace, there is a wide oval auditorium. The terrace instead is accessible through a self-standing concrete staircase, always open at every hour of the day and night.

³³ Due to the peculiar form of the roof, the Haus der Kulturen der Welt is commonly known within the Berliners with the name *Schwangere Auster*: "the pregnant oyster".



From 1989 the congress hall is commonly referred to as Haus der Kulturen der Welt, which is the name of the association that is since then in charge of organizing the various events throughout the years. The initiatives comprehend visual arts, literature, science, music and dance. Before the fall of the wall, most of the events were related to either American or German culture, although now they mostly promote foreign cultures, in particular from the African and Asian continents – thanks to the involvement of many non-European curators.



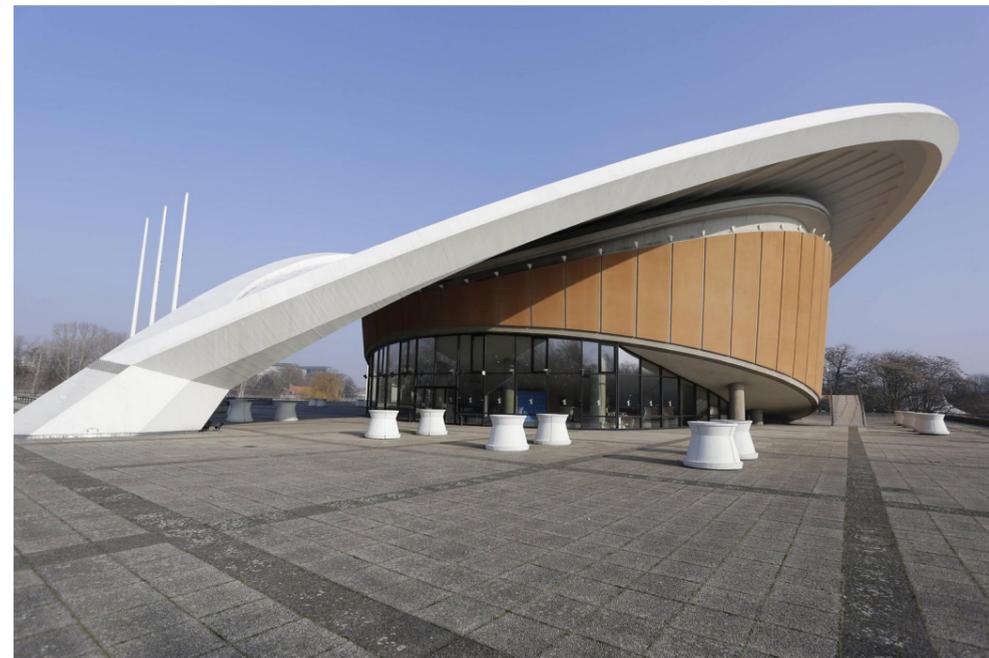
picture 53 (left): the giraffes' pavilion at the zoo slightly recalls Byzantine architecture. (Heather Cowper, 2009, flickr)



picture 54 (right): the zoo entrance, like many other pavilions, directly recalls the architecture of the countries colonised by Germany during the 1920s - in this case, China. (Jean-Pierre Dalbéra, 2011)



picture 55 (above): the Congress hall accesses on its southern side. The main one through the self-standing staircase and the terrace, a secondary one from the street's level. (Daniel Vorndran, 2013)



picture 56 (below): entrance to the congress hall on the wide HKW's terrace; the latter is always accessible to the public at every hour of the day. (Metodi Popow, 2017, imago)

Clears, paths, alleys and all the aforementioned spatial situations contribute together – for the way they were designed by Willy Alverdes – in making Tiergarten a device for relation. Yet there are places in Tiergarten that do not enhance the environmental conditions – i.e. a reduced degree of visibility or permeability defined by natural filters, an ambiguous arrangement of the designed spaces open to interpretation, etc. – necessary for specific forms of social exchange and that, at the same time, present critical issues in terms of ecology. In order to address such matter, it is first necessary to understand what are the bodies behind Tiergarten's maintenance policies and how they operate, specifically referencing the latest transformations actuated over the last thirty years.

34 Germany is divided into sixteen federal states, out of which Berlin - exactly like Hamburg and Bremen - is governed as a city-state.

Heading Tiergarten's maintenance (and Berlin's parks in general), there are two bodies: the *Bezirk* Mitte and the *Landesdenkmalamt*. The former is one of the twelve districts comprehended in the state Berlin³⁴, in which Tiergarten is integrally included; the latter is the state office in charge of historical buildings, gardens and landscape preservation. There is a wide collaboration between both bodies, despite Mitte's administrative politics are more leisure-oriented, whereas *Landesdenkmalamt* ones promote the restoration of monuments are historical paths in the park (Tate, 2015). Generally, all the funds used to take care of the plants and manage the park derive from the general budget assigned by the Berlin state to each district and the income from the events organized in the park over the year. As a matter of fact, in the last twenty years such budget for the maintenance of green areas decreased of 60%: actually, in 1991 the administration disposed of four directors and a hundred gardeners only for Tiergarten, whereas today only one director and twenty gardeners are still in charge (Tate, 2015). The current maintenance plan was written during the 1980s, in order to contain costs. Nevertheless it is important to point out that not only

the designated gardeners are the ones that cure plants, but also, as already mentioned, many citizens (amateurs as well as professional ornithologists, dendrologists and biologists) that spontaneously take care of Tiergarten's vegetation as volunteers (Bartoli et al, 2017).

After Germany's reunification in 1989³⁵, Berlin's municipality promoted the reconstruction of some of those military axes that were excluded in the restoration from 1950, as well as the addition of celebratory statues. The latter, just like “exclamation marks” – term borrowed from Sennett³⁶ – attract tourists that everyday gather around them. Such interventions – actuated between 2006 and 2009 – were promoted by the *Landesdenkmalamt* director from 1978 to 2011, Klaus-Henning von Krosigk. As pointed out by Louise Rellensmann³⁷, he argued that such restorations all belonged to the present baroque configuration of the park, according to Lenné's design. Such argumentation is emblematic of the von Krosigk's conception of the park itself. Such measures are dictated by a more aesthetic appreciation

35 It is important to point out that, after the fall of the wall, Tiergarten found itself to be located again at a central position in the very heart of the city and no longer at West Berlin's border. Such condition probably let Tiergarten to be again at the centre of the administration's attention and thus subjected to new renovating interventions.

36 For any further information see *Five open forms* in Sennett (2018).

37 Rellensmann L. (2019), *Heritage is subject to change!* In *Tiergarten. Landscape of transgression*. Park Books, Zürich.

of Tiergarten, without actually conceiving it as a space for relation within a multitude of practices, nor taking into account the Alverdes' dispositions for the 1950 restoration. Von Krosigk's methodology instead is closer to the German tradition, which interprets the urban park as a mere *Gartenkünstlerisches Denkmal*, or an “*artistic-monument garden*” (Rellensmann in AA.VV., 2019, p. 60).

Senate's ecologist faction strongly opposed such measures, commissioning in 2006 a survey of all Tiergarten's vegetable species and comparing them with previous investigations. The Berliner ecologist in charge, Maria-Sofie Rohner, catalogued about six-hundred species that were present in the park at different times. The presence of different plants, according to Rohner, changes simultaneously and is directly related to various factors, such as the visitors' usage intensity, maintenance policies or the state of neglect (Rohner, 2009). In 2011 Rohner surveyed once again Tiergarten, this time mainly focusing on the south-eastern section – the one

subjected to most interventions. The findings revealed that the number of biotopes had decreased. A loss for an area that before the fall of the wall used to host not only rare birds and herbaceous species, but also gay-cruising practices while being a research terrain for biologists and botanists. More recently, Rohner contributed to the making of a new maintenance plan, after a budget increase thanks to the selling of plots adjacent Tiergarten's perimeter. Precisely, the earnings derive from the money compensation (in German *Ausgleichsmaßnahme*) that the administration received for the loss of ecologic heritage after the construction of Diplomatentpark, south-west of Tiergarten: a plot that once belonged to the park, where today are located residential buildings.

In the following pages, the argumentation proceeds with a description of the latest interventions on Tiergarten, mainly focusing around the reconstruction of historical axes and the Venus basin.

Wissenschaftlicher und deutscher Artname	Status Tiergarten	AS	BE	Willdenow 1787	Kunick 1974	Trepl 1978	Brockmann et al. 1988, O&P 1989	GEO 2005, Rohner 2006, Exk. 2008
Rumex obtusifolius subsp. obtusifolius Sumpfbüchinger Ampfer					x	x		x
632 Rumex palustris Sumpf-Ampfer		3			x			
633 Rumex salicifolius var. triangulivalvis Weidenblät-Ampfer		3			x	x		
634 Rumex sanguineus Blut-Ampfer, Hain-Ampfer *		1			x	x	x	x
635 Rumex thyrisiflorus Rippen-Sauerampfer					x	x	x	x
636 Sagina nodosa Knotiges Maskkraut		1			x	x		
637 Sagina procumbens Liegendes Maskkraut					x	x	x	x
638 Sagittaria sagittifolia Gewöhnliches Pfeilkraut	a	2			x	x	x	x
639 Salix alba Silber-Weide *	a?			x		x	x	x
640 Salix aurita Ohr-Weide		2	x					
641 Salix caprea Sal-Weide	a					x	x	x
642 Salix cinerea subsp. cinerea Grau-Weide, Asch-Weide	a?							x
643 Salix fragilis Bruch-Weide *	a?	R					x	
644 Salix pentandra Lorbeer-Weide				x				
645 Salix rosmarinifolia Rosmarin-Weide *	a	2					x	
646 Salix triandra subsp. amygdalina				x				
647 Salix triandra subsp. triandra Mandel-Weide				x				
648 Salix viminalis Korb-Weide	a			x			x	
649 Salix x rubens (S. alba x S. fragilis) *							x	
650 Salix x smithiana (S. caprea x S. viminalis) *	a						x	
651 Salvia kali subsp. tragus Gewöhnliches Salzkraut					x	x		x
652 Salvia nemorosa Steppen-Salbei	v?						x	x
653 Salvia pratensis Wiesen-Salbei *	a/A	G			x	x	x	x
654 Sambucus ebulus Zwerg-Holunder				x				
655 Sambucus nigra Schwarzer Holunder					x	x	x	x
656 Sangisorba minor subsp. polygama	A						x	x
657 Sangisorba officinalis Großer Wiesenknopf		2	x					
658 Saponaria officinalis Echtes Seifenkraut					x	x	x	x
659 Sasa pygmaea, Sasa spec. Bambus	a						x	x
660 Saxifraga granulata Körnchen-Steinbrech	§	3	x					
661 Schoenoplectus lacustris Gemeine Teichseise	a	G					x	
662 Scilla bifolia s. l. Zweiblättriger Blaustern	a	§					x	
663 Scilla sibirica Sibirischer Blaustern *	a	§			x	x	x	
664 Scirpus sylvaticus Wald-Sirse	a	V						x
665 Scleranthus annuus Einjähriger Knäuel						x	x	
666 Scrophularia nodosa Knoten-Bräunwurz				x	x	x	x	x
667 Scutellaria galericulata Gemeines Helmkraut				x	x	x	x	x

Wissenschaftlicher und deutscher Artname	Status Tiergarten	AS	BE	Willdenow 1787	Kunick 1974	Trepl 1978	Brockmann et al. 1988, O&P 1989	GEO 2005, Rohner 2006, Exk. 2008
668 Scourgera varia Bunte Kronwicke					x	x	x	x
669 Sedum acre Scharfer Mauerpfeffer	a?	s				x	x	x
670 Sedum sexangulare Milder Mauerpfeffer	a?	s				x	x	x
671 Senecio jacobaea Jakobus-Greiskraut						x		x
672 Senecio ovalis Fuchs-Greiskraut	a?		R			x	x	x
673 Senecio sylvaticus Wald-Greiskraut							x	x
674 Senecio vernalis Frühlings-Greiskraut						x	x	x
675 Senecio viscosus Klebriges Greiskraut				x	x	x	x	x
676 Senecio vulgaris Gemeines Greiskraut						x	x	x
677 Setaria pumila Fuchsröte Borstenhirse						x	x	x
678 Setaria viridis Grüne Borstenhirse *						x	x	x
679 Silene dioica Rote Lichtnelke	a					x	x	x
680 Silene dioica Rote Lichtnelke	a		3			x	x	x
681 Silene latifolia subsp. alba Weiße Lichtnelke				1		x	x	x
682 Silene noctiflora Acker-Leimkraut						x	x	
683 Silene vulgaris subsp. vulgaris Gewöhnliches Leimkraut					x	x	x	x
684 Sinapis alba Weißer Senf						x	x	
685 Sinapis arvensis Acker-Senf						x	x	x
686 Stachys arvensis Höhe Rauke, Ungarische Rauke						x	x	x
687 Stachys ino Glanz-Rauke						x	x	x
688 Stachys loeselii Losels Rauke						x	x	x
689 Stachys officinale Wege-Rauke						x	x	x
690 Solanum dulcamara Bittersüßer Nachtschatten					x	x	x	x
691 Solanum nigrum subsp. nigrum Schwarzer Nachtschatten						x	x	x
692 Solidago canadensis s. l. Kanadische Goldrute *						x	x	x
693 Solidago gigantea Riesen-Goldrute							x	x
694 Solidago virgaurea Gemeine Goldrute			V	x				
695 Sonchus arvensis subsp. arvensis Acker-Gänsedistel						x	x	x
696 Sonchus asper Rauhe Gänsedistel						x	x	x
697 Sonchus oleraceus Kohl-Gänsedistel						x	x	x
698 Sonchus palustris Sumpf-Gänsedistel	a						x	x
699 Sorbaria sorbifolia Ebereschen-Fiederspiere	a						x	
700 Sorbus aucuparia subsp. aucuparia Eberesche, Vogelbeere	a				x	x	x	x
701 Sparganium erectum subsp. erectum Aalgras	a					x	x	x
702 Spergularia arvensis Acker-Spergel							x	
703 Spergularia rubra Rote Schuppenmiere						x	x	x

Wissenschaftlicher und deutscher Artname	Status Tiergarten	AS	BE	Willdenow 1787	Kunick 1974	Trepl 1978	Brockmann et al. 1988, O&P 1989	GEO 2005, Rohner 2006, Exk. 2008
98 Campanula latifolia Breitblättrige Glockenblume	a				3		x	x
99 Campanula patula Wiesen-Glockenblume							x	x
100 Campanula persicifolia Hirschblättrige Glockenblume *	a	2						x
101 Campanula rapunculoides Acker-Glockenblume							x	x
102 Campanula rotundifolia Rundblättrige Glockenblume							x	x
103 Campanula trachelium Nesselblättrige Glockenblume *	a/y	0						x
104 Cannabis sativa subsp. sativa Kultur-Hanf							x	x
105 Capsella bursa-pastoris Gemeines Hirtenläschel *							x	x
106 Cardamine flexuosa Wald-Schaumkraut								x
107 Cardamine hirsuta Viermänniges Schaumkraut								x
108 Cardamine pratensis Wiesen-Schaumkraut		V	x	x				x
109 Cardaminopsis arenosa subsp. arenosa Sand-Schaumkresse							x	x
110 Carduus acanthoides Stachel-Distel							x	x
111 Carduus crispus Krause Distel							x	x
112 Carex acuta Schlank-Segge	a			x	x	x	x	x
113 Carex acutiformis Sumpf-Segge	a						x	x
114 Carex arenaria Sand-Segge				x	x	x		
115 Carex brizoides Zittergras-Segge		R					x	x
116 Carex hirta Behaarte Segge							x	x
117 Carex muncata agg. Artengruppe Sparrige Segge							x	x
118 Carex muncata s. str. Sparrige Segge *				?				x
119 Carex ovalis Hasenpfoten-Segge						x	x	
120 Carex pallens Bleich-Segge				3			x	
121 Carex panicea Hirse-Segge				3	x			
122 Carex pendula Hänge-Segge, Große Segge	a	0						x
123 Carex piluifera Pflten-Segge							x	
124 Carex praecox subsp. praecox Frühe Segge							x	x
125 Carex pseudoxyperus ScheinZyper-Segge		V	x					
126 Carex repens Lila-Segge	a	?				x		x
127 Carex spicata Dultährige Segge								x
128 Carex sylvatica Wald-Segge	a	0						x
129 Carex vesicaria Blasen-Segge				3	x			
130 Carex betulae Hainbuche, Weißbuche	a				x	x	x	x
131 Catabrosa aquatica Qualigras				1	x			
132 Celtis occidentalis Amerikanischer Zürgelbaum	a							x
133 Centaurea cyanus Kornblume *	a?	3						x

picture 57: Maria-Sofie Rohner's 2006 survey on Tiergarten's natural heritage. (Rohner, 2009)

2.5.1 Military axes

As testified by two historical maps dated 1985 and 1994, many of Tiergarten baroque axes have been reconstructed as big *Alleen*, with a more military character. Such axes are the ones spreading from Zeltenplatz – in the north-east – Fasanerieallee – close to the Victory column – and Bellevueallee – in front of the Bellevue castle.

The axes system was in part already present in many older Tiergarten maps: the ones branching out the Victory column can be already traced in the 1698 chart, whereas another 1765 map shows the Bellevueallee crossing the Tiergarten diagonally and Fasanerieallee on the western side. Right before the war, in a map dated 1936, all the cited axes can be recognized. Later on, in 1985, a map shows Tiergarten thirty-five years after the beginning of the replantation: no military axis is present, exception made only for half of the Bellevueallee in the southern half of the park. Five years after the fall of the wall the majority of such axes had already been reconstructed as proved by a 1994 map. In addition, the path system in the Großer Hein – south-eastern Tiergarten – underwent a restoration process as well in the following years: while in the 1994 map it was still drawn



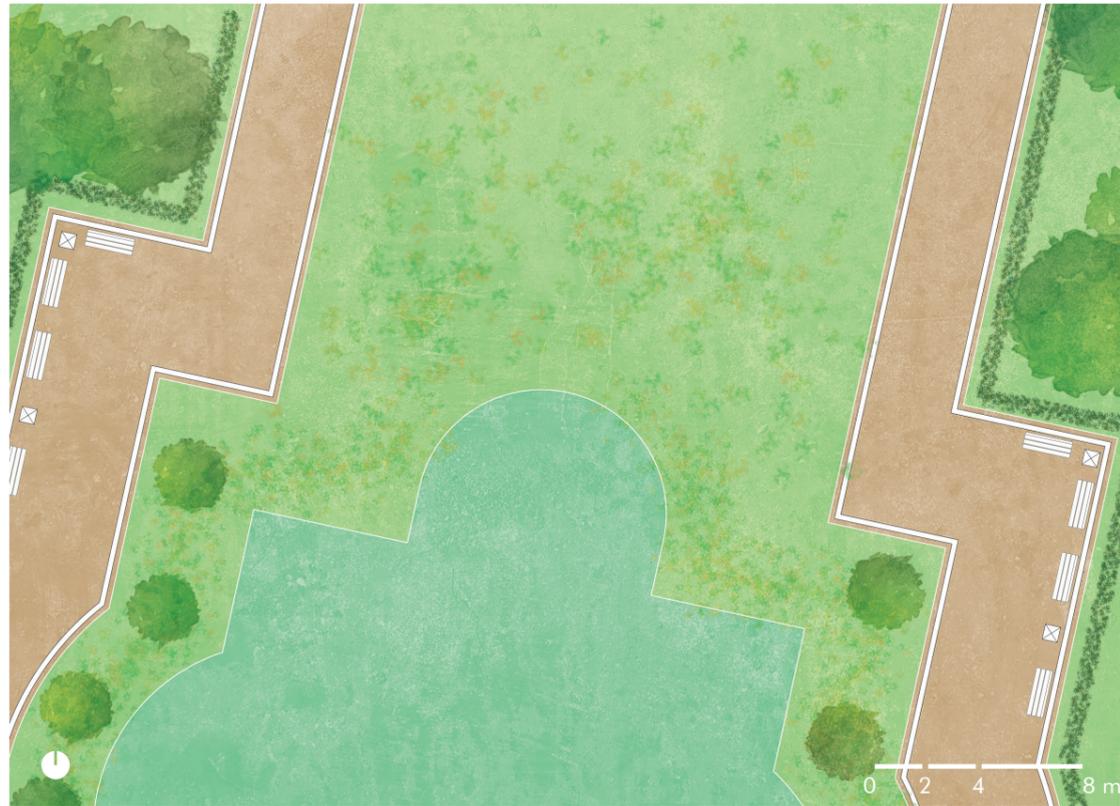
as it was conceived by Alverdes, only crossed by one path and mostly characterized by green spaces of different densities, it is today crossed by two other mirrored curve paths, constructed in 2006, on which a series of contemporary sculptures and monuments are positioned. In the 2011 survey, Rohner registered in this area the loss of seven herbaceous species – along with other two species that stopped growing spontaneously and thus can currently only be found in Steppengarten's designated area (Rohner, 2011, p.10), where they are cultivated by the volunteers association. Until the end of 2018 the whole axis system was restored – as pointed out by Bartoli (in AA. VV., 2019).

The character of such axes distinctly contrasts the rest of the park, as almost lacking vegetation they grant a too high degree of visibility and do not allow a complete immersion within the park and its nature; instead, they contribute to creating a more rigid and formal atmosphere – one which Alverdes openly refused in his design – which does not leave enough space for spontaneous uses as it happens in the rest of Tiergarten. Alverdes project is thus distorted.

2.5.2 Venus basin

Another recent transformation is the one that underwent the Venus basin, located in the southern-east half of Tiergarten, as part of a project that modified the whole eastern side of the park – involving as well the aforementioned paths in the Großer Hein. Such reconstruction was directed by von Krosigk.

The basin was first designed by Wenzeslaus von Knobelsdorff in the eighteenth hundred: it had a strongly geometric perimeter and, at one end, there used to be a statue of goddess Venus. In 1830, Lenné significantly increased the basin's size and depth, in order to integrate it with the water streams' system that he was designing in the same years. Later on, the basin was renamed *Goldfischteich*, "goldfish pond", when the Russian royal family donated a variety of goldfishes to the Prussian empire. Around the end of the nineteenth century, Venus' statue was replaced with a sculpture celebrating three German composers, destroyed together with the geometry of the pond edges by the war's bombing. A few years later, Alverdes restored the pond adapting to his Tiergarten conception, making it more sinuous coherently with his design for the park's replantation. Moreover, the immediate context of the Goldfischteich presented exceptional qualities in terms of ecology: various plants typical of semi-arid Steppes soils grew freely around the pond.

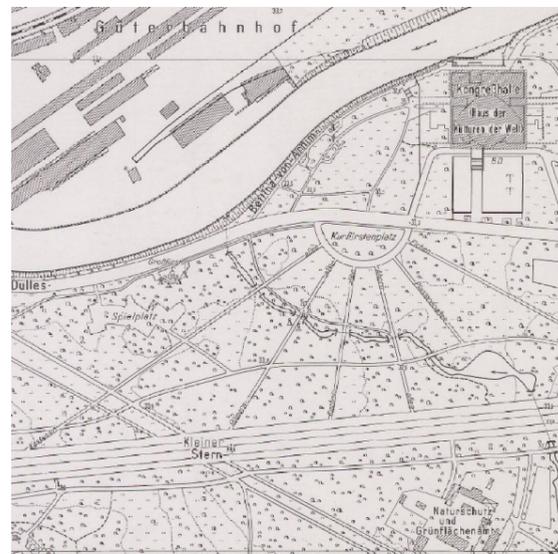
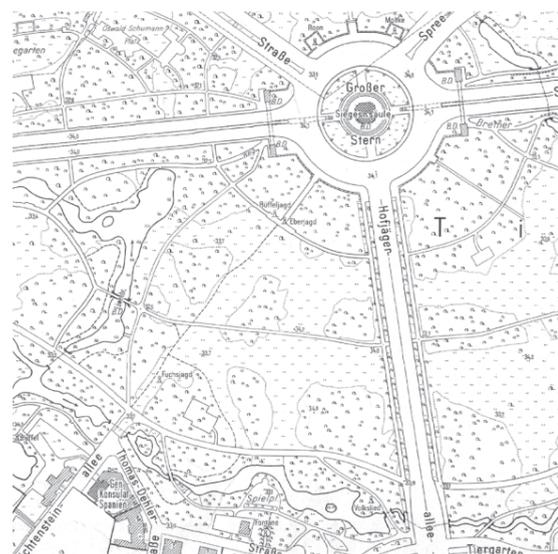
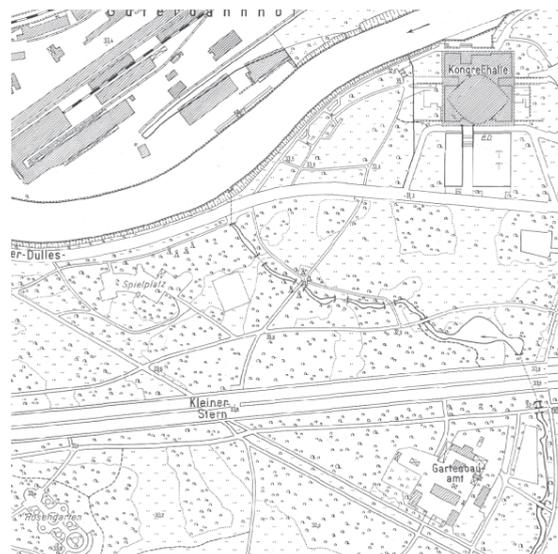


Notwithstanding, in 2006 von Krosigk promoted another reconstruction intervention, this time exactly as it was designed by Lenné in 1830. Such intervention happened in conjunction with the removal of Entlastungsstraße³⁸. The recent renovation integrally deleted Alverdes' actions, while trying to give to the ex-Goldfischteich³⁹ the exact outlook it used to have in the nineteenth century. The perimeter was again redefined according to rigid geometries, a lighting system was installed and the access from Straße des 17. Juni completely cleared from its vegetation, granting a higher level of visibility from the busy road. After removing great part of the steppes vegetation, cherry trees were planted along the basin's both sides - another reference to the eighteenthundred outlook. Such interventions were subjected to harsh critics by the association Steppengarten Berlin⁴⁰, perceiving von Krosigk's actions as a damage to the entire plan developed in 1950. However, Steppengarten Berlin members continue to cultivate part of the lost vegetation in their designated plot which is right on the eastern side of Venus basin.

38 This was a vehicular street that crossed Tiergarten north to south connecting Berlin Central Station with Potsdamer Platz. With the 2006 works, the street was replaced by a tunnel and on its surface new vegetation was planted.

39 Even though Venus' statue was never replaced there, the pond was again renamed "Venus basin". Instead, a copy musicians' one can be found today on the southern edge.

40 For any further information see, <http://steppengarten.de/de/garten/geschichte.html> (last checked on 28/12/2019).



picture 58 (left): current Zeltenplatz in 1985 (above) and 1994 (below) completed with the reconstructed axis system branching out. Southern of Zeltenplatz, the northern half of Bellevue Allee can be distinguished in its 1985 and 1994 configuration. (Histomap, Landesarchiv Berlin)

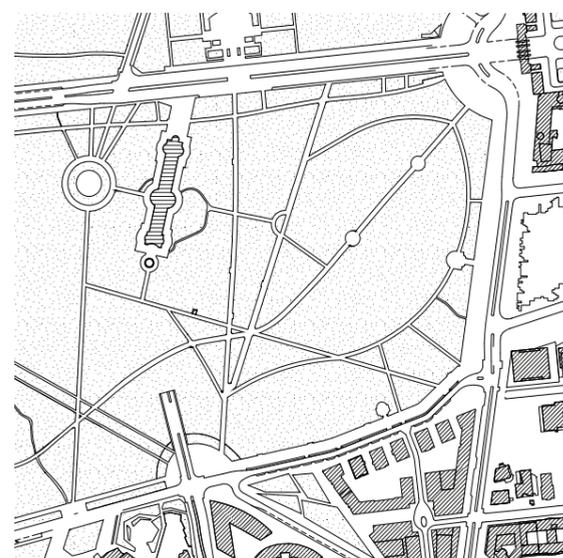
picture 59 (right): Fasanerieallee as designed by Alverdes represented in a 1985 map (above) and in 1994 after its reconstruction according to its older baroque outlook. (Histomap, Landesarchiv Berlin)



picture 60 (above): the northern half of Bellevue Allee directly facing the palace. The alley presents an higher degree of permeability and visibility after its reconstruction. (Markus Wächter, 2018, Wächter)

picture 61 (below): Fasanerieallee after being renovated as a military axis. Celebratory prussian statues have been located at both its edges; the maximum level of visibility is granted within the whole street from an end to the other. (Julius Ahn, 2015, Flickr)





picture 62 (left): the Eastern Tiergarten in 1985 before (above) the 2006 renovation and today (below). On the east the former Goldfish pond can be distinguished as designed by Alverdes in 1950 and today after the interventions. West to the pond the Großer Heint before and after the reconstruction of the whole axis system. (Landesarchiv Berlin)

picture 63 (right): The Goldfish pond in the 1930s, as designed by Lenné during the second half of the nineteenth century. The perimeter is strongly geometric and symmetric, a small fence encloses the ponds edges. (Waldemar Titzenthaler, 1930 ca, Landesarchiv Berlin)



picture 64 (above): a picture of the Goldfish pond taken before 2006, testifying its look as it was designed by Alverdes: a more natural and sinuous silhouette surrounded by a more dense vegetation comprehending thick foliage, shrubs and daffodils. (Maria-Sofie Rohner, 2011)

picture 65 (below): a more recent picture of the pond, after the renovation. The form is again defined within a geometric perimeter, the fence has been reinstalled and the vegetation is different as well: cherry trees have been planted along the edges, as a reference to the baroque period. (Thomas LeBas, 2014, minigram)



In conclusion, Tiergarten as a case study – for the way it was designed in the post-war and the variety of practices it comprehends – allows many reflections around matters of dwelling and relations.

Tiergarten is, notwithstanding its natural origins, a human product: it is thus artificial. However it has reached a certain degree of “autonomy”⁴¹. Some of Tiergarten’s features, such as usage, scale, vegetation’s density and diversity, make it “incommensurable” (Bartoli, 2015, p. 10) and it is for this reason apt at triggering mechanisms that do not depend upon human’s intervention. Like an open-system, it has the capability of “auto-regulating”⁴².

For instance, Tiergarten’s mass plays an important role in regulating the climate of the city, as it absorbs

and cools the wind currents coming from southern big open spaces, like Tempelhofer Feld and Park am Gleisdreieck (Hobert et al., 1982).

Moreover the neglected woodlands reached such a density degree that they result impenetrable to humans; thus their quality in terms of biodiversity confers them the same values attributed to the third landscape by Gilles Clement⁴³.

Such factors allow to intend Tiergarten as a product of both nature and humans together, related – according to Bartoli – by mutual dependence. Resuming Sennett’s conception of the Open City, Tiergarten is regulated by an open system whose complexity, given by distinguished parts, could be retraced in its wide biodiversity; simple rules, like those of replantation and the thirty-years tree-falling programme, generated something extremely complex in terms of vegetation patterns and usage; both conditions could have not been foreseen, but they were both triggered by a known beginning, i.e. the decision of interrupting the cutting down of trees and the Biotopemap of neglect; all these events and

41 The term must be referenced to Sennett’s thought as explained in paragraph 1.1.3, defined as one of the five elements necessary to an open system’s functioning.

42 See previous note.

43 Clement G. (2016), *Manifeste du Tiers paysage*. Éditions Sujet/Objet, Montreuil (Seine-Saint-Denis).

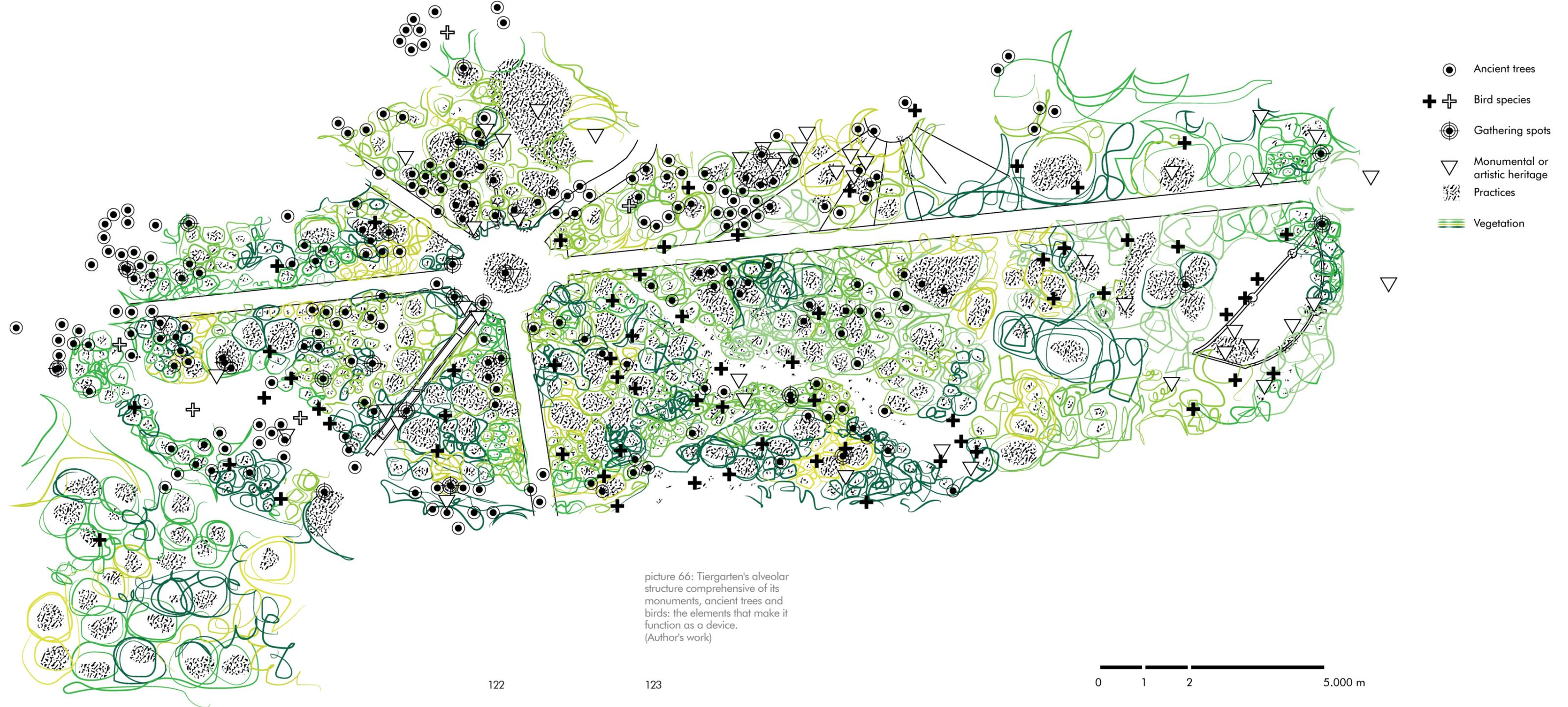
conditions together contributed in the definition of auto-regulation processes within the park, making it “incommensurable”.

What are then the conditions that allow such a variety and plurality of practices and communities to co-habit Tiergarten? From the conducted analysis, it is clear that is not zoning the determining key. Different social groups move informally and chaotically throughout Tiergarten, within edges marked by membranes rather than barriers. Opacity – according to Glissant’s given definition – can be definitely retraced as Tiergarten’s determining condition, allowing as many communities as possible to share the same spaces, sometimes hiding from each other. Here nature is the key-element determining opacity. Tiergarten’s opacity depends upon his trees, shrubs, marshes and grasslands, all together attributing to each spot a certain level of permeability. Relations, along with every form of social exchange they include, happen within opacity, inside niches and “inner spaces”⁴⁴ surrounded by vegetation that acts as a “membrane”, a filter that exclude strangers at the same time giving enough privacy and intimacy to its users.

44 Term borrowed from Zygmund Bauman (For any further information, see Paragraph 1.1.3).

Thus Tiergarten’s spatial structure is alveolar. This implies that the idea of “permeability” distances that of “porosity” as intended by Bernardo Secchi in his project for Paris. Forms of relation such as co-inhabiting, sharing and tolerance manifest in Tiergarten as a “disjunctive synthesis” or “inclusive disjunction”, both terms used by Deleuze to describe those relational forms that are caused by distancing, detachment or disconnection. Such concept could be further enhanced by the examples described in the paragraph 2.5, where the recent thinning of the vegetation and the substitution of nature-inspired forms designed by Alverdes with historical reconstructions – lacking those natural filters provided by the plants – resulted in a decrease of social exchanges. In such quality lays innovation. In reference to the first hypothesis sustained with this thesis, in a developed country’s metropolitan environment – such as that of Berlin – Tiergarten’s alveolar structure is a condition implying that quality of opacity necessary for the most intense forms of social exchange to develop. For gay cruisers, botanists, birdwatchers, joggers, families and many others Tiergarten represents a space in the city that goes beyond the canonical definition of

a park: trees, shrubs, streams and grasses – working like membranes – surround and define niches, actual insides gathering communities, realities, imaginaries, desires. In conclusion, the result gained from the conducted analysis is that Tiergarten, because of the way it was designed, does enhance relations and affect matters of socio-spatial inclusion or exclusion, functioning as a foucaultian “device” of relation. Relations their-selves cannot be designed or programmed, although Tiergarten’s spatial structure affects those mechanisms that produce relation such as proximity, zoning, the distribution of public equipment or quantitative and qualitative parameters. What Tiergarten is or represents for its communities must not be neglected in the urban planning practice. Tiergarten must be addressed as a place for relation especially in those interventions that directly affect it, such as further modifications, densification processes, maintenance of the green areas or the renovation of artistic heritage.



picture 66: Tiergarten's alveolar structure comprehensive of its monuments, ancient trees and birds: the elements that make it function as a device. (Author's work)

**3 // Tiergarten reloaded.
Designing a space for relation**

3.1

Defining “insides”. A strategy

Tiergarten’s relations could be referred to as a Berlin-specific “spatial thought”, i.e. a form and method of socio-spatial production characteristic of the German capital. In this regard, the second hypothesis argued with this thesis is that, in certain conditions, local spatial thoughts could be approached as “objects”, which – in the design practice – could be exported or assembled in other places, modified according to different conditions and even integrated with other spatial thoughts.

Thanks to the analysis illustrated in the second chapter, it is now possible to acknowledge what the spaces of relation in Tiergarten are, how they are distributed and how they function as foucaultian devices. Furthermore, it is also possible to identify some Tiergarten moments that, due to recent modifications, do not enhance social exchanges – i.e. the reconstructed military axes in Fasanerieallee, the Großer Hein and around Zeltenplatz – and on which this last chapter will focus through a design experimentation.

In the previous chapter , a focus on the east part of Tiergarten, close to the Venus basin, and on the reconstructed military axes in its northern and western sides, revealed three main areas in the Tiergarten affected by critical issues in terms of social exchanges and ecological conditions. Thus, the last chapter of this thesis proposes a design experimentation for Tiergarten, aiming at solving some of the analysed criticalities and imagining new relational devices to be integrated with those already existing in the park. Thus the project aims at improving relational forms and social exchanges around the three selected areas, but it is also finalized at improving Tiergarten as a whole, integrating and improving its acknowledged alveolar spatial structure.

Each one out of three interventions deals with the design of a small pavilion, functioning as a social condenser, aiming at densifying the area where it is located in terms of social exchanges, while at the same time providing new spaces for relation that are at present time absent in whole Tiergarten. Inside the park, they all operate within a generic context where specific causes – be them natural or linked to maintenance policies – determined a condition of excessive “transparency” or a loss of the natural heritage. Thus the new design pro-

posal aims at replicating that “alveolar” condition identified in other areas of the park and generative of the relationships that make Tiergarten a space of agency, importing it in the three selected plots and taking it to further extreme by the addition of new architectural and landscape elements. By the integration of new relation devices within the three pavilions – sometimes referring to practices already existing in Tiergarten, sometimes proposing new activities – in order to provide new spaces for different relational forms. The result is an enhancement of Tiergarten’s relational mechanisms by providing a plurality of new spaces for a multiplicity of social exchanges of various kind – within a gradient ranging from wide open spaces for communal gathering to smaller enclosed niches for more introverted relations.

Thus, each pavilion is organized as follows:

1. A perimeter identified by a fence – working as a membrane-system – defines within a generic context new “insides” where social groups can gather and socialize.
2. Through the re-design of the ground’s layout, the spaces within the perimeters are further divided

in smaller sections identified by different degrees of vegetation density, heights or shadows.

3. By the addition of new relational “devices” – related to the macro-categories work, leisure and ecology – each pavilion is made suitable for a wider range of individuals.

Each membrane completes the area where it is inserted creating new niches, “insides” that provide new gathering spaces for Tiergarten’s diverse communities. The size of each niche is directly referenced to the ones already present in Tiergarten – defined by natural clears and cuts in the dense vegetation – while providing spaces for diverse forms of relational exchange: sometimes the option of living the whole pavilion as a unique space is allowed, other times only some niches are related, and sometimes every space within the fence is completely disconnected. They twist the perception of the inside and the outside of the pavilion, generating new enclosed spaces with their meander-like perimeter. Each small niche is meant to function like a small “alveolus”, which, by dividing an area that was previously a whole, functions as a filter between two newly-born spaces. The pavilions’ outlines relate to the existing landscape and the conditions it entails, sometimes enclosing na-

tural woodlands or ponds within their perimeter, other times excluding already existing practices happening in their proximities.

The second point focuses on the ground's layout. As learned by the investigation on Tiergarten's characters and conditions, a plurality of spatial situations enhances spontaneity in the practices that happen within them. Thus, the existing natural elements – including woodlands, dense grassy areas and low dry meadows - encircled in the pavilion are integrated with a new ground layout, defined by a contrast between different heights and depths, shadows and lights.

Third and last step is the insertion of relation devices in each pavilion. Such objects encourage relational forms that may already be present in Tiergarten, although they do not establish a given function or purpose discouraging the others. They are grouped in macro-categories regarding work, leisure and ecology and distributed within the three pavilions according to specific environmental conditions.

The spatial situations produced by the new pavilions, or social condensers, is configurated as an alveolar space taken to extreme. Even though they initially referenced the projects analysed in the first chapter, as the striped space of OMA's Parc de la Villette, they do differ from

them as the spaces proposed for the three areas appear more as nested bubbles or insides within interiors, each one defining a different degree of social exchanges.



The following pages proceed with a description of the three projects developed, integrated with illustrative drawings that space from the conceptual level until a more detailed scale of representation. The drawings not only show the design proposal with an architectural consistency, enhancing their materiality and the relational forms they would produce, but also underline aspects related to the design of relation intended within the social sphere as well as ecological aspects. As a matter of fact, each case takes into account matters of rainwater recycle, planting of extinguished herbaceous species or inclusion of Tiergarten's fauna within the relational processes. Moreover, they aim at providing as many differentiated spaces as diverse relational exchanges could be: they recreate different conditions of inclusion, for as many different groups as possible to appropriate them.

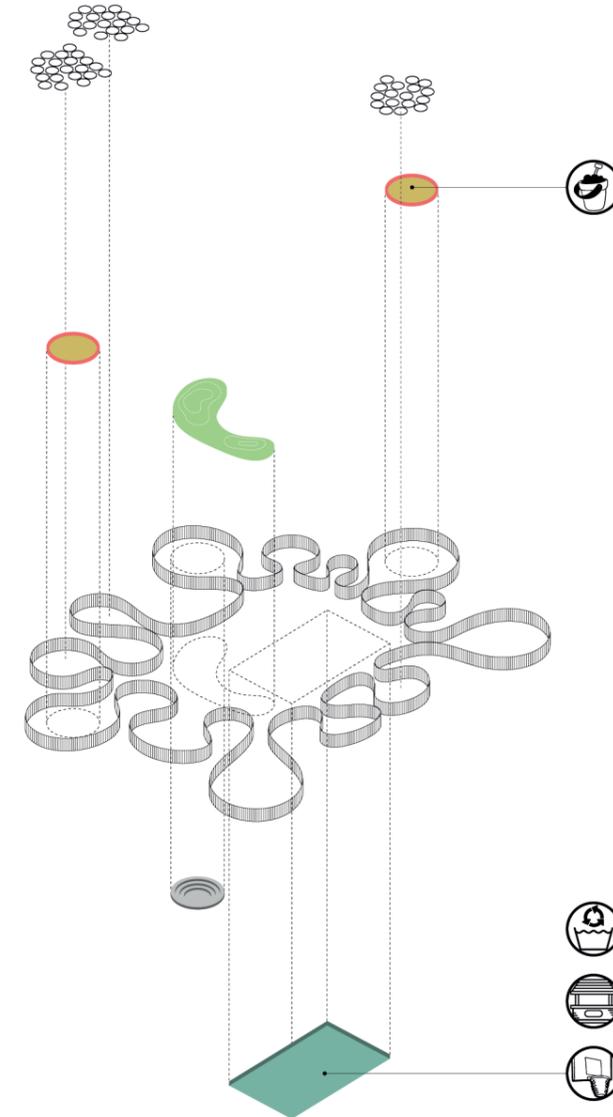
1 Term borrowed from Richard Sennett (For any further information see Sennett, 2018).

2 From the 2011 ecological survey conducted in this area by Maria-Sofie Rohner, it resulted that - as a consequence of further modifications and reconstructions - part of the natural assets, mainly comprehending herbaceous species, ceased here to grow.

3.2.1 Nested Bubbles

The first pavilion is located in a void in eastern Tiergarten, central to the Großer Hein. The area is circled by two alleys - result of a 1990s reconstruction. Along both alleys, a series of monuments and sculptures is located, attracting tourists like exclamation marks¹. At the centre, a wide dry meadow is left unattended².

Evidently oversized in comparison to the other clears irregularly scattered throughout the park, its scale might be too large in order to allow the communities in Tiergarten to occupy it. Thus, the pavilion proposed for this space is structured as a network of circular niches of various sizes - floor area between 50 m² and 400m² - organized around a bigger rectangular shape. Far from being a canonical square, the central space is marked out by a small curvilinear hill and a lower rectangular form (maximum -1,20 m below ground level), occasionally offering places for people to sit. The rectangle accomplishes a double task. The first is that of enhancing three different activities: it is at the same time a market square and a sport court. On its ground, the drawing of





Overall axonometric drawings of the Nested bubble plots. On the following page, two axonometric zooms evidence two different relational conditions produced by the pavilion's meanders: below left, the fence marks smaller cells completed with devices that enhance diverse practices (shadowed spaces to sit and rest in tranquillity and a wide sand-box for a kids' playing area); above right, the possibility to still share the wider inner court as a common open space for informal markets, play sports or just sit and play on the grassy hills.



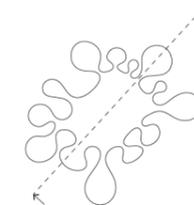
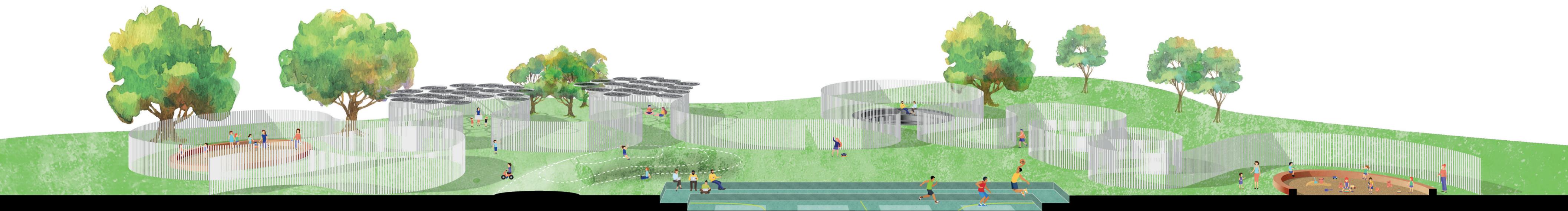
a basketball court lines is overlapped by further rectangular shapes, referring to the spaces occupied by market stands, while on its both sides, curved edges recall the shape of a small skateboard ramp. Moreover, the low square is paved with an impermeable material eventually transforming it into a basin. As part of a larger water harvesting system, the lower square – or basin – is filled up with the rain water collected by stainless steel gutters running along the whole pavilion's perimeter. The collected rainwater is later integrated in the irrigation system – already present all over Tiergarten – and could

be used in a second moment to irrigate the dry land surrounding the pavilion, where extinguished herbaceous species could be planted in a second moment in order to integrate and improve the whole park's biodiversity. Regarding the smaller pavilions organized like tentacles around the sides, while some are left undefined, some others are further equipped with four devices of relation. Taking as a direct reference the existing 1950s playgrounds designed by Alverdes, two sandboxes are placed as a relational device addressed to children and families in general. As the whole project area is expo-

sed to solar radiations, covering elements are built over three smaller alveoli, in order to grant within the area cooler places to sit and rest during the warm season. Circular stone risers, shaped like a small amphitheatre, provide a place to sit as well as to work, as the alveolus where they are placed is also supplied with a free Wi-Fi spot.

Thus, such plurality of spaces and shapes favours different forms of coexistence: visitors are allowed to live the space as a communal whole, gathering in the wide central core, or distanced from each other, splitting wi-

thin the smaller niches.



-  Galium verum
-  Sedum acre
-  Helycrisium arenarium
-  Festuca ovina tenuifolia

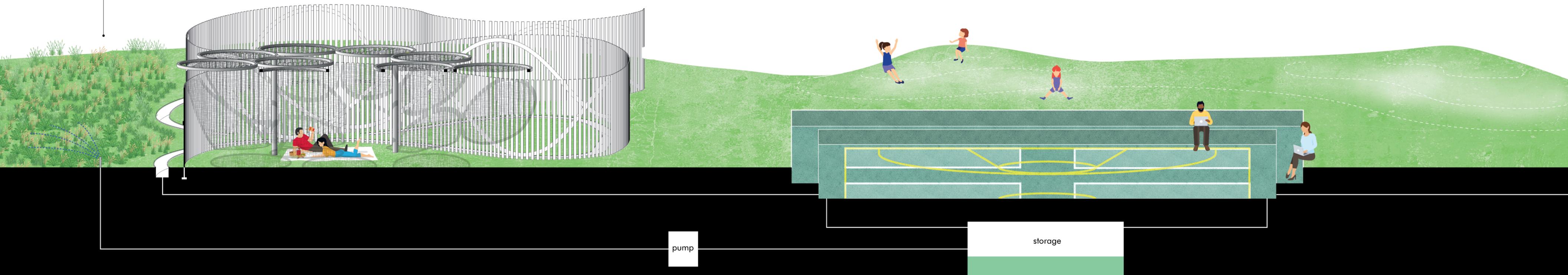
average annual precipitations in Berlin
48 l/m²
(source: Deutscher Wetterdienst)

Irrigated area
1.240 m²

Water collection surface
608 m²

Necessary water
495 m³

Collected water
350 m³
(70% of the amount required)



3.2.2 Branched Bubbles

Between the Soviet memorial and Zeltenplatz lays the second selected area, located within the ray-spreading baroque axes reconstructed during the 1990s. Unlike the Nested Bubbles, the Branched Bubbles do not entail a central wider space; instead they are structured as a cluster of five separated alveoli, each one having its own meaning. Here the floor area of each unit varies between 600 m² and 1000 m².

Two cells, located at opposite ends, enclose a few trees that provide shadow while recalling a more intimate idea of relation, hidden or sheltered, detached from its surroundings, as could be that happening within the wooded areas in Tiergarten.

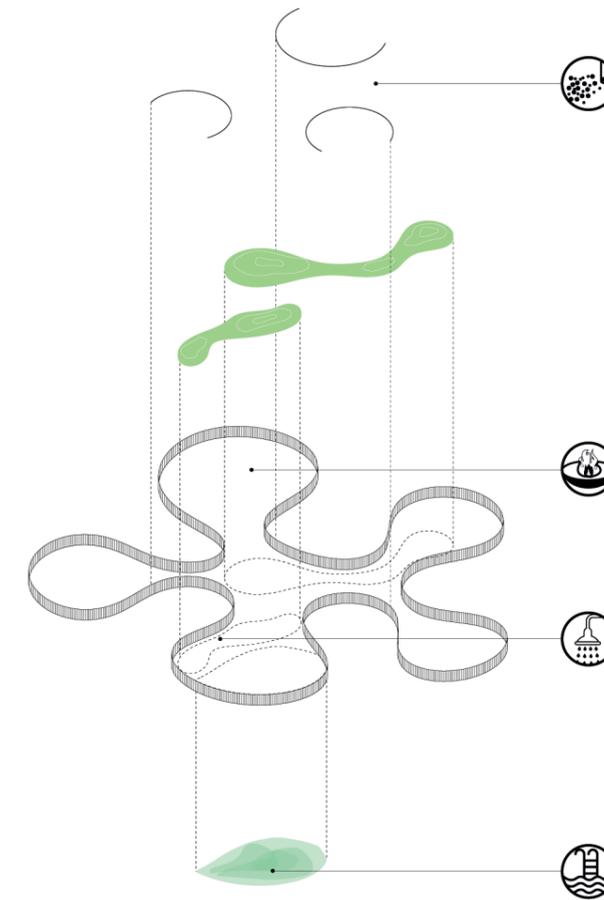
The centre – which is not meant to be more than a transit space – is crossed by an alley, on both sides of which the ground is given the form of a soft hill functioning like a filter between the two halves and especially enforcing the idea of separation within the five cells.

Enclosing part of a water stream, one of the alveoli is dedicated to bathing. Thus the water is made suitable for bathing and swimming through the insertion of a retaining wall and a regeneration zone: the retaining wall, running along the perimeter of the fence below

the water level, encloses a small portion of the pond; the water is pumped inside the enclosed area through the regeneration zone, where a series of water plants and algae are planted in order to purify the liquids and thus transforming the pond into a cleaner natural swimming pool. In the same bubble, the ground is modelled as a soft hill, over which bathers can lay in the sun to dry. Moreover, a pair of showers are placed on the sides, for the bathers to get clean after swimming. Nudist sunbathing and swimming is allowed in this spot as it is in the rest of the park.

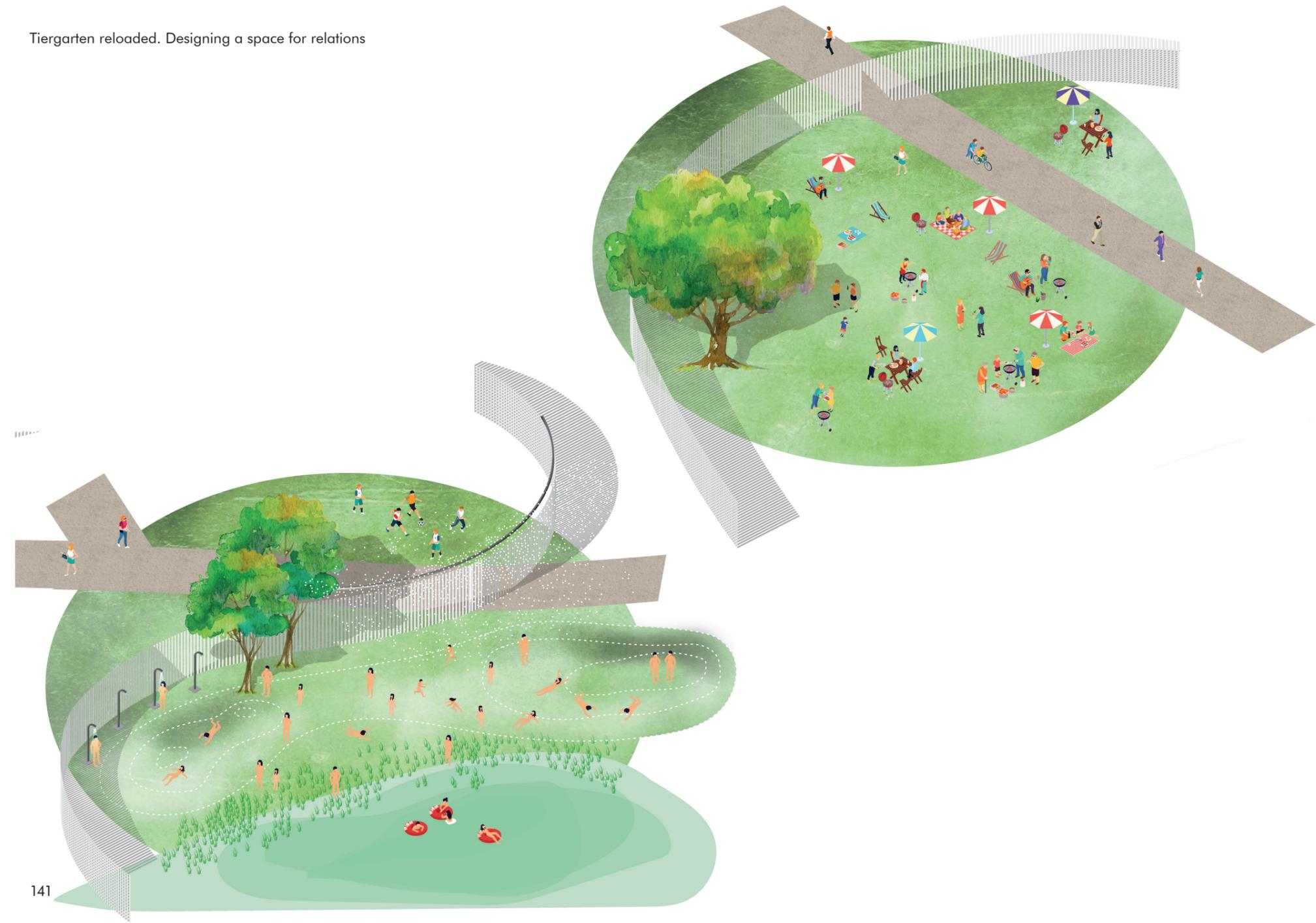
The northern unit is finally equipped with a different device: fire pits. The practice of open-air barbecuing is quite diffused all over the country and for the purpose of this design experiment it is addressed as a properly German spatial thought, while the fire pits in particular are conceived as relational devices that stimulate this use. Such objects are thus imported in the Branched Bubble, although they must not certainly relate to only one specific practice. They could be used during the day by families for open-air cooking and communal gathering, or during the night by the homeless squatters as a heat source in the cold winter nights, or even for mysterious mystic rituals.

A cool temperature will be granted inside as well as out-





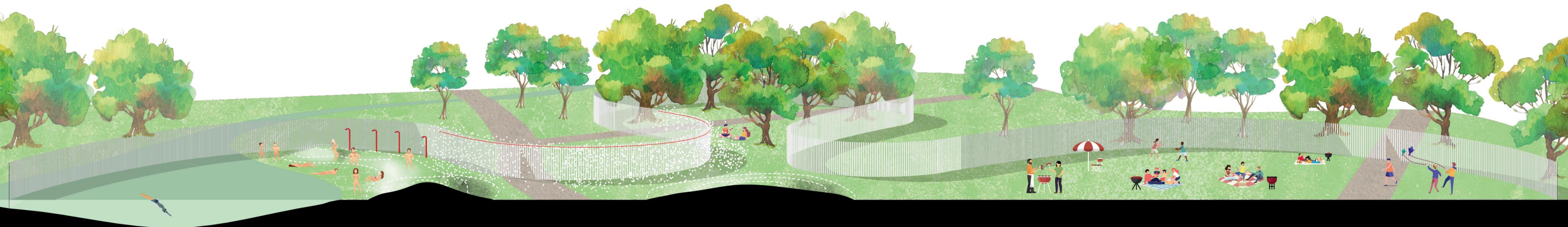
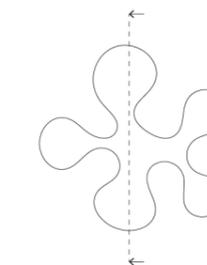
Overall axonometric drawings of the Branched bubble plots. On the following page, two axonometric zooms illustrate two strongly different activities that could still take place at the same moment in two different cells of the pavilion. This relation is made possible through the complete detachment of each single bubble from the others.

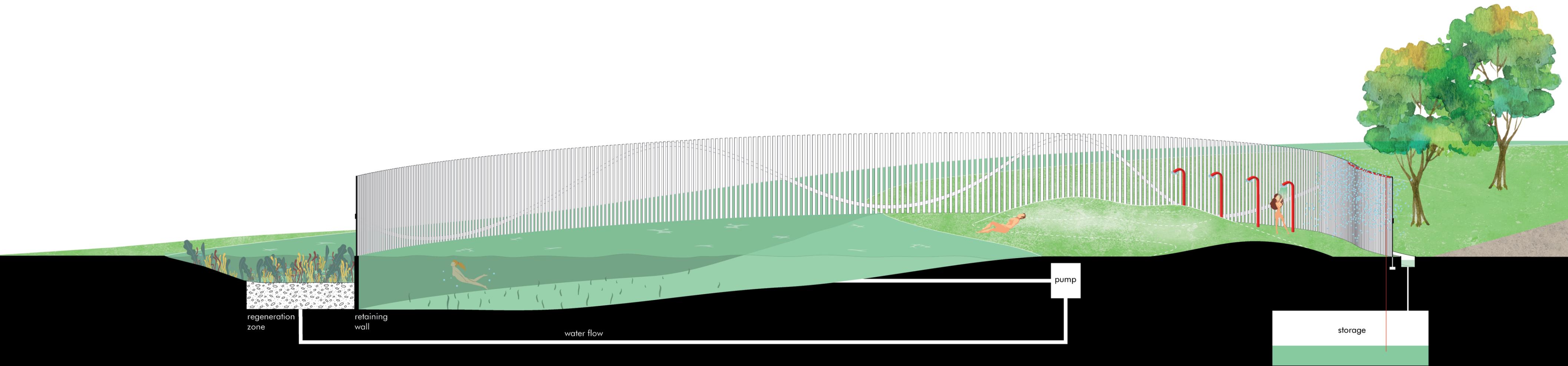


side of the pavilion, as a system of nebulisers are placed along part of its perimeter. Again, exactly like in the first pavilion, a rainwater gathering system runs along the Branched Bubbles' perimeter, in order to collect water to be recycled and used for the nebulisers and the showers. Unlike in the Nested Bubbles, the rainwater storage is not visible from the surface, being it completely integrated underground. The nebulisers do not relate to a specific function, although they can be surely considered as devices to: they enhance social exchanges as they provide those quality of comfort – such as

maintaining a low temperature during the warmer days – facilitating public gathering and exchanges. Relations as they happen in this pavilion differ from the ones described in the previous pavilion. The Branched Bubbles lack a central space functioning like a meeting core, as the centre only functions as a circulation artery. Thus, all the five niches branch out detached from one another, conveying on a more introverted idea of relation – without providing any connection between such diverse spaces – yet allowing differences to coexist within proximity. Here the idea of alveolar space – as inve-

stigated in the second chapter – is taken to extreme in the most dramatic way, as the users relate to each other only when sharing the same niche, being completely divided from what could happen in the adjacent spaces. The absence of contact points – and thus the recreation of opacity – is a condition that, as expressed by the first hypothesis of this thesis, enhances the most intense forms of social exchange, be them nudists laying in the sun or families consuming a warm meal.





3.2.3 XL Bubble

Third and last social condenser for Tiergarten is named XL Bubble. By breaking the axis of Fasanerieallee, it provides the condition of opacity and disconnection necessary to generate spaces for relation within the reconstructed axis as well as in its proximities. Spreading out in between an existing nudist and a gay-cruising area, the XL Bubble not only proposes new spaces for socialisation, but also acts as a shelter for the practices already settled in its surroundings, separating them from the axis – connoted of excessive visibility and permeability³ – and thus giving them more privacy.

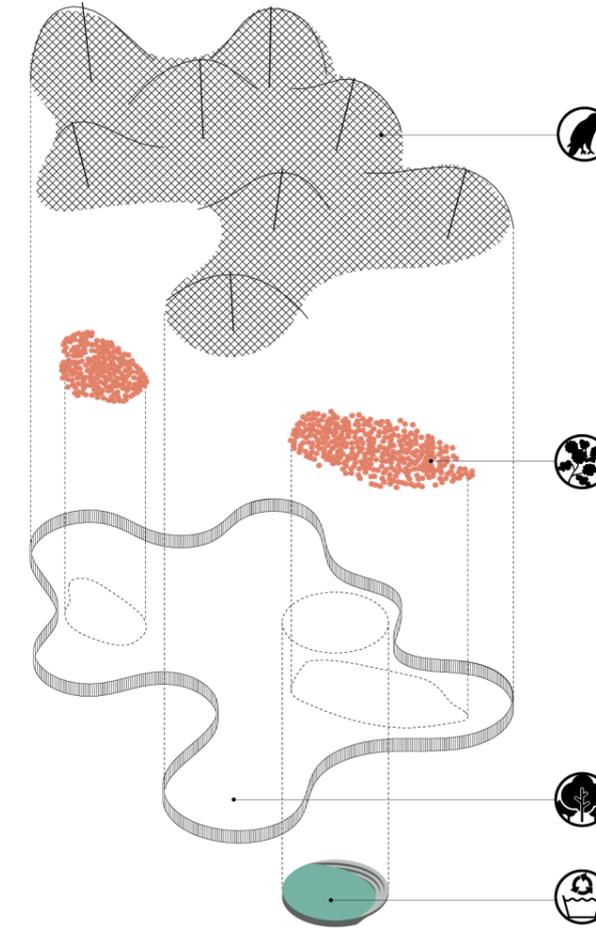
The fence encloses mostly woodlands as well as the birds that inhabit them. Completely covered with a thick net, like an aviary, it is meant to relate humans with animals. It would be thus possible for the many birdwatchers that spend time in Tiergarten to observe here diverse bird species that will find a shelter within the wooded areas enclosed in the pavilion. Two larger lots

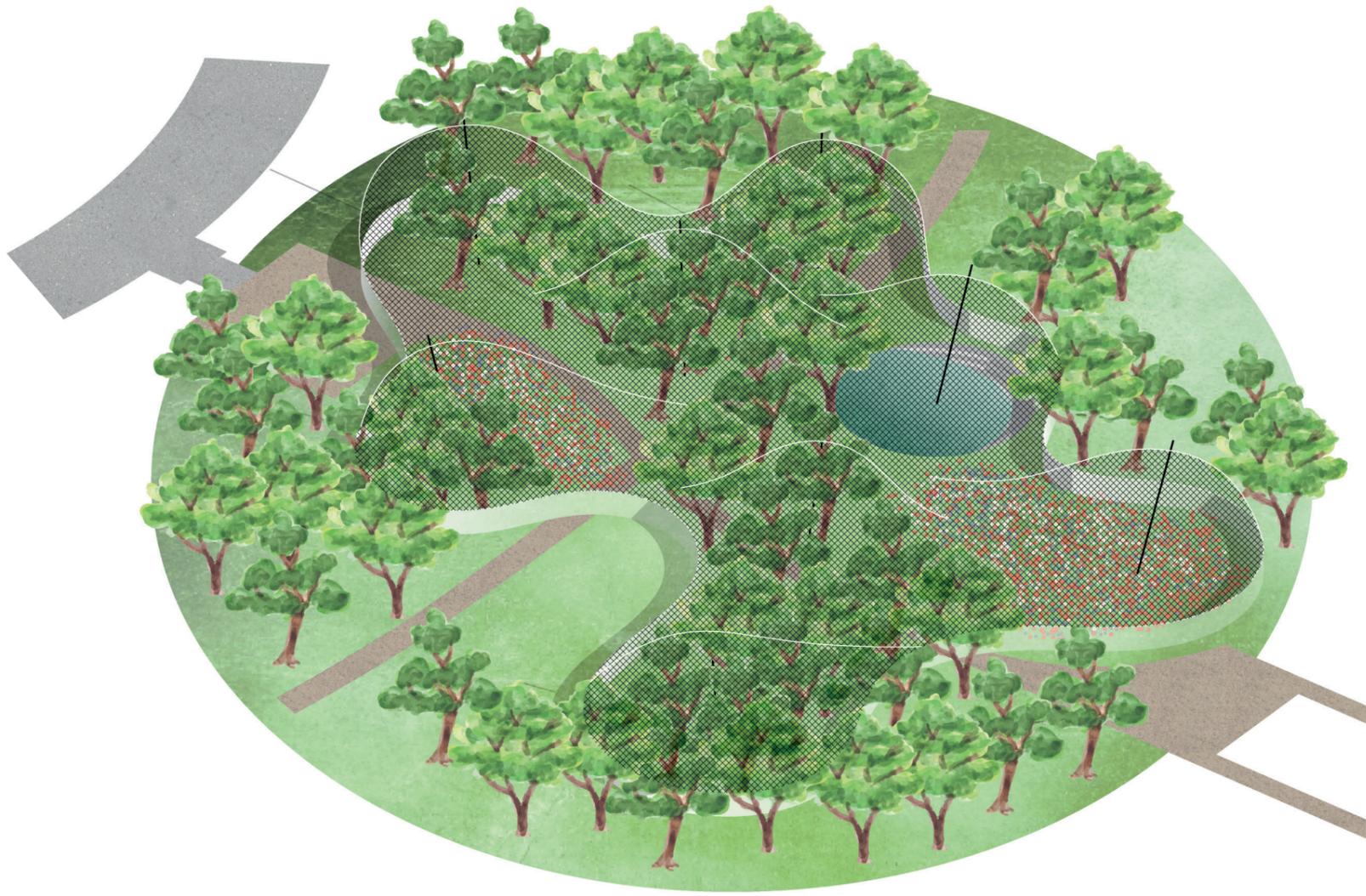
within the pavilion are covered with grassy meadows – in order to preserve Tiergarten’s biodiversity as well as improving it by cultivating extinguished herbaceous species⁴ – which include sea thrift (or *ameria maritima*), cinquefoil (or *potentilla norvegica*), the maiden pink (or *dianthus deltoides*) and others. Amateur and professional botanists that already monitor Tiergarten’s vegetation in other areas of the park are thus free to spontaneously take care of the newly-planted species – functioning both as a relational device and a safe storage for biodiversity. The water required for the irrigation system is again provided by a rainwater-gathering system: a lowered space with risers paved impermeable retains the water – collected within the basin as well as through stainless steel gutters running around the pavilion’s perimeter. Here the fluids are accumulated until they are needed in order to water the surrounding plans, integrating them within the existing irrigation system.

Here the matter of relation is expressed in its most communal aspect. The last pavilion is conceived as one big XL bubble, the meander-like perimeter of which does

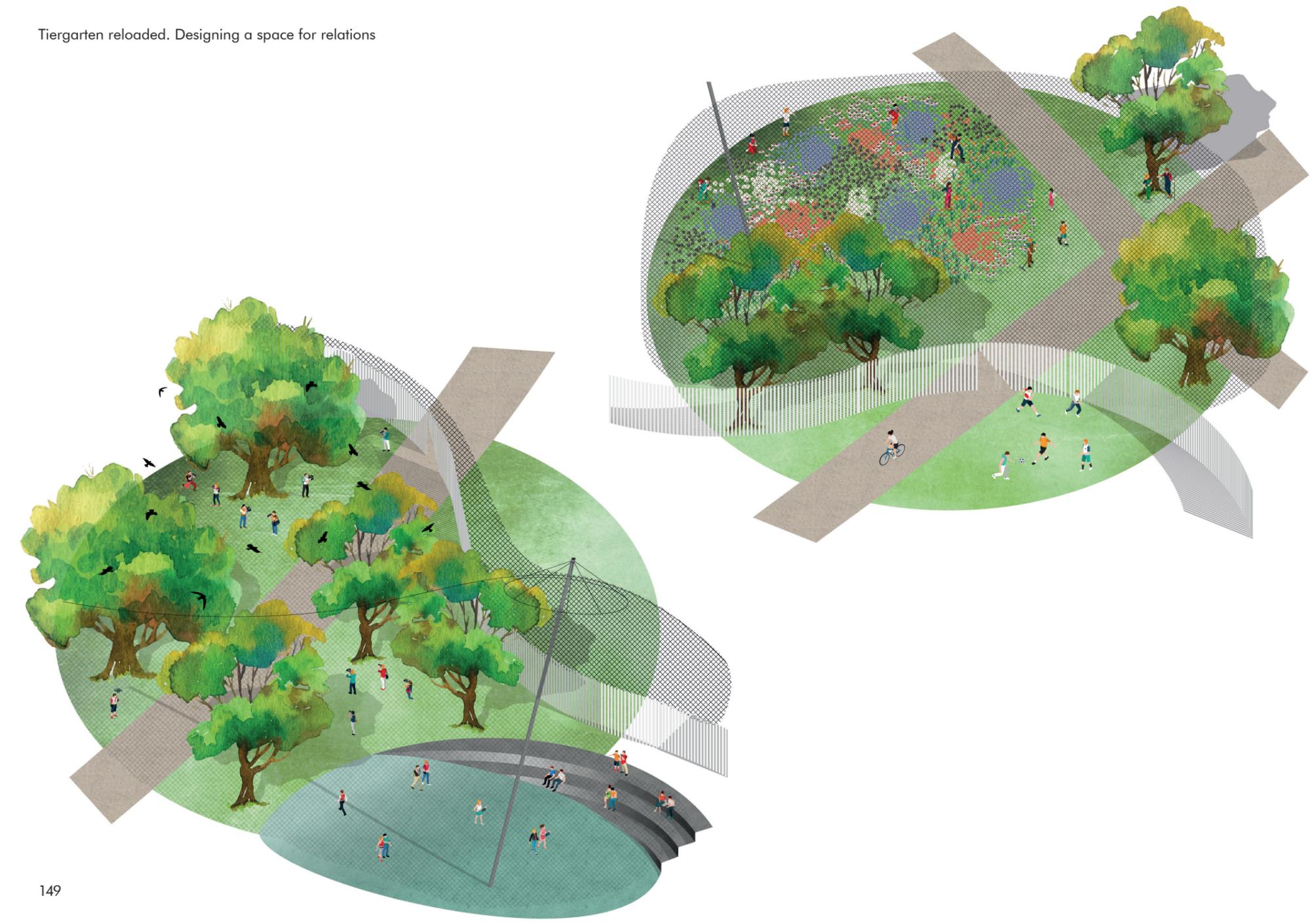
³ Which are both qualities that, has explained in the first two chapters, do not enhance any form of relation, but rather oppose them. Since relations mostly manifest in a conflictual atmosphere, excessive transparency and openness oppose the development of social exchanges and relational forms as they do not enhance the condition of opacity.

⁴ In this case as well as in the Nested Bubble plots, in order to select which specific species should be planted, the 2011 report by Maria-Sofie Rohner is again taken as a reference (For any further information see Rohner, 2011).





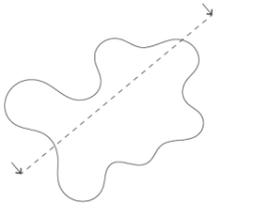
Overall axonometric drawings of the XL Bubble plot. On the following page, two axonometric zooms exemplifying the activities it could host. In both zooms, the pavilion - along with its devices - is used as one large communal space by the visitors.



not enclose small separated niches, but rather defines a singular open space, sub-divided by different floorings, heights and plants – connoting different areas of diverse meanings that are still integrated within the same space. Thus, users are engaged in sharing one large open space while dedicating to different practices, within a general sense of community. Yet, more introverted niches are produced within the thicker vegetation, in the

woodlands.

Moreover, unlike the other two cases, the XL Bubble is an example of how aspects concerning man's interaction and ecological matters can be also related with the fauna, stressing the relation that exists between human birdwatchers, birds and the trees where the latter find the materials necessary for feeding and building nests.



Irrigated area
1.110 m²

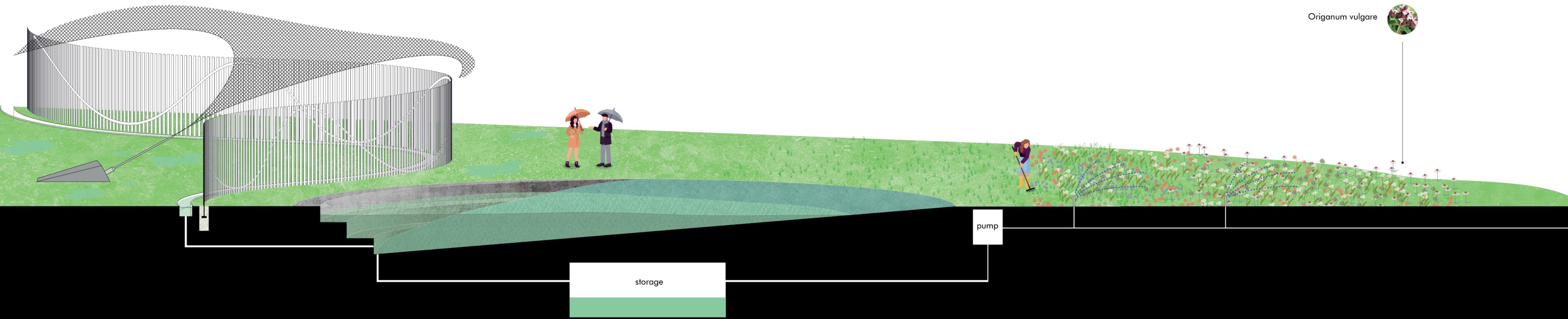
Necessary water
444 m³

Water collection surface
476 m²

Collected water
274 m³
(62% of the amount required)

average annual precipitation in Berlin
48 l/m²
(source: Deutscher Wetterdienst)

- Potentilla norvegica 
- Salvia nemorosa 
- Armeria maritima 
- Cardmine pratensis 
- Dianthus deltoides 
- Origanum vulgare 





4 // **Conclusions**

This thesis explored a discourse on the design of Relation through the analysis of three positions on such topic – those of Chantal Mouffe, Édouard Glissant and Richard Sennett –, an investigation on the Tiergarten in Berlin – intended as a particular foucaultian “device” for relations – and a design experimentation around its functional logics.

Relations play a considerable role in the public realm; they are entailed as part of everybody’s daily lives and they do manifest in a concrete form, experienced through social interaction in matters of political, institutional, jurisdictional, economic or ecological nature. Relations always happen within a certain context defined by spaces, rules, politics and they can be referred to in order to study or explain how a certain community is, or how specific conditions of exclusion or conflict are born. Thus the previous chapters argue the power that such matter has and moreover the central position in has acquired in the contemporary design practice, enhanced by the recent affirmation of concepts such as “sharing” or “spatial proximity”, as well as interventions based on relations in the way they attempt to connect different social classes, institutions or even ecologies. In particular, Bernardo Secchi’s design for the Grand Pa-

ris acquired a certain importance in the matter of the design of Relation: by re-interpreting urban interstices as elements that can define new forms of relating and dwelling at the proximity scale, this project enhanced new and innovative densification strategies for the metropolitan city conceived as a “porous” fabric; thus Secchi interpreted relation and its design in a socio-ecological mean, including such concepts in what he termed “*socio-diversità*”.

Therefore, on the basis of the analysed essays and referenced projects, it results that public space is generally conceived as the ultimate place that triggers relations, although it must not be intended as extremely peaceful nor transparent, but rather as conflictual, opaque and heterogeneous in its structural organisation and social dynamics. Briefly recalling what exposed in the first chapter, this thesis adopted Mouffe’s conception of the agonistic model in its approach to public space. Human relations often manifest in a conflictual sphere, they entail politics of social inclusion/exclusion and generate frictions between diverse categories, classes, desires, etc.

In this framework, Tiergarten was chosen as a particularly exemplificative case-study, functioning as a devi-

ce defining a specific condition of urbanity in the Berlin’s context, entailing a heterogeneous stratification of spontaneous and diverse practices. The result of the investigation is in the first place an exhaustive explanation of the logics and the spatial structures within which Tiergarten’s interactions happen. In particular, at the bottom of Tiergarten’s functional mechanisms lays its own structural organisation – the design of which was strongly influenced by events and conditions developed from the 1950s –, being it connoted as an alveolar space. The term “alveolar” designates a Tiergarten-specific situation influenced by its being a forest-like urban park, where the urban space is defined by natural elements – comprehensive of dense woodlands, intricate paths, clears, naturist meadows, grassy lawns and boggy streams – that, like Sennett’s “membranes”, at the same time shelter, disconnect and filter the diverse practices they enclose – to cite some of them: gay cruising, gardening, nudist sunbathing, birdwatching and many others. Here an ambiguous distribution of various degrees of permeability distances Secchi’s conception of “porosity”, characterising Tiergarten’s relations as an “inclusive disjunction”, which is how Deleuze termed those relational forms that are caused by the taking of distances, detachment or disconnection.

This insight leads to two main conclusions. In the first place, that relations their-selves cannot be designed or programmed. Thus, in the architectural practice, it is possible to act on those devices or mechanisms that produce them – for instance, zoning, proximity, a strategic distribution of public equipment and quantitative/qualitative parameters. Secondly that, when intervening on the urban space, it should be approached as a device in itself, taking into account every relational aspect it entails and not only one singular aspect, be it historical, political, formal, ecological or institutional. For instance, the recent thinning of the vegetation in Tiergarten as a form of social control not only had a repercussion on the practices it stimulated, but even caused a decrease on the nightingale species that inhabited it between 2012 and 2015 – being in this particular space the humans and the non-humans linked by a mutual relation. Moreover, the recent reconstruction of historical axes and the Venus basin revealed a misconception of Tiergarten’s functionalities and led to the design of spatial situations that do not enhance relations, as they do not grant that specific condition of opacity recreated by the acting of nature as a filter or a “membrane”.

To conclude, a designing experimentation around the

matter of relation in Tiergarten tackled topics such as the “right distance” – between objects or individuals – and the “coexistence” – of different practices. The design exercise was aimed in the first place at intensifying the practices that already existed in Tiergarten, starting from the consideration of such relational exchanges as Tiergarten-specific "spatial thoughts", meaning a properly Berlin method of socio-spatial production. The aim of the experiment was to export such "local spatial thoughts" from the environment they were born in and try to replicate them in other areas of the park – i.e. the three identified areas that, in the last thirty years, underwent significant urban and ecological transformations.

Thus the three design proposals are not meant to represent the one and only possible way of approaching a design transformation in Tiergarten, but rather an attempt to put into practice the theoretical conclusions deduced from the second chapter, taken to extreme into an urban space. Although the design proposals refer to certain practices for some of the objects they are equipped with, neither of the three structures impose a specific function on the area where it is located, nor it takes into consideration only one important aspect of Tiergarten: be it about its communities or ecology. On the contrary,

they are designed in the first place so that their formal characters directly recall a spatial situation that enhances a type of human relation – from the most open and communal to the most private and introverted – while trying to relate them to important aspects of the park’s ecology and maintenance.

Relations do have a consistency. They manifest in behaviours as much as in institutions and spaces. They thicken the material conditions in which human and non-human interaction manifests, defining agencies and producing specific conditions of urbanity.

5 // Sources

5.1

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Chapter 3

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