

Growing beyond rationalism

A case study on urban gardening's potential to challenge hegemonic worldviews of scientific rationalism

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A white carrot grown at Prinzessinnengarten (Photo by the author 2015)

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Degree of Master of Science (Two Years) in Human Ecology: Culture, Power and Sustainability
30 ECTS

CPS: International Master's Programme in Human Ecology
Human Ecology Division
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Lund University, Sweden

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Term: Autumn 2016

Abstract

Looking at the cultural preconditions of modern industrialized society, the presented thesis argues that the contemporary ecological crisis can be perceived as a result of modern industrial culture and the dominant worldviews of scientific rationalism which promote the supremacy of objective knowledge, economic efficiency and assumptions of human's ecological disembeddedness. If this crisis is one of culture, it can only be overcome in cultural terms and has to be approached with a focus on how to alter such cultural model. Against the background of Gramsci's philosophy of praxis and the researcher's experiences from an urban garden it is further argued that this needed cultural change can be achieved through practical activity and experiences made by engaging with the lived-in environment and that these experiential activities can be provided within the context of urban gardening practices. In order to find out to what extent urban gardening practices contribute to a counter-hegemonic movement that challenges promoted principles of modern industrial culture this study provides an in-depth analysis of a single but extreme case of an urban garden (Prinzessinnengarten in Berlin) and draws on qualitative data including the researcher's experiences made during ethnographic fieldwork, participant observations and participant interviews. Acknowledging the contextuality of the chosen case it is concluded that the observed practices challenge and demonstrate alternatives to diverse principles of modern industrial culture while reproducing aspects of the hegemonic structures of economic rationalism as well. Even though these findings refer to a specific case within a particular context they highlight the potential of practical activity and the entailed experiences for initiating transformative processes in diverse contexts of modern industrialized society.

Acknowledgments

I want to thank Prinzessinnengarten and its people around for a liberating, joyful and inspiring summer/autumn/winter 2015, Erik for your ever constructive feedback and attentive supervision, Gregory for your unconventional teaching methods that made us think beyond the ordinary, the human ecology department for putting together the CPS-program which made me move to Skåne to discover new ways of seeing the world, meet wonderful, inspiring people and stumble into life changing projects. Eventually, I want to thank all the people who accompanied me during the last two years and have made these such a valuable experience.

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1. Introduction

It is warm. My shoes are soaked with water, my feet wet. I drag the hose through the aisle between the red bakery crates. Above my head rise beanstalks clinging to a cobbled wood construction, their roots sitting in the bakery crates, bedded in dry soil. They need water. And here I am. I let some water splash onto the dry soil. Not too much, though. The soil is still too dry to absorb it all at once. I will come back a little later, after having supplied the other planter beds with their first ration of water. Then they will receive their proper share to get through this hot day. This is one thing I learned: gradual irrigation. Otherwise we simply waste water and the plants dry out anyways. We try to avoid that.



Figure 1. Bean copes, entrance sign of Prinzessinnengarten, a view into the garden (Photos by the author 2015)

Even though the clock next to the subway station only shows 10 am the thermometer already indicates a temperature of 25°C, and rising. I leave the bean copes and check the chard plants. Hanging leaves, dry soil. I splash some water into the bakery crate. “Hi!”, I hear behind me. I turn and look into the curious face of a sun hatted man, maybe he is in the end of his thirties. “Good morning!”, I reply. “Do you work here?” “Well...yes, kind of. How can I help you?” “Oh, great!”, his face lightens up even more. “Maybe you can tell me something about this place. How it works, what you do and so on. I have heard a lot and was thinking about starting something similar where I live.” I think a little. There is so much to tell, I don't know where to start. Also, I want to finish my irrigation tour before the kindergarten group arrives for their herb workshop. I invite him to tag along and share with him the short version of what I know, what I have learned, what I have

experienced, making sure the beds between us get their fair share of water. He is very interested and asks a lot of questions. Some of them I cannot answer. But that is alright. "So, you want to start something similar, you said?! Where would that be, then?", I ask, being curious myself now. "Well, I work in a garden center, tending plants and so on. But I realized that this is not what satisfies me anymore - the methods and the way of work itself. I want to have more social interaction and also practice a more organic way of gardening. A garden center is not the most suitable place for that. So, maybe I can just start something myself in the very South of Sweden, where I live." My eyes widen, I grin. "Southern Sweden? That's funny! I study there - in Lund." I tell him about my Swedish friend who is very enthusiastic about gardening and share her mail address. Maybe they can get in touch. "So, what is it that you study in Lund and what brings you to this place, then?" the Swedish gardener asks. "I'm studying human ecology. It deals with cultural aspects of sustainability - how humans interact with their environment. Almost philosophical one could say, and pretty theoretical. But really very interesting. Makes you wonder about a lot of things. Anyways...now I am here and do an internship. I thought it might be a nice change. Also to do something in practice, actually interacting with my environment and getting my hands dirty, so to say." We laugh. A few meters across the area I spot Matze, also gardener and a walking encyclopedia when it comes to plants. I recommend the Swedish visitor to get hold of him in case he has any further questions and to explore the area as long as it is still quite and empty. In the distance I hear glasses clanking. The garden cafe just opened.

It is sometime in the middle of August 2015 and the gardening season around Prinzessinnengarten in Berlin is in full swing. Here I am now, two weeks after I started my internship at this urban community garden. Almost had I forgotten about all those questions that evolved during the previous two semesters of studying human ecology. Questions that reveal the whole complexity of environmental and social injustices around the world. Questions that evoke feelings of powerlessness and disillusionment in the face of such complexity. These questions feel distant now. Not because I found answers to all these troubling questions here. I did not. But somehow the simple act of doing, of practical activity gives me hope. The experience of cause and effect in my immediate environment which reveals potentials for making a change - and be it only on a small scale.

I think back to the moment when I discovered the master's program in human ecology. I was delighted to find a possibility to follow up on my interest in sustainability issues, especially with the focus on cultural dimensions. Since I was convinced that many aspects that facilitate the ecological crisis we face today are mere results of how we position ourselves within the complexity of the world, it was evident for me that any debate about sustainability had to highlight such cultural practices instead of introducing technological panaceas. I am still convinced. And I found confirmation within my studies. Studies that also confronted me with skeptical questions whether there was any hope at all. Studies that made me want to actually do something, act, engage, create instead of wonder about all that what is going wrong.

And here I am now, watering plants, talking to people, introducing kids to the world of herbs. A world that can be found directly in front of their own door steps. This is where I experience a notion of hope, through creating awareness and appreciation for our lived-in environment. Do these practices bear the potential for change, for a cultural change that I consider so crucial? Smart people have already thought about that, written about that, created theories about that. This can be useful, I think.

1.1 Purpose and research questions

The next step would then be to put my experiences into relation with these theoretical insights I gained during my studies. Against this background I argue that the contemporary ecological crisis can be perceived as a result of modern industrial culture or - as Val Plumwood puts it - "the crisis of the culture of reason" (Plumwood 2002:5) and the dominant worldviews of scientific rationalism which promote the supremacy of objective knowledge, economic efficiency, the notion of a human/nature dualism and assumptions of humans' ecological disembeddedness.

Examined through a Gramscian¹ lens, these worldviews evolve into hegemonic principles of modern industrialized society, constituting everyday people's practices, ways of life and conceptions of their lived-in environments. In other words: shaping modern

1 As will be introduced in section 4.2 "Gramscian" refers to the conception of hegemony as the predominance of a particular worldview which is used to justify political, social and economical conditions within society and is crucially based on the people's consent as "common-sense".

industrial culture. If the ecological crisis is one of culture, it can only be overcome in cultural terms: As a crisis that finds its origins in the rationalist orientation of a lived culture, it has to be approached with a focus on how to alter such cultural model, instead of enforcing it by relying on technologies and strategies that emanate from the very rationalist realm the ecological crisis results from.

Drawing on practical experiences from my internship at an urban community garden in Berlin and my experiences as a master student of human ecology I have come to believe that such cultural change can be achieved through practical activity and experiences made by engaging with the lived-in environment and that these experiential activities can be provided within the context of urban gardening practices. Thus, the aim of the present study is to find out to what extent the observed gardening practices contribute to a counter-hegemonic movement that challenges the worldviews of scientific rationalism and the promoted principles of modern industrial culture. In order to fulfill this purpose this paper seeks to answer the following research questions:

1. What characterizes the everyday culture of the observed urban garden?
2. What characterizes the observed urban garden's engagement with its environment?
3. Which principles of modern industrial culture do the observed gardening practices challenge?
4. Which principles of modern industrial culture do the observed gardening practices reproduce?

1.2 The case²

As introduced above, I base my study on the experiences made during my internship at an urban community garden. Prinzessinnengarten (princess garden) is a social and ecological urban farming initiative legally occupying 6000 m² of a former wasteland area, framed by the name-giving streets Prinzenstraße and Prinzessinnenstraße in Kreuzberg – one of the poorest but culturally most diverse districts of the German capital³. Inspired by the urban gardening practices in Cuba it was founded in 2009 and

2 This section is to give a first introduction of the studied case and the motivation for the respective selection. A more detailed description of Prinzessinnengarten will be given in chapter 7.

3 Based on the 2013 social structure analysis (Senatsverwaltung für Gesundheit und Soziales 2013)

build-up by hundreds of self-organized volunteers from the neighborhood. Formally established as a non-profit company, the initiative aims to provide low-threshold education and participation opportunities within the context of urban Berlin.



Figure 2. Prinzessinnengarten (Prinzessinnengarten 2016a)

Apart from cultivating and maintaining the actual garden area which hosts a great variety of organically grown vegetables and crop plants, the crew of partly employed, partly voluntary "princess gardeners" constructs offshoot gardens in, around and outside Berlin combining consulting activities and educational work. The garden itself is additionally used for educational workshops addressing different audiences and hosts diverse projects such as a material re-use initiative, a bike-kitchen and an open wood workshop encouraging public participation. Through its involvement in multiple initiatives, Prinzessinnengarten is part of a wider network promoting among others biodiversity, climate adaption and sustainable forms of urban life.

With this, the organization maintains a broad outreach which constantly generates new inquiries for collaboration and has made Prinzessinnengarten subject of nationwide as well as international attention reflected in various entries in tourist guides and media coverage (Prinzessinnengarten 2016b). Its publicity and the fact that the organization financially provides a living for several employees make Prinzessinnengarten an

Kreuzberg ranks second lowest in net income (2), second highest in unemployment rate (11) and third highest in poverty risk (10) (rank 1 being the lowest, rank 12 being the highest); it ranks third highest in the amount of people with migration background (10), highest in the amount of people with matriculation standards (12), second highest in the amount of people with a graduate degree (11) and third highest in the amount of people with no graduation (10) indicating both cultural and educational diversity.

especially successful example of self-initiated, independent, multipurpose and established projects within the contemporary urban gardening movement.

Against this background an in-depth examination of such extreme case enables to highlight the multifacetedness and ambiguity of the urban gardening phenomenon. Considering the given necessity to understand the studied environment, Prinzessinnengarten's openness proved as advantageous, enabling me as the researcher to effectively place myself within its context and allowing to create "mutual knowledge" (Giddens in Flyvbjerg 2006:236) between me and Prinzessinnengarten's actors. Giving space to the unique practices and perspectives evolving from the particular setting of Prinzessinnengarten, this case study uses the "force of example" (Flyvbjerg 2006:228) to generate insightful context-dependent knowledge about potentials and risks of urban gardening practices against the backdrop of the rationalist culture of modern industrialized society.

1.3 An introductory note on the method and the material⁴

Drawing on the above presented case, this study seeks to examine an urban community garden's constituting dynamics, culture and practices which are best investigated when experienced at first hand (Whitehead 2005:4). For this purpose I am applying qualitative methods of ethnographic fieldwork which was carried out during my seven months involvement in 2015 at Prinzessinnengarten in Berlin.

The main body of primary data contains participant observations on the one hand and semi-structured interviews on the other. Participating in the regular activities of Prinzessinnengarten I was able to gain valuable insight into the organization's processes and leading principles. These observations and personal experiences were documented in ongoing field notes and reflected upon through regular internship reports. Additionally, I conducted six semi-structured interviews with active members of the organization, each of a length between 15 and 30 minutes. These interviews were held in German, recorded, transcribed and analyzed with a focus on their contents. The

⁴ This section is to briefly introduce the reader to the applied method and the analyzed material. A more thorough elaboration on the background and reflections on the methodology will be provided in chapter 6.

interviewees were informed about the research oriented background of the recorded conversations and agreed to be cited by their real names.

When investigating contemporary urban gardening practices sustainable food production often appears as a central point since it is an integral part of people's culture and certainly an important issue in terms of global resource use effecting non-human nature. However, as a closer look at the chosen case reveals, the cultivation of vegetables is not the main aspect constituting the characteristics of Prinzessinnengarten's culture but the practices and learning experiences around it. Thus, this study's analysis does not focus on the practice of urban food production. Another aspect that will not be explicitly discussed is Prinzessinnengarten's role in regards to urban development and how it relates to external practices of urban planning. Such investigation requires a thorough analysis of processes beyond the chosen case and the spacial as well as temporal scope of this paper. Closely tied to this aspect and insightful against the background of hegemonic structures within industrialized society is the role of state actors play in the discourse about common urban space. Even though the presented case certainly does provide access to this discourse due to its particular location circumstances⁵ this aspect will not be explicitly discussed within the presented paper for the same reasons as argued for the previous point.

1.4 An outline of the thesis

As the reader might have noticed, this thesis is about experiences. The experiences of people I worked with and my own experiences from both the theoretical and practical part of the master's program in human ecology. These experiences not only inform the content of this thesis but are reflected in its structure.

Following an overview of previous research (2. Previous research), it starts off with a theoretical discussion, dense and complex like the first semesters of my studies: The third chapter (3. Climate Culture) marks the point of departure of the presented argument by outlining the cultural preconditions of the ecological crisis. Here I mainly refer to Val Plumwood's (2002) concept of the "crisis of reason" which criticizes

⁵ Currently the area is rented from the municipality based on a temporary, potentially prolongable 5-year contract (expires by the end of 2018), maintaining the owner's option to sell it in case an interested investor makes a profitable bid and putting Prinzessinnengarten under the thread of having to move.

rationalist culture, its human/nature dualism and illusions of ecological disembodiedness inherent to modern industrialized society and claims that it is a cultural - not technological - change that is required to resolve the crisis resulting from this particular rationalist orientation.

Having stated the problem, I continue with exploring concepts inherent to this challenge: culture, hegemony and practice (4. The nature of culture and praxis). A closer look to what is referred to as culture intends to facilitate an understanding about what determines it in order to get a first idea about the possibilities of how such structures might be transformed. In the following, Gramsci's philosophy of praxis will be introduced. Inspired by Marx's theorization about how "world changing ideas emerge from everyday men and women whose practical acts make the world as it is" (Loftus 2012:xii), this approach provides further insights into the constitution of hegemonic worldviews and the potential of ordinary people's active engagement with their environments to challenge these.

Subsequent to this theoretical exploration the focus turns to the general phenomenon being studied: urban gardening (5. Cultivating urban nature). This step also reflects my experience of leaving the realm of university's theoretical inquiry and entering a field of practice that has to be understood in theoretical terms. Still being informed by an outsider's view this section first gives an introduction to the contemporary urban gardening movement and then frames the phenomenon from the perspective of urban political ecology, highlighting its contextualization within the urban realm.

What follows is an excursion on the research methodology (6. Between theory and practice) bridging theory and practical application. Here I return to the guiding research questions, providing operationalizations of employed concepts, reflect on the chosen research method of ethnographic fieldwork and discuss limitations that occurred within the study's context.

Having introduced the nature of the research material, I address the investigated phenomenon in practice (7. Practiced culture), introducing the studied case, Prinzessinnengarten, giving insights into the organization's everyday culture and its

engagement with its environment, analyzing the potential for challenging and reproducing hegemonic practices according to the previous theoretical inquiry and closing by discussing the results and its consequences for the study's purpose of finding out to what extent the observed gardening practices contribute to a counter-hegemonic movement that challenges the worldviews of scientific rationalism and the promoted principles of modern industrial culture. Concluding remarks (8. Conclusion) summarize the study's main results.

2. Previous research: a literature review

With the recent proliferation of gardening initiatives in modern industrialized cities the topic of urban gardening has found broad attention within academia and investigations on the movement's implications for diverse contexts.

On a governance level, urban gardening activities have been ascribed a role model character: In a review of past breakdowns of urban food supply systems Barthel et al (2005) discuss urban gardens' potential to restore collective socio-environmental memories regarding local food production, concluding that urban resilience governance needs to acknowledge this urban environmental movement's significance for a sustainable urban development. Focusing on community empowerment Holland (2004) analyzes the UK community gardening movement against the background of Local Agenda 21's sustainability concept. The material generated through questionnaires and in-depths interviews of gardening participants support the claim that the analyzed movement can be applied as a model for the realization of social, economic and environmental policies on local levels and encourages community participation.

Regarding gardening activities' impact on practitioners research has revealed significant effects: A qualitative study among participants of 28 community gardens in Baltimore, US by Poulsen et al (2014) indicates that collective gardening activities have a positive impact on individual levels in terms of feeling more connected to the surrounding environment as well as social levels in terms of strengthening the neighborhood community. Against the setting of suburban Australia the multi-method research of Head and Muir (2006) identifies the garden as the place which shapes peoples' relations to the

non-human natural surrounding and emphasizes the need to re-conceptualize this relation in terms of a co-constitutive relationship between humans and their non-human nature. Closely related to this claim Classens' (2015) theoretical discussion addresses current urban gardening scholarship's shortcomings in acknowledging the co-constitutional character of non-human nature and society. It is argued that a political ecology approach sheds light on non-human nature's material and discursive role in gardening practices and facilitates a thorough understanding of urban gardens' dynamics within the context of modern industrialized society.

Against the background of modern industrialized cities Rosol (2012) scrutinizes the potential of volunteer based urban gardening practices to drive processes of neoliberalization. Drawing on qualitative research among local politicians, administrators and gardeners in Berlin she argues that voluntary community efforts to maintain urban green areas can be understood as reproducing neoliberal strategies of outsourcing state responsibilities towards local communities. In a similarly critical notion McClintock (2014) discusses concerns about urban agriculture programs, such as investigated through interviews and participant observation within Californian alternative food networks. His research reveals the negative effects of reduced social safety efforts by the state - also referred to as neoliberal "rolling back". Initially being driven by the aim of providing alternatives to the industrial food system, these networks thus find themselves in a contradicting situation, counteracting and at the same time reproducing dominant processes of urban neoliberalization. Contradictions which, as McClintock argues, have to be accepted as inherent in order to reveal urban agriculture's capability to make structural changes.

Previous research and theoretic discussions have shown the multiple implications urban gardening practices can have for issues of local food sovereignty, community and democracy development, (sub-)urban human-nature relations and the proliferation of neoliberal strategies. Against this background the presented study contributes with an in-depth analysis of a single but extreme case of urban gardening in Germany and complements prior investigations with perspectives that highlight the interrelations between experiential activities and the hegemonic structures of modern industrial culture.

3. Climate culture: the ecological crisis as a crisis of rationalist culture

Since at least Club of Rome's "The Limits to Growth" (Meadows et al. 1972) was published in the early 1970's the issue of an ecological crisis has been addressed and communicated about to the broad public. Most insights about the physical evidence of this ecological crisis can be traced back to efforts of the natural sciences, providing information about possible causes and drawing conclusions on eventual effects (Welzer, Soeffner & Giesecke 2010:9). Playing an important role in revealing the existence of climate change, natural sciences are respectively consulted when it comes to proposing procedures and solutions that are to tackle the ecological crisis. Within this realm, the cultural model of modern industrialized society is based on the assumption that scientific rationality, technological innovations and economic efficiency will be the tools for a course correction, leading away from the negative impacts of climate change (Heidbrink 2010:50).

Acknowledging the complexity of society, this approach can be regarded as misleading and narrow: Bare natural scientific scrutiny of climate change will eventually fall victim to the limitations of its specific disciplinary perspective, producing abstract and mere technological solutions without considering issues of economic and ecological history, origins of material, institutional and mental infrastructures or social dynamics that construct the complexity of modern society (Welzer, Soeffner & Giesecke 2010:9). Evidently, such neglect fails to acknowledge the cultural preconditions and implications inherent to the development process of modern industrialized society.

In an anticipating notion Max Weber (1930) already pointed out that the capitalist economic system will "determine the lives of all the individuals who are born into this mechanism, not only those directly concerned with economic acquisition, with irresistible force [...] until the last ton of fossilized coal is burnt" (Weber 1930:123). In fact today, emerging from an *expansive culture model*, practices of mass consumption shape modern lifestyles just as the prevailing growth paradigm creates desires of continuous progress on individual and economic levels alike, gradually contributing to environmental degradation (Welzer 2013:58). While the human impact on the non-

human natural environment became increasingly evident with the advance of industrialization, modern ways of living seem to manifest the “disruption of the relation between human creations and earth” (Klages 1956:10, own translation).

What Klages refers to as disruption, can also be interpreted as the human emancipation from non-human natural conditions enabled by modern instrumental use of nature: While in preindustrial eras human life was majorly exposed and object to natural conditions, the use of technology in the so-called anthropocene reversed these relations, turning nature into a mastered object of social conditions to be manipulated and shaped in favor of human progress (Welzer 2013:116). This notion of supremacy situates human life in a realm distant from nature's constraints, laying ground for the assumption of independence and autonomy that is inherent to the cultural model of modern industrialized society (Plumwood 2002:2). As a result of this cultivated *human/nature dualism*, human existence becomes increasingly disembodied from its non-human natural environment, failing to acknowledge, on the one hand, its actual dependency on and, on the other hand, its responsibility for the nature that is controlled and instrumentally made use of (Plumwood 2002:2).

One crucial aspect embedded in the cultural framework of modern society, reproducing this human/nature dualism is the *hegemonic narrative of reason* (Plumwood 2002:9). Ever since the Enlightenment, reason was declared to be the foundation of human agency contrasting it against the chaotic existence of its natural environment. The approach which regards reason as the supreme feature in a world of living beings is represented by the doctrine of *rationalism* (Plumwood 2002:9). Here human supremacy based on the ability to act rationally is emphasized, while the contrasted non-human sphere is devalued. Supremacy in this sense is used to justify rational human's mastery of nature manifesting the *reason/nature dualism* (Plumwood 2002:17). This dominant form of rationality creates monological ways of organizing the world and introduces principles that are instrumentally used by representatives of rationalism.

Within the rationalist realm, these principles are based on the perception of *knowledge* being the product of a rational knower who monopolizes reason and therefore agency. Such knowledge is characterized by *pure objectivity* as well as the freedom from doubt,

individual perceptions, emotions and mystification. As material reality, practical activity and subjectivity pose threats to this knowledge, the emotional *disengagement* of the knower is a necessary requirement. The resulting monological relationship implies an active knower (subject) and a passive known object which functions as a resource for knowledge to be instrumentally exploited. This produced knowledge in turn is presented to be objective, free from individual constraints and thus universally applicable (Plumwood 2002:18). Under these preconditions, Plumwood argues, the production and application of knowledge contributes to *sado-dispassionate practices* within the rationalist realm: It introduces personal objectivity as emotional neutrality and ethico-political disengagement when used to justify supremacy. In this way, production model views on nature are put into practice. Here appropriate knowledge is applied in order to justify the instrumental use of nature in terms of production and human progress (Rogers 1995:10).

The assumption of objectivity further emphasizes the privileged position of experts as representatives of reason that hold the monopoly of appropriate knowledge. In this notion the *hegemony of objective knowledge* is established. The abstract communication of complex scientific reasoning poses obstacles for recipients outside the scientific knowledgeable realm to engage with the preconditions and implications of the produced knowledge. This leads to a common strategy to rely on expert knowledge without constructing an own perspective and eventually results in *self-incapacitation* reinforced by an *intellectual external supply* (Welzer 2013:87). Further, as knowledge is provided without offering a commonly comprehensible overview of its preconditions, it is hard to establish connections between the reality and theoretical knowledge fortifying the individual's *disembeddedness* from its environment (Welzer 2013:87). Within a rationalist system of thoroughly elaborated principles, it thus becomes possible to establish consent even among those who do not benefit from promoted structures (Plumwood 2002:17).

Under these conditions the contemporary political context of neoliberalism⁶ introduces the dominant narrative of reason to the sphere of economy (Plumwood 2002:23). This *economic rationalism* of the capitalist system stretches out to modern lifestyles - remember Weber - applying rational principles to justify the privileges of advantaged groups, inequalities and the exploitation of nature. Being enmeshed in the modern cultural model, reason-coded market mechanisms are to be indulged and applied to as many social domains as possible in order to maximize the rationality and *efficiency* of society in terms of progress (Plumwood 2002:23). By imposing these abstract principles to multiple spheres, economic rationalism postulates a general *universality* of its structure which is to be applicable independent of context. In this way, ordering different contexts of meaning in universal rational categories, means of *control* and dominance can be secured.

Within the neoliberal economic realm, rationality also becomes evident in the form of egoism in terms of maximizing self-interest (Plumwood 2002:33). Here economic rationalism introduces a double dualism of the public and the private (Fraser 1997). On the one hand, the productive and rational economic sphere (public) is contrasted to the domestic sphere (private) as the realm of “reproductivity, care for the ecologically situated body [...] altruism and ethics” (Plumwood 2002:32) which is denoted as irrational. On the other hand, the economic – focused on profit and efficiency - sphere (private) is separate from the public sphere of politics as the realm of dialogue and negotiation that require the engagement with others in order to gain consensus. Against this background rational ways of acting are encouraged that aim to maximize self-interest over altruist and communal values and create the self as a separate, atomistic and self-contained individual (Plumwood 2002:33). This isolated self acts independently from others outside a dialogical context in order to rationally maximize its own interests.

Equipped with these features it conveniently integrates into the realm of neoliberal market economies which are “stripped of both the ethics of the public sphere, that of public probity and collective good, and also the ethics of the private sphere, of care,

6 In this context neoliberalism is understood as the dominant free – open, competitive and unregulated – market ideology (McClintock 2014:154) that promotes strategies of privatization, commodification and the liberalization from state-regulations as beneficial for the economic as well as social development, resulting in the expansion of these market mechanisms throughout all sectors of society (Brenner and Theodore 2002:350)

compassion and personal relationship” (Plumwood 2002:36). Monological systems like these are thus characterized by an instrumental mode of *non-cooperation* and denial of interrelationships with others. Culturally, this condition creates a current self-misunderstanding which is based on the capitalist society's requirement for efficient individuals that intrinsically retain an egoistic, competitive and individualistic self-perception (Welzer 2013:176).

As has been outlined above, the contemporary cultural model of modern industrialized society can be perceived as one of mastered nature. It is based on an enhanced human/nature dualism, the idea of reason's supremacy and the hegemony of objective knowledge. As a result, this culture privileges control and efficiency; it encourages sado-dispassionate practices, the assumption of disembeddedness, self-incapacitation, egoism, non-cooperation, competitiveness as well as individualism and finally claims universality for its principles. Against the background of an emerging ecological crisis, this model poses various problems. Firstly and already mentioned above, an enhanced human/nature dualism fails to acknowledge humans' embeddedness and its eventual dependency on the natural environment. Following this denial, a conscienceless exploitation of nature advances which results in an increased environmental degradation – the degradation of human existence's basis. Finally, based on the perception of reason as supreme in the world, all entities outside the defined borders of rationality and appropriate knowledge are devalued and detracted from legitimization, prohibiting the emergence of any alternative solutions to confronting threats.

Acknowledging the complexity, contextuality and specific dynamics of society that fall out of rationalistic principles and thus require adjusted approaches, the claim of universality of rationalism fails its demand for control. Here the dialectic of the anthropocene becomes evident: “The advanced mastery over nature and the dominant culture of perfected external supply creates losses of control, unexpected and uncontrollable in extent. [...] The total mastery over nature remains an unfulfilled dream as long as humans are creatures of nature, and every attempt to master the exterior nature alters the interior nature, thus does not relieve humans from nature's constraints. Culture has never been anything else than a specific approach of nature's mastery” (Welzer 2013:117-118, own translation).

Bearing this in mind, the ecological crisis becomes a crisis of the dominant culture of supreme reason (Plumwood 2002:9), which demands a change in this very cultural model instead of the panacea of efficient technologies and rational market mechanisms. Against the background, that the ecological crisis can be traced back to complex cultural processes based on human actions that, however, can not be ascribed to particular individuals to be hold liable (Lübbe 1998:15), the relevance of increasing the notion of environmental embeddedness, including a general sense of responsibility in order to close the mental gap between human action and its impacts, becomes evident. Such undertaking, aiming to change these relations, requires more than spreading scientific knowledge and expertise but demands for embedded knowledge based on contextualized experiences, exchange and engagement that counteracts intellectual external supply and encourages self-efficacy (Welzer 2013:247). Thus, the vantage point for a change that also tackles hegemonic rationalist structures is situated within the non-scientific realms of social practices where norms, values and visions of life are created along processes of negotiation and compromise through an active engagement with the environment.

4. The nature of culture and praxis

4.1 A note on culture

When claiming the ecological crisis to be one of the contemporary cultural model of modern industrialized society it becomes inevitable to take a closer look at this thing called culture. Because if the modern industrial culture with its rationalist orientation is the driving force of a system that perpetuates ecological degradation, transitions have to emerge from this very cultural realm instead exclusively from technological innovations and economic strategies. Thus, to understand what constitutes culture, its dynamics and the processes that lead to the transformation of the cultural field, poses as crucial first step towards possibilities to resolve the contemporary ecological crisis.

Etymologically deriving from the Latin verb “colere” and its transmission into “cultura” the term culture bears various meanings ranging from inhabit and cultivate to worship and protect (Williams 1983:87). Although, over time these concepts segregated with

their application in different schools of thought their initial uses entailed the basic notion of process: the practice of cultivating and tending something, such as plants while gardening, which was later applied to humans and their conduct of collective life (Williams 1983:92). Against this background the concept of culture holds a crucial double meaning: On the one hand it directly relates to the physical environment – non-human nature - that is transformed in order to facilitate human existence, on the other hand it addresses the organization of social life itself – human nature, while both dimensions equally evolve from human (inter-)action.

As mentioned above, the concept of culture was applied in different schools of thought adopting the notion of process. Understood as a state of mind culture, within the tradition of Enlightenment thought, was to represent the idea of perfection, the goal of human achievement reflecting the superiority of humankind (Jenks 1993:11). In a manner of socialization and education synonymously used for civilization the concept of culture was also referred to the process of human intellectual and aesthetic development (Williams 1983:90) emphasizing the membership to a social group with particular qualities that distinguished them from the “uncultivated” mass (Jenks 1993:8). As a concrete category, culture further embodies the “works and practices of intellectual and especially artistic activity [such as] music, literature, painting and sculpture, theater and film” (Williams 1983:90) also referred to as high culture which implies notions of particularity, specialist knowledge and exclusivity (Jenks 1993:12).

While the previous interpretations represent rather narrow concepts of culture, producing pejorative distinctions such as cultivated/uncultivated or developed/undeveloped (Bolten 2007:12) a broad perspective, which shall be applied throughout this paper, rather constitutes culture as “a whole way of life” (Williams 1958:325). In this sense culture can be seen as the taken for granted everyday knowledge that, through continuous socio-historical processes, evolves into an unconscious, universal rule-system (Jenks 1993:63) and contains patterns of belief, value systems and orientations, norms for behavior and ideologies which are shared, learned and transmitted within societies (Jenks 1993:63). As the context of intelligibility, it thus represents the realm created by humans in which they make sense of the world (Jenks 1993:62). With this, culture becomes part of ordinary people's everyday

experiences and is primarily produced in social life emerging through human intentions that are conveyed by particular relations to the world (Jenks 1993:48). By further providing the frame of social interaction, culture legitimizes social order and justifies ways of behavior, being both product as well as producer of social action (Jenks 1993:59). Bearing in mind the concept's origin in the sense of process as to nurture, bringing into being and continuously cultivating, the immanent dynamic character of culture becomes evident.

Even though culture marks the point at “which humans surpass whatever is given in their natural inheritance” (Edgar and Sedgwick 2008:80) nature and culture should not be understood in opposition to each other: “Culture, when referred to as lifeworld, distinguishes itself by the circumstance that it is created and characterized by a particular organization. However, this takes place against the background of continuous reciprocity with the natural environment, as in turn the natural environment is influenced by culture in the sense of this created lifeworld.” (Bolten 2007:13, own translation). Thus, human action can not be understood as separate from nature as culture here appears as “humanized nature” (Jenks 1993:70). What Marx also refers to as “sensuousness” describes this very practical activity of shaping, formulating and changing reality in order to make sense of the lived-in world (Jenks 1993:70). In other words, cultural practice is characterized by processes of producing, performing, transforming and contesting meaning (Mezey 2001:41). Therefore, culture is not what groups of people, communities and societies *have* but what they *are*: It is what frames individual as well as collective actions, what gives meaning and what is in turn produced within the complexity of social life (Bolten 2007:17).

Against this background of interwoven relations, the transformation of the cultural field poses a complex undertaking. Instead of revolutionary acts, it is the successive reconstruction of meaning contexts that facilitates a cultural transition: In this process a gradual shift of attention and significance in society takes place by emphasizing certain principles, while others fade out of focus without being completely abandoned in order to maintain a commonly referable base (Bourdieu in Jenks 1993:128). If then, culture is understood as a shared system of values, beliefs and signifying practices that are generated through and simultaneously shape social interaction, transmitted over time

and consolidated in unconscious, taken for granted worldviews that facilitate making sense of the lived-in world, change emerges through collectively experienced practices. Being shared and communicated, these experiences provide the basis for the creation and transmission of meaning which is to be consolidated in the further process and, due to its practical origins, relates a commonly referable base.

As has been shown above, the relations between culture, practice and the environment form a dynamic structure that is shaping and at the same time shaped by the complexity of social life. In order to gain further insights into this complex web of interdependencies and its potential impact on power relations within society it is worth taking a closer look at Gramsci's philosophy of praxis and his elaborations on culture, practice and the environment.

4.2 Gramscian philosophy of praxis

Against the background of early 20th century's fascist regime in Italy, the leading communist Antonio Gramsci conceptualized his philosophy of praxis. Drawing on and modifying Marx' thought on Hegel and Theses on Feuerbach he processes this approach to alienation and the conception of human/nature relations into his particular theorization of the relation between theory and practical activity. Within this philosophy of praxis subaltern groups challenge hegemonic worldviews and inherent constructions of social life by establishing alternative norms and values in order to create a new politically legitimate force based on practically coherent conceptions of the world (Routledge 2015:1324). A crucial aspect for this movement is practical activity: In actively engaging with the (social and natural) environment individuals attain consciousness of their situation and socio-natural relations and are enabled to recognize the hegemonic conditions that frame injustices and suppression (Loftus 2012:72).

Hegemony, as it is engaged in Gramsci's philosophy of praxis, describes the predominance of a particular worldview that is used to advocate prevailing political, social and economic conditions within society as inevitable and generally favorable (Williams 1983:145). This worldview is manifested in the lived practices of everyday people as it becomes the "cultural glue" (Loftus 2009:328) of society, shaping individuals' beliefs, values and norm systems (Lears 1985:569). However, entailing ideas

that are dialectically shaped, reproduced and potentially challenged within the complexity of everyday life, ideological leadership can not simply be imposed but appears in a dynamic form with the need to be negotiated through allied social institutions in order to match people's everyday experiences (Karriem 2009:317). This emphasizes that it is not only the representation of ruling-class interests hegemony depends on but also the population's consent on the dominant worldview as “common-sense” (Williams 1983:145).

Given the above stated, common-sense refers to uncritically taken for granted and unconscious conceptions of the world on which the practical consciousness of individuals is formed (Loftus 2012:81). Here Gramsci expounds the problem of incoherence identifying common-sense as an ideology that is mainly informed by the past and the work of traditional intellectuals whose knowledge is grounded in formal expertise instead of practical experience (Gramsci 1971:333). Hence, this ideology lacks organic effectivity which can only be provided if “philosophical currents enter into, modify and transform the practical, everyday consciousness or popular thought of the masses” (Hall 1986:20). As a consequence, incoherence produces a contradictory state of theoretical consciousness, separating implicit - directly connected to practical activity in the real world - from explicit - uncritically taken for granted common-sense - consciousness (Gramsci 1971:333). It is further argued, that “the contradictory state of consciousness does not permit of any action, any decision or any choice, and produces a condition of moral and political passivity” (Gramsci 1971:333).

A coherent theoretical consciousness, that tackles such incapacitation, can only emerge from the engagement of organic intellectuals: members of subaltern groups themselves. Their crucial contribution is to facilitate the articulation of ordinary people's knowledge and interests, based on lived everyday experiences (Gramsci 1971:10) in order to enable the creation of a new and coherent common-sense, also referred to as “good sense” (Loftus 2012:82).

While laying ground for people's intellectual and cultural emancipation from dominant ideologies, good sense however has to be based on common-sense “in order to demonstrate that 'everyone' is a philosopher and that it is not a question of introducing

from scratch a scientific form of thought into everyone's individual life, but of renovating and making 'critical' an already existing activity." (Gramsci 1971:330). Hence, good sense is available to everyone: It is already immanent in ordinary people's everyday practices. This also entails the democratization and socialization of the production of knowledge (Loftus 2013:332), challenging the claim for absolute objectivity and monopolized legitimacy of scientifically approved knowledge that is used to justify the social, political and economic status quo.

The crucial role of knowledge in hegemonic relations becomes apparent when Gramsci notes that "[t]he realization of a hegemonic apparatus, in so far as it creates a new ideological terrain, determines a reform of consciousness and of methods of knowledge: *it is a fact of knowledge, a philosophical fact*" (1971:365, emphasis added). This emphasis further represents that an alternative hegemony is established through a war of position: an intellectually and culturally informed struggle that is manifested in its effort to combat modern ideologies by spreading alternative norms and values which enable the emergence of a coherent consciousness: "Education, culture and the organized dissemination of knowledge constitute the independence of the masses from the intelligentsia. The most intelligent phase of the struggle [...] consists in the intensification of culture and the raising of consciousness" (Gramsci in Piccione and Cavalcanti 1975:51).

As stated above, acquiring consciousness of the contradictions of dominant worldviews poses a crucial moment in Gramsci's theorization: "The philosophy of praxis is therefore in its own terms the self-enlightenment of human reality which arises as a break with all ideology in order to look with sober eyes at the active positions of humans to each other and to nature" (Haug 2001:12). In this sense, individuals not only have to become aware of the contradictory conditions they live in, but also have to gain consciousness about relations to their environment. Gramsci here makes the insightful claim that "[t]he humanity which is reflected in each individuality is composed of various elements: 1. the individual; 2. other men; 3. the natural world" (1971:352). As human existence can therefore not be decoupled from its non-human natural environment, a coherent consciousness can only be engendered by interacting with this nature: "Man's interaction with nature mediated through labor and technology initiates the historical

process through which humanity achieves consciousness of itself and its manifold relations with the world” (Fontana 1996:230).

This process is one of reciprocal nature when grasping environment as the entity of relations that frame human action: “If one’s own individuality is the ensemble of these relations, to create one’s personality means to acquire consciousness of them and to modify one’s own personality means to modify the ensemble of these relations” (Gramsci 1971:352). Thus, modifying the environment through labor and making sense of it, humans exist in a mutual co-evolutionary relation with non-human nature. With labor in this context, practical activity emerges as the basis for a philosophy of praxis: It is the creative force that shapes these socio-natural relations which eventually constitute the realm where hegemony is to be both consolidated and contested (Loftus 2012:78).

Whereas Gramsci's point of reference developing his philosophy of praxis was the suppression of early 20th century's working class under bourgeois ideology, current contexts create slightly altered forms of domination. Today it is the late capitalist hegemony that very subtly implements neoliberal discourses as self-evident truths in people's everyday lives (McCarthy and Prudham 2004:279), manifested in expansive consumption structures, the instrumental use of nature and increasingly competitive individualistic social structures, while continuously being perpetuated by a promising growth paradigm. The ruling class has evolved into structures of immaterial hegemony as barely anyone in particular materializes to be blamed: Most individuals reproducing the dominant worldviews through everyday practices were merely born into this system and act according to its structures, trying to meet social norms and economic duties. What has to be dealt with, is not an obvious dictatorship that is to be overthrown, but the underlying preconditions of this cultural model challenged by not only empowering suppressed social groups but by creating awareness. An awareness that reveals both, the conditions lived in and the consequences of these conditions, which at the first glance might not appear to be as disadvantageous for some people but are harmful for others living at remote places today as well as for those to live in the future.

Applying Gramsci's philosophy of praxis to the context of modern industrialized society, therefore engenders insights of how people attain such embedded consciousness and

reveals the potential for self-efficacy: the enabling experience of being capable to make a change, which is borne in practical activity. However, taking into account the nature of culture which crucially shaped the preconditions for the development of modern industrialized society, it seems unlikely that a salubrious transition can be achieved in revolutionary terms. What is faced, appears as a thoroughly enmeshed system of social structures, beliefs and attitudes that shape political and economic processes as well as people's lives in multifaceted ways, tangible and unintelligible. Altering such systems, requires strategies beyond radical adhoc transformation in order to lay ground for a thorough and long-lasting change. Here the philosophy of praxis, unlike it's original purpose, does not directly function as a means of revolution but can be applied as a means for initiating a cultural change through people's practical engagement with their environments.

5. Cultivating urban nature: urban gardening

While the previous sections have given an introduction to the theoretical background the phenomenon of choice – urban gardening – will be analyzed against, the following is to sketch the background of this phenomenon itself. First, a general overview of the contemporary urban gardening movement and its development will be given, followed by a contextualization within urban political ecology perspectives.

5.1 From cultivation to community: the contemporary urban gardening movement

When investigating the ecological crisis as a crisis of the culture of reason that requires a cultural change and acknowledging the transformative potential of practical activity that involves the engagement with the environment, urban gardening represents a promising model of such practice. Also referred to as urban agriculture, urban farming or urban community gardening, it encompasses various practices of cultivating plants – often crop plants in particular – in urban spaces (Ernwein 2014:78). Originating from basic agricultural activities which provided the population with food, urban gardening as such has been part of human history since the foundation of early urban settlements

(Tornaghi 2014:5) and continues to be a source for human needs within contexts of the Global South and North alike.

With a strong focus on food-sovereignty, the Global South provides numerous cases that depict urban gardening's significance in people's every day life, as the example of Cuba illustrates: With the breakdown of the Soviet Union in the early 1990's the country was threatened by the the collapse of its food provisioning system being cut off from crop imports and oil supplies which served as the mayor resource for fueling agricultural production. Out of this crisis urban areas were soon transformed into small-scale farmland to be cultivated by local residents, laying ground for the country's self-sufficiency in food crops and providing fertile ground for community self-help and coherence (Clausen 2012:16).

In the Global North the early gardening movement was heralded by the governments' facilitation of urban allotment gardens first serving rather recreational purposes contrasting the emerging industrialization of urban settings (Follmann and Viehoff 2015:1152), later providing sources of resilience from food shortages in times of war and socio-environmental crises (Barthel et al. 2015:1325). As a response to the "green revolution" in the 1960's urban gardening practices were increasingly employed to articulate the people's concerns about the industrialized global food production's damaging impact on the environment and served as a ground to realize alternative forms of agriculture with a focus on local, sustainable food production (Poulsen et al. 2014:69).

However, within the following decades until now the urban gardening movement experienced various shifts of emphasis that can be illustrated by distinguishing contemporary practices from traditional urban allotment gardens: Characterized by formal organization and strict sets of rules regarding gardens' arrangements and gardeners' commitment allotments can nowadays be perceived as "spaces of petit-bourgeois conservatism and escapism from modern (urban) life and political engagement" (Follmann and Viehoff 2015:1153). Against the background of an increased environmental consciousness, people's motivation to practice alternatives to prevailing spheres of action and participate in development processes of their (urban) environments (von der Haide 2014:6) the new forms of urban gardening are

characterized by the self-initiation and -organization of everyday citizens, a strong focus on public community engagement and a conscious integration into the urban context as a genuine part of the city instead of serving as a refuge from it (Müller 2011:13).

This integration becomes most obvious when looking at the locations of gardening sites: Whether on industrial wasteland, in backyards or on shopping mall roof tops, gardens sprout wherever the process of urbanization has left or created space to be occupied, reclaimed and converted through collective action. Further, reflecting the dynamics of urban processes, gardening projects vary in temporal scopes, some resembling pop-up installations in adaption to their quickly changing environment and circumstances, others allowing the development of more thorough physical structures in accordance to established space occupation.

With regards to the contents facilitated in these initiatives the production of food is still an important aspect but by far not the only function being realized. Within the context of modern industrialized society, urban gardens now serve as a platform to actively engage with a variety of topics such as urban commons, sustainable lifestyles, alternative conceptions of prosperity and new forms of democracy (Müller 2011:11). Creating low-threshold spheres for political action, gardens can be perceived as “agents of change” (Holland 2004:292) facilitating people's collective organization, encouraging inclusive discussions about contemporary public issues and providing places for practically engaging with the urban environment. The self-initiative nature of urban gardens further entails that design, arrangement and organizational structure are created in accordance to the users' own needs and ideas, engendering an enhanced democratization of handling public space (Rosol 2012:240). In line with these empowering functions go new forms of experiencing collectivity and sociability (Müller 2011:23): By gardening together and actively participating in creative processes with others, city dwellers foster spheres where trusting relationships can thrive, social barriers dissolve and interpersonal competences develop (Poulsen et al 2014:75).

On a material level urban gardens also encourage an awareness for the surrounding environment and the prevailing circumstances activities are situated in: By employing activities such as sowing, cultivating and harvesting, especially the practice of producing

food not only sensitizes for the biophysical conditions of people's everyday needs but bears the sensuous experience of self-efficacy that in turn can be translated into individual political action (Müller 2011:30). Further, due to occurring limitations of resources such as material, knowledge or space, gardeners have to develop strategies of improvisation and work with what is actually available, relying on mutual cooperation with fellow participants. In this respect gardens become crucial sites for transmitting practical knowledge and retaining collective socio-ecological memories about self-organization and self-sufficient food production (Barthel et al 2015:1325).

Beyond conserving and enriching local knowledge contemporary urban gardens also hold the potential for global learning and collaboration: Especially against the background of modern industrialized agriculture valuable lessons can be learned from the Global South where necessity has created elaborated strategies such as seed banks, that to a certain extent ensure food-sovereignty and contribute to populations' resilience from food shortages. Finally, the new gardening movement has also attracted the attention of urban planners: Here especially aspects of flexibly adapting to the respective urban environment, reviving wasteland, improving the supply of urban green spaces and providing space for educational projects about contemporary issues of societal discussions are seen as potential instruments for improving urban development agendas (von der Haide 2014:7).

As has been outlined above, contemporary urban gardens can serve a variety of purposes in different contexts. In general two main purposes and sources of motivation can be crystallized: the quest for meaning on the one hand and actual necessity on the other. While gardens initiated in the light of necessity focus on self-sufficient and sustainable production of vegetables as an outcome through the means of community-based work, projects motivated by the quest for meaning in an increasingly urbanized world serve as experimental grounds for alternative practices, community building and education through the means of collectively growing vegetables.

Against this background the examination of the modern urban context through an urban political ecology lens promises to shed light on urban gardening practices and their complex relations to urban natures.

5.2 Gardens' environments: urban political ecology views on urban gardening

Urban political ecology approaches are among others characterized by the examination of the „politics of nature within cities“ (Angelo and Wachsmuth 2014:24). Following this quest, it focuses on power relations created in the urban realm and how these shape and are shaped by the environment, acknowledging the cultural construction of what is perceived as urban and nature as well as the production of inequalities within this process (Heyen et al. 2006:8). Urban political ecology therefore also relates to issues of urban sustainability, examining the ways of how positions of empowerment and disempowerment are produced and for whom these turn out to be beneficial or disadvantageous (Heyen et al. 2006:9).

In this context the urban space can be understood as the process of urbanization itself : a process of perpetual socio-ecological exchange that takes place against the background of the lived-in world, informed by human social experience and materially created out of natural resources through socially mediated natural processes (Swyngedouw and Kaïka 2003:567). These socio-ecological metabolisms are not only reflected in the two euro cheep t-shirt produced by minors somewhere in Southeast Asia and taken for a walk through the busy shopping streets of Berlin but also by next door's cafe's hip coffee table up-cycled on the other side of the city in a collaborative maker's space from discharged blackboards. Urbanization thus represents the historically shaped transformation of pre-existing relations that are inherently both social and natural and results in the continuous production of urban natures as social and physical environments (Swyngedouw 1999:445).

The understanding of inseparable social and ecological processes crucially questions the idea of “independent non-social nature” (Castree 2000:25) and emphasizes the co-constitution of nature and society wherein both elements are essential to each other (Classens 2015:231). Central to the metabolic relationship that shapes specific socio-ecological entanglements and transforms human as well as non-human nature is the conduct of practical activity informed by social life, manifesting the social production of urban environments as reconstructed nature or “second nature” (Lefebvre 1976:15). This second nature then represents how people make sense and use of their urban

environments as the municipal park becomes a leisure facility contrasting busy work life or the shopping mall serves as a meeting place for young people to consolidate their social contacts with peers.

Against this background urban gardens reflect this very socio-natural hybridity of urban spaces as it is situated in the co-constitutionally created social and physical environments of the city. It is the nature produced by the human imagination of nature, informed by people's everyday life experiences that crystallize through the participatory nature of urban gardening initiatives where knowledge is publicly shared and spaces are designed according to people's needs and preferences. Moreover, nature is not only symbolically and socially produced but also a material product of collective practical activity that is so crucial to the process of urbanization. In this context it is important to not interpret urban gardens as a refuge from and in opposition to the city but as an inherent part of the urban (Classens 2015:231). Not acknowledging this relation would otherwise create the above challenged nature/society dualism and undermine urban gardens' political potential to transform the urban space from within (Classens 2015:236).

Closely tied to the production of nature within the process of urbanization is the aspect of urban culture as imaginations of nature are informed by cultural implications: "Social beings necessarily produce natures as the outcome of socio-environmental processes that are themselves constituted through myriad relations of political power and express a variety of cultural meanings"(Heyen et al 2006:7). Further, the urban experience can be understood as the experience of modernity itself and thus represents the central place where modern culture is experienced and practiced (Gandy 2006:63): Here the process of urbanization becomes evident as the globalization of economic and cultural life (Gandy 2006:68) reproduced in urban dwellers' social relations.

Eventually, cities function as "crucial cultural watersheds" (Edgar and Sedgwick 2008:80): Due to urban areas' diversity of lived customs , beliefs and embodied histories individuals are confronted with others' worldviews which creates a sensitized consciousness of their own cultural imprint, transforms beliefs through interaction with fellow city dwellers and consolidates new as well as pre-existing ways of making sense of

the world. This realm of experience constitutes the urban space even more as an arena of power struggles where efforts to defend, sustain and find meaning in accordance to the social and physical environment of the city are mobilized (Edgar and Sedgwick 2008:80).

In this context, urban gardens provide meeting places for people with various cultural backgrounds and can thus contribute to individuals' awareness of their own worldviews. However, due to their origin in critical alternative practice these places are often already informed by certain beliefs and transmit values in accordance to these practices: With a strong focus on community involvement and participation interpersonal cooperation and support find particular attention and different ways of interacting with people can be explored. Nevertheless, depending on individuals' pre-existing sets of beliefs introduced to this interactive environment, urban gardens become places - formed by and reflecting urban culture - where attitudes and values can be enforced, extended and diversified. As sites for political action urban gardens further bear the potential for contesting conventional ideas of how to make sense of the city, its nature and possibilities to design it according to people's actual needs: Here alternative imaginations of the urban identity are created and transmitted into the public realm (Barthel et al 2015:1330).

Acknowledging that urban life is increasingly influenced by the sphere of capitalist practices (Heyen et al. 2006:5) shedding light on neoliberal processes employed in cities provides further insights into the dynamics of urban spaces. Since urbanization can be regarded as the globalization of economic life creating landscapes of power where "sociospacial ordering by and for the market has become the dogma of the day" (Swyngedouw and Kaïka 2003:274), urban spaces are crucial to the "reproduction, mutation, and continual reconstitution of neoliberalism itself" (Brenner and Theodore 2002:375). Characterized by a high density of population and capital, urban areas thus provide the space for market-oriented economic growth and extended consumption, creating beneficial conditions for experimenting, implementing and maintaining the dominance of neoliberal subjectives (Brenner and Theodore 2002:368).

In this context two traits of neoliberalism predominantly exercised within cities can be identified: Also referred to as "governance-beyond-the-state" (Swyngedouw 2005:1992),

roll-back neoliberalism represents a lean government involving cost-cutting measures and the privatization of the state's social security functions (Brenner and Theodore 2002:373). These functions are outsourced to civil society actors, often labeling the delegation of decision making responsibilities to local communities as “citizen empowerment” (McClintock 2014:155). The practice of roll-out neoliberalism represents the mobilization of economic space as arenas for capitalist growth (Brenner and Theodore 2002:374).

Against this background urban gardening bears the potential to both reproduce and counteract neoliberal subjectives. To begin with, Rosol (2012) provides an example referring to increased volunteer participation in urban gardening initiatives: Here the reliance on local initiatives' commitment to tend public green space is seen as “serving the neoliberal idea of self-contained communities and the privatization of the service sector” (Rosol 2012:240) resulting in the professionalization of the voluntary sector and the adaption of economic rationalities (Rosol 2012:241).

Another example is given by McClintock (2014) who argues that urban agriculture initiatives with their engagement regarding local food supply “fill the gaps in the social safety net” produced by roll-back neoliberalism (McClintock 2014:147) and employ neoliberal strategies such as entrepreneurialism in order to solve social problem of disfunctionous food supply. Being run by civil society actors, these initiatives conceal the government's responsibility simulating that problems are well taken care of (McClintock 2014:155) and, by offering a low threshold market for organic local food, reproduce neoliberal rationality, as solutions to social problems are managed by market mechanism rather than policies. In the sense of mobilizing economic space within roll-out neoliberalism urban gardening further bears the potential of gentrification: Due to the creation of public green space and possibilities for engagement in cultural activities that contribute to the upgrading of neighborhoods, prices of surrounding properties are likely to increase which leads to the displacement of the lower-income population (McClintock 2014:165).

However, acknowledging both the biophysical and social nature of urban gardens, potentials for counteracting the neoliberal logic can be revealed. On the one hand it can

be argued that alone the biophysical processes of plants insofar as they follow their own rhythms, reproduce for free and can be democratically grown by anyone almost anywhere (Classens 2015:236) already stand as an opposing force to principles followed by neoliberal capitalism. On the other hand - and far beyond bare symbolism - the guiding principles characterizing the contemporary urban gardening movement manifest counterpoints to neoliberal subjectives: In focusing on community work, collective cooperation, participation and open-source education, alternative values counteracting neoliberal ideologies are practiced in active engagement with the respective social and non-human environment.

As has been outlined above, modern cities appear as a multifaceted conglomerate of diverse social forces that reflects the interplay of nature, culture and and the concentration of neoliberal processes, creating both arenas of power struggles and potentials for change. Situated in the complex realm of modern urban space, contemporary urban gardens represent a phenomenon that reflects various of these relations within their own constitution and practices. Against this background it is crucial to carefully analyze and acknowledge contextual particularities of the environments, structures and subjectives of urban gardening initiatives in order to understand the potentials and risks these practices may hold and to shed light on the socio-ecological relations created.

6. Between theory and practice: an excursion on the research methodology

After having presented the theoretically informed frame of this study, I want to return to the research questions, concepts that are employed within and the methodology that guide the analysis.

6.1 Research questions and operationalizations

As introduced in the beginning, the aim of this paper is to find out to what extent the observed gardening practices contribute to a counter-hegemonic movement that

challenges the worldviews of scientific rationalism and the promoted principles of modern industrial culture.

Against this background we have learned about the constituting elements and dynamics of culture as a way of life. Since this study investigates one particular case it becomes necessary to identify the cultural terms as they were experienced and observed in Prinzessinnengarten in order to be able to find out how these relate to the principles of the hegemonic cultural model of modern industrialized society. Thus the first research question reads as follows:

1. What characterizes the everyday culture of the observed urban garden?

With Gramsci's philosophy of praxis we have further learned that one possible way to challenge hegemonic structures is to actively engage with the lived-in environment through practical activity and to attain consciousness about the relations entailed in these processes. To gain further insights into the particular relations that frame Prinzessinnengarten's practices the second research question is:

2. What characterizes the observed urban garden's engagement with its environment?

While the first two research questions investigate the cultural practices themselves and their constituting conditions, the last two questions are to find out how these practices relate to the promoted principles of modern industrial culture:

3. Which principles of modern industrial culture do the observed gardening practices challenge?
4. Which principles of modern industrial culture do the observed gardening practices reproduce?

Counter-hegemonic movement

Drawing on Gramsci's philosophy of praxis, a counter-hegemonic movement is characterized by people and practices that challenge hegemonic worldviews through practically engaging with their social and natural environment. In this process they establish alternative norms and values consolidated in and framing collective action.

Principles of modern industrial culture

As has been outlined in the beginning of this paper, the cultural model of modern industrialized society can be perceived as strongly informed by a hegemonic narrative of reason's supremacy, also referred to as rationalism (see chapter 3). Against this background a set of principles, that result from and at the same time reproduce rationalist culture, can be identified:

- privilege of control and efficiency
- hegemony of objective knowledge
- sado-dispassionate practices
- disembeddedness
- disengagement
- perpetuated market-logic
- self-incapacitation
- intellectual external supply
- competitiveness
- non-cooperation
- universalism

Everyday culture

While culture can be understood as shared sets of beliefs, values and signifying practices informing people's social life, everyday culture represents the very particular, contextualized and lived social experiences in one environment. It therefore also reflects the "contradictory relations between the dominant social order and the variety of subaltern formations within it" (Fiske 1992:157) and reveals the potentials constraining structures offer to challenge dominant paradigms. In this sense, everyday culture is manifested in people's strategies of creating a livable and purposeful environment with what is actually available (de Certeau 1984:29) against the background of everyday dynamics and the socio-ecological metabolism of the lived-in, experienced context.

6.2 The material, the method and the researcher

The material

The main body of research material and data to be analyzed in this study was generated during my involvement in Prinzessinnengarten between August 2015 and February 2016. I initially entered the field as an intern for three month (August-October 2015) but extended my engagement beyond the originally scheduled period and remained an active member of the ongoing activities until February 2016. During this period I

participated in a variety of activities integral to the organization's overall practices such as:

- conducting daily gardening work: maintaining beds, watering etc.
- attending the weekly gardener's meeting to set up a list of current tasks
- attending weekly general meetings open to the public where ongoing activities and issues are discussed
- attending and instructing public gardening sessions
- visiting school gardens: maintaining beds and instructing students
- attending and instructing environmental educational workshops in the garden
- preparing logistics for events in the garden
- giving guided tours around the garden
- building and setting up raised beds for collaborating projects and customers
- attending meetings with project collaborators
- organizing events with collaborating projects
- taking care of the garden's shop and information point

The direct involvement in these activities enabled the conduction of thorough participant observations through which I gained original insights into the studied context and was able to experience the socio-cultural dynamics of integral practices at first hand, facilitating a deeper understanding of my working environment (Whitehead 2005:11). Whereas most of the listed activities were part of such participant observation, the last one – taking care of the garden's shop and information point – also served as a setting for bare observations of the happenings in the garden and provided the opportunity to sensuously capture the characteristics of the area, contributing to an enhanced experience of the studied environment and its potential meaning for the members (Whitehead 2005:11).

Complementing the participant observations, I conducted a set of semi-structured interviews with current members of Prinzessinnengarten. In total they count six; involving one of the initial founders of the garden, two long-term engaged and part-time employed members and three volunteers that were conducting a one-year volunteer program in Prinzessinnengarten. With this compilation the sample provides “expert” insights of those who have been involved in the organization since the early stages as

well as the perspectives of “new-comers” who, nevertheless, have integrated in the garden through their intense involvement. Conducted as open-ended and as flexible as possible leaving room to delve into further issues that came up spontaneously, the interviews followed a guideline of questions and topics (see appendix).

In conducting these interviews I could gain insights into individual perspectives of different members which facilitated a deeper understanding of meanings and individual motivations that shape the garden with its practices as it is (Whitehead 2005:16). These perspectives further complement the participant observations which are interpreted through and informed by my own experiences.

The method and the researcher

The presented study is a theoretically informed inquiry of culture and practices, experienced within the context of an urban garden in Berlin. Against this background we have to note that practices manifesting and reproducing culture are not of discursive but of practical nature and thus not directly transferable to theoretical discourses (Bourdieu 1977:110): These practices and the meaning ascribed to them can only be grasped (and with this, be interpreted and analyzed) by understanding the actors' particular relation to the situation and the framing context. As a consequence, they have to be experienced from “inside”, drawing on personal experiences from living and practicing culture within this particular context, in order to relate them to theoretical accounts from the “outside” and produce a theoretical discourse (Fiske 1992:159).

For this purpose the method of ethnographic fieldwork poses an advantageous form of inquiry as it focuses on actual lived experiences and involves becoming familiar with the studied socio-environmental and cultural context, its dynamics and processes that frame integral practices (Whitehead 2005:4). Here the researcher becomes the instrument of the research who has to draw on personal experiences – be it from interviews, participant observations or the study of documents – in order to produce meaning of the studied practices in relation to the research objective (Stancey 1988:22). Given the nature of the data collected by the researcher, who gets personally involved in the social activities of the studied context, the research itself is characterized by interpretative, reflexive and constructionist processes, wherein the researcher continuously has to

assess her/his experiences in relation to the study objective as well as to her/his own background, values and interpretations (Whitehead 2005:4).

I here want to take the chance to shortly reflect on my role as the researcher during my fieldwork. In summer 2015 I entered the Prinzessinnengarten –the “field” - as an intern, an “outsider”, having studied the master's program in human ecology for two semesters before. With this precondition, my head filled with theoretical concepts about ecological crises, systems of injustices and the somewhat bitter taste of disillusionment, I entered this new world of practice, physical work and earthy hands, that contrasted my familiar environment of the library in so many ways. I was astonished, yet delighted by that change of scenery and very enthusiastic about the overall organization, which I would call my working place for the next months. Having spent some time in my internship, working along my new colleagues and taking over more responsibilities, I started getting familiar with the organization's structure and integral processes – dynamics that I first had to make sense of. I therefore gained insights into this organism, its achievements as well as flaws. I became a part of Prinzessinnengarten, an “insider”, and at the same time, with all my newly gained knowledge, critical and disenchanted, contrasting my initial astonishment with a sober, yet not fully neutral, look on my environment. This perspective could only emerge through my previous role as an outsider and the entailed process of making sense of the organization through which I became an insider, partly maintaining the standpoint of an outsider.

Against this background this study is informed by a social-constructivist ontology which acknowledges the subjectivity of experienced realities that vary in accordance to the studied environment (Whitehead 2005:4). Further, by positioning myself in this blurred realm of becoming part of what is studied, I defend a standpoint epistemology which argues for the situatedness of knowledge: Depending on the social, spacial and historical context it derives from, knowledge is always situated and has to be understood in relation to these contexts (Haraway 1988:583). Additionally this account acknowledges the existence of numerous perspectives from which knowledge can be created (Hekman 1997:342). Given the previous theory discussion, this perspective further emphasizes the significance of organic intellectuals that articulate alternative norms and values beyond hegemonic worldviews based on everyday practices. Therefore the outcomes of

this research represent an intersubjective product of my personal experiences and the dynamics framing the studied environment of Prinzessinnengarten. Consequently, any claim for absolute objectivity would be misleading at this point. Instead, I hope to proof credibility of this work through providing reflexive accounts by not only highlighting the contextuality of the studied case but also by having given an insight into the process of this paper's development and its way of making sense of the embodied experiences.

6.3 Limitations

Given the nature of ethnographic inquiries, this study has to be understood in its situatedness and its interpretative notion. Acknowledging the contextuality of the examined case and the researcher's position within the process, this study presents an example of how one experienced reality can be interpreted against one particular theoretical background. It thus does not provide an objective set of facts applicable to a broad range of contexts.

In regards to the generated data providing the base for the following analysis, some shortcomings should be addressed: To begin with, the questions and topics guiding the conducted interviews do not fully match the objective of the research and could certainly have been more in line with the actual research questions. One reason for this circumstance can be identified in the dynamic character of the overall process as the focus and its final orientation experienced several transformations subsequent to the actual data collection. However, due to the open-ended character of the interviews, the material provides the potential to inform inquiries beyond the guiding topics and demands the researcher to work with what is actually available – a practice that will be encountered later again.

Another aspect that would have increased the informative value of the material is its quantity: With only six conducted interviews, the the data pool presents itself as rather limited. It would have been fruitful to not only include more members of the garden with their individual perspectives but also a greater variety such as non-regular participants as well as individuals not directly involved in the garden's activities. This would have provided further insights into other “outsiders” experiences and contributed to a detailed contextualization of the garden.

Eventually, the period I joined Prinzessinnengarten only covered half a year's circle, entailing only half a garden's year experiences. Acknowledging the organization's contextuality, especially in relation to the seasons and the changing tasks, challenges and social constellations, a full 12 month period of fieldwork could have enriched the pool of data and experiences to draw on in many ways.

7. Practiced culture: analyzing an urban garden's practices

This chapter is dedicated to Prinzessinnengarten and its practices against the background of the introduced theoretical framework. First, the garden itself will be introduced in its main features as they were experienced and observed by the researcher. Subsequently the research questions will be addressed drawing on collected research material and the researcher's experiences. Finally the findings will be interpreted and discussed.

7.1 The phenomenon in practice: Prinzessinnengarten in Berlin

Founded in 2009, Prinzessinnengarten is an urban community garden situated in Berlin-Kreuzberg, Germany. As a social and ecological urban farming initiative its goal is to create low-threshold education and participation opportunities and to establish urban gardens as places of shared learning about biodiversity, urban ecology, climate adaption, recycling, sustainable consumption and sustainable forms of urban life.



Figure 3. The area of Prinzessinnengarten at Moritzplatz 2009 and 2012 (Prinzessinnengarten 2016c)

The location of Prinzessinnengarten is as urban as one could imagine: a former wasteland area right next to a busy roundabout and a subway station in the middle of Berlin's diverse district Kreuzberg. Formerly hosting a department store in the 1920's and later being used for second hand car sales, the area at Moritzplatz remained untouched for decades until the two founders of Prinzessinnengarten together with friends and volunteers from the neighborhood started to transform the wasteland into the urban vegetable garden of today.

The idea of establishing a community garden in Berlin was initially inspired by the experiences one of the founders made during his travels through Cuba: Here he encountered the common practice of urban farming triggered by the need for self-sufficient food production. These urban gardens not only provided a space for growing much needed vegetables but served as a meeting place for the neighborhood where people worked together, sharing their knowledge and expertise and making do with what was available. This notion of community building and creative learning eventually fueled the process of creating a similar place in Berlin where people could meet, grow vegetables together and learn from each other.



Figure 4. Different kinds of potatoes (Prinzessinnengarten 2016d), Figure 5. Diversity of beans and tomatoes grown at Prinzessinnengarten (Photos by the author 2015)

Seven years after its establishment Prinzessinnengarten has evolved into an urban vegetable garden rich in diversity. Here a great variety of agricultural plants are cultivated in raised beds, rice bags and recycled materials including old sorts and those which are not common in conventional supermarket any more. Even though the main focus of the garden is not the quantitative production of food, all vegetables and herbs are free to be harvested and bought by the public. Twice a week public gardening

sessions are held, open to everyone who likes to help out with ongoing gardening tasks and experience what it entails to grow food in the city. Along these activities various workshops such as herb processing, pre-planting, creative recycling or composting-box building take place throughout the gardening season. Besides a bar and a kitchen, offering drinks and organic meals produced on spot from regionally grown vegetables, the garden accommodates several beehives that are taken care of by a local beekeeper and can be examined during bee keeping tours. A bike kitchen offers self-help support for fixing or building customized bikes, an open wood and metal workshop provides people with expertise, tools or material for individual crafting projects and hosts own construction sessions, in the "free-box" second-hand clothes and books find new admirers and a small workshop kitchen can be used for cooking classes with students or seminars about cooking with waste food.

Along such integrated activities Prinzessinnengarten also hosts projects initiated by externals and collaborative initiatives in providing the space, expertise and the audience for exhibitions, talks, excursions, workshops or construction projects. With all what is happening in the garden at Moritzplatz itself, Prinzessinnengarten also operates outside this space: Since 2011 the organization also builds offshoot gardens at schools, cultural institutions, refugee homes and roof tops in Berlin including regular maintaining and gardening sessions with the users.



Figure 6. Planting bags and boxes (Photo by the author 2015), Figure 7. Open wood workshop (Prinzessinnengarten 2016e), Figure 8. Gardening at a school (Prinzessinnengarten 2015)

The breeding ground for these activities focused on participation, open access and collective learning is provided by those who work and get involved in Prinzessinnengarten. On the one hand there is a pool of volunteers - conducting a 12

month voluntary service -, interns - their involvement varying from a few weeks up to a few month - and locals contributing their time according to individual schedules, interests and availability, who tend the garden by maintaining the planter beds and taking care of gardening tasks or take over responsibilities in ongoing projects. On the other hand the organization employs around 10 people including a gardener, persons in charge for horticulture, administrative tasks as well as the coordination and organization of projects. During the gardening season, when the bar and kitchen are operating, additional 15 part-time employments are mobilized.

In order to cover these salaries as well as other ongoing expenses such as the monthly rent for the area to the municipality, property taxes and fees for street cleaning the organization relies on different sources of funding. One significant part is provided by the garden's gastronomy, selling coffee, drinks, cake and daily meals. Another source is the construction of offshoot gardens, their maintenance and educational work with its users as well as consulting activities for local authorities and other gardening initiatives. In addition, the organization applies for funds for its educational, environmental and community projects. Donations, the sale of the garden's products such as plants, vegetables and guided tours cover the rest of the funding. These different funding strategies are only applicable against the background of the organization's formal constitution as a non-profit company, Nomadisch Grün (Nomadic Green). In this form Prinzessinnengarten not only manages to be financially and politically independent from the governmental or municipality but contributes to the garden's overall objective by reinvesting surplus income in its educational projects. In providing the opportunity for several people to earn their entire living from Prinzessinnengarten the organization significantly differs from many other gardening initiatives and gives an example of how social, economic and environmental forces can metabolize in urban areas.

7.2 The everyday culture of an urban garden

In accordance to the above introduced operationalization, everyday culture is characterized by the shared sets of beliefs, values and signifying practices of the active members of Prinzessinnengarten which shape everyday dynamics within the context of urban Berlin. What is valued and appreciated by these members and motivates them to

dedicate their time and energy to the garden, thus reflects the particular components of Prinzessinnengarten's everyday culture.

One dominant element that is collectively valued by the interviewed members is the experience of responsibility and the entailed feeling of self-efficacy. Direct responsibility here not only refers to the initiation of projects within Prinzessinnengarten but is also experienced towards society, as gardener Lisa expresses:

“I learned [...] that I also have a responsibility towards society and that I actually can do something about it. Well, also a little this grouching about politics and so on, so that I thought 'Okay, that doesn't get me any further – one has to actually do something about it and take it into one's own hands'.[...] At the same time you experience a lot of encouragement from the garden: 'You can do it, you just have to try!'. I think this is communicated a lot.”

This shows that with the consciousness about the responsibility towards the lived-in world comes along the experience of empowerment facilitated through Prinzessinnengarten's community support. Crucially, such supportive notion encourages an active engagement with one's environment – remember Gramsci: an important aspect within the philosophy of praxis (Loftus 2012:72) - and frames the everyday experiences within the organization.

This notion of community support and cooperation also plays an important role in regards to the social resources of Prinzessinnengarten and becomes evident when looking at the circumstances that brought the two gardeners into the organization. Whereas Matze learned about the garden through a friend and was curious about the idea of growing vegetables in the city, Lisa's involvement was initiated by her need to store tools and her offer to take care of the garden's tomato plants in return; her previous social contacts to other people already involved in the project paved the way for her engagement and direct responsibilities for further activities. These personal experiences highlight the socially interactive aspect of Prinzessinnengarten and how the community organically grows on the basis of its social environment.

Against this background social metabolisms of the garden play a significant role. Here social relations and personal contacts turn into resources providing the garden with valuable workforce, expertise and motivation, and return. These processes are also characterized by a lived contextuality in the sense that potential resources – people,

ideas and skills – that exist in the garden's social and spatial environment are attracted and absorbed, always according to current circumstances and needs. With this, it can be said that it is not only the production of knowledge which is democratized and socialized as will be shown below, but the site itself: Referring to Gramsci's distinction between “common sense” and “good sense” (Loftus 2012:82) Prinzessinnengarten can be regarded as a “good place” - a place that is, including its resources, available to everyone since it is ordinary people with their everyday needs and resources that stimulate the place.

Closely tied to this, is the characteristic openness of Prinzessinnengarten. This openness is experienced as tolerance as volunteer Johanna describes the garden as a place

“where all people can come to and just decide for themselves if they want to get involved or not [...] and where everyone is open for new ideas with the attitude that just not everyone is perfect and everyone can learn from each other [...].”

Encouraging active involvement through this openness, the garden is characterized by a participatory orientation which provides city dwellers with the opportunity to change their lived-in environments through practical activities like gardening, constructing useful objects from waste material or sharing ideas. Following Gramsci such practical activity is the basis for a philosophy of praxis and represents the creative force that constitutes the realm where hegemony is potentially contested (Loftus 2012:78). Through the mere demonstration of these possibilities for making an impact “people realize that they actually can get involved with their environment [so that] one gets the feeling of not being so powerless anymore and that the city also belongs to you in some way” (volunteer Mara). With this, Prinzessinnengarten contributes to cultural practices of producing and transforming meaning (Mezey 2001:41) as in this case making sense of the city.

The principle of participation is especially constituted through the possibility of learning and sharing knowledge and experiences as Robert points out:

“Everything, these people bring along then, when they exchange experiences, constitutes the entity of knowledge within the garden.”

In the context of Gramsci's philosophy of praxis this aspect represents a crucial element for counteracting the hegemony of objective knowledge as it is the experience-based, embedded knowledge which frames the activities of Prinzessinnengarten and highlight the democratization and socialization of the production of knowledge (Loftus 2013:332).

Appreciating the variety of knowledge, perspectives and worldviews, the garden brings different people together and at the same time serves as a meeting point for people with similar ideas and interests who are attracted by the possibilities being offered. In this sense, Prinzessinnengarten is a site for both diversity and similarity, absorbing and reflecting the characteristics of its environment.

Complementing these social aspects, diversity also materializes in the garden's physical reality as exemplified by Mara:

“There are so many people that contribute with their knowledge, many different cultures and thus a lot of diversity. Because if everyone for example brings a special kind of seed or has particular wishes of what should be sowed. And then we just get these freaky plants and combinations in here.”

Here the socio-ecological metabolism of Prinzessinnengarten becomes evident, as people with diverse backgrounds, knowledge and ideas enter and design the site according to their individual visions and at the same time get inspired by the possibilities the garden offers.

Entailed in such diversity and openness are further significant elements that shape Prinzessinnengarten's everyday dynamics, namely improvisation and experimenting. On the one hand improvisation and creativity are already visualized through the appearance since most objects like planter beds, furniture and “buildings” are made out of reused and converted materials such as bakery crates, pallets and overseas containers, reflecting the ability to adapt to the environment and deal with the lack of resources resulting in the need to work with what is available and to resort to local resources, be it material or potentials for cooperation. On the other hand the notion of improvisation and experimenting is manifested in the actual practices within the garden. Lisa for example appreciates that

“one has the opportunity to simply try things out. And that every little person can try. So one doesn't have to bring a long a lot regarding know-how and knowledge or tools. One has the opportunity to simply try if one has ideas. And this connects the people, that one can talk about these ideas and how to make the world a little better.”

This again illuminates Prinzessinnengarten as a “good place” that makes resources and support available and referable to everyone since skills and knowledge can be learned based on individual experiences without imposing pre-manufactured strategies – a procedure that encourages the emerge of organic intellectuals (Gramsci 1971:10).

Due to this experimental character processes not always lead to the intended or perfect results and often confront the garden with inefficiencies regarding timing and organization. However, the practice of making do with what is actually available and dealing with the lack of resources constitutes a hallmark of Prinzessinnengarten:

“Prinzessinnengarten does not earn its living because the people do what they do super professionally. And it is okay like this. [...] It is also an advantage of Prinzessinnengarten which basically demonstrates how to make do with almost nothing.” (Matze)

With this the garden's practices are marked off from conventional practices in modern industrialized society where the availability of resources is taken for granted and processes are assessed according to their outcome and efficiency.

Against this background the work in the garden can be characterized as process-oriented, not only providing the intended educational work for the public and participants but also creating social and practical learning processes for the members themselves. Especially the sometimes chaotic working-environment poses challenges the members have to manage but eventually grow with and learn from:

“There are so many people getting involved so that it gets a little tough to coordinate but it contributes so much to social competences.” (Mara, volunteer)

Despite the promotion and application of alternative practices which might diverge from conventions within modern industrialized society, it has to be acknowledged that Prinzessinnengarten itself is situated within this very context. As it is not operating in a realm detached from capitalism's influence, the organization also becomes subject to economic constraints, especially in its formal constitution as a non-profit company which creates a contradicting position within the economic system: On the one hand Prinzessinnengarten encourages community action, less or at least conscious consumption and sustainable lifestyles beyond modern consumerism. On the other hand it also has to generate incomes in order to pay incurred expenses such as the rent and loans for employees. As a consequence, offers and services of the garden as for example guided tours are being “capitalized” - people have to pay for it. Thus, the organization has to act entrepreneurial as well and develop products to attract people. This somewhat conflicting situation shows clearly that it is difficult to work beyond the capitalist system which embosses our society. In order to persist independently it is dependent on working within the system to some extent.

Another element that shapes the context of Prinzessinnengarten's everyday practices is the city's ownership of the area the garden is located at. Based on a temporary, potentially renewable, five-year contract the organization rents the area from the city of Berlin which therefore ensures its chance to sell the property to promising commercial investors and poses the potential threat of the garden's replacement. While this circumstance seems to present a serious constraint at first glance, it actually contributes to Prinzessinnengarten's constitutive features of practiced improvisation and its ability to adopt to its – in this case structural – environment.

But Prinzessinnengarten is not only the product of this contextuality. It also impacts its direct environment. Initially being intended to provide a place for the neighboring community of one of the formerly structurally poorest districts in Berlin to get together, learn from each other and in one way or the other nourish its people, Prinzessinnengarten has become an attraction for tourists⁷ and lunching business youngsters, hosting up to 70000 visitors a year. This popularity created its own dynamic indicated for example by an increasing amount of city guide articles about the garden – which are not actively agreed on by the Prinzessinnengarten itself, trying to maintain the garden as a place for the local community. This also reveals a conflict of interests: On the one hand this dynamic popularity helps to establish the organization as a valuable part of the district, increasing the chance of prolonging the renting contract. On the other hand, it indicates an alienation from the initial concept and idea of the project.

Another contradicting notion becomes evident when looking at Prinzessinnengarten's influence on its immediate surrounding. It not only contributes to the district's upgrading by providing leisure area and urban green space, but also increases the potential of gentrification in the neighborhood, noticeable through increasing prices on housing⁸. Taking into account the organization's efforts to promote urban grounds as common grounds, which should be accessible and available to a wide range of the urban

7 Not only numerous tourist guides publish entries about Prinzessinnengarten (e.g. Lonely Planet 2015, Tröger and Bussmann 2016, Eisenschmid and Buddeé 2016) but also the city of Berlin itself is promoting the garden as an attraction (Berlin Tourismus & Kongress GmbH 2016)

8 Whereas the renting price per m² in Kreuzberg averaged 7,08€ in 2009 (CBRE 2010:3), it increased 66,7% to 11,80€ in 2015 (CBRE 2016:6). In 2014 the area around Prinzenstraße even experienced the highest rent increase within Berlin with 36,3% compared to 2013 (CBRE 2015:49)

population, this development can be seen as a paradox result of Prinzessinnengarten's success and its popularity.

Connected to the effect of the garden's popularity is the potential instrumentalization by corporate firms, that try to make use of the garden's positive reputation as an innovative and sustainable venture. Prinzessinnengarten thus continuously has to assess incoming requests for collaborations whether they are marketing strategies or partnerships that actually contribute to the organization's objectives. This again confronts Prinzessinnengarten with its contradictory role as a non-profit company being responsible for its economic sustainability and its social and environmental mission at the same time.

Given the above outlined, the everyday culture of Prinzessinnengarten is characterized by self-initiative, direct responsibility and the experience of self-efficacy and support by the garden's community contributing to the members' sense of belonging. Recurring themes that are reproduced through everyday practices and processes entail aspects of cooperation, openness, participation, social as well as environmental diversity, the collective sharing and production of knowledge, improvisation and continuous learning processes especially on practical, applied levels. The practices of Prinzessinnengarten have to be contextualized within the system of modern industrialized society. As a non-profit organization promoting environmental objectives, the garden is confronted with conflicting positionings within the economic as well as social realm, leading to dynamics that bear the potential to both reproduce and counteract elements of rationalist hegemony.

7.3 The socio-ecological metabolisms of an urban garden

Apart from its everyday culture Prinzessinnengarten's interaction with its environment provides valuable insights that facilitate an understanding about its potential to contribute to a counter-hegemonic movement: From a Gramscian perspective engaging with one's environment through practical activity poses a crucial element within the process of attaining consciousness about lived-in relations and thus enables to challenge hegemonic worldviews. Acknowledging the importance of practical activity further highlights the social-ecological metabolisms of Prinzessinnengarten within the context

of urban Berlin as these activities are carried out on the basis of the resources constituting its environment: the city, the people and non-human nature.

To begin with, the city provides the garden with the empty space it occupies today and emerged from the dynamic process of urbanization. While a constant flow of material which produces leftovers and suggested waste contributes to the stock of material Prinzessinnengarten is working with, the typical demographics of the urban ensures a steady flow of people likely to find their way into Prinzessinnengarten. These people – be it occasional participants, interns, employees or volunteers - in turn contribute with their time, labor, ideas, their social communication, material or even seeds to the breeding ground of this urban garden. Finally, ecological processes such as composting, pollination through bees, insolation and rain form the basic material resources the garden thrives upon.

As a result, diverse activities and processes evolve within the context of Prinzessinnengarten. As a basis for public interaction and engagement the subject of gardening itself represents the fusion of social and non-human natural resources: Through their practical activity of sowing, maintaining planter beds and harvesting people cultivate and foster the biodiversity of the site, creating a space which attracts even more people and evolved into the place for diverse activities Prinzessinnengarten is today. The interaction of resources the city provides such as urban political debates and social resources shape the garden as a public active site for discussions where people with shared as well as oppositional opinions come together, exchange viewpoints, communicate about it beyond such events and occasionally return for other activities, contributing with their time as a resource Prinzessinnengarten thrives upon. Another example of these metabolic relations are the workshops taking place in and initiated by the garden: Here people come together, learn from each other, share ideas or re-use material discharged from urban material flows. They communicate about their experiences in their own social environments, encourage further people to participate or even come up with own projects and collaborations with other initiatives. In this way ideas, contacts, material and social resources expand beyond the geographical site of Prinzessinnengarten. Yet, these resources return to the garden in the form of seeds from

other countries that contribute to the site's biodiversity or expertise from collaborating partners that open up potentials for new projects.

This being said, Prinzessinnengarten's interaction with its environment is characterized through metabolic flows of people, material, and ideas that contribute to the organization's diversity on social as well as ecological levels. With this, the presented case reflects the process of urbanization in the sense of socio-ecological metabolisms: By perpetuating socio-ecological exchanges that are informed by social experiences and materially based on natural resources Prinzessinnengarten continuously contributes to the creation of urban natures (Swyngedouw 1999:445). As the practices constituting these metabolic relations involve the active engagement with the non-human nature as in cultivating plants, the social environment as in bringing people together, and the structural environment of the urban realm as in discussing urban politics and developing ideas of sustainable ways of living in the city, Prinzessinnengarten stands in constant exchange with its surroundings and experiences the co-constitutional character of these realms including itself. Even though visually it might appear as a green oasislike refuge from busy urban life, Prinzessinnengarten has to be understood as an inherent part of its urban environment (Classens 2015:231). Against this background the garden represents an intersection of the ecological, social and urban political realm introducing participatory practical activity as a means to connect these spheres and with this, constitutes an interactive space where hegemonic worldviews can be potentially challenged.

7.4 Challenging rationalist hegemony

The previous investigation has given an outline of Prinzessinnengarten's cultural practices and the processes which frame these. In order to draw conclusions about their actual potential to contribute to a counter-hegemonic movement that challenges the worldviews of scientific rationalism the inquiry now focuses on how these practices relate to the promoted principles of modern industrial culture.

As has been outlined in the beginning of this paper, the rationalist orientation of the hegemonic cultural model privileges control and efficiency (Plumwood 2002:23). In its characteristic notion of experimentation, improvisation and process-orientation

Prinzessinnengarten demonstrates how a thriving system can persist without clinging to principles of control and efficiency, but by acknowledging the creative potential of imperfection and mistakes, providing space for individual experiences and learning processes embedded in the actually lived-in environment. Such learning processes further entail the attainment of practical knowledge through the active engagement with respective issues of interest and the encouragement to take over responsibility. With this, Prinzessinnengarten promotes *experience-based knowledge* and practices of self-learning, acknowledging the value of situated, context-dependent expertise and therefore challenges hegemonic notions of objective knowledge as well as intellectual external supply. Here, the associated *direct responsibility* represents an additional aspect standing in opposition to elements of the rationalist cultural model. Entailing the *experience of self-efficacy*, the practice of self-initiatively taking over responsibility directly counteracts modern self-incapacitation.

With its guiding emphasis on participation, the observed gardening practices further motivate people's engagement on several levels and support the findings of previous research on the impact of community gardens (Poulsen et al 2014, Holland 2004). To begin with, members as well as occasional participants are given the possibility to engage with the social environment of the garden, which serves as a meeting place for people with both diverse and similar backgrounds. Furthermore, linked with Prinzessinnengarten's precarious renting situation, informative events discussing urban grounds as commons, raise awareness among the public and encourage city dwellers to engage with their urban environment. On an individual level, the garden's practice-oriented activities engender reflection-processes, wherein attained knowledge can be referred back to individual experiences and the material reality that shape this learning process. Facilitating such aspects of *social, environmental and emotional engagement*, Prinzessinnengarten thus challenges the promoted disengagement of rationalist cultural structures.

Apart from the site itself – the urban vegetable garden – a significant part of Prinzessinnengarten's educational offers entail gardening activities and the growing of vegetables and herbs in particular. On the one hand, these practices create direct links to the immediate ecological environment, as the tended plants react according to local

climatic conditions. Also addressing issues of food production by illuminating the efforts needed and local limitations – as not all vegetables we are used to purchase in the supermarket can be grown in our latitudes – gardening practices encourage the emergence of questions about food consumption and its relations within a greater global context, on the other hand. Hence, the engagement with such everyday subjects facilitates an awareness of humans' *embeddedness* in the ecological environment – an aspect that has yet been linked to gardening practices in previous research (Head and Muir 2006). As mentioned above, the garden also serves as a meeting place for people where social exchange and community support are common practices, enhancing the experience of social embeddedness. Therefore, Prinzessinnengarten bears the potential to dissolve rationalist culture's illusions of disembodiedness from both the ecological and social environment and counteracts sado-dispassionate practices by creating an awareness of humans' dependency on and responsibility for their non-human natural environment.

Given the organization's origin as an experimental project, initiated by lay-people and realized through the joint efforts of friends, volunteers and the neighboring community throughout its initiation phase, *collaboration* and *collective achievements* represent inherent principles shaping Prinzessinnengarten's everyday practices and the relation to external stakeholders. The act of sharing and supporting each other while working together and the reliance on social resources within the immediate as well as distant context of the organization's network thus create a *culture of cooperation*, that makes participants re-appreciate the benefits of a community and become conscious of others' needs, leaving no room for notions of competitiveness and non-cooperation that characterize the realm of rationalism.

Through this collaborative nature, emerges a variegated network of partner organizations from different spheres of society. Here the garden functions as an interface of education, social services, creatives, environmental institutions, the civil society, agriculture, science, experts and laypersons, which require continuous adjustment according to the respective context. Being confronted with these changing environments of action, Prinzessinnengarten follows the principles of adaption and improvisation, acknowledging the situatedness of experiences and knowledge and demonstrating the

effectivity of *context-dependent approaches* which stand in opposition to universality-claims of economic rationalism.

As has been shown, dynamics and practices inherent to the everyday culture of Prinzessinnengarten bear the potential to tackle characteristic elements of modern society's rationalist-orientated cultural model. While aspects such as the privilege of control and efficiency, competitiveness, non-cooperation and universalism are not directly counteracted but rather disabled and subsidized by alternative strategies within the organization's context, elements such as the hegemony of objective knowledge, intellectual external supply, sado-dispassionate practices, illusions of disembodiedness, disengagement and self-incapacitation experience more intense challenge. One reason for this difference in counteractive potential lies in the way these elements relate to the level of involvement: Whereas the former mainly relate to the internal working practices of the organization, the latter concern the garden's actual outreach and impact on the interacting people and the public.

7.5 Reproducing rationalist hegemony

Whereas the above outlined has indicated Prinzessinnengarten's potential to challenge principles of modern industrial culture, it has to be acknowledged that these practices cannot emancipate entirely from hegemonic structures that enclose them.

In order to maintain its financial independence, Prinzessinnengarten applies *entrepreneurial practices* which smoothly integrate in the economic system, This reflects the contradictory situation of initiatives promoting alternative practices within the hegemonic structures of industrialized society as yet been exemplified in previous research (McClintock 2014). As a company it has to follow market strategies such as generating revenue and ensuring its profitability to certain extents in order to cover ongoing costs. In this context, products that meet the market's needs, both in functionality and affordability, have to be developed efficiently. In addition, other offers such as educational projects at schools and guided tours are commercialized.

However, it has to be acknowledged that playing this economic game takes place against the background of social reasoning. As the formal constitution of a non-profit company

implies, surplus revenue is reinvested educational projects of Prinzessinnengarten. With this, the money from those who have a budget for the organization's services is used to realize other participatory offers free of charge.

Despite the – in terms of social responsibility and the promotion of sustainability issues – plausible establishment of a non-profit company, this form of organization does go in line with neoliberalism's "*governance-beyond-the-state*" (Swyngedouw 2005:1992): With Prinzessinnengarten having become a real show piece of a state-independent and successful venture, the neoliberal argument is supported, that market mechanism do benefit developments in the social sphere, so that state initiatives do not necessarily have to contribute. Just as Rosol (2012) reveals in her research on volunteer based urban gardening practices, responsibilities for creating participatory educational spaces are delegated to civil society actors, concealing the state's actual responsibility to foster the social sphere.

As mentioned earlier, Prinzessinnengarten further involuntarily contributes to *gentrification* processes in its environment. Especially against the background of a trending city like Berlin where housing prices are increasing anyway, this poses an additional stressor. By upgrading the neighborhood, the garden therefore facilitates the profit oriented free housing market as properties in its immediate environment become attractive objects for privatization and are likely to be put for high-priced sales. Eventually leading to the displacement of the lower-income population, this reflects a local prosecution of globally produced injustices within the neoliberal realm (Smith 2002).

Prinzessinnengarten would not contribute to such gentrification if it was not as famous. This popularity entails further effects that have to be observed cautiously in relation to hegemonic structures of modern industrialized society. As has been outlined in the presentation of the garden's everyday culture, the organization's growing popularity attracts commercial ventures seeking collaboration with such innovative and sustainable projects in order to green their own reputation. It has been pointed out that Prinzessinnengarten does consciously evaluate these incoming requests against the background of its guiding principles. Still, the potential threat of being utilized for

commercial means and thereby involuntarily contributing to market processes remains, as a recent example illustrates. In November 2015 a large-scale advertisement was installed at a fire wall – formally not belonging to the rented area – looming above the garden. It showed a forest scene and the promoted product in the center, seemingly ascending from the garden's leaf canopy and clearly using the imagery of Prinzessinnengarten for own commercial purposes. Even though the organization explicitly articulated its disagreement, the installation remained until early spring 2016, making use of the the garden's environment with all its entailed meaning.



Figure 9. Advertisement looming above Prinzessinnengarten (Cromatics 2016)

Given the stated, Prinzessinnengarten not only bears the potential to challenge principles of modern industrial culture but also reproduces them. Here aspects of reinforced neoliberal market-logic, including entrepreneurialism, gentrification and governance-beyond-the-state, come to the fore.

7.6 Discussion

The above outlined has illustrated the potentials of Prinzessinnengarten's practices for challenging and reproducing rationalist hegemony. What remains, is to address the

overall purpose of this study, which is to find out to what extent the observed gardening practices contribute to a counter-hegemonic movement that challenges the worldviews of scientific rationalism and the promoted principles of modern industrial culture. In order to do so, I now return to Gramsci's philosophy of praxis and its implications within the context of modern rationalist hegemony.

A Gramscian philosophy of praxis in late capitalist 21st century has to tackle a thickly woven system of social structures, beliefs and attitudes which shape and justify actions that, against the background of globalization, have far reaching and often unintelligible effects. Within the context of modern industrialized society, hegemony becomes apparent in the form of a rationalist cultural model based on the domination of absolute rationality, also referred to as rationalism (Plumwood 2002:9). It has been outlined how the system of privileged and highly elaborated expert knowledge is able to produce consent - even among those who benefit the least from the propagated structures - resulting in self-incapacitation and intellectual external supply. In Gramscian terms, expert knowledge results from the work of traditional intellectuals' reasoning, according to established, taken for granted structures of knowledge production, that privilege objective knowledge over any alternative way of making sense of the world. Therefore, the engagement of organic intellectuals, who challenge the claim of pure objectivity, poses a crucial intervention against hegemonic rationalist practices.

In this context, the investigated case of Prinzessinnengarten can be regarded as a breeding ground for such organic scholarship by facilitating the production of knowledge that is based on material reality, practical activity and experiences, in other words: embedded knowledge which involves engaged knowers and takes into account the multifaceted complexity of its particular material environment. Especially the aspect of practical activity represents a crucial moment when aiming to tackle individuals' symptomatic illusion of disembodiedness from social and natural environments: By actively engaging with their environments, people attain awareness of their embedment in social relations and the necessity to cooperate and interact with others. Beyond this, Prinzessinnengarten's practices demonstrate the creative and transforming potential of practical activity and their impact on the lived-in reality - be it through fostering chard

plants or contributing with own ideas and manual labor to the construction of up-cycled furniture which can later be set up in an offshoot garden at a refugee home.

In its collaborative and community focused nature Prinzessinnengarten's practices further manage to motivate people's engagement on social, environmental as well as emotional levels, challenging rationalist notions of disembodiedness as well as promoted practices of disengagement. With a direct reference to non-human nature through the practice of cultivating food - an essential basis of human existence - the garden sensitizes for humans' dependency on and responsibility for the ecological environment, emphasizing the inseparability of non-human nature and human action consolidating culture.

Focusing on public participation, the practices which constitute Prinzessinnengarten's everyday culture are not kept isolated but are transmitted beyond the shrubs that physically separate the site from its busy urban environment. It stands in obvious contrast to the "petit-bourgeois conservatism and escapism from modern (urban) life and political engagement" (Follmann and Viehoff 2015:1153) of its forebears, the allotment gardens: As a meeting place for a diverse set of people, Prinzessinnengarten facilitates social exchange and the encounter of new perspectives, sensitizing for different context-dependent realities and ways of making sense of the world. This social interaction further plays a key role, since the experiences consolidating cultural practices are primarily produced in social life (Jenks 1993:48) and through social interaction these practices can be collectively experienced.

Returning to the crucial aspect of practical activity, which is inherent to Prinzessinnengarten's everyday culture, the experience of self-efficacy and direct responsibility in the context of collective achievement has to be emphasized. Here it presents the enabling experience of being able to make a change through practically engaging with social and ecological environments, while reproducing and consolidating shared principles and values of the framing context.

Eventually, by resorting to and combining diverse resources its ecological, social and structural environments offer and using these to create opportunities for collective

participation (e.g. community gardening, educational workshops etc.) Prinzessinnengarten refers to culture not only with the notion of cultivating non-human nature (gardening) but also contributes to the cultivation - in the sense of fostering - of social life (Williams 1983:87).

Apart from facilitating cultural processes, Prinzessinnengarten's practices reflect the very processes of urbanization. It has been shown that its characteristic metabolic relations not only expand beyond the site itself but surpass the borders of the city as well: Socio-ecological exchanges such as sharing knowledge and seeds are not limited to the geographic space of urban Berlin. This reflects the need to explicitly consider non-urban factors and places when investigating processes of urbanization just as Angelo and Wachsmuth (2014) bring fore in their critique of contemporary urban political ecology's methodological cityism⁹

Returning to the philosophy of praxis and its revolutionist background, Prinzessinnengarten's subversive potential can be described as rather marginal. On the one hand, the garden's direct impact in terms of creating and consolidating values is limited – however not less significant - to the local scale of its environment. On the other hand, the organization can be regarded as subsumed by the system it is situated in, being illustrated by its conflicting positioning within the economic realm. However, Prinzessinnengarten manages to exemplify how to integrate subjectives of sustainability into this system and authentically make such project work under the prevailing conditions. In this context, the garden does not present the promoted practices as a necessity but rather provides possibilities for engagement which still require people's self-initiative.

Thus, Prinzessinnengarten functions as a germ cell where alternative practices can be experimented with and where people make experiences which are carried beyond the garden into individual networks to be communicated. Such experiences entail among others self-efficacy, participation, collaboration, improvisation and direct responsibility, highlighting Prinzessinnengarten as a site for education and learning. Here practical

⁹ Methodological cityism refers to the limitation to the city as an exclusive analytic unit for studying processes of urbanization which are not necessarily limited to the city as a site but expand and effect units beyond the urban realm (Angelo and Wachsmuth 2014:24)

activity facilitates the attainment of awareness for sustainability subjectives by encouraging the emerge of questions and learning about alternatives through the interaction with the environment and represents a crucial aspect within cultural processes. Referring to Gramsci's philosophy of praxis it can be said, that Prinzessinnengarten will not initiate revolutionary changes of the prevailing conditions in the present days. However, given the nature of hegemony, which is in fact based on cultural practices, the garden does bear potentials to contribute to the emerge of gradual cultural transitions on a local scale.

This being said, I want to raise some points regarding the aspects of human/nature dualism and scale. To begin with, relations to nature have been addressed throughout this paper: Elaborations on the ecological crisis' cultural origin have highlighted the cultivation of a dominant human/nature dualism inherent to hegemonic narratives of rationalism, the scrutiny of the concept of culture illustrated how cultural practices take place against the background of continuous reciprocity with the natural environment, within the philosophy of praxis it was emphasized that consciousness about humans' relation to the environment is attained through interactions with nature and the urban political ecology perspective gave insights into the production of urban natures. As repeatedly as these aspects have been raised, they have been marginalized in the analysis of gardening practices in the sense that it has not been explicitly illustrated how notions of human/nature dualism are challenged. However, it has to be pointed out that the engagement with the non-human natural sphere does present an evident subjective within the observed practices and has been mentioned to a certain extent in relation to urban gardening's food production. On a critical note, it can be argued that this facilitates an instrumental perception of nature as a mere provider for humans' nutrition. Additionally, the point can be raised that the engagement with nature in its form of crop plants is an instrumentalized practice in itself, employed as a means to bring people together in urban gardens without necessarily altering participants' consciousness of themselves being nature and therefore dissolving dualistic notions. The question to what extent urban gardening practices do facilitate these human-nature relations and potentials for an actual dissolution of human/nature dualisms would thus be subject to further research inquiry.

In a note on scale, the contextuality of the observed urban garden practices has to be emphasized, as they mainly impact their environment on a local level. It is imaginable that these practices can have influences on a broader scale facilitated by multiplicative effects of awareness raising potentials in regards to consumption. In this example an increased awareness could lead to a transformation of consumption patterns which eventually might have a local impact elsewhere. As this is mere speculation and lacks empirical proof, such aspects could be subject for further research. Acknowledging the complexity of globalization processes that are connected to transnational agreements on political levels, efforts to counteract global injustices and to change systems enhancing these, have to be taken on a greater scale. In this respect, urban gardening can facilitate the creation of awareness, introduce discourses to the public and encourage people to engage with discussed issues but the effectiveness of such offers eventually depends on people self-responsibly following-up on these initiatives.

8. Conclusion

The beginning of this paper has been marked by introducing a perspective that understands the contemporary ecological crisis as the crisis of rationalist culture; a culture that is characterized by the notion of scientific rationalism and perpetuated by principles of control and efficiency, the hegemony of objective knowledge, sado-dispassionate practices, illusions of humans' ecological disembeddedness, disengagement, an enhanced market-logic, self-incapacitation, intellectual external supply, competitiveness, non-cooperation and universalism. It was further argued that to resolve this crisis a change of this cultural model is required.

Looking into the concept of culture as a whole way of life we have learned that what constitutes culture are sets of belief, values and signifying practices that are shared, learned and transmitted throughout society and produced in social life and people's everyday experiences. Accordingly, cultural transmissions take place along processes of successive reconstruction of meaning contexts and their consolidating principles. In the context of the argued crisis of the culture of reason this would be the scientific rationalism and it's respective principles.

Framing this rationalist cultural model as the hegemonic worldview of modern industrialized society one possible way for a change emerges from Gramsci's philosophy of praxis: Here hegemonic worldviews are challenged by actively engaging with the lived-in environment through practical activity and establishing alternative norms and values.

Against this background I have drawn on my practical experiences made at the urban community garden Prinzessinnengarten and have argued that these elements of a philosophy of praxis can be provided within the context of the observed urban gardening practices. Guided by the aim to find out to what extent these practices contribute to a counter-hegemonic movement that challenges the worldviews of scientific rationalism and the promoted principles of modern industrial culture I have investigated four research questions.

Regarding the first question (What characterizes the everyday culture of the observed urban garden?) it has been shown that characteristic elements include the experience of self-efficacy, direct responsibility, community support, cooperation, openness, participation, social and ecological diversity, embedded knowledge, improvisation and practical learning processes framed by contradictory relations with the economic system of modern industrialized society.

The investigation of the second research question (What characterizes the observed urban garden's engagement with its environment?) results in the finding that Prinzessinnengarten sustains metabolic flows nurtured by its social, ecological and structural environment. With this, the garden can be regarded as an illustration of the co-constitutional relations of non-human nature and society, reflecting processes of urbanization itself.

The results of the third research question (Which principles of modern industrial culture do the observed gardening practices challenge?) have shown that a significant part of the identified principles of modern industrial culture are being addressed by the practices of Prinzessinnengarten. Here especially the aspects of intellectual external supply, the hegemony of objective knowledge, sado-dispassionate practices, illusions of

disembeddedness and self-incapacitation are directly challenged while privileges of control and efficiency, competitiveness, non-cooperation and universalism are subsidized by alternative strategies within the organization's working context.

Regarding the fourth question (Which principles of modern industrial culture do the observed gardening practices reproduce?) the hegemonic structures of economic rationalism enclosing Prinzessinnengarten's practices have to be acknowledged. Against this background the organization tends to reproduce neoliberal market-logic such as entrepreneurialism, gentrification and governance-beyond-the-state.

Drawing on the above outlined findings it can be said that Prinzessinnengarten's practices contribute to a counter-hegemonic movement that challenges the worldviews of scientific rationalism to the extent that they counteract particular principles of modern industrial culture and demonstrate possibilities of alternative ways of making sense of the world and one's surrounding environments. Considering that the ecological crisis is one of rationalist culture and can only be overcome in cultural terms, the presented case exemplifies the potential of practical activity and environmentally embedded experiences to tackle this crisis of reason by addressing these very cultural aspects. Even though Prinzessinnengarten will probably not initiate the revolution of modern culture it enables the emerge of gradual changes in its local environment and importantly keeps up the hope that alternatives are practicable.

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Appendix

Interview guideline

- Reasons and motivation for the individual involvement in the garden
 - “How did you get involved in Prinzessinnengarten?”
 - “What do you consider special about Prinzessinnengarten?”
- Prinzessinnengarten's influence on the individual
 - “What have you learned through/during your involvement in the garden?”
 - “To what extent did your involvement in the garden changed your life or perspectives on particular issues?”
- Urban gardening
 - “What does urban gardening mean to you?”
 - “What are the most special aspects about urban gardening for you?”
- Sustainability
 - “What does sustainability mean to you?”
 - “How can such sustainability be realized?”
 - “What is your personal ideal conception of a sustainable society?”
- Prinzessinnengarten and sustainability
 - “To what extent does Prinzessinnengarten relate to sustainability?”