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## How to think about a place not yet

Studies of affordance and site-based methods for the exploration of design professionals' expectations in urban development processes

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for the exploration of design professionals' expectations  
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**LUND**  
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DOCTORAL DISSERTATION

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*For Elena and Sasha*



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# Introduction

## How to think about a place not yet

The consequence of being exposed to several and accumulated possibilities in a design situation inevitably entails the possibility of conflict – there is seldom one sole imaginable course of action given by any complex situation, and from the perspective of a *design professional*, such as an architect or planner, a given situation may instantly seem to progress in various directions. This thesis explores affordance-based methods for the investigation of design professionals’ expectations in relation to architecture, planning and design of urban landscapes. This is done through on-site investigations into various actors’ responses to the ubiquitous offers of the environment. By looking at what a given spatial situation *affords* and how it *affects* us, this thesis aims to trace how subjective and intuitive responses accompany design professionals confronted with a design problem. In order to give a view of the complexity of “looking into the future”, where immediate impressions, as well as historical backgrounds, influence what the professional eye takes into account and imagines, I have done a case study of the initial steps of a large-scale urban expansion. To enable a critical position towards influential habits in professional practice and in design education, I have also conducted additional studies of design decisions in educational situations, as well as given an account of the publicly mediated background given as influencing the case studied here. As it happens, this work contains examples from education where designers *in spe* take on the problem of the kinds of potential an environment may provide, while in the theoretical sections and in the on-site investigations, architects and urban planners are the most represented professional categories. These categories have a common “task”: namely to make formational suggestions to existing realities or objects. Therefore, when treating this collective of professionals in this thesis; i.e. individuals with a designerly profession or an “altering-the-environment-profession” who are presented with a “not-yet” situation or environment, this work uses the category *design professional*. In this thesis, this group of design professionals also includes project leaders without formal, design-oriented training who are engaged in the formation of a future site. Project leaders are here seen as creators and facilitators, who, as other more design-oriented professionals, “make things happen”. These professionals can be regarded as

“parts of the same activity: planning for a future for society through the design of physical form” (Westin 2010:311)<sup>1</sup>. In some passages, I have considered it sufficient to mention the professional’s specific occupation, and referred to either designers, architects or planners.

Expectations tied to futures are considered as actors-in-themselves in this work, in the sense that they are decisive for the process of designing a new urban area. The main case of this thesis is the expansion of Lund NE/Brunnshög<sup>2</sup> in Lund, Sweden, and this case shows such “discursive actors” appearing in visualisations, talks, promotional films and planning documents with the primary task to render futures; however, as such they can also be seen as confining the possibilities within large-scale expansion. The case of Lund NE/Brunnshög has been used to exemplify the ways in which design professionals are influenced by political and economic expectations, which are here ultimately connected to scientific progress and economic growth, but to some extent also steered by the local opportunity to construct a whole new part of the city. Lund NE/Brunnshög is thus strongly influenced by local, regional and global visions of urban and scientific futures, and this provides an opportunity to explore how underlying ideas for the vision of the expansion emerge, and how the design professionals involved assimilate these ideas. In this work, methods for the investigation of this influenced designerly view are suggested, and concepts are proposed to capture a more nuanced picture of what a design situation offers to the design professional whose task is to change the situation itself. In addition to contributing to design-oriented affordance theory, this work also aims at supporting design professionals’ own conception of what they attend to, what they can be critical of, and what predisposes them in their work.

<sup>1</sup> My definition is thus as broad as a conventional category of *Design Professionals*: “[a] term used generally to refer to architects; civil, structural, mechanical, electrical, plumbing, and heating, ventilating, and air conditioning engineers; interior designers; landscape architects; and others whose services have [e]ither traditionally been considered ‘professional’ activities, require licensing or registration by the state, or otherwise require the knowledge and application of design principles appropriate to the problem at hand.” (University of Colorado 1997).

<sup>2</sup> Lund NE/Brunnshög is an agrarian area that is subjected to an exploitation containing two large-scale physical science laboratories (MAX IV and ESS) and a new part of the city, including a science village, which connects these facilities to the centre of Lund. The construction phase started in 2010 with an estimated completion of the main parts in 2025.

Another important trail in this work is tied to design education. I became interested in how design ideas appear in design education, and also how education is influenced by expectations of practice, as a way to critically investigate possible structural sources of uncritical, or laissez-faire attitudes within professional practice, and how they appear as de-problematisation and black-boxing of creativity in design, or in formalistic perspectives reluctant to adopt new theories. Architecture education resonates within architectural practice - “[t]hat is where architects are socialised into the profession [...] and they acquire attitudes, work-habits and values that will stay with them for life” (Banham 1996:295). The question *What does an architect do?* is closely related to *How does one become an architect?* The socialization and acculturation that take place at architecture and design schools form the becoming design professional’s relationship to architecture and design. It therefore seems relevant to investigate both practitioners’ design attitudes as well as design ideas as they appear in education, in order to be able to formulate methods for critical analyses of design professional’s attitudes. Accordingly, throughout this work I have used examples from teaching within architecture and design education to illustrate problems.

When exploring design options in an urban development process, the design professional must not only imagine future actors and physical structures, but must also problematise the working process. This is often emphasised in design education in order to achieve a more transparent and communicative design process. The clarity of an open work process can also be a democratic demand in e.g. municipal planning processes. It is also important that the design professional master tools and methods for a problematisation of the design path and design solution itself. In order to analyse the work and work process itself and what assumptions might latently forecast the design result, the design professional should be able to distinguish the implications of a certain design, on a range of scales.



## Aim and research questions

In this thesis, I aim to bring some of the less obvious and less visible, yet still decisive, actors to the fore: educational norms, design professionals' expectations, and biographical experience. In other words, I wish to investigate the concerns, mechanisms and attitudes within design processes that are not always visible parts of the urban design process. Here, "design" refers to the type of decisions made above all within the disciplines of the architect and the urban planner. Affordance theory and methods of intervention are principally used in this work with the aim to problematise design. Thus, even if my discussion of limitations and inconsistencies in affordance theorization should have some general bearing, the theoretical concepts made in this thesis are subordinate to the primary goal of exploring the path of designing a future. This research has thus intervened directly in design processes at different levels, within education and within an actual urban development. The principal aim of my development of affordance-related concepts is to provide ways of scrutinising and problematising a design process and motivate how design can deliberately incorporate aspirations of equality and justice through new types of methods of unsettling expectations. The work aims to investigate how design professionals are influenced by expectations (of change) and by professionals' inherent expectations, which to a varying degree coincide with personal anticipations. Thus, my aim is to problematize and shed light on professional design processes by investigating how design professionals delimit what kind of information, feelings, matter and history to take into account in design processes, and how such decisions may lean on the characteristics of a present situation. I also aim to contribute with concepts and methods that can serve design professionals in this undertaking and to enable a theoretical and methodological discussion about how to intervene in complex (urban) design processes before anything is actually constructed. I have for this purpose worked with four main questions:

1. In what way are design professionals predisposed by expectations of change and by professional expectations in their design work?

2. How can design professionals (as having a design role in a project) access and become more critically aware of the factors on which their expectations are dependent?
3. What critical concepts can be formulated that serve the epistemological as well as the practical domain of designerly action?
4. How can the notion of affordance be discussed in terms of how it corresponds not only to action possibilities, but also to alteration possibilities?

## Theory and method

### The design professional's ideals

A basic assumption in this work is that design professionals' ideals and social framework are already established within design education (Banham 1996; Dutton 1987; Till 2009; Webster 2005, 2006, 2008, Westin 2010), and that this is reflected in the aspects of design processes in which spatial expectations are brought to the fore by design professionals. This thesis is positioned within a field that targets and discusses the design professional's ideals and assumptions. The work of the architecture theoreticians Jeremy Till and Helena Webster outlines how mechanisms of acculturation occur at different stages of a design professional's career. Till points to architects' expectations of their own work, as well as their sense of autonomy regarding a professional role. Webster has been significant for my work for her critique of design education, its culture and principles in general, and specifically for her assessment of the learning theories of the urban planner Donald Schön; Webster thoroughly dismantles Schön's version of a studio-based design education. Unawareness about the self and role modelling have been stated as important for the thinking of architects:

Other people, circumstances, and events intervene to upset the architect's best-laid plans. These forces are, to a greater or lesser extent, beyond the direct control of the architect. Architecture is thus shaped more by external

conditions than by the internal processes of the architect. Architecture is defined by its very contingency, by its very uncertainty in the face of these outside forces. (Till 2009:1)

In the education of the architect, the superego is formed through a constant exposure to role models, in particular, modernistic architects.<sup>3</sup> (Westin 2010:313)

In the book *Architecture Depends*, Jeremy Till aims to bridge “[t]he gap between what architecture —as practice, profession, and object — actually is (in all its dependency and contingency) and what architects want it to be (in all its false perfection)” (Till 2009:2). In Till’s elaboration on architecture’s dependence on an “outside world”, he departs from architecture education and argues that architects believe themselves to be independent from outside circumstances when in fact their work in the design process relies entirely on outside conditions (Till 2009).

Architecture is dependent on others at every stage of its journey from initial sketch to inhabitation. One might think that an architectural sketch has a certain innocence, but even these early marks are conditioned by previous experience and present expectations. (Till 2009:45f)

Till pinpoints two central assumptions in this work; first: expectations steer design, and second: design professionals sometimes believe themselves to be autonomous agents when in fact they are often profoundly predisposed by their own professional culture, as well as by external circumstances. The first assumption is what I wanted to investigate in this project, and the second is what made me want to investigate it in the first place.

As the design professional often brings professionally assimilated expectations into a design situation, this thesis attempts to discuss various modes of affordance where the direct action in the environment is taken into consideration together with the design professional’s focus on changing the environment. In this thesis, I have treated affordance at a “practice level” (Vyas, Chisalita & van der Veer 2006); i.e. I have concentrated more on action potential (as design or alteration within a process)

<sup>3</sup> All translations are the author’s own, except where otherwise noted.

than on the interpretation of a result (ibid.). I begin the discussion of affordance or environmental action potential by addressing the theory of the perceptual psychologist James J. Gibson (1977, 1986). This discussion continues in relation to his successors Donald A. Norman (1998, 1999) and H. Rex Hartson (2003) from the design and HCI-community,<sup>4</sup> while the corporeal movement possibilities in actual (architectural) space are initially discussed in relation to the fire safety engineer Daniel Nilsson's (2009) analysis of escape routes. Norman, Hartson and Nilsson all have a usability-oriented attitude in relation to affordance; i.e. they formulate rationalist expectations on the action potential given in specific circumstances, but at the same time end up in situationally dependent concepts of affordance. This, together with the social anthropologist Tim Ingold's (2000, 2011) discussion on the human capacity to see alternative worlds, and the ethologist Jakob von Uexküll's (1992 [1934]) relational view on the understanding of offers, results in a relational view on affordance in this study that partially, but firmly, deviates from Gibson's original. The design theoretician William W. Gaver (1991) reinforces my emphasis on the relational and the iterative action possibilities through his concept of nested affordance, which emphasises the consecutive features of actions; i.e. that one action opens up for the next.

In this thesis, affordance theory is to some extent merged with a post-human branch of affect theory that emphasises the agency of virtually all *stuff* in an environment. (Bennett 2010). These elaborations on affordance theory form the basis for how I develop interventions as a method for investigating a case of large-scale urban development. Since my focus is mainly on the experiential and perceptual features of designerly approaches to planning and architecture, I have only to a very limited extent addressed the field of contemporary planning theory that takes the social effects of exploitation and building as a primary interest, or the communicative urge to reach those affected by planning (Healey 1993). Nor do I explicitly and critically discuss the organisational aspects of governance in this work (Hillier 2007). Nevertheless, in practice, my interventions have been developed "in interaction with local contingencies and external forces, in order to address the agendas of those with the

<sup>4</sup> HCI; Human Computer Interaction.

power to shape the design” (Healey 1997:243). As a consequence of my investigations being focused on the design professional, some individuals and professionals who are otherwise not heard in the planning process are given a voice. The aim with this work – to contribute critically to design-related disciplines’ awareness of the impact of the professional role – has further implications as regards the planning practice: to make design professionals more critically aware of their role and impact. This means also that an ultimate goal – in line with much planning theory – is to pave the way for a more nuanced, transparent, and democratic planning practice that inhabits and acknowledges worlds of “dynamic contingencies in perpetual flux” (Hillier 2007:1). By studying locational, planning and discursive circumstances with the overarching aim to acquire a more diversified picture of what informs the design professional’s work process, my main intention is, without denying design professionals’ competence, to challenge certain prevailing assumptions about design professionals’ autonomy and rationality, and thus contribute to the discourses of research intervention, planning and education. Through these studies, I also hope to contribute to affordance theory, by discussing a diversification of an affordance concept towards a model that is less usability and utility-oriented, but with a more transparent and critical openness, while still being profession-oriented with a critical and open-ended potential. An overall aim could be stated as making an attempt to formulate a type of investigation that includes theoretical as well as methodological extensions to existing “making” disciplines, one that could be labelled *unsettling expectations*.

## Human-environment interaction

The *affordances* of the environment are suited to the particular acting space of an individual and communicate the possibilities and capacities for an individual to act (Gibson 1986:127) and by extension, in this work, the notion of affordance is also used to distinguish options for design. In order to create concepts that can operate in theoretical problematisation, as well as in an actual design process, I have used *affordance* as a starting point in this work. While making use of Gibson’s original *Theory of Affordances* (1977, 1986), a theory based on an ecological perception

of the environment,<sup>5</sup> this theory has also had to take a net of expectations as well as immediate and personal experiences into consideration in this work. Gaver (1991) has contributed with the concept of *nested affordances*; i.e. how space can hold a group of affordances that are revealed to a user step-by-step. Von Uexküll (1992 [1934]) has been used in this work, together with Ingold, to broaden the discussion about how we, in terms of our bodily and imaginative capacity, are co-creators of the world we inhabit. In addition to this, the political scientist Jane Bennett's work (2010) has helped develop the concept of affordance to also account for matter's agency towards matter. This indicates that matter (in its broadest sense, sometimes in assemblages such as power blackouts or initiatives from the OECD) forms relations and has an impact on the course of events as much as human action.

For the sake of being able to epistemologically broaden, and conceptually define an affordance concept, affect theory has been used to account for emerging offers that cannot be solely explained by the properties of the environment. A delimitation of the concept is introduced when acknowledging that affordance only exists when somebody, or something, perceives it; that affordances are relational. The concept is on the other hand broadened by recognising that emotions and feelings are steering which offers to take into consideration. Affect supplements affordance theory in order to account for how offers that cannot be solely explained by the properties of the environment appear. Affect also gives new dimensions to the affordance concept when acknowledging the biographical and professional anticipations of change, incorporating not only personal but also anticipated future affordances on the behalf of others in terms of taking on a design task. Through these moves, the

<sup>5</sup> Gibson coined the term ecological psychology, which is connected to an ecological approach to perception. This approach is located between biological functions and culture: "[a]ffordances are percepts rather than concepts. In perceiving a cup *as a cup*, as opposed to sensing merely colors and shapes, we *perceive* its graspability, its liftability, its ability to convey drinkable liquids from point to point, and so forth. Thus it is not just the case that affordances are perceived but that they are always the core content of what is perceived." (Burke 2004:54, original emphasis). The architecture theoretician Andrej Radman points to the mistake of researching the perception of *objects* rather than perception of environments, and the construction of those environments; "[o]nly recently have biologists considered the effect of the 'niche construction' on the inheritance system whereby an organism does not passively submit to the pressures of a pre-existing environment, but actively constructs its niche" (Radman 2012:8).

adapted affordance concept is moving away from Gibson's original, more biologically oriented concept, which includes immediate experiences but does not explicitly address anticipated events.

## **Arguments for investigating design processes**

Identification of action or alteration potential is partly learned – for instance through design education – and partly a general human capacity. Although in identifying possibilities for change we are most often respectful towards other humans' work, and seem to be reluctant to interfere with, or ignore, investments that have already been made in space, such as buildings or infrastructure. A typical designerly attitude is perhaps most commonly seen in an ambition to create consensus, improve an overall situation or the aspiration for things to be better (than they are). Both the trained and the general capacity of identifying potential for change have consequences, as well as the ability to influence design professionals when engaging in urban development processes. This influence may impede a more reflective view on design potential. In order to stay representative toward clients and to society in general, design professionals could benefit from adopting a critical and transparent approach to their own design, and to formulated visions of urban design. This can be done in several ways; attempts to incorporate a more diverse account of a situation are for instance made through participatory planning initiatives by solitary actors, architecture firms, or municipalities. Other strategies of democratising the planning process are regulated by City Planning Offices in terms of consultation procedures (Boverket 2014c)<sup>6</sup>. The architect and artist Apolonija Šušteršič works with participatory projects that take direct spatial action – both within the city and within art institutions. She aims to perform a critical analysis of urban development in order to develop “methods from the context and the situation as a reaction to the process [that are] non-prescriptive, improvised, and reactive.” (Šušteršič 2013:2). Her work is an example of how small-scale participatory initiatives may incorporate more and more governmental practice and lead to change in successive phases.

<sup>6</sup> In Sweden, this process is statutory through the law Plan- och bygglag (2010:900) 5 kap 11-12, 39 §§.

The architecture and urban planning practice might use new methods that critically challenge its design processes, and answer to the expectations of transparency and legibility of a contemporary democratic society. Although participatory initiatives are taken and diversity is in this sense being taken into consideration, and inclusive ambitions are present in the planning, an either pre-determined or consensual aim generally prevails as part of an overall strategy to get things built. In order to challenge the perfect mirage lurking around the corner, promising a stable future reality, design professionals *themselves* could – stated bluntly here as an initial assumption – engage more in critical practices. In times when formulated visions for urban development often seem to repeat a similar, stereotypical array of assertions for a consensual future space, an evaluation of mechanisms and constituents of the underlying ideas and visions is urgent. If “the ultimate purpose of critical urban theory: implementing the demand for a right to the city” (Marcuse 2012:24) is to be taken seriously, action needs to be taken that includes a contemporary state of affairs and scrutinises the outcome of design in urban development and community-building by performing political and societal analyses through critical urban theory. This work attempts to address planning critically, however not so much as an analysis of societal conditions and consequences, but rather by engaging directly with habits and attention in design work, especially in the early stages, with the intention to engage directly with a design process – as a reflection of ongoing design work introduced in the early stages of urban development. This attempt is pursued through the introduction of several new methods.

### **New type of methods of unsettling expectations**

As a way to contrast the predominant global or regional scale of reasoning, I have worked on the site in a more intimate scale, closer to the individual decisions made, in order to investigate how the physical environment, supplemented with formulated visions and generated expectations, shapes the understanding and experience of a place and its imaginable alternative states. The interventions on site have served as a method of investigation, performed through the use of questionnaires, sound experiments and readings that reflect the visions in the prevailing plans. Plan-



ning production is, apart from written text, usually highly dependent on visual imaginings. In this thesis, I present an alternative medium for evaluating a physical situation, through sound-based interventions that shift the focus from visual to audio-based impressions of possible futures to come, and in this sense direct an experience and perception of a place towards what is instantly experienced, rather than planned.

How can concepts be created that question and assess what influences a design professional, and that interrogate the design professional's expectations of their professional role and design process? I have aimed to achieve this through the use of affordance theory, and investigate at certain points of a design process what an environment offers, or affords us. The role of theory in my methodological investigations is often straightforward in the sense that I have introduced the affordance concept in investigations and teaching in a fairly "raw" manner, starting from Gibson's original text (1977). The process in the empirical studies has been to perform investigations in a direct and pragmatic manner – often through subjectively experiencing phenomena, locations or paths in order to perceive what is offered or afforded. By interrogating the findings – and deducing whether they are primarily professionally, corporeally or biographically linked, it is possible to get a clearer picture of what the design professional can bring into a situation. The performed investigations, through teaching, drives, interventions and excursions show that "we are" both our professions, bodies, biographical histories, experiences and expectations, as well as our fantasies when we try to apprehend or alter a place.

I have found collaboration with design professionals and involvement in education to be fruitful when investigating creative processes. In this work, a tool for investigating environments through artistic methods has been developed through the use of intervention performed on the site at Lund NE/Brunnshög. By this, knowledge about what informs design work is gained, especially about an expectational cluster in the form of plans for urban development, regional expectations for economic growth, and global research investment initiatives. In addition to this, a critical investigation through an extended theoretical examination of the notion of affordance, in order to access a silent design process in design education and ultimately in professional design work such as urban develop-

ment processes, is elaborated. In my work, this is done with the aim of problematising creative processes within design, but also to point to the need to discuss the issue of what it means “to see an action possibility” in a more general theoretical discourse on affordance.

The majority of the empirical material used in this work for the development of intervention methods and theoretical concepts was harvested through the interventions performed at the Wennergren Farm at Lund NE/Brunnshög on the north-eastern periphery of Lund, Sweden. A module of an existing art project, *Audible Dwelling* by the artist group *Learning Site*, was used for these investigations and was placed at Lund NE/Brunnshög for the period 26 April through 30 June in 2013. During this time, design professionals active in the area and others engaged in the planning of the area, together with design professionals with no connection to the area and some laymen were invited to take part in interventions on the site. A total amount of thirty-four participants filled out the questionnaires during May and June of 2013. Most visitors came in groups of three or four, although a larger gathering with participants from the Brunnshög Project Office gathered a group of ten. An *Excursion to the Fictive and Factual Landscape of a Future Science Village in Lund*, departing from the Architecture School in Lund on the 4<sup>th</sup> of May, 2013 brought a bus with sixteen participants: architecture researchers and doctoral students in architecture and planning and visitors from the AHRA<sup>7</sup> conference.

The event *Uttered Expectations – A Performative Event through Broadcasting of Spoken Rendering of Written Answers* on the 27<sup>th</sup> of June, 2013 was a collaboration between the gallery Krognoshuset in Lund, Learning Site, and my research project. The student workshops incorporated in this thesis have been performed at the School of Architecture and at Ingvar Kamprad Designcentrum at Lund Faculty of Engineering from 2011 through 2015 with students of industrial design, architecture, landscape architecture and engineering. My own excursion *Driving, Losing, Falling, Dreaming (About Great Expectations)* was done in the greater Lund NE/Brunnshög area in February of 2013, and the sleepover described in

<sup>7</sup> The Architecture Humanities Research Association.

*An Illusion Trick of Heavenly Proportions* took place in Audible Dwelling when it was located at the Wennergren Farm on the 23 June, 2013.

This thesis explores expectations in space, and problematises imaginations of space via emerging responses to affordance and affect collected through interventions, workshops, and representations. An affordance-based interventionist method was used at Lund NE/Brunnshög, where I found myself in a peculiar predicament; I was taking intervention outside the city centre – I could not intervene in the activity of a busy, populated city, but had to work with an at the time (2013) quite empty and rural (urbanised only in visions) site marked for future exploitation. One can compare the interventions at Lund NE/Brunnshög with “taking art outside the gallery”, where art is removed from an allegedly controllable and “unbiased” setting to a multifaceted context influenced by everyday life. I had to do the reverse: take the typical intervention method from everyday life to a quite controlled (but not unbiased) setting. When performing interventions at Lund NE/Brunnshög, I had to invite and frequently pick up and bring visitors to the site. I made interventions, by using Audible Dwelling, in the swarm of expectations and presuppositions the participants brought to the scene.

Although architecture rarely has the opportunity to “consider the construction of critical concepts as its most important purpose” (Rendell 2006:4), architecture research holds this possibility.

Art and architecture are frequently differentiated in terms of their relationship to “function”. Unlike architecture, art may not be functional in traditional terms, for example in responding to social needs, giving shelter when it rains or providing a room in which to perform open-heart surgery, but we could say that art is functional in providing certain kinds of tools for self-reflection, critical thinking and social change. Art offers a place and occasion for new kinds of relationship “to function” between people. (Rendell 2006:3f)

And new kinds of relationships to function between site and discourse, I might add to the architecture theoretician Jane Rendell’s statement above. As the borders of public and private within the art world have become increasingly blurred, Rendell suggests instead of the term *public art* the new *critical spatial practice* (ibid.). Critical spatial practice

does not keep within the traditional boundaries of art and architecture, but it rather

engages with both the social and the aesthetic, the public and the private. This term draws attention not only to the importance of the critical, but also to the spatial, indicating the interest in exploring the specifically spatial aspects of interdisciplinary processes or practices that operate between art and architecture. (Rendell 2006:6)

Here, with Rendell, is a concept that corresponds well with the intervention methods in this work and with the ambition to enable a critical spatial analysis of urban development, planning discourse and professional design practice within contemporary artistic research and collaborative practice.

I have had three main starting points regarding empirical work in this work: discursive, educational and interventionist. The use of Lund NE/Brunnshög as a case study requires extensive description and explanation of the circumstances surrounding the planned urban development for the sake of communicating the planning situation affecting the participants in the interventions. It was essential to show examples of the impact that media coverage and discourse had during the initial stages of the Lund NE/Brunnshög area's visionary formation.

The various methods used in my work emerged to a significant extent in collaboration with artists and artistic research methods; the most obvious examples are collegial readings and future imagining. A collegial reading was done in the *Excursion to the Fictive and Factual Landscape of a Future Science Village in Lund*, and future imagining was a significant part of the on-site sound simulations, where the module for the production of sound was developed before my project for Learning Site's artistic interventions. I performed an individual reading in *Uttered Expectations – A Performative Event through Broadcasting of Spoken Rendering of Written Answers*. My use of subjective, associative and introspective parts could be said to have its roots in artistic methods. Finally, the student's workshops were designed to appeal to the artistic and creative aspects of design.

*Associative and introspective narratives*

The endeavour of the work before you coincides with my own history and position; I am an architect who, before architecture education, went to art school, where I developed an interest in conceptually driven projects. After architecture education, I was left frustrated by what I perceived as architecture's limitations in terms of its normativity, black-boxing and claims of autonomy and truthfulness. These factors to me appeared prevalent in similar ways in the architectural profession and in architecture education. After a brief sojourn in the architectural profession, I started working in design education. In order to better understand my own objections to the architect's world, I needed to immerse myself in the process behind the (for me) sometimes obscure reasoning throughout and about design processes. In my teaching, I tried to incorporate a sense of "situated criticality" where I intuitively added perspectives of situatedness – without yet being familiar with the feminist scholar Donna Haraway's (1988) concept of *situated knowledge*. I often drew on my personal and private experience, with the additional aim of bridging the gap between teacher and student, as well as being critical of established design conventions in general. My personal reflections in the form of short, intermittent narrations throughout this work can and should be understood as a continuation of the use of biographical material and knowledge, and serve as examples of everyday events (and some everyday memories) where I have striven to look into something that has triggered my interest, given me joy or made me feel adventurous and part of a bigger world. My hope is that these stories can function as an opportunity to get a glimpse of the topics covered in the work and spark curiosity. Like the intervention work, these sometimes autobiographical excursions easily gained momentum. I became absorbed by the process, sometimes to the degree of making decisions purely by intuition. For me, this part of the work very much resembled the sketching stage of a design process. The writing process of which the work before you is a result, on the other hand, has resembled the evaluative phase in which one has to make *a posteriori* decisions about the spontaneously produced sketching. Here I have relied heavily on post-justification in line with the ambition to investigate a cluster of attitudes rather than a single, clear-cut problem.

# Chapters

The present work is divided into six main chapters and four intermittent investigations.

The *Introduction* chapter provides an outline of the overall research questions, case study and the affordance-based theoretical starting points, as well as giving arguments for alternative research methods and ways of shaping critique and knowledge.

The chapter *Affordance Theory and its Limitations* gives an overview of the affordance theory that is relevant for this study, starting with the original theory of affordances by Gibson. Through initial studies in student workshops, certain limitations regarding existing notions in affordance theory are discussed, and arguments are made for more diversity concerning the relational aspect and the intention in perception. The notion of nested affordance is introduced and the need to reshape an action-oriented affordance concept into a relational and situational concept is identified. The agency and capacity of matter are presented as foundational aspects of an affordance concept oriented towards the design professional. The notion of affect is suggested as having the capacity to integrate both biographical/emotional knowledge as well as assimilated professional attitudes into the theorisation of design and planning-oriented, i.e. alteration-based, affordance concepts.

The introspective episodes that appear as narrative interludes are stories based on thoughts and events where I have used an associational and curiosity-driven method to investigate some of the research themes. These short narratives are inserted in thematic adjacency to corresponding parts in the main text, hence providing additional, amplifying and alternative input to the investigated matter. These stories produce and amplify experience, sometimes give additional input to the phenomenon, or elaborate on the current themes through subjective experience. In *Looking from Home – A Hole in the Ground* and *Every Actor has Agency*, I present alternative ways of using an affordance concept, such as including the visual components of a map, or a hole in the ground, as active agents in an event. This method can be read as a suggestion in line with Bennett's *same-stuff* claim (Bennett 2010:xi), or here adapted into an *all-stuff* claim, where not only humans, but also matter are given agency, with the result

that the hierarchical order with the human on the top of the pyramid is avoided. The texts *Looking from Home – A Hole in the Ground* and *Every Actor has Agency* can be considered parallel to the main investigations in this work, interrogating the agency of expectations or professional attitudes and thus challenging the design professional's autonomy and independence. In this sense, the reading of a chart of a geographical area, and the development of planning documents derived from it, are influenced by the internal elements in the plan, parallel to what actually exists on-site. In *Looking from Home – A Hole in the Ground*, the capacity of a hole in my street to get my neighbours to sign up for a new internet network proves almost as good as printed, distributed information. For the sake of immersing myself in my geographical area of interest, and subjectively exploring how it might affect me, I have made many trips to Lund NE/Brunnshög. On two of the trips, I recorded my associations about potentialities and happenings on-site – these events have sometimes been more induced and affected by my personal history, and sometimes less. These visits have developed at different tempos – the frantic and icy drive ending in an unforeseen daydream in *Driving, Losing, Falling, Dreaming (About Great Expectations)* stands in temporal contrast to the summer night sleepover where time seemed to stand still that is described in *An Illusion Trick of Heavenly Proportions*. These two personal wanderings stand as additional affective events beside the more formalised sound interventions performed at Lund NE/Brunnshög.

The chapter *Split Visions for a Designed Future* investigates design professionals' ability to see various possibilities and their attitudes in action and in planning. Arguments for escaping a black-boxed design attitude are supported by the architect Helena Webster's (2008) critique of Schön's (2009 [1983]) *Reflection-in-Action* method. The feminist author and social activist bell hooks (1994, 2010) offers a view on transgressive qualities in education, where subjective dimensions and experiential knowledge, rather than design conventions, inform the formation of the design profession. Pre-studies for affordance-based intervention studies and ways to go beyond typical studio-based design are investigated through student workshops and accounted for in this chapter. The other theme of this chapter concerns the expectations connected to prevailing ideals regarding urban design. The main goals and expectations of the

official planning connected to the case study Lund NE/Brunnshög are described, as well as some critique of an assumption of consensus, democratic planning and future prosperity. The material studied for the tracing of the discourse surrounding the Lund NE/Brunnshög development in the period of 2011-2014 includes newspapers, specifically the local and regional paper *Sydsvenskan*, but also planning documents from OECD, the European Commission, the Swedish National Board for Housing, Building and Planning, the Municipality of Lund and Lund University.

In the chapter *Intervening*, I describe the methods and details of how I have acquired empirical data, or gained knowledge, about design professionals' thoughts and reactions. The form of the methods described in this chapter is a consequence of the larger, multifaceted planning process of Lund NE/Brunnshög. I describe the process of the on-site interventions based on sound-scape simulations performed at the Wennergren Farm at Lund NE/Brunnshög, through the use of the module Audible Dwelling during the spring of 2013, which primarily engaged design professionals, but also other individuals professionally connected to the area, as well as some laymen. Examples are given of the relation between what is *thought* and what is immediately *felt*. I also describe a collegial reading that highlighted statements made about the area, and a performative event broadcasting the collective raw data from the previous interventions.

In the chapter *Learnings from Interventions*, I conclude from the on-site investigations that the design professionals involved are often – as can be expected – biased by the official planning when asked at the site to identify the potential of the Lund NE/Brunnshög area. As a consequence of the interventions presenting simulated futures, which often resulted in emotional and sometimes negative responses that punctured a cohesive vision of the future Lund NE/Brunnshög, this chapter brings together the empirical findings and the theoretical standpoints, resulting in a few redrafted, and interconnected, affordance concepts. These concepts are derived from the additional input from the empirical investigations and are adapted to the particular situation of the design professional. Arguments are made for a discussion – in particular related to design – of the original affordance concept by Gibson (1977, 1986) that stands for environmental action potential, and how it may be modified into what I have labelled here as *environmental alteration potential*. Furthermore, the



ubiquitous offers of the environment are discussed here as warranting the discussion of *vibrant affordance* as an all-pervasive rather than discretely functional action-opportunity in an environment that is situationally and relationally dependent and partly present in the other formulated affordance concepts as well. There is also a discussion of how predefined statements about alternative worlds and futures in line with official planning define action sequences that could be referred to as *contained nested affordance* – offers of the environment with predetermined progression – whereas the corresponding notion of *elaboratable nested affordances* captures an undecided course of action in an iterative, creative design process. Finally, the alteration offers of the environment that depend on the individual design professional's characteristics and subjective dimensions are pinpointed with the concept *carried affordances*. It is concluded that emotionally conducted knowledge, and how it appears in relation to the affordance-oriented concepts mentioned above, can be part of a practical methodological approach to shift perspectives of the potential of a place, or simply to criticise certain procedures and habits that tend to reject experiential input in design processes.

The final chapter, *Unsettling Expectations*, reconnects with initially stated intentions and questions about how design professionals are influenced by expectations of design outputs as well as by expectations of a designer role. Theoretical and methodological contributions are outlined. Aspects of the contribution that I refer to as *unsettling expectations* are discussed. The overall work process of the thesis is summarised, and the implications and potentials of the work are discussed in terms of further use and development of concepts and methods.



# 1. Affordance Theory and its Limitations

Until recently, my geographical area of interest, the Lund NE/Brunnshög area, consisted mainly of farmland. By means of many stakeholders, it holds an imagined future of high technology and research facilities associated with a global research community. In its slick form, character and function, the formulated vision for the future is a distant cry from the situation that prevails as this text is being written (2016), and the actual connection of these two appearances of the same place, as well as the route that led to such a merging of vision and reality, is hard to even fathom as possible.

## Testing contrasting sites – expectations of change

In the educational context of a workshop about what affordance might mean in a design professional's mind, I instructed students to propose alterations in environments that varied from heavily built to openly “green” ones.

In figures 1 and 2 is one result from that workshop.<sup>8</sup> In the case of fig. 2, the previously existing staircase platform – clearly a situation with an established program – the given situation was respected and improved upon by the student's addition of pink pillows and a green carpet. In contrast, the students described the hill/slope in fig. 3 as “empty”, asking “*Does anyone stay here?*”, and the immediate designerly impulse was to position oneself at the top of the hill and work from there by introducing completely alien objects to the site.<sup>9</sup> When adding functions in fig. 3, the association is quite independent from the site itself, with the added hot-dog stand and water chute. The investments already made in the building and program of the site in fig. 2 seemed to inhibit the taking of action or the possibilities for alteration. In this workshop, the situation with the existing concrete stairs/platform did not seem to afford any profound changes, but mere alignment (if still with some artistic comment in terms of the suggested contrast between pink pillows and hard concrete seats). As a contrast, the imagined possibilities for an area predominantly “untouched”, perceived as natural and seemingly less programmed, appear to be freer – but not, strictly speaking, *easier* to make, as the changes could rather be connected to a greater creative anxiety or a greater construction effort. So even if the example in fig. 3 actually shows a man-made slope and lawn located in a park, new functions are added and the existing program, if any, is not as respected as in fig 2. What the situation in fig 3 affords is apparently not strictly related to a previously established program or a certain intended use of the environment.

<sup>8</sup> Detailed information about the *Workshop Affordance* can be found in the chapter *Split Visions for a Designed Future/Studies of design processes in educational situations - how do “not yet design professionals” think about “a place not yet”*.

<sup>9</sup> See also the chapter *Learnings from Interventions/Sustainability Plans, Preferences and “Nature”*.



Figure 2  
Illustration Andersson, Andersson & Bosson 2011



Figure 3

These workshop results, to which I will return in a reflection of design education in chapter *Split Visions for a Designed Future*, cast some initial light on my main issue, namely that of the relation between affordance and design, and in particular to the situation at Lund NE/Brunnshög. In relation to an imagined, alternative future of an area, an agricultural landscape can be seen as a clean slate; open for development and global investment on an international research market. Already made investments: monetary, planning, labour, etc.; i.e. investments other than the ecological or geological impact made by nature itself, clearly have a substantial impact on large-scale planning and its realisation. On a general level, we may hypothesise that clearly recognizable “artefactual” (i.e. human made) investments have a biasing effect when design professionals look for action potential in an environment. Indication, or material manifestation, of culture is in this sense likely to steer our perception when we detect emergent potentialities. Built parts of the environment, in the form of houses, designed objects, and infrastructure, tend to present themselves as guiding possible change. They also indicate, by their mere presence, the expected life span of a place. Any new investment idea has to either fight or align itself with the existing one. Thus a design professional can sense a heavily programmed environment, such as built urban areas as affording a more “obedient” action possibility, forced to become either a matter of alignment or (a) matter to be removed. Consequently, a vague program in combination with the mere presence of an open existing landscape can – despite its possible historical formation – effectuate

the opposite and communicate multitudinous opportunities, such as in the case of Lund NE/Brunnshög.

Apart from showing such “fitness” for exploitation, the workshop here also cast light on the difference between what it means to be in a landscape and what it means to alter a landscape. As will be seen in the following, this difference could be discussed in reference to several different streams within affordance theory.

In computer edited images from the aforementioned workshop, a computer program induced many affordances, depending on the skill of the user of the particular program. As seen in figures 4 and 5, dissimilarities in the environment are sometimes enough to invite change, in this example it is the contrast between a metal surface and holes in the same surface. Conflicting affordances can be seen: pouring something into the holes versus the students’ suggestion to plug the holes to prevent something from being poured into the holes, thus causing a hypothetical change of the landscape in the long run. The existing situation is here perhaps not improved – rather destructed if we look to the initial intended use – but it is still taken into consideration and related to by the design professionals *in spe*. Here, the difference within a programmed situation is taken as a starting point for further manipulation.



Figures 4, 5. Illustration Hin Ho, Perez & Petersson 2011

## Gibson's affordance

Before expanding on a design-related and professionally-oriented affordance concept, I will introduce some of the various theories about affordance, starting with Gibson's seminal statement "[t]he *affordances* of the environment are what it *offers* the animal, what it *provides* or *furnishes*, either for good or ill" (Gibson 1986:127, original emphasis). Gibson states here that an affordance is suited to the particular acting space of an animal (individual) and communicates the possibilities or capabilities for that animal to act, whether or not the possibility is perceived. In a preliminary version of the originating text *The Theory of Affordances*, Gibson also claims that "[t]he events of the environment afford being frozen, as in a blizzard, or burned, as in a forest fire" (Gibson 1977:68). Although Gibson claims that the affordances are unique, and relative to the individual, he makes what seems to be partly contradictory statements. Gibson acknowledges the individual's dependency on environment and the reciprocity of affordances. While affordance is assumed to emerge with reference to a specific individual, dependent as it were on the individual's knowledge and culture and sometimes remaining un-perceived, in Gibson's account affordances are also supposed to be permanently present in the environment. Affordance, he says, exists as a fact of the environment and it is up to the individual whether it is perceived or not; it does not change with the observer or in interaction with the individual for whom it is suited (ibid.). While Gibson states that affordances relate both to the environment and to the individual in a complementary way, he does not recognise a private or subjective world in an affordance situation (Gibson 1986:129). He prefers to see it primarily as a matter of species' possibilities rather than something with psychological variance. Gibson's claim that an affordance exists independently of a perceiver reveals a dilemma in affordance theory. Returning to the blizzard: if the affordance cannot be seen, felt, computed, or its effects measured in any other way, how can it be present for an individual? This is problematic unless the category "perceivers" is expanded to also include matter, besides animals and humans. We know that events occur without human (or other animal presence), but can they then be affordances? Although Gibson does not elaborate further on this dilemma, in a way he foreshadows later object-oriented

ontologies (Latour 2005; Harman 2011b), which assign agency to matter. In a manner, Gibson is claiming that the forest can be afforded a forest fire without the forest ever being a conscious actor. The forest has agency, i.e. capacity to give and receive influence; in this particular case in a way that may be classified as unconscious, involuntary behaviour.<sup>10</sup> The affordance of a blizzard is possible in relation to an environment, the prospect of a blizzard is carried to its environment, but the environment (most likely) cannot decide whether to act or not in response to the affordance. Though it feels somewhat strange to claim that a forest has acted upon what an environment affords, it is undeniable that events of all sorts take place as consequences of matter's agency. As I will expand on later, Bennett (2010) has elaborated on this problem by recognising matter's "thing-power". Affordances, as it were, are more specific than agency in general, since they have to do with decision-making in specific situations.

## Affordance escorted by imagination

As this work is directed towards human capacity in design processes, I will limit my attention to a professional attitude for a moment. If what an environment affords a human is seen as conveying *everything that is possible*, a possibility is unfolded – from a design professional's point of view, one could then perceive the environment to afford everything that is possible to picture or mentally produce. This perception, or perhaps *construction*, is then based on an experience influenced by existing properties as well as features introduced by the design professional, such as professionally based considerations. When discussing affordances in relation to animals or humans, Ingold adopts a phenomenological view of "being-in-the-world"; i.e. we do not discover a pre-existing world, we generate the world through living in it (Ingold 2000:173). According to Ingold, we do not construct the world based on what we are, but from

<sup>10</sup> The same could be said about an individual's internal bodily response to outer (or inner) stimuli that could be seen as matter's response to matter. See Bennett below on the topic that our bodies inherently are made up of matter (Bennett 2010). Gibson elaborates on corporeal, visible actions to what the environment affords, where the individual has more or less control. Internal or automatic response in relation to affordance is not extensively problematized in Gibson's work.



what we believe is possible to be, and these possibilities are only limited by our imagination (Ingold 2000:177). If affordances do not relate to, or depend on, specific individual action possibility (in terms of designing), but to what action possibility an individual is capable of imagining or perceiving, the affordance is not always there; it has the possibility to emerge, as an idea of a design, if anyone can produce the idea.

Affordance can be regarded as a possibility or an offer emerging in a specific situation and in reference to a specific individual, matter, context, and moment – as a situational affordance; then affordance is possibly present, conditioned by circumstances in a network of actors constituting the specific situation. A situational and designerly-oriented notion of affordance is thus dependent on the media with which the design professional works, as can be seen in the computer-based manipulation in figs. 6. and 7. In a creative process of this kind, ideas are constructed as dependent on the previous step of the process, as a type of elaboratable nested affordance.



Figures 6, 7. A photograph of a puddle imported to a computer program can afford colour manipulation. The computer program can in this case be considered a particularly strong actor, leading to striking hypothetical alterations as those seen above. This group asserted that one is “less free” in a built environment, as it implies a “man against man” situation where “advanced affordances, based on reasoning and experience” rule, whereas a predominantly “natural” (as in untouched) site suggests “primitive, instinctive and evolutionary affordances”. One could interpret this statement as recognition that human convention is one of the strongest actors in the built environment, and identified offers are mostly related to this convention. Illustration Edvardsson, Hanberger & Leksell 2011

While Gibson proposes that the meaning of objects and what an environment affords are always present, already in the 1930's von Uexküll suggested a more relational view of affordance when he stated that the world acquires meaning when being used (Ingold 2011:79). Von Uexküll introduces the idea of *Umwelt*,<sup>11</sup> which constitutes “the set of environmental features to which a given type of animal is sensitized” (Clark 1997:24) that delimits its world and becomes the unique individual's *Innenwelt* – its subjective world (Ingold 2011:80)<sup>12</sup>. Gibson states that perception of the world includes co-perception of oneself (Gibson 1986:141). Gibson thus avoids the idea of a world based on the split of human and the world, and admits a reflective perceiver, which constructs *one* world from an accumulated number of relations between artefacts, humans and ideas. In doing so, Gibson denies a separation of a cultural and a natural world, as well as of consciousness and matter as different kinds of reality (Gibson 1986: 130,141). Gibson states that “[t]here is only one world, however diverse, and all animals live in it, although we human animals have altered it to suit ourselves. We have done so wastefully, thoughtlessly, and if we do not mend our ways, fatally” (Gibson 1979:130). Here, Gibson foreshadows Bennett's ethical ambition to equate humans and matter in order to flatten the hierarchy and by doing so deprive humans of the power to destroy the environment (Bennett 2010:ix).

According to von Uexküll, when looking for something particular the “search image” eliminates parts of our environment that do not present expected answers. He illustrates this with an example describing his search for water, which he expects to come contained in the form of a clay pitcher – an expectation that renders the glass water bottle in front of him invisible (von Uexküll 1992 [1934]:373f). The same mechanism could be operating when design professionals look for action potential in an environment. If a design professional thinks that what is expected is design in the form of additions to the environment, this possibility is perhaps what will be found and reacted to. This “you-see-what-you-

<sup>11</sup> “[A]ll that a subject perceives becomes his *perceptual world* and all that he does, his *effector world*. Perceptual and effector worlds together form a closed unit, the *Umwelt*” (von Uexküll 1992 [1934]:320, original emphasis).

<sup>12</sup> “The biologist, on the other hand, takes into account each individual as a subject, living in a world of its own, of which it is the center.” (von Uexküll 1992 [1934]:321).

look-for” effect became clear in a workshop with a group of students from various disciplines: landscape architecture, engineering and architecture. I instructed the students to visit an individually selected spot at Lund NE/Brunnshög and investigate what the picked location afforded; I also assumed the same task for myself. The architecture students came to the conclusion that their spot – an agricultural field – afforded bodily movement and material structures, including those relating to the form of buildings. The architecture doctoral student researching urban development – i.e. I myself – came to the conclusion that my spot afforded bodily movement and urban development.<sup>13</sup>

Design professionals seem to be burdened by a professional expectation to solve problems and make additions to the environment. Perhaps a conflation of the design professional’s obligations is causing this dilemma – the design professional is typically expected to make (design) decisions based on a certain context; however, the design professional is also responsible for a process that achieves an apparent result. In practice, it can be problematic to argue that the design solution in a particular case is to do – nothing.

When testing the affordance concept by comparing what contrasting sites afford, the initial examples above show that a heavily programmed environment can inhibit a design professional’s tendency to make changes and instead encourage improvement of what is already in place. In an environment that is predominantly “green”, presenting itself as untouched by humans, the design professional typically seems to act more freely (although not more *easily* or with less effort – probably the contrary in a real life design situation) and is more likely to add new and contrasting types of functions. From the above, we can conclude that design professionals seem to be influenced and predisposed by already made investments in, and expectations of, environments, as well as by a carried professional expectation brought into the situation. The concept of affordance here is taken from mere bodily actions to what an environment affords in terms of potential alteration. While Gibson discusses affordances in terms of what an environment offers, he sees this offer as static, or at least stati-

<sup>13</sup> A part of my exploration is presented further down in the section *Driving, Losing, Falling, Dreaming (About Great Expectations)*.

cally offering a potential action, and thus not fundamentally reliant on an individual and the specific features tied to that individual. I have rather found that what an environment affords is connected to the individual, which rather coincides with von Uexküll's (1992 [1934]) thoughts about worlds generated through situations.

## An incoherent concept of affordance

In order to see how affordance theory might support my investigation into designerly action, I will here account for some of the usability-oriented takes on affordance. As we dig deeper into this branch, further incoherencies regarding the concept of affordance will be discovered and discussed.

### Real and perceived affordances

Gibson's disciple Donald A. Norman is perhaps the most prominent advocate of using affordance-based concepts in a design context, most specifically within the field of Human-Computer Interaction. In a discussion that takes off in dysfunctional and incomprehensible everyday things, Norman (1998) elaborates on Gibson's original theory and develops concepts of affordances that function as measures of usability and functionality. While developing a definition that includes Gibson's original concept concerning action possibility, Norman also pushes towards a usability-oriented definition of affordances that concerns how distinctively affordances are expressed and communicated in relation to the user (Norman 1999). Norman takes culture and knowledge into account and separates *real affordance* from *perceived affordances*; an example of a perceived affordance would be the computer desktop icon that represents the software *Word*, and the real affordance would refer to the function, in this case the operational capacity of *Word* (Norman 1999: 39-42). Norman eventually changed his original use of the term affordances to perceived affordances (Norman 1999:39), asserting that these perceived affordances are what determine usability. Norman regards affordances as dependent on perceptual capabilities (1999) whereas Gibson does not

allow the mutuality between actor and affordance to be as strong, since the affordances in Gibson's definition exist independently of the receiver. Norman's definition of natural signals that lead to *natural design* is fairly blunt and does not reveal whether natural design knowledge should be seen as an innate resource, independent of culture, or as acquired and internalised knowledge. The hinges of a door are used as an example of natural design, where the user, according to Norman, immediately knows in which direction a door is opened and action decision is automatic and effortless (Norman 1998:5) (note the difference to Gaver's *nested affordance* discussed below, where affordance is revealed in steps and over time). Norman does not elaborate on how the user acquires this immediately accessible knowledge. The decision regarding how to use the door probably *is* automatic and effortless, *if* the user is from an environment where hinges are commonly used. If a user has never encountered hinges before, they will probably be beyond comprehension. According to Norman, affordance is what communicates usability, and when not enough affordance is present, i.e. there is a low level of affordance, "design has failed" (Norman 1998:9). Affordance is used here as a measure of how successful design is (in terms of level of usability), although when discussing an example that contained a British Rail shelter made of reinforced glass vs. plywood, Norman recognises that affordance is not only about perceiving properties in relation to intended use, but perceiving *all* possibilities – i. e. breaking the glass because the glass is breakable (ibid.) (or because the effect of broken glass is conspicuous). If broken glass is seen as a representation of anger, it is an effective way of communicating a message. The issue of the user's subjective world of intention is, it would seem, inevitably brought to the fore.

### Four types of affordance

The computer scientist H. Rex Hartson is interested in the constructive aspects of affordance, with a focus on expedience in his examples. Hartson's take on affordance, originally deriving from how affordances support users' actions in HCI-design, is divided into four categories: *sensory affordance* – helps the user see and hear; *cognitive affordance* – helps the user with cognitive action; *physical affordance* – helps the user do

something physically; and *functional affordance* – ties usage to usefulness (Hartson 2003:316ff). The first three types of affordances relate to what type of response they ignite in the individual, and are gradual – for instance, a high degree, or good quality of sensory affordance is the case when something is clearly marked in order to communicate the desired information to an individual. Functional affordance, according to Hartson, also works in a gradual way; we may talk of less or more functional affordance, but instead of measuring the degree and quality (high/low) at which information is communicated and what sort of process it starts in the individual, functional affordance relates to goal fulfilment. Goal fulfilment can be achieved through the process of experiencing sensory, cognitive or physical affordances, and holds a factor of intent or need. Such a purpose can be compared to Koffka's *demand character*, where the observers' needs change the character of the affordance (Hartson 2003:322; Gibson 1986:139)<sup>14</sup>. In Hartson's categorisation, the concept of affordance tends to equal positive function, and the "sensory", "cognitive", and "physical" relates to the action through which the individual fulfils the desired goal, or the sense through which the function is communicated. Hartson exemplifies this with a corkscrew that was given to him. The corkscrew has "good physical affordance but non-obvious cognitive affordance" – meaning that it works well when used for pulling out corks, but does not communicate its usage well (Hartson 2003:320).

## Additional goals

Another usability-oriented approach based on Hartson is that of Daniel Nilsson within the field of safety technology. In his doctoral thesis on fire escapes, Nilsson uses the theory of affordances as a framework where he stresses the factor of goal fulfilment in relation to further categorisation of affordance (Nilsson 2009:73). Nilsson analyses fire escapes through Hartson's four categories mentioned above, which Nilsson asserts are dependent on how they support the user's goal fulfilment – how effectively and through what senses they communicate (Nilsson 2009:73ff). Nilsson's notion of affordance is usability-oriented and focuses more on

<sup>14</sup> See also Ingold's intentional world (2000:177).

expected results than Gibson's original theory, since when evaluating or measuring usability, the consequence and goal of an act must already be given. In contrast to Nilsson's claim that according to Gibson "[a]n affordance is hence what the object offers the individuals in relation to the fulfilment of their goal" (Nilsson 2009:73), Gibson does not in fact appear to be particularly goal-oriented in his writings, at least not about future fulfilment of specific goals. Nilsson continues; "[t]he Theory of Affordances is concerned with the design of an object, e.g. an emergency exit, and how this design influences the user in a specific situation" (Nilsson 2009:74). In my view, this is an example where the notion of affordance has been hijacked to focus too much on the specific outcomes of usage, instead of being a concept for the understanding of perception of action possibilities. However, Nilsson acknowledges alternative goals, at least as hypothetical secondary usages, when he continues: "people may have a variety of goals that can influence how they perceive an exit in a specific emergency" (Nilsson 2009:76). Nilsson here adumbrates, or even suggests, that affordances depend on situation. So, even if Nilsson leans towards a usability- and design-oriented notion of affordance in his work, he nevertheless ends up in a reasoning where the affordances, and the apprehension of affordances, are relational and depend in whole or in part on a situation that includes the existence of individuals who bring with them a variety of goals. Thus, without treating it as an issue for further investigation, he allows for the presence of "non-rational" choices, and subjective rather than general responses in an affordance situation, as well as in extremely goal-oriented situations, like escaping fire.

## Nestedness

Gaver introduces a view on affordances as sequential; i.e. as action potential revealed successively and over time. He terms this view *nested affordance*, and suggests by this that a given space holds several affordances that are revealed one after another (Gaver 1991). Gaver takes a door handle as an example: not until one grabs the door handle is the further use of the handle revealed – such as for instance in the sequence of seeing the door handle – pulling the door handle – pulling the door – opening the door (Gaver 1991:3). Gaver sees pulling the door handle as a response

to an affordance that is part of – *nested in* – the affordance of pulling the door, which in turn leads to the affordance “open the door” (ibid.). This view on affordance opens up, as we shall see, for a less absolute register of actions possible to take in a perceived situation.

## A conditional affordance

We have seen that although several advocates of affordance in a design-oriented discourse proclaim a usability perspective, like Norman, Hartson and Nilsson, they eventually arrive at a point where affordances turn out to be situationally conditioned and contingent on the perceiver. Norman’s affordance concept ultimately refers to how effective design is, resulting in objects’ having high or low level of affordance. While this objective of Norman’s is at the mercy of the user’s perceptual abilities in relation to intentional use, he ends up in a situation where he admits that users notice *all* potential, including potential that does not align with their intended goal. Hartson’s affordance also revolves around expedience, even specific types of expedience, but also arrives at a situationally determined affordance routed by the need and the intent of the subject, which perceives what an environment affords. Following Hartson, we saw that Nilsson’s space- and architecture-oriented approach initially stressed goal fulfilment, but also ultimately accepts subject driven additional (non-obvious) goals in critical situations, thus implicitly acknowledging a more individual and situation dependent notion of affordance.

The theories referred to above are intimately linked to situations with a clear objective and a singular but generally perceiving subject. In my work, I do not focus on how physical settings afford a specific corporeal action, and even less on how particular settings support action efficiency. Instead, due to the fact that planning has only a proto-object, a kind of *not-yet-object* before it, I study a far more vague situation, partly consisting of physical realities and partly of wishes and plans for future realities. Nevertheless, the notion of nested affordance (Gaver 1991) fits the object of my study very well, as a design process is never a change from one single condition to another, but rather a series of steps, or sequential events. However, in order to see how affordance could theoretically support my investigation of professional expectations in planning and design, the



multiplicity of agency and the more continuous field of attention that constitute every perceived situation must be considered. After proposing firstly how other, non-human actors may have an impact, and then how this impact is partly a continuous matter, I will return to how the notion of affordance can be discussed in order to support the perception – in particular the altering impulse of the professional perception – of the “not yet” place.

In the next passage, *Looking from Home – A Hole in the Ground*, I let a hole in the street outside my house constitute an example of an everyday urban alteration incorporating nested affordances. Before the hole in the ground was dug, many of us in the neighbourhood could hardly imagine, and certainly not begin to act towards, an alternative future (in this case, one with improved digital connections). An alternate situation became imaginable as the environment suddenly, loudly, and clearly afforded something it previously did not. Most of us then, took the next step - and signed up to join in what had been dug for.

*Looking from Home*  
– *A Hole in the Ground*



Figure 8. Photograph Kopljär 2014

17 December 2014

I went to talk to the team busy burying fibre optic cable for a new internet network in my neighbourhood. To join the network, private households in the neighbourhood needed to register in advance, and that registration included a substantial fee. When talking to the company that administrates the connection to the individual households,<sup>15</sup> I learned that almost as many as half of the households that had joined the network had decided to do so only after the excavation team had arrived to the neighbourhood. The presence of the workers, the technical equipment such as excavators, oversized cable reels and big holes in the street seemed to spark interest in joining the network: the number of households that signed up after the work had begun was comparable to the number of people who had signed up beforehand, with only the distributed material to go by. Jan Nilsson, who works at the company that administrates the distribution of fibre optic cable, says that this has been the experience from several projects; besides the current project in Lund, he uses a project in Halmstad, Sweden as an example. Not until the project is physically present do about half of the individual households decide to join the – compared to present standard much more powerful – internet network.

<sup>15</sup> Conversation with Jan Nilsson at FNC AB on 2014-12-17.

*Every Actor has Agency*



Figure 9. Illustration Lunds Kommun 2012

One becomes easily infatuated and spellbound by physical and temporal representations of “no-man’s land”, such as border crossings that literally *are* no-man’s land; the soil beneath an embassy in a foreign country where obvious questions arise about the soil’s nationality; dawn that is neither day nor night and per definition ephemeral, where change is immediately and tangibly felt. Can a plan designed by Lund City Planning Office offer some of the same intrinsic and transient characteristics?

The structure plan above is a mix of a representation of an actual situation and of an imagined vision of the future Lund NE/Brunnshög area in Lund (Lunds Kommun 2012e). The pre-existing residential areas in north-eastern Lund, drawn in great detail, appear to depict reality. The areas that are expected to be built in the near future are drawn with thicker lines and appear more general and undecided, like abstractions or fantasies. The areas and elements of the map that are planned for the future are mostly in various shades of more saturated colours than the pale colour field representing what already exists. All contour lines are marked on the map, but no heights are quantified; the topographical information is thus limited. Existing main roads on Lund NE/Brunnshög; Odarslövsvägen; Utmarksvägen linger between the present and the future; their extension is expected to be the same in the future. The lettering on the map is the same whether it represents existing neighbourhoods, fields and roads, or future buildings and streets. A great deal of prior knowledge about the area is required to comprehend the information about Lund NE/Brunnshög’s planned and expected future.



Figure 10. Illustration Kopljär 2013

There seems to be a movement from the Norra Fäladen and Östra Torn areas towards the northeast; Norra Fäladen and Östra Torn appear to be swelling up towards the Lund NE/Brunnshög area. In this cut-out, Norra Fäladen looks as if it could be flipped and pasted over the almost uninhabited Lund NE/Brunnshög. I can draw this information from this map as I am familiar with the plans for the area; I know what already exists, and what represents plans for the future.

The reality of the plan is both what is now and what is being envisioned or dreamt for future change. It floats between the two positions – the present and what is yet to come – with a fluid and temporal quality, much like a medieval painting that tells an evolving story that moves through time on the one and the same surface – like a single-frame comic strip. The plan is a representation of a state of transition, both resisting and accepting properties, and is dependent on which communicational convention one takes as a starting point when reading it. Perhaps the act of reading a plan or a map is in some ways analogue to reading a text, with a certain sequential progress – even if plans and maps resist the logic of beginning and end – some information is processed initially, and thus the reader has the advantage of knowing what she has already encountered and the disadvantage of not having established a connection to information she will read later.

Various compositions or assemblages of colour coded representation can be seen above, where lettering, cut-outs and pasted areas of an already existing reality and an imagined future are not only representations, but actors that influence us as we read them, as well as influencing how a design professional might shape an alternative future. This example suggests that visions and images, even as unsophisticated as those in this example, guide what we expect of the future. Below, I show how Bennett elaborates on the agency of matter and assemblage and formulates a convincing account of how and why matter's agency should be considered as much as humans'. She also comes to the conclusion that we ourselves could in fact be considered intricate assemblages of matter.

## Matter with agency in assemblages

Gibson's original Theory of Affordances (Gibson 1977, 1986) is dependent on visual perception and the precedence of the animal, and forms a base for how an environment urge animals (humans) to perform actions with its provided action possibilities. Although the theory of affordances initially made vague attempts to account for affordances between matter and matter,<sup>16</sup> the subject was never thoroughly problematised. By investigating the notion of affordance through Bennett's (2010) writings on *Vibrant Matter*, the possibility of offers appearing to *all kinds* of actors – not just human or animal perceivers – may be seen as not just an irrelevant issue in the background of affordance theory. But – and most relevant for my investigation – it may also cast light on what type of position and constitution we normally designate to the perceiving/experiencing subject.

In *Vibrant Matter*, Bennett elaborates on the agency of matter through the concept *thing-power* (2010). She thereby pushes a political and ethical project that sets out to "encourage more intelligent and sustainable engagements with vibrant matter and lively things" (Bennett 2010:viii). Matter is here seen as having active capacity (i.e. being *vibrant*) and is not considered as passive or ruled by humans (Bennett 2010); "I realized

<sup>16</sup> Gibson's claim of an environment affording a blizzard or a forest fire (Gibson 1977:68) is an example of this.

that the capacity of these bodies was not restricted to a passive ‘intractability’ but also included the ability to make things happen, to produce effects” (Bennett 2010:4f). The ethical project is based on a notion that “the image of dead and thoroughly instrumentalized matter feeds human hubris and our earth-destroying fantasies of conquest and consumption” (Bennett 2010:ix). Following Spinoza and Lucretius, Bennett makes a “same-stuff claim” in an ambition to flatten the hierarchy and unleash the ontological binary division into human/animal or life/matter (Bennett 2010: xi). Here, Bennett draws on Spinoza and Deleuze & Guattari for the role of affect, or how bodies have impact on other bodies, and states: “I equate affect with materiality, rather than posit a separate force that can enter and animate a physical body.” (Bennett 2010:xiii).

## Human actants

Bennett states, in accordance with the philosopher and sociologist Bruno Latour and actor-network-theories (Latour 2005), that an actant<sup>17</sup> is of similar character as an operator that “by virtue of its particular location in an assemblage [...] makes things happen, becomes the decisive force catalyzing an event” (Bennett 2010:9), and holding thing-power to be promising in overcoming the opposing duo *life* and *matter* (Bennett 2010:20). Even if Bennett recognises that there are differences between non-humans that make things happen and humans, she does not fully disclose what those differences are. Instead, she focuses on the ethical ambition of levelling out the differences and claims that “to *experience* the relationship between persons and other materialities more horizontally, is to take a step toward a more ecological sensibility” (Bennett 2010:10, original emphasis). When expanding more on “thing-power”, human power is recognised as being a kind of thing-power in itself, as humans also are made up of “things” or material units (Bennett 2010:10). Here Bennett turns to Latour: “[t]hat which acts through me is also surprised by what I do, by the chance to mutate, to change, and to bifurcate” (Latour 1999:281). Bennett acknowledges the difference between the vital mate-

<sup>17</sup> Here, Bennett acknowledges her debt to Bruno Latour, who formulated a terminology regarding matter’s various modes of impact – such as an actant, which is “any entity that modifies another entity in a trial” (Bennett 2010:viii, quoting Latour’s *Politics of Nature* 2004:237).



rial in our bodies (and the capacity connected to it) and a human being, but resists the hierarchy that places the human being in an ontologically central position as a privileged individual entity (Bennett 2010:11), still recognising that humans might have greater, more detailed, and complex room for manoeuvre in their lifeworld. Accordingly, Bennett claims that we must avoid seeing humans as a particular and prioritised category; “[h]umanity can be distinguished, instead [...] as a *particularly rich and complex* collection of materials” (ibid., original emphasis). In the mapping of a gigantic blackout that affected 50 million Americans and Canadians, Bennett concludes “there is not so much a doer (an agent) behind the deed (the blackout) as a doing and an effecting by a human-nonhuman assemblage” (Bennett 2010:28). This reasoning, or this ontology, leans partly on a theory of distributed agency that “does not deny the existence of that thrust called intentionality, but it does see it as less definitive of outcomes” (Bennett 2010:32).

## Assemblage

A disadvantage of thing-power that Bennett identifies is its latent individualism and stability, which seem to act against the aim “to theorize a materiality that is as much force as entity, as much energy as matter, as much intensity as extension” (Bennett 2010:20). Deleuze & Guattari’s (2013 [1988]) concept of *assemblage* offers a solution out of this impasse:

Assemblages are ad hoc groupings of diverse elements, of vibrant materials of all sorts.[...] They have uneven topographies, because some of the points at which the various affects and bodies cross paths are more heavily trafficked than others, and so power is not distributed equally across its surface. [...] The effects generated by an assemblage are, rather, emergent properties, emergent in that their ability to make something happen (a newly inflicted materialism, a blackout, a hurricane, a war on terror) is distinct from the sum of the vital force of each materiality considered alone. (Bennett 2010:23f)

Bennett does not remain uncontradicted; the philosopher Graham Harman applauds Bennett’s dissolving of a correlationism (subject to object) that by default takes an anthropocentric position in relation to things (Harman 2011a:130), but questions why giving up this false posi-

tioning must mean giving up “the existence of individual things altogether” (ibid.). Here, Harman identifies the risk of objects being entrapped anew, this time in “a single ‘matter-energy’ that allows for no strife between autonomous individual things” (ibid.). This philosophical controversy is given only minor discursive space here, but it serves to cast light on the fact that in an affordance situation, action possibilities appear to be all-pervasive, and to also occur between non-human agents (which allow certain types of nestedness to occur). At the same time, the controversy suggests that certain possibilities appear to be stronger than others in a fluctuating manner. One question that arises, then, is if this relation between strong affordances (such as Big Science’s aims for the future) and weak affordances (such as personal preferences) can be altered and manipulated. If so, we may have a ground on which to do experiments regarding what occupies design professionals’ perceptions, and what leads their actions.

## A plethora of affect concepts

So far I have focused primarily on affordance as the action-potential that appears in a given situation. However, I have also touched on the possibility that the perceiving part in this act may be affected in several ways by the situation itself, as well as by what existed before the actual situation when affordances appeared. Through the merging of a relational and situational affordance concept with certain aspects of affect theory, the biographical, emotional and professionally assimilated knowledges could find their place in what we might label a profession-oriented affordance concept. Below, I will outline some of the affect theories that have served me in this integration of concepts.

My engagement with affect theory soon revealed that it is problematic to account for *one* single understanding of what affect is (Figlerowicz 2012; Gregg & Seigworth 2010). As a starting point, several summaries take the concept originally coined by Baruch Spinoza, revived by Gilles Deleuze and then more specifically reflected upon by Brian Massumi. One quote from Spinoza shows immediately the fluctuating aspect that appears to be the case in affordance situations:

The human body can be affected in many ways in which its power of acting is increased or diminished, and also in others which render its power of acting neither greater nor less. (Spinoza 1996:70)

I initially aimed to use an affect concept according to one of the authors that I encountered – but just as the affect concept is sprawling and resists perfect delimitation, so is the result of my investigations. I have therefore found it necessary to avoid being faithful to one single affect concept or theory, and have taken the liberty of picking and choosing from within the discourse, and using whatever I find suitable for the problem at hand.

### **Sensations other than conscious knowing**

Science needs to address an area that allows a mental field to remain uncertain. These mental fields, which are difficult to categorise, but fundamentally define *who we are*, can possibly be approached through the concept of “affect”. If Gibson recognises action potential through perceiving how we can act, my aim has been to, beyond mere reactive forces, gain an understanding of design decisions affected by for instance dreams of an individual and personal future, perhaps emotionally rather than consciously driven.

The gender and cultural theoretician Melissa Gregg and communication theoretician Gregory J. Seigworth ask how to begin to explain a state of affect, “those forces – visceral forces beneath, alongside, or generally *other than* conscious knowing” (Gregg & Seigworth 2010:1, original emphasis). When elaborating on affect and how bodies have impact on other bodies, we recall that Bennett “equate[s] affect with materiality” rather than seeing affect as a separate force (Bennett 2010:xiii). According to Bennett, one could then equate for instance sound waves reaching an ear with matter affecting bodies, of which minds can be considered to be a part.<sup>18</sup>

The communication theorist Eric Shouse outlines an affect concept where he distinguishes between feeling, emotion and affect (Shouse

<sup>18</sup> This, if we follow Bennett and essentially also Gibson in their view of not separating body and mind. (Bennett 2010, Gibson 1986: 141).

2005). Shouse labels *feeling* “[a] sensation that has been checked against previous experiences and labelled. It is personal and biographical because every person has a distinct set of previous sensations from which to draw when interpreting and labelling their feelings.” (ibid.). Shouse asserts that an individual cannot express feelings before having language and biography. A displayed feeling is an emotion – and in Shouse’s triad, that which is most visible in a social sense. Finally, in Shouse’s account, affect is “a non-conscious experience of intensity; it is a moment of unformed and unstructured potential [...] affect cannot be fully realised in language [...] affect is always prior to and/or outside of consciousness” (ibid.). Shouse’s affect concept focuses on affect as related to perception, cognition and intersubjective response rather than to something used within the urban fabric and targeting a collective. Gregg and Seigworth sketch affect as a sort of unconscious knowing that pushes us to action or thought as a response relating to its context: “the capacity of a body is never defined by a body alone but is always aided and abetted by, and dovetails with, the field or context of its force-relations” (Gregg & Seigworth 2010:3). In this accumulation of force-relations, affect constitutes a potential triggering of action “[a]ffect arises in the midst of *inbetween-ness*: in the capacities to act and be acted upon.” (Gregg & Seigworth 2010:1, original emphasis).

## **A prepersonal intensity**

Affect “is a prepersonal intensity corresponding to the passage from one experiential state of the body to another and implying an augmentation or diminution in that body’s capacity to act” (Shouse 2005, quoting Massumi 2013:xv) (see also Spinoza’s claim of a body’s ability to act, rising or decreasing dependent on the influx of external stimuli in Thrift 2008:178). A capacity to produce proprioception lies within our body, proprioception being the “continuous but unconscious sensory flow from movable parts of our body” (Shouse 2005). This is where affect, produced as an answer to outside stimuli, supposedly adds a sense of urgency or intensity. In the (adult) body, this intensity then determines the body’s alertness for action (ibid.). If we follow Shouse, we could say that affect production would eventually form a response (emotion) that communicates to the “outside world” (i.e. the world more noticeably shared

with others). Although “unthought”, the production of affect could be personal – as in emanating from biographical experience, or simply individual – in its ability to produce a reaction to the experienced affect, as well as in the ability to perceive the stimuli that cause the “affect reaction”. If the production of affect must include the ability to be affected (which constitutes a personal capacity), how then, we might ask Shouse, can it not be personal? Shouse prefers to regard affect as something that occurs on a signal level, “before” we even begin to incorporate it cognitively as personal. Again, we have contrasting views that cast light on the affordance situation, and by allowing certain personalised factors to be part of affects, we automatically also have to include the “history” of a being involved in perception of affordance. But even if we regard affects as prepersonal, we must conclude that they work as precisely that: namely as affects influencing the perceived action in an affordance situation.

### **Affect and urbanity**

When turning to the geographer Nigel Thrift’s understanding of affect, a somewhat different view emerges that is far more sociological. Thrift points to the lack of studies of affect in relation to cities and urbanity. He holds a politically-oriented ambition where he acknowledges the affective repertoire of cities and identifies an urban engineering in the creation of cities responding to the demand of exhibiting “intense expressivity” (Thrift 2008:172). Thrift’s notion of affect seems more closely related to what Shouse would label emotion and feeling, i.e. not a prepersonal phenomenon, but Thrift’s is a more defined and displayed result of an assimilated prepersonal intensity, thus also much more suitable for manipulation. Thrift names fear, happiness and joy as examples of affect that emerge in city life. Each of the approaches to affect that he investigates moves towards “an ‘inhuman’ or ‘transhuman’ framework in which individuals are generally understood as effects of the events to which their body parts (broadly understood) respond and in which they participate”. Thrift considers affect as “a different kind of intelligence about the world” (Thrift 2008:175). Thus, Thrift “elevates” affect from a strictly pre-conceptual capacity or signal, to a kind of cleverness different from categorical or theorised thinking and presents four understandings,

or translations, of affect theory. The first considers affect as a result of embodied practices that is visible to the surroundings (ibid.). The second translation stresses drives or motivational factors of which we are not fully conscious: “[e]motions are primarily vehicles or manifestations of the underlying libidinal drive” (Thrift 2008:176). The third is associated with Spinoza and Deleuze and concerns Spinoza’s challenging of Descartes’ model of a body ruled by will, and the world being put together of two substances: extension and thought. Here, Spinoza puts forth the idea of only one substance, where thinking and acting happen parallel to one another. The fourth is the Darwinian translation of affect, which is based on evolution and states that emotional expression is universal and may not be exclusive to humans. Thrift then outlines examples of how affect is used within politics and takes Ronald Reagan as an example. Although many often disagreed with Reagan politically on factual matters, he managed to establish an affective correspondence with his public as “he ruled primarily by projecting an air of *confidence*” (Massumi 2002:41, quoted in Thrift 2008:184, original emphasis). This works well with an increasing emphasis in Euro-American societies on letting truth emerge from subjective emotion “rather than through rational judgment or abstract reasoning” (Thrift 2008:184). Of course, in light of where and when affect is at work, we may ask what might constitute a “rational judgment”, but to remain within the scope of this dissertation, a more relevant question emerges that could be seen in the light of Thrift’s emphasis on political use of affect: What might affects do? Thrift brings elements from the four approaches to affect together and extends them into politics through the video art of Bill Viola. In Viola’s work “the intent is clearly to let facial expression or other body movements (and, most obviously, the hand), patterns of light and different spatial formations interact in telling ways, providing ‘turbulent surfaces’ in which emotional and physical shape coincide in arcs of intensity” (Thrift 2008:195). Thrift points out that movement and emotion, and how that relationship is formed in cities on screens populated by faces, have become normal means of expression (ibid.). The immediate presence of humans in cities is also acknowledged; “the city as a sea of faces, a forest of hands, an ocean of lamentation: these are the building blocks of modern urbanism just as much as brick and stone” (Thrift 2008:196). Considering that

“there is no time out from expressive being, [and that the] perception of a situation and [the corresponding] response are intertwined and assume a certain kind of ‘response-ability’” (Thrift 2008:176), we can assume that we can neither evade the offers from the environment, as affordances, nor the responses, as actions informed by emotions or affects.

As a final comment to this long theoretical discussion on affordance and affect, I will here provide a factual, but strictly hypothetical example of the possible translation of emotions into artefacts, reminiscent of Thrift’s almost pragmatic view on such transformations. The example also displays – again hypothetically, but in principal – how constructed affordances may fail their objectives.

### **An example of strategic recycling of affect**

I gave the design students the task of using affect theory in a design process.<sup>19</sup> The aim was to give an overview of the emotions that surfaced as a response to a promotional film about the Lund NE/Brunnshög area.<sup>20</sup> The movie contained placement of typical product features such as curiosity, confidence in the future, and optimism. In the exercise, the students took notes of their emotional response to the promotional film. Later in the process, the students made a selection from the responses and were asked to let that selection re-appear in a design proposal of their free choice. The objective of the proposed artefact was to evoke some of the same emotions as the original promotional film. The overall aim of the design task was to make observations about how emotions are exploited to generate and communicate expectations.

The student who designed the control panel in fig. 11 aimed for the person interacting with the panel to experience the same emotions as he himself experienced when watching a promotional film for the Lund NE/Brunnshög area. What we see here is a design of a control panel to be placed at eye level for the cabin crew in the interior of an aircraft. Look-

<sup>19</sup> *Workshop Affect*, AFO165 Product Semiotics, Industrial Design Engineering, 2013

<sup>20</sup> *TITA - The Movie (Or Why We Will Be Number 1 in Europe) Vol. 2* (2012) The promotional movie was produced by Business Region Skåne: “...the marketing group of Skåne, promotes with its four companies Skåne in the far south of Sweden as a region for investments, tourism, events and film.” (Skåne n.d.)



Figure 11. Control panel for aircraft English translation  
Photograph Kopljär 2013

ing at the panel, one tries desperately to understand something of the urgency being imparted by the buttons and text – only to be stumped by their complete incomprehensibility. The student’s work takes the consequence of the affective experience of the film and its rhetoric and exposes these experiences as expected functions of a device like this. In this control panel, the student and the design are formed by the emotions “I feel hesitant” and “The film makes me uneasy”,<sup>21</sup> which he felt were deliberately expressed in the movie, but also, and perhaps primarily, from his own initial reaction: an irritation over the incomprehensibility of slickly designed futures in the movie. By extracting emotions/feelings/affects from the promotional movie and applying them to another artefact, a critique was formulated and the sophisticated rhetoric that pushed the narrative forward in the original movie was exposed. This example from a student workshop leads this long discussion of affordance and affect into the next chapter: about the realities of planning at Lund NE/Brunnshög and elsewhere.

<sup>21</sup> Thoughts about the movie presented by the student Axel Nordberg during *Workshop Affect*.



## 2. Split Visions for a Designed Future

### **Educationally produced expectations**

Traditionally and generally speaking, the concept of affordance is thought of as the basic possibility to act in a given situation in an environment or towards an object. This “environmental action potential” is often exemplified in affordance theory as a given – even a permanently given – circumstance, and often archaic; e.g. a path for walking, or a seat for sitting, a handle for gripping, or a roof for protecting against rain. If, on the other hand, we allow the urge to not only “passively” act as an animal with some presumed basic needs, but also react to an environmental circumstance by making a change in it, for instance by adding a plank of wood in order to fulfil a wish to cross a river, the term, “environmental alteration potential” would be more apt. This type of action would correspond to the common impulse to rearrange a place, or reconstruct an object. This urge to change a circumstance is at the centre of the design profession and design education (where one learns to assimilate the designer’s attitude to material and spatial realities). Some branches of affordance theory consider such types of action more cognitively complex

than affordance, since perception and action are not handled in the same instance. As arguments in the previous chapter demonstrate, in my work I have nevertheless chosen to view also such more complex types of impulses as instantly given and instantaneously turned into a future wish for the environment, even if perhaps such wishes are not immediately implementable. I thus consider it relevant to investigate a “designer’s attitude in action” in this thesis by incorporating such an extended affordance concept in design tasks for students, as well as in interventionist work on the site with design professionals and laymen at Lund NE/Brunnshög. While the on-site work constitutes the most comprehensive part of my investigations – there is more data and more intense ad-hoc interaction with a place as it changes – the education-oriented part allows a certain reflection on possible action, not least if courses and tasks are repeated from one year to another. Furthermore, in the education part, the participants themselves are given time to reflect on the very notion of affordance as part of the more general issue in education; namely what a design process may consist of. In this chapter, I will therefore make an account of some of the educational influences to which a designer is exposed, but I will also provide background regarding what a professional actor at Lund NE/Brunnshög might carry to the place in terms of site-specific as well as generic planning information.

The architecture theoretician Albena Yaneva (2011) takes an example from Donald Schön’s 1987 book *Educating the Reflective Practitioner* where a sketching process is described – a process that is based on hypothetical decisions about material, form and site. In the supposedly reflective and bi-directional process of imagining different scenarios and their consequences, in Schön’s book, the implications of a design are tried out in a discussion and sketching process between a teacher and a student in a studio environment (Yaneva 2011:118). In an attempt to formulate an updated and alternate type of architectural enquiry, Yaneva proposes a more societally-oriented and more information-driven educational process, exemplified for instance by her own and a group of architectural students’ mapping of factors that are active in the *controversy* surrounding the proposed expansion of London’s Heathrow airport. In the mapping and tracing of relations between different actors within planning and design, the students do not engage in a design project in the sense

that they suggest new material worlds. Instead, the students are tracing the *effect* that the design proposals and planning have – on the community, as well as in terms of how they may provoke disagreements and controversies (Yaneva 2011:118ff). The concept of controversy here does not necessarily imply strong arguments or fights, but takes its meaning from Latour’s work where “controversy” stands for “not yet stabilized, closed or ‘black-boxed’” (Yaneva 2011:121). Yaneva’s map strives to be a multidirectional and self-explanatory type of enquiry, and covers an expanded environment of uncertainty when trying to map the dynamics and different interests surrounding “architecture in the making” (Yaneva 2011:122). What would happen, then, if we combined the two aspects above – Schön’s and Yaneva’s – and looked both at a design process in the sense of shaping a possible world, and at an extended number of factors influencing the design? The basic question that I ask here, in relation to the educational as well as the “real” design process is this: If affordance is understood as alteration potential on an urban scale, how then could such an affordance-based approach be used to problematise an evolving, large-scale design process that includes many facts external to the material design as such? Furthermore, how could the notion of affordance cast light on a process being in the preparatory stage where it could even be said to exist only as an effect of environmental facts that are not yet materially existent? To gain insight into that, in this thesis I try out methods for observing the expectations that actors – with a direct or indirect professional relation to the subject matter – have for the future expansion of Lund NE/Brunnshög. While Yaneva uses the example of the London Olympics to emphasise the impact that mass media discourse may have on architecture, or within the politics of architecture, I mainly investigate how design professionals perceive potential for change. However, in my research, a design professional is nevertheless inevitably embedded in a discourse and mediation context that includes traditions and trends in architectural design and city planning as well as political visions for the particular area of concern. This discourse is addressed in my work at the period in time when plans for Lund NE/Brunnshög were formulated, and even if they were not yet in material execution these plans were informing the expectational cluster that design professionals might bring to the scene. In my work I have attempted to trace the character of the rela-

tionships between some of the stakeholders and the phenomena at stake in the actual process. I have therefore attempted to map – or at least offer some insight into – the discussion, or in Yaneva's and Latour's words, the *controversy* surrounding the development of Lund /NE Brunnshög in order to be able to later compare it with the answers given about possible futures by design professionals in my on-site questionnaire intervention. In this sense I have traced the *effect* of a planned, or imagined, future design by tracking the design professional's answers in line with that same design. Before exploring this site-specific and profession-oriented knowledge background in this and the following chapter, some reflection on the educational issue is necessary, as it will cast light on how knowledge is gained in design processes. Specific emphasis will be placed on how education supports and restrains the individual's creative capacity, and to what extent emancipatory positions are possible in supposedly creative education.

Linda N. Groat and David Wang advocate an empirically grounded system of knowledge, a "positive theory", in order to escape the normative type of design that is in their opinion often practised by design professionals (Groat & Wang 2002:78). In order to avoid this dichotomic division between "normative" and "fact-based" design, in this work I rather promote a self-critical attitude in the design process; one based in a reflection of what it is that affords future alteration. In order to open up the black-boxed and normative types of design processes, my method – based in reflection on affordance – could support not only my own work in this thesis, but the unpredictable process in every design task when a context is screened for further work. Since "context" includes not only the physical environment, but also all other knowledge and information relevant for the understanding of the design situation, this type of reflection in action would mean that when one investigates the possibilities of a specific circumstance as a design professional, exposing oneself to the twists and turns of an exploration, several alternative futures could be imagined and the practice of design and planning could, in accordance with these actual action possibilities, be made more transparent and traceable. The knowledge would then not lean solely on "a stable stock of systematic, scientific knowledge" (Yaneva 2011:118), but be traceable on a stock based on an *unstable* and dynamic pattern of knowledge.

In his influential book *The Reflective Practitioner – How Professionals Think in Action*, originally published in 1983, Schön formulates an *epistemology of practice* based on the assumption that practitioners hold a “tacit” knowledge about their skills that they often have difficulty communicating (2009 [1983]). Using examples of senior architects teaching architecture students in a studio environment, Schön attempts to outline a professional creative process as the answer to what he regards as a lack of an epistemology of practice (2009 [1983]). Schön proposes that the method *reflection-in-action* should replace a “Technical Rationality [that] is the heritage of Positivism” (Schön 2009 [1983]:31). Schön’s reflection-in-action method involves reflection on decisions and positions in the professional’s work process: “[a]s he tries to make sense of it, he also reflects on the understandings which have been implicit in his action, understandings which he surfaces, criticizes, restructures, and embodies in further action” (Schön 2009[1983]:50). The reflection-in-action method seems to appreciate learning through and throughout a working process – of relevance, if we are to look at design as nested affordance; i.e. what successive virtual worlds at a site offer to the design professional. Let’s have a look at how this unfolds in Schön’s example below.

### Petra and Quist in the design studio

In the chapter *Design as a Reflective Conversation with the Situation* (Schön 2009 [1983]:76ff), Schön outlines a teaching situation that takes place between the student Petra and the studio master Quist in a typical design studio environment at an architecture school.<sup>22</sup> While Quist puts tracing paper over Petra’s initial drawings and sketches, he step by step, and partially in discussion with Petra, constructs a solution for the design of the building. One could even say that Quist corrects Petra’s suggestions while using a meta language; “[t]he language of designing is a language for doing architecture, a language game which Quist models for Petra, displaying for her the competences he would like her to acquire”

<sup>22</sup> The typical design studio environment is generally practicing project-based learning through simulating a commercial architectural office. If following the standard design studio work flow, each student produces a design based on a common program and description of an intended site. The work process is supervised throughout by tutors and leads to a final critique.

(Schön 2009 [1983]:81). Schön formulates a chart of *Normative Design Domains* that consists of the words and expressions used by Quist in the conversation with Petra relating to certain *Domains*; e.g. a “geometry of parallels” that falls under the domain *Form*, or “the sort of verbal order you could explain to someone” that falls under the domain *Explanation* (Schön 2009[1983]:96). Quist comments on the result throughout the work process; “he finds the result ‘nice’, once more creating a confirmation of the string of moves made to date” (Schön 2009 [1983]:90). He also aligns with architectural stars when he claims that something is “the sort of thing Aalto would invent” (ibid.). By this remark, Quist aligns his own capability and skills with those of a renowned architect, thus achieving an absolute authority that communicates that he has the competence of delivering “the right solution” to the problem at hand. He even comments Petra’s original sketch with “[n]o good, horrible [...] but if you move it over there” (Schön 2009 [1983]:91). Schön continuously confirms Quist as being the “master”, from whom Petra should learn: “[u]nder the metaphor of designing as speaking, Quist contrasts her ‘stuttering’ with his own smooth delivery” (Schön 2009 [1983]:93). The process outlined above constitutes, according to Schön, “a reflective conversation with the situation” (ibid.). The unequal balance of power between Petra and Quist is painfully obvious, and one cannot help but wonder what would have happened if Petra had questioned Quist’s performance, or if she did not accept Quist’s design solution. Quist does not open up for a questioning of his own design (Schön 2009 [1983]: 104). While Schön admits Quist as lacking in self-critique and reflection of his own reflection-in-action, he still considers Quist professional enough to master this kind of design conversation with the great confidence and a “virtuoso performance” (ibid.). Schön does not seem to notice, or want to take the consequence of his own analysis of, the inequalities between Quist’s and Petra’s positions in terms of hierarchy within the educational system, gender, or professional status.

## **The habitus of architecture school**

Although Schön’s notion of reflection-in-action is widely recognised in design pedagogy and creativity research and also acknowledged as having

great influence on design education, the very picture of education that he sets up has indisputable problems:

It is Schön's enlightenment view of knowledge as 'truth' that allows him to present Mr Quist's *habitus* as a paradigm of the architectural *habitus* [...] According to Schön, all the student Petra has to do to become an architect is to learn to be like Mr Quist: white, male and middle class! (Webster 2008:71, original emphasis)<sup>23</sup>

The atelier or studio system with a *master* and *disciple*, where the students aspire to "rise" to the level of their tutor, can be questioned for its view on authority and inequality of the educational relation, as the architectural theorist Helena Webster has pointedly shown (2005, 2006, 2008). Through Foucault's work<sup>24</sup> on how disciplinary norms transform and discipline individuals, Webster puts forth the idea of "architectural education as a set of 'micro-technologies of power' (regulations, exams, timetables, spatial organisations, pedagogic encounters, etc.) that effectively 'discipline' students into 'becoming' architects" (Webster 2008:66). The tutor in an architecture school often has absolute power of approving, or not, student's work, and the student is in this process generally deprived of the possibility to perform a critical analysis of her or his own work based on personal experience or preference - forming an own *habitus*<sup>25</sup> (Webster 2008).

However, it could be argued that Schön's singular focus on design studio learning results in an overly narrow description of architectural learning. Firstly, Schön fails to recognise that there are other cognitive, affective and corporeal dimensions to learning that take place both within the design stu-

<sup>23</sup> Here Webster draws on Schön's *The Design Studio: An Exploration of its Tradition and Potential* (1985).

<sup>24</sup> Foucault (1991).

<sup>25</sup> Webster avoids a static concept and formulates a *habitus* that can be continuously changing: "Bourdieu's notion of *habitus* is very appealing because it accounts for the way in which a synthesis of the epistemological, ontological and embodied aspects of self informs how people act in real life situations. Bourdieu's notion of *habitus* is also appealing because it replaces notions of natural or generic inheritance with the notion that individuals continually develop their *habitus* through their experiences in life, including their education." (Webster 2008:69). If turning to the concept of intersectionality, an experience of the self can also be seen as consisting of various parallel experiences and definitions of the self, dependent on context (Valentine 2007; Valentine & Sadgrove 2012).

dio and in other settings (the lecture theatre, the refectory, parties, etc.). Secondly, Schön fails to recognise that students experience architectural education as the sum of its explicit and hidden dimensions and it is this total experience that effects the development of students from novices to professional architects.(Webster 2008:66)

Webster points to the “hidden curriculum” of architectural education that Schön seems unaware of: “architectural education has a powerful ‘hidden curriculum’ that socialises and acculturates students into the values (particularly aesthetic, motivational and ethical values) and practices (including language, deportment and dress) of the discipline” (Dutton 1991:167, quoted in Webster 2008:68). It comes as no surprise that the inequalities and discrimination of a society often are reproduced in education and that this needs to be consciously addressed (Dutton 1987:16). One might assume that the further away one originally feels oneself to be from the aesthetic, motivational and ethical values and practices mentioned, the bigger gap one has to breach between one’s own and the tutor’s habitus in the design studio situation described above. The greater the difference between Petra’s and Quist’s suggestions, the more alienated Petra is in danger of feeling. Furthermore, if Petra does not understand Quist’s rationale for his design because it relies on aesthetical choices or practices with which Petra is not familiar or simply does not accept, the greater the risk that Petra is treated as a bad or indifferent student. The longer Petra insists on maintaining her opposing position, the greater the danger is that she will be treated as an unresponsive student who is unwilling to “learn”, ultimately keeping Petra from being able to influence the educational system and curriculum. Petra has no room for manoeuvre or independent action (Webster 2008:71).

Schön claims that reflection of implicit considerations takes place during the course of reflection-in-action. Webster calls attention to that “on further scrutiny one wonders exactly how reflection-in-action or reflection-on-action differs from the quintessentially human activity of ‘thinking?’” (Webster 2008:70). The question remains whether to just *keep on thinking* about a design problem is enough to be able to thoroughly criticise it. Yet there is no specific theory, method or “reminder” that ruptures the intuitive design process incorporated in Schön’s peda-



gogy. The possibility that design professionals or students may be as prejudiced and influenced by (and even in danger of) normative attitudes as people are in general is not significantly addressed. In order to approach the problem of influence in design processes, I maintain that it must be intentionally targeted with a shift of perspective. In this research project, I aim to address this issue methodologically and empirically, with an intervention into the very process where design professionals' thoughts are at work.

Whereas Schön's thoughts on reflection-in-action have some serious shortcomings, as we have seen – primarily lacking the impact of social context and the acknowledgement of how individual (or collective) creative freedom might qualify as resource in design processes – it could be noted in relation to the overall theme of my dissertation that the reflection-in-action, taken in itself as a processual rather than a once-and-for-all type of action, represents a sort of elaboratable nested affordance, as it is constituted by reiterations and consecutive steps. The direction of design action may thus be normatively steered, not only through existing assumptions that contextualise the case as such (e.g. in visions regarding Lund NE/Brunnshög and its research facility with a global reach), but as an assimilated educational character carried into the design situation. This character becomes part of the iterative and speculative continuation of an immediate action potential, influencing the nestedness, and making us wonder also about the openness of nestedness itself.

### **Learning in theorising action**

As the ability to step outside “ourselves” (outside our own *habitus*) is limited, mere traditionally professional skills are not, and should not be, sufficient for performing design. Tools of critique and self-evaluation must be provided and introduced already during design education; this can be done by encouraging students to understand and scrutinise design using the influence of personal experience, as well as through issues relevant for our time. Theory with the capacity to contextualise otherwise streamlined ways of going about things has a critical role to play in this.

Critical theories also have a particular set of aims in that they seek to enlighten and emancipate their readers by providing a critique of normative attitudes. (Rendell 2006:8)

Through the use of theory as a “lived experience of critical thinking”, hooks elaborates on theory as having the possibility to offer a place for healing (hooks 1994). Having experienced a sense of alienation and estrangement from her own family since childhood, in order to view things differently hooks practiced the use of “theory as intervention, as a way to challenge the status quo” where a “place”, or a refuge, was found in theorizing (hooks 1994:60f). While hooks stresses the emancipating promise of theory, she admits a use of *theory* in a wider and perhaps less detached sense than is generally acknowledged: “[w]hen our lived experience of theorizing is fundamentally linked to processes of self-recovery, of collective liberation, no gap exists between theory and practice” (hooks 1994:61) Within design education, hooks’ notion of theorisation as a *liberatory practice* has the possibility of being developed into educational design activities where the design student can act increasingly independently of design studio conventions and authoritative professional roles. Through this pedagogical practice, where “reflection” means taking into consideration theory capable of extended contextualisation rather than normatively grounded refinement, the student can form her own architectural habitus, and furthermore, through subjective dimensions as well as external perspectives, inform and influence the educational system to become a platform where diversity and heterogeneity are truly accepted and welcomed.

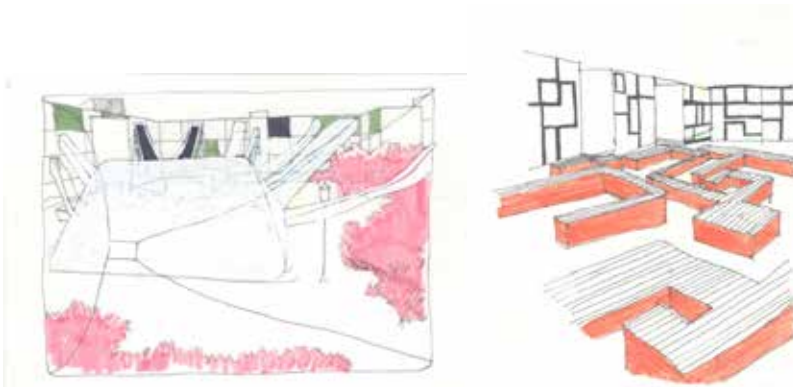
A fundamental part of designing is catching the impulse to grasp identified opportunities and thereby suggest change to the state of things. As the individual design professional is a vital part of designing, his or her ability to perceive offers in various environments is crucial. A relevant question then is what influences the design professional’s recognition of not only alteration possibilities, but *creative* alteration possibilities. So far, I have mentioned some of the influences at work – influences that are clearly necessary for a design professional to call herself professional – but that also may work against a creative impulse: the design conventions of the profession; the formalist focus nurtured through education; the

individual's biographical history; the environmental situation at hand; abstract programs; visions or expectations, or all of the above. As a way to substantiate some of these influences and their creative handling, I will provide and discuss some results from my own teaching.

### **Studies of design processes in educational situations - how do “not yet design professionals” think about “a place not yet”**

My own interest in the concept of affordance began several years before the writing of this thesis, when I was still an undergraduate student taking classes in architecture, and was encouraged to go on a hunt for affordances with the aim of looking for usability factors. I later reflected that in this early sketching of proposals in a built environment, I was very much relating to the building elements already present; i.e. I was intuitively aware of what I later came to identify as a difference between “green” and “built” areas, linked to the idea of open environmental offers versus programmed usability.

Later reflections on my own ambitions already in this early work (fig. 12, 13) formed part of what became my intention in this thesis, namely to study design professionals' reactions to the object of their task, and especially what role affordance plays in design processes. This in turn led me to teach affordance and affect theory as part of design assignments for design students. By that, I wanted to explore what kind of impulse and nestedness could be at play when design professionals, and also yet to be design professionals, act upon a given circumstance. My aim in these educational situations has been to differentiate which part of the process has to do with designer ideals and which part can be considered more “personal” (in the sense of being both a more individual and a more general perceiving subject, than that of “the specialized professional eye”) and how these modes of a perceiving subject are interlinked. By studying the process of (students) identifying design potential, I could see things hypothetically that would help me distinguish the underlying rules of the black-boxed design process at work in the later interventions at the Lund NE/Brunnshög site.



Figures 12, 13. Sketched results of perceived affordances in built environment that could be part of a sequence of elaboratable nested affordances. When sketching these additions to a student housing courtyard in Lund, I immediately came to think of the high level of activity in the buildings and in the courtyard; this is possibly the reason for the added connections between the buildings and the organising of the space in the courtyard. The already existing maze-like hedges perhaps gave inspiration to the labyrinthine orange constructions above. I also recognised that the written responses to the courtyard's affordances had different qualities than the drawings. "Dig, cut down trees, plant trees" was formulated in writing, whereas the form-based responses to affordances above demanded other tools (pen, paper, or a computer) as there are no specific names that describe these creations well. Illustration Kopljär 2006

I understand the process of learning about architecture as a process in which one has, to a certain degree, the possibility to find a "place of emancipation". In such emancipation, theory can function as an empowering element, enabling a wider understanding of the structure of things, as well as providing tools for self-reflection. Part of the criticality that theory can provide is the fact that theoretical concepts are not given and absolute. I have thus taught on the topic of transforming theory, a pedagogical goal of which was making the students feel less intimidated by theoretical concepts. After initially presenting possible theories to work with, the goal in this workshop<sup>26</sup> was to initiate an ongoing assignment, letting it be informed by an "undermined, perverted, developed or transmuted concept", thus forcing the students to also think critically about

<sup>26</sup> Workshop (*Ab*) *Using Theory* held within a course in intervention techniques called *Temporal Landscapes*, in 2015.

the presented concepts. The main objective was to let the students go through processes of design, iterative as in Schön's cases, but without any supervision regarding the "correct" thing to do. Instead, design steps in the process were there to stimulate successive iterations, while staying open to the consecutive production/detection of new concepts, as a voluntary way of taking advantage of elaboratable nested affordances in a theoretical process. The students performed both "banal" takes on notions, or investigations that were obviously open to misinterpretation. Some of them merged concepts that were otherwise separated in a tradition and "correct" sense, whilst others simply mapped correlative opposites of chosen concepts. It is clearly impossible to claim that such a short exercise can effectuate a lasting liberating result on the participating individual, but it is not unlikely that on some level the students ended up less intimidated by the traditional "heaviness" of concepts that they will undoubtedly encounter in their future work, encouraged instead to work more actively and critically with concepts, for instance by adapting them to unanticipated or unwanted circumstances. Regardless of this possibility, exercises like this one demonstrate the potential to let go of the orientation towards obligation and correctness in the active search for contact with inner or alternative drives, letting these drives be part of the nestedness that characterises the creation and emerging of successive affordances.

In order to gain knowledge in action about how nested affordance may unfold a first workshop for students was developed.<sup>27</sup> The goal of the workshop was to, on a pedagogical level, take a first step towards an open-ended type of investigation and move beyond the typical studio-based investigation and design process as described above. On one hand, the aim was to investigate the question *What can I as a human being do here?* as a matter of what appears on an *immediate* level as *environmental action potential*; this is exemplified below as indications of possible body movement. On the other hand, the assignment also asked students to pose the question *What could be done here?* – in the sense of what designerly extensions are given as *environmental alteration potential*. As could be expected, the extended possibilities emerged as a collection

<sup>27</sup> *Workshop Affordance* held within a course in Product Semiotics in 2011.



Figure 14. Possible body movement as a response to environmental action potential. Illustration Hin Ho, Perez & Petersson. 2011

or an accumulation of affordances in a certain environment, and in that sense contained a larger variety of affordances than the mere bodily conditioned presence did. In the search for a wider perspective of possibilities, the students were asked to capture the sequential or nested pattern of affordance, and thereby also learned about an openly reflected design process; we cannot fully understand our reaction towards something until it is represented. By letting the students register their impulses regarding an environment. i.e. their initial reactions to affordances, first in an intuitive way and then by separating each stage from the evaluative phase of designing that follows, a pattern of nested affordance became visible.

A group of thirty students was encouraged to register and represent affordances in an urban environment, using Gibson's theory to understand the concept (Gibson 1977). After forming smaller groups, the students were advised to choose two contrasting sites for investigation – one predominantly “green” – as in an area not dominated by built objects, but where things could be planted or which could be otherwise arranged as nature in an urban context; i.e. less obviously programmed to inform specific activities – and another predominantly “built” and

therefore supposedly more heavily programmed area. Starting from the impressions gathered at the site, the students documented their experiences with sketches, photographs and text. Documentation of the sites was made (at the point in time of the task at hand) and the imagined changes as a consequence of noted affordances were sketched or otherwise visually represented. The students were asked to think of immediate bodily affordances; i.e. what would have happened if they responded to the environment with their bodies in an immediate way, but also to be observant of their reactions to offers in the environment leading to more permanent alterations such as buildings or other structures. Thus, what was recorded, represented or sketched was the *after-effect* of the appearing affordances, that is, the further action and eventual consequences of affordances in terms of environmental alterations or immediate bodily actions. The sketching was done individually, but discussion about the concept of affordance and about the work done on-site was promoted. In order to record the initial affordances as directly and with as little reflection as possible, at the beginning of the exercise, the students did not know where the result was supposed to lead and did not have to defend their suggestions in terms of how realisable they were. Contrasting sites were chosen in order to explore to what degree affordance on site is dependent on mere appearance of material shapes, or ruled by more specific expectations, where already established (human) programs can be seen as one of the factors steering expectation. In the second part of the workshop, the students were to compile and problematise their findings from the first part through sketching and computer based image editing, and they worked in groups, collectively categorising or distinguishing possible aspects of affordance.

The methods in this exercise recall successive sketching as it is often done at design schools and was therefore deliberately used in this context. The collage techniques used by the students probably influenced the character of the proposals. As mentioned earlier, contrast and change are implicitly understood in the question *What could happen here?* On a general level, the designerly context (school) in which this workshop was presented suggests form-oriented, artefactual and programmatic alteration, as opposed to judicial, economical, or territorial change. The students were asked to present their findings as visual presentations projected to a

screen. The cut and paste functions of the software programs used on the students' computers, together with internet access, which makes it possible to insert any kind of image that can be found online, will of course constitute a starting point in this type of exercise and give the work a certain direction. Other environments could give other results, such as more anachronistic lines of thought, imaginings based on sound, etc. If clay modelling was used to visualise future sites, it is easy to imagine capturing and modifying geological formations at various scales.

Figure 15 is a visualised example of elaboratable nested affordances. Confirming my own, first affordance-based investigations, added functions in the green environments tend to relate less to the improvement of an existing situation. Among the first identified affordances by students are "swim, go around, sit, drink, fish, throw rocks". After a change of the overall situation in the form of additions (a power plant and a bridge), some new affordances emerged: "not swim, leave" and the ecologically-orientated considerations "join Greenpeace and look for mutated animals". The added bridge prompted the reactions "go over [bridge], jump, rock the bridge".

The design students seem on an overall basis to be affected, sometimes unconsciously, by investments already made at their sites of interest. Cultural presence, like the physical evidence of someone already having acted at the actual location, tend to limit and narrow the apparent alternatives and possibilities. The proposals from the workshop seemed to confirm my hypothesis that a strong programme can limit or cloud discernible action possibilities, while a less programmed environment lets the design professional be less bound by others' expectations (cf. the chapter *Affordance Theory and its Limitations/Testing Contrasting Sites – Expectations of Change*), and could thus also be seen as allowing a larger freedom for designerly action. The "nature", although allowing a vast variety of form possibilities, and perhaps implying conflict between different possible suggestions, seemed to present a broader potential for radical permanent change in this assignment. This broader potential for change may also present difficulties, as the "emptiness" or lack of guiding programmes leaves the design professional with less information regarding how to act further; i.e. the "freer" situation can result in creative anxiety or unrealistic ideas. In environments where built structure is present and defined as





Affordances: swim, go around, sit,  
drink, fish and throw rocks



new affordances: not swim, leave, join  
Greenpeace, look for mutated animals



new affordances: go over [bridge]  
jump, rock the bridge

Figure 15. Illustration Asu, Knape & Saarman 2011



Figures 16, 17. After reacting to initial affordances of liberated movement and responding by making a situational manipulation in the form of a sign, new affordances emerge, such as avoiding the area. Illustration Edvardsson, Hanberger & Leksell 2011

static, a design professional is affected by a more “controlled” affordance that – apart from being directed towards immediate action – also has an impact on ideas about time, future promises, and expectations of change. We are all aware of cultural conventions and we accordingly behave as could be expected of us. We also have expectations as regards for instance the life span of buildings and infrastructure. When can built structures be considered as objects to remove? When exploring possibilities, we generally seem to intuitively distinguish credible action possibilities. Still, in order to release, research, and distinguish hidden options in a design process, not only as an academically-contextualised method, but on a pragmatic level for a design professional, an affordance-based investigation of the environment could be of use. In such an investigation, the extended view on affordance that I discuss in this thesis would include both obvious design options as well as options that might not seem feasible in the first place. By for instance projecting non-plausible design as a methodological step, a criticality of one’s own work is offered, and an affordance-based investigation is directed towards ways of asking *What is possible here?* and not merely *What fits here?*

My aim in the pedagogical endeavour accounted for here was not to construct any additional separations or dichotomies between the built and the non-built; that difference was only used as a trigger. I found it valuable to investigate an individual’s (and future design professional’s) intuitive reactions and responses to both what a human niche, and a goal for design, could be. As shown here, a pedagogical way of doing this was to compare sites already bestowed with obvious human investment with sites that exhibited less human involvement.

## **Bring the actors to the fore**

When I assert that an extended number of actors should be considered in a design process compared to the triad “material-form-site” of the typical studio-based design process, the definition of ‘actors’ is of interest. I am confident that several of the aspects, or actors, mentioned are already present in the mind of the design professionals, without being visible or explicitly acknowledged, and are sometimes taken for granted as a silent agreement or convention. Bringing these actors to the fore can allow for

a more transparent process. By clearly stating and reminding oneself of the motives and the grounds on which a design decision is made, design professionals can hopefully imagine a process that is inclusive to a greater extent by way of its increased legibility, which also facilitates self-reflection. Gibson constructs environmental happenings in an ecological environment, and expands to encompass animals' affordances regarding each other, concluding that persons' relations to each other "comprise the whole realm of social significance" (Gibson 1977:68). In an actor-oriented view, we start to take into account a whole set of operators with particular interests that we consider relevant for establishing a specific situation – people, institutions, buildings, time frames and other contextual facts that help to construct an environment.<sup>28</sup> Conflict and negotiation are introduced when including a vast number of actors and design conventions both internal and external to the professional process, and by comparing emerging affordances at contrasting locations and situations otherwise indiscernible potentialities can be identified. Design professionals often work in a loop of sketching-analysing-sketching. In the workshop described above, registrations of affordances, by sketching and visualising various stages of nested affordances, have been used as a conscious method in order to encourage experiences that are not prejudiced by professional action patterns that are taken for granted at certain stages in a design process. In an ambition to perceive the environment without classifying or ranking it (based on previously acquired external knowledge about that environment), an affordance-based method was used here initially in order to both stimulate and reconsider design students' perceptions of how the resources in our environment can evolve, and hypothetically, how designers may distinguish this potential to a degree otherwise restricted by professional expectations. I see these initial results from the workshops as valuable for guiding how interventions into actual environments can be done.

My discussion of these education-based pre-studies, made to see what could inform a later intervention and questionnaire study at Lund NE/ Brunnshög, indicate the obvious complexity of the types of reflections

<sup>28</sup> As regards an extended use of the notion of "actors", cf. for instance the work of Yaneva (2011) and her mapping of the proposed expansion of London's Heathrow airport.

that the design professional assimilates and brings to a site as part of an educational load of professional custom. The design professional also brings the expectations perceived beforehand about the specific cultural demands and contemporaneity regarding the current period of time to the place, as well as the presumed function of the place, i.e. demands and ideas that have been stated previously by others. In the case of Lund NE/Brunnshög, such pre-conditioning statements are first of all stated by OECD, Swedish lobbyists, local, regional and national developmental politicians, as well as by the scientific project leaders and design professionals who played a role in the very early phases. All of this is part of the professional attention towards a place – part of the picture learnt or studied beforehand. In the next section I will make some of these influencing factors more visible.

## **Vision related expectations**

For the purpose of problematising the underlying assumptions and ideals that are part of the design professional's point of departure reflecting ideals in current Swedish planning, I will outline the main goals expressed in planning documents regarding the Lund NE/Brunnshög area in the preparatory years of 2012-2014 and draw some parallels to another substantial urban development: Örestad on the outskirts of Copenhagen, Denmark. I will also account for some of the urban design values and regional expectations that were formulated quite early in the process and that thus constitute the visionary entrance to later stages.

### **Big Science in a small town**

Greatness is expected in the northeast-bound expansion of the city of Lund. Here, two large-scale research facilities for the physical investigation of materials are in an establishing phase in the years 2010-2025: they are MAX IV, a nationally funded synchrotron radiation laboratory; and ESS, the internationally-financed European Spallation Source. Skåne Regional Council, the Municipality of Lund and Lund University are co-operating to secure the local land and service requirements guaranteeing

a long-term scientific, architectural and social outcome of the enormous investment for example through ESS MAX IV i regionen – TITA.<sup>29</sup> In addition to the expected scientific benefits for the users of the science plants, there are aspects such as a “general scientific attractiveness, status, and prestige of the host city (including Lund University), the host region (Skåne or the Øresund Region), and the host country (Sweden)” (Granberg 2012:113).

The images, prospects, and promises of what the ESS is going to be, and how it is going to come into being, are ubiquitous and vivid. They are produced and spread by regional policymakers and pundits, media, and lobbyists hired to pave the way for the smooth adoption of this international megaproject by a sparsely populated peripheral country in the north and it's [sic] southernmost farmer land [sic] fairly close to mainland Europe and within it, a small university town with grandiose ambitions. (Hallonsten 2012:13)

Lund is expected to expand as a consequence of the research facilities, and within 40 years generate places for up to 50 000 people to live, work and study in the area (Lunds Kommun 2012c:2).<sup>30</sup> In the promotion of the plans for this substantial expansion, a uniform and consistent picture is painted under the label of “the world's prime research and innovation environment”.<sup>31</sup> Inspiration for the plans is taken from the municipality's need to promote the city of Lund and the research community's response to the demands of a global market. In the promotion of such excep-

<sup>29</sup> *ESS MAX IV i regionen – TITA* project (*ESS MAX IV in Southern Sweden – TITA*) was a vision- and strategy-oriented consortium managed by the Skåne Regional Council from 2010 through 2012 together with all the municipalities in the county of Skåne, Lund University, the corporate association Invest in Skåne, the site-specific interest consortium ESS AB, Malmö University, the adjacent county Region Blekinge, the Swedish University of Agricultural Science, and the Blekinge Institute of Technology. These stakeholders cooperated to secure future “growth and employment opportunities as a result of the establishment of the research facilities” (*ESS MAX IV i regionen – TITA* 2010). The TITA project consisted of nine sub-projects co-financed by the European Regional Development Fund. The total budget was ca EUR 5.3 million (*ESS MAX IV i regionen – TITA* 2010). TITA is an acronym for *Tillväxt*, *Innovation*, *Tillgänglighet*, *Attraktivitet*, based on the Swedish words for *growth*, *innovation*, *accessibility* and *attractiveness* (*ESS MAX IV i regionen – TITA* 2010).

<sup>30</sup> Also note the goals related to expansion of towns with higher education as formulated by the National Board of Housing, Building and Planning (Boverket 2012:33, 63).

<sup>31</sup> This formulation is used by several stakeholders in the process: Region Skåne (2012) in *Fördjupning av översiktsplanen för Lund NE/BRUNNSHÖG* (Lunds Kommun 2012a:3) and by Science Village Scandinavia AB (Science Village Scandinavia AB 2013a).

tionally resource-demanding investments, arguments have to be found beyond the obvious benefits for the science community. Therefore, in the promotion and communication of the project, the prosperity of a city and region are emphasised as societal benefits of Big Science<sup>32</sup> establishments. Feasible local and societal benefits are stressed and communicated with the same determination as the scientific achievements (ESS MAX IV i regionen – TITA 2012c; ESS MAX IV i regionen – TITA 2012a). Despite the municipality's ambition to handle urban design problems related to a small-scale everyday life<sup>33</sup> the solutions are often backed up with arguments adapted to an international science community. My case study focuses on the initial phase (2012-2014) of the planning and establishment of the two research facilities MAX IV and ESS, and the jointly planned adjacent science park, Science Village Scandinavia.

## The vision of Lund NE/Brunnshög

In 1999, OECD recommended each of the continents of Europe, America and Asia to develop its own research facility focused on neutron research and materials science (Richter 2002:18). After several years of national and international negotiations, Europe's answer to OECD's recommendation was that the facility European Spallation Source (ESS) would be located at Lund NE/Brunnshög. ESS, and the planned establishment of the national synchrotron radiation laboratory MAX IV in the same area will not only be an important factor and resource for the

<sup>32</sup> The term Big Science was coined in 1961 by physicist Alvin Weinberg and relates to science "as part of the new political economy of science produced by World War II, during which the U.S. government sponsored gigantic research efforts such as the Manhattan Project" (Encyclopaedia Britannica 2014). See also "large-scale scientific research consisting of projects funded usually by a national government or group of governments" (Merriam-Webster 2014).

<sup>33</sup> Examples of this can be found in the *Workshop about Outdoor Activities in the Future Brunnshög*, held by the Brunnshög Project Office. It can also be found in the ambition to preserve the natural recreational areas with ancient remains, Kungsmarken and Puggängarna; (Lunds Kommun 2012c:27-8). Another example is the aim to create an "attractive and diverse urban environment" and "[a]n urban neighbourhood that stimulate[s] the social, playful human being through the public spaces encouraging active participation in city life" (Lunds Kommun 2012c:31). Under the headline *Lund is Changing* in a pamphlet called *Curious about: A New Neighbourhood in Lund* it is declared that "[w]e also need to make sure that the human values are taken into account; otherwise this new part of the city will not be able to reflect the positive, warm and welcoming image of Lund." (Lunds Kommun 2012d:2).



Figure 18. The Lund NE/Brunnshög area in the north-eastern part of Lund. Illustration Lunds Kommun 2012



Figure 19. Location of future facilities and Science Village Scandinavia. Illustration Kopljär 2014

research community on an international scale, but will presumably have considerable impact on Lund and the surrounding region. As a consequence of the introduction of the two large-scale research facilities, the Municipality of Lund decided to create a new urban district. The decision to build on Sweden's best farmland<sup>34</sup> partly contradicts previous intentions to conserve that type of land in the outskirts of Lund<sup>35</sup> – the soil quality at Lund NE/Brunnshög is of the highest productivity class (9-10) (Carlie & Lagergren 2012:14).

<sup>34</sup> Lund NE/Brunnshög is situated adjacent to an elevation of the Romele Ridge. The ridge serves as a watershed between the two streams *Kävlingeån* and *Höje å*, and the land consists mostly of boulder clay. In order to enable cultivation the wetlands are today put in culverts or drained, and the area currently consists of fields used for farming (Riksantikvarieämbetet 2010).

<sup>35</sup> The new development overturns the City Council's decision on the terms of reference formulated in the Master Plan from 2010: "The City Council has adopted terms of reference prior to the work of the Master Plan. These terms state that '*The Comprehensive Plan will help coordinate the objectives of social, economic, ecological and cultural sustainability. The ecological dimension provides a framework and the necessary prerequisite for all other development.*' It is therefore important to conserve the land, especially the high-quality farmland, as well as locating new development mainly along public transport routes with existing and planned rail transportation." (Lunds Kommun 2010:3, original emphasis).



Figure 20. The view of the building site of MAX IV from Norra Fälåden, across the E22 motorway. Photograph Kopljär 2012



Figure 21. “Lund – Follow the construction of European Spallation Source”. Photograph webbkameror.se



## Lund Northeast

Adjacent to the Lund NE/Brunnshög area lie the residential areas Norra Fäladen and Östra Torn with their substantial populations. In the future, Norra Fäladen will be one of Lund NE/Brunnshög's closest neighbours; it is situated across the motorway E22 to the west of the area. Norra Fäladen, the district in Lund with the second largest population after the city centre (Lunds Kommun 2013e:16), has residential areas with mixed development, an active commercial centre, industry and municipal service within its confines.

## Swedish world class sustainable planning

When promoting Lund NE/Brunnshög and formulating hopes for the area's future, the Municipality of Lund repeats the arguments often used to describe Lund's identity: it is a city of contrast and a city of ideas (Lunds Kommun 2013b). A thousand years of history mingle with "modern knowledge and visions" (ibid.). Besides creating the world's best research and innovation environment with 50 000 individuals active in the area (Lunds Kommun 2012c:2), the ambition is to make the area an example of "Swedish world class sustainable planning" (Lunds Kommun 2012a:3).<sup>36</sup> In this endeavour, the Municipality of Lund is allowing the sustainability objectives to permeate the planning, and if this succeeds, the area will probably fulfil the planned sustainability standard. Several key elements that can ensure an ecologically sustainable city in the future are included: infrastructure of water, as well as design that ensures availability of transport for all and facilitates reduced car dependency (Newman 2010).

The expectations are exceptional, as the planning includes the residential neighbourhood, the staff-oriented activities of Science Village Scandinavia, and the technical facilities of ESS and MAX IV. The potential of a future expansion of Lund has been acknowledged for some time. This expansion, related to the overall development of the whole Öresund

<sup>36</sup> For sustainable expectations see also Lunds Universitet 2015, Science Village Scandinavia 2014b.

region<sup>37</sup> (Science Village Scandinavia 2015b), and thus also to possible regional labour-market and corporate benefits, as well as to the new demands of the facilities of ESS and MAX IV in terms of land and service, led to the decision to revise the Municipality of Lund's Master Plan, ÖPL-98, in 2008. The result of that decision and subsequent work became the new Översiktsplan för Lunds Kommun, ÖP 2010 (Lunds Kommun 2010:8). The planned expansion in the north-eastern part of Lund has resulted in Lund NE/Brunnshög being used in the media every other day as a resource argument, and consequently as a catalyst for development in the region. Lund is imagined to be the perfect spot for the location and establishment of new research environments (Lunds Universitet 2015). Thus, through formal documents like these, and through public media, the southern part of Sweden is recurrently depicted as an expanding and vital part of Northern Europe and is paired with a general image of Sweden as a well-organised country with a highly developed social welfare system and sustainable and responsible politics (Lunds Kommun 2012a). This recalls other Swedish utopian narratives such as “a magical land far, far away in the well-ordered, distant North” (Metzger & Olsson 2013:5).

The arguments for a sustainable city, extraordinary research facilities and a spectacular recreational area for visiting researchers and the local population tend to blend together in these visions of the future development, triggering a general sense of expectation of a promising future. In practice, of course, this is only vague and fragmentary, but slightly more substantial than nothingness,<sup>38</sup> and therefore serves as a bootstrapping mechanism for the development of the project. The narrative as knowledge distribution (the story of the Knowledge City), or a source of knowledge and a pedagogic tool, moves the rhetoric forward.<sup>39</sup>

<sup>37</sup> Among the expected four largest multiple core regions in Sweden 2050, the Öresund region is expected to be the “by far greatest” (Boverket 2012:33).

<sup>38</sup> As communicated at a *Partnership Meeting*, 15 June 2011, or at the *Invitation to a Foresight Feast – How to create a dynamic and innovative research environment?* 13 January 2012. Both events were organised by ESS MAX IV i regionen – TITA.

## Growth, innovation, accessibility, attractiveness

From 2011 through 2012 I was part of an official planning group, TI3, for future meeting places at the Lund NE/Brunnshög area. TI3 was hosted by the Lund City Planning Office and part of the larger regional cluster of planning groups called ESS MAX IV i regionen – TITA. In a series of meetings, the municipalities from Sweden's two southernmost counties, Skåne and Blekinge; the institutions of higher education; and the Skåne Regional Council cooperated to formulate strategies on how to secure growth and development through the spin-offs of MAX IV and ESS. The conceptual material produced by the TI3 group was used further in formal reports (ESS MAX IV i regionen – TITA 2012a), as well as forming the basis for a pre-study about a science themed visitor's centre (Johnson, Riise & Berge 2012). The group's work was defined as focused on "a survey of the opportunities and an analysis of the success factors [...] in order to provide a basis for how to strengthen and develop the physical environment for innovation around the facilities" (ESS MAX IV i regionen – TITA 2011b). The main rhetoric for the municipality's work with the Lund NE/Brunnshög area highlights that innovation, or "sparks of creativity" (ESS MAX IV i regionen – TITA 2012b:54) are created through the encounter with people with "other" experiences or ideas, and that high quality urban design can promote and facilitate encounters with this type of scientific and cultural otherness (Lunds Kommun 2012c). These ideas were also the starting point for the discussions within TI3, stated as they were in the municipality's formulated *Vision and Goal* for the area: "MAX IV and ESS provide an opportunity to create a strong meeting place for the world's leading researchers at Brunnshög, as well

<sup>39</sup> Kunskapsstaden (The Knowledge City) has been developed in Lund e.g. through the project Hållbar Kunskapsstad Lund NE (Sustainable Knowledge City Lund NE), a project funded by Delegationen för hållbara städer (The Delegation for Sustainable Cities) which has worked on the development of sustainability-oriented solutions for the Science Road and Lund NE/Brunnshög (Boverket 2014a:4). The project focuses on innovative solutions "rather than large overall solutions with established techniques" and where "the connection to Lund's University is strengthened" (ibid.).

as links between them and the business community.” (Lunds Kommun 2012c:7).<sup>40</sup>

## A pioneer spirit

Although creating an elegant rhetoric and a beautiful vision, the municipality admits that “[o]ur notions of what a meeting place should be can sometimes build on a customized picture of how people socialize and live. By studying contemporary needs, desires and life patterns, we can better support everyday spontaneous encounters.” (Lunds Kommun 2012c:44). An underlying expectation of promising futures to come could be sensed during the larger TITA gatherings. For example, at a Partnership Meeting in 2011 that was arranged to facilitate exchange between TITA members, spin-off effects were presented in numbers; one job opportunity at one of the research facilities was estimated to generate 3.8 job opportunities in the vicinity.<sup>41</sup> Another example of great confidence in the future appeared in a so-called *Foresight Feast*, where it was discussed “how different actors together can contribute to the creation of a dynamic research environment around ESS and MAX IV” and where “leading researchers” were announced to share their experience to local stakeholders.<sup>42</sup> Such a pioneer spirit resembles the attitude during the “peak years” (*rekordåren*) in Swedish history. During this period, after World War II to the mid-1970s, Swedish economic growth and community-building was peaking, and was “characterized by everything getting better all the time” (Rydén 2013). These were years of great industrialisation and urbanisation in Sweden (Väware & Ericsson 1987:8-12) – an industrial golden age in Sweden as well as in other parts of the world (Schön 2014:364 – 80). At this quite early stage of the realisation process of the research facilities at the

<sup>40</sup> In *Kommunernas översiktsplaner, Samverkan Skåne Sydväst*, (Lunds Kommun 2008: 8) the area is still referred to as merely *Brunnshög*. This is also the case in *Översiktsplan för Lunds Kommun, ÖP 2010* (Lunds Kommun 2010). In *Fördjupning av översiktsplanen för Brunnshög*, (Lunds Kommun 2012a), the names *Brunnshög* and *Lund NE/Brunnshög* are used interchangeably.

<sup>41</sup> Partnership Meeting 2011-06-15 in Vellinge, Sweden.

<sup>42</sup> From the *Invitation to a Foresight Feast – How to create a dynamic and innovative research environment?* The event was held at the ESS facilities, at the time in central Lund, on 13 January 2012.

Lund NE/Brunnshög area, a similar sense of optimism and faith in the future seemed to flourish, still quite untouched by practicalities, tough negotiations and economic rationalisations. Reality-oriented problematisation and conflicts of interest – although surely already apparent for some of the project leaders involved – appeared to lie in a distant future.

## Welcoming the Creative Class

The Lund NE/Brunnshög development seems to follow a pattern in which cities and civic leaders see themselves as competing on a market where advantages are gained by attracting a “creative class” that appreciates environments described as “open, diverse, dynamic and cool” (Florida 2003:27, quoted in Peck 2005:740). Here, Jamie Peck’s critique of the influential urbanist Richard Florida’s theory of a *Creative Class* comes to mind (Peck 2005). Florida suggests that the creative class, consisting of e.g. artists, musicians and designers, but also scientists and engineers (Florida 2004:xiii), has the potential to boost urban economy through its association to “Technology, Talent, Tolerance”<sup>43</sup> (Shea 2004) and promotes a culture that is favourable to creativity due to its open-mindedness and diversity (Florida 2004:xvii). Florida concludes that members of the creative class are not “slavishly following jobs to places”, but are letting their lifestyle interests guide them (2004:xxviii), which results in an economy that is shifting from a system steered by large companies to an increasingly people-driven one (Florida 2004:6).

Having many driven people in the same locale will lead to spontaneous interaction and activities where they learn from one another, without any specific cost related to it. [...] Cities reduce the cost of knowledge transfer, so ideas move more quickly, in turn giving rise to new knowledge more quickly. (Florida & Mellander 2014:326)

<sup>43</sup> In a comparative study about research environments commissioned by ESS MAX IV i regionen – TITA it is concluded that successful innovative environments have atmospheres that offer opportunities to “think, talk and test” (ESS MAX IV i regionen – TITA 2011a:8). This conclusion is an attempt to reconceptualise Florida’s three Ts (“Technology, Talent and Tolerance”) (ESS MAX IV i regionen – TITA 2011a:254). The aims for the evolved concepts are to support individual *thinking*, provide spaces for social encounter that encourage *talking*, and flexible spaces for *testing* (ESS MAX IV i regionen – TITA 2011a:257).

The statement above appears to follow the same logic as the plans for Lund NE/Brunnshög, and the group that often drives the development rhetoric through various stakeholders' plans and initiatives appears to correspond to Florida's creative class. Certain common denominators can be identified between Florida's ideal of the creative class and the Municipality of Lund's current planning, although planning in Lund does not express the same misanthropic attitude with regards to the "non-creative" part of the population supposedly merely looking on and learning from the creative class (Peck 2005:746). While the Municipality of Lund claims in their plans that they are aiming for a development of Lund with something "for everyone" (Lunds Kommun 2012d), there is a risk of a false diversity in the plans, where what is actually primarily targeted is a limited range of people – from the Swedish to the international scientist bursting with ideas.<sup>44</sup>

## Consumable consensus

Affordances sometimes appear as conflicting, and can be deliberately used to problematise perceived consensus – there is almost never one single response to a complex situation, and things can evolve along various paths. The spectrum of potential and conflict, within an individual and between individuals, could be associated to Chantal Mouffe's concept of *antagonism*, which abandons consensual solutions for agonistic ones (Mouffe 2007). Mouffe states that liberal concepts fail to address the pluralism of the social world, which always implies conflict with no solution, where the typical liberal stance is that a heterogeneous world can be assembled into a "harmonious ensemble" (Mouffe 2007:2). Mouffe presents possibilities to consciously escape the demand of consensus where "antagonism reveals the very limit of any rational consensus" (ibid.). Parallels can be identified between the vision for Lund NE/Brunnshög's creative meeting places and Mouffe's assessment of neo-liberal production. In Mouffe's critique, the liberal ambition includes packaging of once disruptive val-

<sup>44</sup> This pattern can for example be seen in the report *Regional mobilisering kring ESS och MAX IV, Slutrapport*. (ESS MAX IV i regionen – TITA 2012c) and *Mötesplats Lund NE, Kreativa mötesplatser. Programmering av mötesplatser* (ESS MAX IV i regionen 2012b), in which the scientist's or researcher's needs are continuously emphasised.

ues associated with counter-culture and transforming them into easily digestible claims of authenticity and originality. Mouffe asserts that by taking over formulated critique, the producers neutralise possible conflicts (Mouffe 2007). Mouffe's notion of hegemony is addressing the inability to see the problems of contemporary society politically, which requires "recognizing the hegemonic nature of every kind of social order and the fact that every society is the product of a series of practices attempting at establishing order in a context of contingency" (Mouffe 2007:2). In the vision for the Lund NE/Brunnshög area, possible situations of diversity and antagonism are transformed into comfortable lifestyle concepts



Figure 22. Layout plan for the Lund NE/Brunnshög area according to the Municipality of Lund (Lunds Kommun 2012a:7) The actual construction at the site of MAX IV started in 2010<sup>45</sup> and the groundwork on the ESS site started in 2014. The ESS facility will not be operational until 2019, with full capacity in 2025 (European Spallation Source 2014).<sup>46</sup> In March 2012, the municipality chose a winning proposal in the architectural competition for the layout of Science Village Scandinavia (Samuelsson 2012).

<sup>45</sup> MAX IV was inaugurated on 21 June 2016 at 13:08:55; at the lightest day and moment of the year.

<sup>46</sup> The ESS building construction phase was initiated with preparatory work on-site during the summer of 2014 (European Spallation Source 2014).

ready to be consumed on a global market. This is formulated by Lund Municipality in the aims to create an “urban environment that opens up for business development and contacts, culture, research, everyday life, play and innovation. An exciting environment for people with different backgrounds, interests and professions” (Lunds Kommun 2012d:5), and the ambition to create “an interesting and sustainable urban environment and fascinating destinations around the research facilities” (ibid). This environment is thought to strengthen the attractiveness “for researchers as well as for the public. Instead of having isolated research facilities in the Scanian plains, Lund NE/Brunnshög can become a place for meetings” (ibid).

The mediated anticipations attached to the future of Lund NE/Brunnshög cause the sense of expectation to spread to a variety of contexts. The development at Lund NE/Brunnshög has led to various political, communal, and educational projects in the region becoming linked to the research facilities. The preconceptions are most often coupled with a vision of a greater and more potent research community with participation from researchers from the world’s most exciting research environments. At the same time, worried inhabitants in Lund, as well as officials at the regional level, start to raise questions such as why the university is depopulating the city centre in favour of the new Science Road, a route being planned to lead to Lund NE/Brunnshög (Nebel 2014). On a regional level, the actual problems regarding with how to deal with the integration with Denmark and the Copenhagen region are also pointed out (ibid.).

A “double optimism” has been present throughout the process of establishing ESS in Lund (Hallonsten 2012:13f). From the start of the ESS-Scandinavia campaign (around 2002), Lund has been recommended as the ultimate location for a European Spallation Source, and “[c]onversely, the ESS has been forcefully promoted as a kind of perfect megaproject for Lund” (Hallonsten 2012:13). The opaque political process leading up to the decision to build ESS in Lund has been thoroughly criticised by the research policy scholar Olof Hallonsten. In 2012, there was no legally binding, formal decision behind ESS; it was not funded, but had been since the “decision” in 2009 “advertised and sold as such to various audiences and with a variety of promises and expectations attached” (Hallonsten 2012:12).



An anticipation of eminence is attached to the future of Lund NE/Brunnshög and a sense of expectation has spread to a variety of contexts. The anticipation of a bright future is associated with public initiatives and cultural events in the region<sup>47</sup> and coupled with a vision of an even greater and more powerful and potent research community, where the expectation of one of the world's most exciting research environments is communicated by the involved stakeholders. In the background of an advertisement for a debate organised by the local paper prior to the municipal elections in September 2014, there is an illustration of the future Lund NE/Brunnshög area. Among the questions juxtaposed on this image are *How to reduce the size of school classes?* *Does Lund need a tramway?* and *Should Lund increase its refugee reception?* (Sydsvenskan 2014a). The image of the future ESS is thus used to represent a general image of a future city of Lund.



Figure 23. “Future Lund – this is what the politicians want”  
Illustration Sydsvenskan 2014

<sup>47</sup> This is emphasised by questions to local politicians asked in media in connection to the Swedish parliamentary election: “How will the region use the research facilities ESS and Max IV?” (Lorentz 2014), a “hot” question to the new Vice-Chancellor of Lund University (inaugurated in January 2015) regarding how he will solve the financing of MAX IV and ESS in relation to other activities at the university (Menander 2014), or the theme of Lund Art/Design school based on the “neutron cannon that is being built at ESS” that resulted in an light installation in the centre of Lund in November 2014 (Sydsvenskan 2014b).



Figure 24. A vision of an expanded Science Road by night according to the Lund University's campus plan. Illustration Lunds Universitet 2012

## The Science Road

The stretch of the *Science Road* corresponds to an existing knowledge and science theme along a route that – with 30 000 students and 25 000 workplaces – is the region's largest workplace for knowledge based activities (Lunds Kommun 2014b).<sup>48</sup> The Science Road starts at Lund University's older facilities in the city centre, moves through the Lund University Hospital area and transverses the campus of the Faculty of Engineering at Lund University (LTH) to Ideon Science Park<sup>49</sup> and Medicon Village and continues on the more recently erected group of buildings tied to Sony Ericsson's facilities. From here, a continuation is planned to the north-eastern part of Lund, through the future Lund NE/Brunnshög area (Lunds Universitet 2012). The aim of the Science Road, according

<sup>48</sup> "The aim with the Science Road is to develop these knowledge and innovation environments as a more integral part of the urban fabric. The Science Road connects the historic centre of Lund with Brunnshög and the future research facilities ESS and MAX IV. The aim is to develop these knowledge areas into attractive urban environments with distinct sub area identities through sustainable urban development." (Lunds Kommun 2014b)

<sup>49</sup> "Ideon Science Park is Scandinavia's and one of Europe's most successful meeting places for visionaries, entrepreneurs and for venture capital." (Ideon Science Park n.d.)

to the municipality, is to “make these knowledge and innovation environments a more attractive and vibrant part of Lund.” (Lunds Kommun 2014f), with the Science Road as a “knowledge based, innovative and creative centre in the Öresund Region” (Lunds Kommun 2014e). The stakeholders have great hopes for a future tramway along this stretch, expected to work as the “backbone” connecting the city centre with the future Lund Science Village (Lunds kommun 2014d, Spårväg Lund C – ESS 2015). In December 2015, after a long debate regarding local transport politics, full of controversies and even leading to the formation of a new “alternative” political party,<sup>50</sup> the “historical decision” to build the tramway was made in the City Council in Lund (Kuprijanko 2015).

The Science Road, as a concept and as a physical planning leading star, does not remain undisputed. The architecture theoretician Mattias Kärrholm states that the project, though aiming for diversity and inclusiveness, is in danger of becoming rather uniform, both thematically and in its physical shape, due to the focus on knowledge based activities, mainly connected to the university (Kärrholm 2014:54). This conformity runs the risk of the Science Road developing as an isorhythmic urban area with a constant time pattern, including “that certain activities at certain times of the day or during certain months will be highly influential” (Kärrholm 2014:55). Kärrholm identifies a need for a deeper analysis of a possible *dominating tempo*, as well as an investigation of a potential dominating time-figure: “[t]he establishment of a dominant time-figure can be seen as a sort of thematisations or territorialisations of time” (Kärrholm 2014:56). In discussions about the research facilities’ spin-offs, for example in such contexts as TITA,<sup>51</sup> the benefits of increased job opportunities and growing small businesses were primarily mentioned in economic terms; the content of those jobs and the conditions for those workers were not discussed in further detail. These jobs seem to be seen as a service to the main goal of the establishment; i.e. the research. In this perspective, the facilities are thought of as dominant, and the outcome of the facilities is what primarily matters. A hierarchy emerges; a sort of

<sup>50</sup> The political party FNL’s main political issue is to prevent the tramway in Lund. FNL is an acronym standing for FörNyaLund (Renew Lund) (Kuprijanko 2014).

<sup>51</sup> The *ESS MAX IV i regionen - TITA*.

creative (scientific) class does not only define the content of the main activities, but also the layout and theme of the new establishments. On the whole, the nearer the actual construction and performance of the facilities draws, the more diverse and anchored in everyday life the debate becomes, such as in the local media mentioned above. Nevertheless, the original OECD imperative – namely to provide facilities for a certain type of scientific progress, and thus for the City of Lund to provide room for a corresponding community of scientists – is what ultimately continues to drive the local planning forward.

Figure 25. Plans for the tramway – the anticipated route of the tramway. Illustration Lunds Kommun 2012

## International ambitions in local sustainable plans

In the Municipality of Lund's plans for the new neighbourhood, the goal – to create the world's best innovation and research environment – is considered dependent on the realisation of an attractive and diverse urban environment. The plan is to create this environment by building dense and green urban space, which is expected to – together with a various forms of tenure – create a city “for many different people” (Lunds Kommun 2012d:9). The aims are set high. The municipality also wants to: “minimize” ecological impact, “balance” the use of good quality farm land, and “maximize” impressions by focusing on people's senses (Lunds Kommun 2012d:11). Various services would be located along the planned central tramway path in the area, and an adjacent city park is planned.<sup>52</sup> A more rural type of housing has been proposed for the eastern edge that includes access to individual farming plots and an eco-village (Lunds Kommun 2011). These types of “green” sustainability objectives – partly realistic, partly symbolic, and partly merely rhetorical – are part of common policy document business today, reflected for instance in the *European Spatial Development Perspective, Towards Balanced and Sustainable Development of the Territory of the European Union* document from 1999. As mentioned above, this document outlines goals and motives for a sustainable European future.

The need to strengthen Lund NE/Brunnshög's own identity is acknowledged in the municipal planning, and the old farms in the area are considered valuable in this regard (Lunds Kommun 2011, 2012d:25). The cultural geographer Tomas Germundsson points to the fact that “the EU has challenged, in different ways, the notion of the nation-state as the fundamental territorial geopolitical unit” (Germundsson 2005:21). The EU is governed across regions, and intra-national regions move the EU's development forward. The importance of the region in creating identity is recognised (Germundsson 2005:22).

In a quite early rendering of the planned ESS facility, a view constructed before the finance plan was finalized – the vision plays on a

<sup>52</sup> A “high quality recreational area” that also offers shelter from the strong winds at Lund NE/Brunnshög. (Science Village Scandinavia 2014b).



Figure 26. ESS as envisioned in 2009. Illustration ESS 2009

scale where you can see the Öresund Bridge, and south across Öresund towards the rest of Europe. The illustration implies an international scale, across land and sea, and gives the viewer the impression of being a world citizen, perhaps in a world united by science and progress. This view also parallels the conceptualisation of a city both as a local and a global phenomenon with “geographically distributed effects” (Metzger & Olsson 2013:2). The philosopher Michel de Certeau contrasts, but also interweaves, the close perspectives of everyday life with the large-scale decisive structures of society; “I wonder what is the source of this pleasure of ‘seeing the whole’” (de Certeau 2002:92). The envisioned extension of Lund NE/Brunnshög communicates a “controllable” space – it gives a quite finished impression, but the images of the future plant also seem to offer an opportunity to make hypothetical changes from a distance, without any effort to speak of. The self-centred perspective mediates a geographical perfection and a projective escape from the close-by gravities of social

and organisational interaction. It is indeed the return of the breed of futurism, spectacle and dreaming that we associate with modernism and grand-scale visions, and as receivers of images like this one we recognise ourselves as involuntary, but not disinterested voyeurs. At first, the image seems pretty far removed from the kind of general action potential that we call affordance, but the question is also to what extent the imagery and the grandiosity itself inform the minds of the spectators – not least of course those with a design professional's attitude towards the future area.

Among those whom the Municipality of Lund and the establishing consortia of ESS seek to attract to the area, the international scientist is prioritised highly, and the vision of future research facilities is formulated to function on a global scale of attraction. “Approximately 8000 scientists are every year expected to visit the neighbourhood that is going to be one of the world's leading centres for materials research. [...] Around the facilities [are] supporting establishments such as short term accommodation for visiting researchers, conference rooms, restaurants and shops.” (Lunds Kommun 2012c:8). The research facilities that attract the international research community are – as we also saw in the above discussion on what catches public interest – what dictate and guide the visions for the area. The facilities themselves will also be physically dominant at the actual site, with several colossal laboratory facilities encased in customised architecture designed to safely host the actual experiments within a futuristic and closed outer appearance. In this respect, two kinds of “big scale” – global reach as well as physical constructions – go hand in hand, both of them dictated by the needs of contemporary particle physics research. Officially however, three defined scales are activated in the preparatory phase. The strongest defining scale, which will influence the possibilities of all other development and other activity at Lund NE/Brunnshög, are thus the global science intentions of ESS and MAX IV. The second scale, the Öresund region – which includes southern Sweden and eastern Denmark – is recognised as one of the most expansive and innovative regions within the EU (European Commission 1999:20; Boverket 2012:33), and on the third scale is the need to promote Lund NE/Brunnshög as an attractor that has escalated in the official city plans from 2010 and onward (Lunds Kommun 2012a, 2012d, 2014e; Lunds Universitet 2015). The focus on the research facilities' professional activities implies a short-term

worker/visitor as a main target; this can lead to the result that the less established connection one has to the area, the more attention is paid to the immediate needs during a particular stay – all of this in recognition of the need to make the area attractive in a global perspective, i.e. to make effective experiments and publishable measurements. One would assume that a daily presence on the local scale would provide the largest range of possibilities for activity; despite this, the global scale is continuously emphasised in planning and media. The tendency in the planning of Lund NE/Brunnshög to focus on the individuals who are supposed to be active at the research facilities, and on the facilities' international impact in media and in the science community, parallels the landscape geographer Kenneth R. Olwig's critique of Ptolemy's scalar cosmography, which still today suggests that "the wisdom of the global scale, at which one should 'think', is superior to that of the local scale, at which one should 'act'" (Olwig 2011:405). Olwig thus identifies the intrinsically inferior position of "local" as it is generally defined in relation to the global: "[t]he word 'local', in other words, suggests location in isotropic space, and a certain binary between the larger spatial context and the local situation within that space" (Olwig 2011:406). In a physical perspective, the Lund NE/Brunnshög area can be perceived as a "clean slate" in its quite uniform landscape dominated by agriculture industry. In combination with the global "view", this landscape could easily be turned into a general and controllable "map space" (cf. Olwig 2011). In the planning of Lund NE/Brunnshög, the municipality places substantial effort on combining the global and regional with the local ambitions, although the global need for materials science is used to drive the rhetoric forward. Possibly what counts when placing visions in people's minds is ultimately a matter of impact: actions and thoughts that are implemented and exercised on a global scale are recognised as having an opening impact and are addressed and targeted as something from *far away*, whilst the daily individual actions are seen as having smaller, *close*, impact on the overall situation.

## Ørestad/Örestad

Parallels can be drawn between Lund NE/Brunnshög and Örestad and the plans to create a new part of Copenhagen that is associated with



the entire Öresund region, including the southern Swedish coastal area. Örestad is yet another example of the generic, top-down planning that I maintain ought to be problematised through the introduction of critical concepts in design processes. Copenhagen is perceived as strengthening its position among the big city regions in Northern Europe through the creation and establishment of Örestad on the island Amager, and the building of the Öresund Bridge, which was opened in 2000 (Olwig 1992:16). Örestad also constitutes a high-profile expansion of the city of Copenhagen (Davey 1995:60). The area lies between the centre of Copenhagen, the Copenhagen Airport, and the Öresund Bridge, and can be reached by the Metro City Line from the city centre in about three minutes (Jordan 2002:402). The Ørestad Development Corporation's formulated aim was

[..] to accommodate a wide span of activities, including institutions of higher learning, research institutes, research-based and knowledge-orientated organisations, cultural establishments and city orientated organisations, cultural establishments and city-orientated businesses [...] The new district is to act as a modern equivalent of the old centre of Copenhagen, presenting an urban environment of high artistic value and good environmental qualities. It is to act as a contemporary laboratory for new ideas and, in the future, to testify to the aspirations of urban planning and architecture in Copenhagen towards the end of the twentieth century. (Davey 1995:60)

The vision for the area presented by the owner CPH City & Port Development is very reminiscent of the visions for the Lund NE/Brunnshög area; “[i]t is CPH City & Port Development’s vision to create vibrant neighbourhoods of international class, which are attractive quarters in which to live and work, and are also exciting to visit.” (By&Havn n.d). Rita Justesen, chief planner at City & Port Development, comments on the aims of Örestad: “When the development of the new town on the Orestad [sic] site was decided by the Danish parliament in the early 1990s, the politicians realized that Copenhagen lacked the dynamic and attractions to function as the driving force for Denmark and to be able to compete with other metropolitan cities in Europe” (Foster 2012). Örestad does not remain undisputed:

The city is on its way to becoming a cheap copy of the 3-D image used to sell it. The simulations show a city without any blemish, without the heterogeneous quality of a living urban organism – a world that appeals exclusively to a young and affluent clientele. In 20 years, Ørestad will form a part of Copenhagen. A decisive factor in respect of its viability is whether its structures will be able to accommodate unforeseen uses in the future. (Jordan 2002:402)

Despite the good intentions, Örestad appears to be the victim of land exploitation resulting in cut-off commercial areas (Jordan 2002:402) where high profile, isolated buildings generally fail to generate continuous urban environment. Possibly due to the general economic crisis, since the general Danish drop in real estate prices since the peak in 2007 Örestad has not been very successful as a residential area (Foster 2012).

The Örestad development could be criticised, for the sort of stereotype formulations of the strategies and visions used there (and later repeated to a significant degree in the case of Lund NE/Brunnshög), which contained many of the sustainability goals formulated by the EU (cf. European Commission 1999) ignite a sort of contained nesting, or locked – even deadlocked – repetition of possible action; i.e. that no matter what the context is, the planning rhetoric will be the same. A similar top-down and distant node-oriented planning is virtually exerted in the OECD recommendation from 1998 that acknowledges a need for additional neutron research facilities in Europe, America and Asia (Richter & Springer 1998:10). This too can be seen as another “rational,” large-scale decision about activities placed in an absolute, utopian space. Once again, the plan for the physical realisation of all this is a document that persuasively communicates an assumption of a quantifiable, and thus reasonable, space. In the case of Lund NE/Brunnshög, this is accompanied and made possible by the assumption of a quantifiable temporal scale as well.

## Site-related expectations

### On site at The Mill Farm - planning for Science Village Scandinavia

Various actors and aspects push the development forward at different stages of the process. Initial plans for the preservation of existing buildings in the area are a nod to the area's rural or agricultural heritage, and to a certain degree communicate a "history" in this building process to the public. These protected buildings are also meant to function as a visitor's centre, but the plans have not yet been realized (in October 2016). Ideas like this, which appeared quite vividly early in the process, have in later stages been partly overrun; for example, during the process of establishing the Lund NE/Brunnshög area and preparing the ground for the research facilities some farm buildings were torn down instead.

In 2011, Lundamark – a company founded collaboratively by Lund University, Skåne Regional Council and the City of Lund – owned seven



Figure 27. Aerial view of the Brunnshög area. Illustration Eniro kartor 2012

hectares of land between the future ESS laboratory and the construction site of the MAX IV facilities.<sup>53</sup> This is the location for the planned Science Village Scandinavia (SVS). In a meeting in April of 2012 with a representative of Skåne Regional Council who was also the manager of the planning of an ESS/MAX IV Exhibition at the time, the conversation revealed what seemed rather concrete plans for the public ambitions at the site.<sup>54</sup> The ESS/MAX IV Exhibition was intended as a temporary exhibition about the building projects at Lund NE/Brunnshög and “what it is going to be in the future”. The plan was to locate it at the Wennergren Farm, where it would be running within a year from spring 2012 and remain active for 8-10 years. The Wennergren Farm is located adjacent to the ancient mill along Odarslövsvägen (the Odarslöv road). With this exhibition, Lundamark (today Science Village Scandinavia AB) had aimed to explain the ongoing building process in the area as well as the science performed there, and constitute a tourist attraction and meeting point. The goal was to appeal to an “influential business clientele” through the inclusion of a restaurant envisioned as an exclusive “culinary landmark”. The exhibition and the restaurant were to be placed in the former miller’s house at the Wennergren Farm, which was awaiting restoration at the time. The intention was to move an old stable and barn building from the nearby Korsbäck Farm and modernise its interior to become an exhibition space, and through that create “a narrative” about the old buildings in the neighbourhood.

The wider aim with the land owned by Science Village Scandinavia AB and located between and around the two research facilities MAX IV and ESS, is to provide 250,000 square metres of buildable floor area, and to develop the area into an “international area for sustainable urban development” (Science Village Scandinavia 2015b). Furthermore, the area should function as an infrastructure supporting the facilities; it is planned to house research institutes and research facilities for Lund University as

<sup>53</sup> In January 2013, Lundamark (a joint venture between Lund University, City of Lund and Skåne Regional Council) was turned into Science Village Scandinavia AB, owned by the same stakeholders. A press release from 22 January 2013 states: “The planned science village has previously gone by the working title Lundamark. The new name Science Village Scandinavia is appealing, informative as well as internationally viable.” (Science Village Scandinavia AB 2013a).

<sup>54</sup> Interview with Karl Löfmark on 11 April 2012.

well as for other universities and companies related to research activities in the area. Science Village Scandinavia will also have facilities for laboratories, accommodation, and services such as cafés, retail, restaurants, recreation and culture (ibid.). Throughout the process, there have been



Figure 28. The Wennergren Farm, 2014. Two signs welcome you to Science Village Scandinavia at the Wennergren Farm in April 2014. No renovation or construction of the farm had been undertaken at this point. Photograph Kopljär 2014



Figure 29. The Wennergren Farm, 2014. Photograph Kopljär 2014



Figure 30. The Wennergren farm has been renovated while the Korsbäck Mill is still undergoing renovation in May 2016. Photograph Kopljär 2016

plans to build a permanent science centre – at times called XS – with venues for scientists, a visitor centre for the public and “XS Plaza — the obvious and attractive rendezvous point and center of XS and its various flows of visitors”<sup>55</sup> (Johnson, Riise & Berge 2012:13).

The Korsbäck Mill, a windmill originally from 1647 (Lunds Kommun 2011:26) and located at the Wennergren Farm lot, was to be carefully renovated as well, as part of these ideas.

In the spring of 2014, the plans for the mill had yet to be realised, and construction of a visitor’s centre had not yet been initiated at the Wennergren Farm. The mill underwent some minor renovation – or rather, it was technically secured from further decay (Science Village Scandinavia 2014a). Science Village Scandinavia AB advertised for a Project Manager in a local newspaper in May 2014 – one who would work with planning, surveys and analysis, but also “manage the restoration of a 17<sup>th</sup> century

<sup>55</sup> The name “XS” is used in a pre-study for a future science and visitor centre to be located in Science Village Scandinavia, and can among other things be read as “extra small”, implying the size of the targeted particles researched at the facilities MAX IV and ESS (Johnson, Riise & Berge 2012:21).



Figure 31. La Strada was a former school building from the 1870s (Lunds Kommun 2011) that stood adjacent to the MAX IV facility. In the 1950s, the building was turned into a dance hall and given the name La Strada, possibly after the new motorway/autostrada that connected Lund and Malmö. Since then, La Strada also served as a hostel, until the building was abandoned in 2001 (Nebel 2012). Because of its cultural heritage, the plan was to preserve the building and make it a part of the future Lund NE/ Brunnskög area. This destiny might have been fulfilled if it had not been severely damaged by a fire in June 2015 (Fagerlund 2015). Photograph Kopljär 2012

mill with dwelling and garden” (City Malmö 2014).<sup>56</sup> In August 2014, the City Planning Office received a formal application for a planning permit for an exhibition building to be located at the Wennergren Farm.<sup>57</sup> As this is being written in 2016, a reconstruction of the mill, where only minor singular specific historical parts of the mill are preserved, is underway, and the farmhouse at Wennergren Farm has been renovated and rebuilt to host meetings and small visitor groups. In 2016, both of these minor reconstructions are located in the midst of the huge development area, surrounded by very large-scale construction sites.

The nearby Korsbäck Farm was demolished in 2012 to make space for the establishment of the ESS facility.<sup>58</sup> No buildings were preserved or transported to the Wennergren Farm lot, showing already then that the

<sup>56</sup> A full renovation of the farmhouse was started in the spring of 2015, together with a reshaping of the garden (Science Village Scandinavia 2015a).

<sup>57</sup> According to my contact with the Municipal Planning Office.

<sup>58</sup> The Municipal Planning Office issued a Demolition Permit for the Korsbäck Farm (Östra Odarslöv 13:5) on 11 April 2012.

plans for a visitor centre had now been overrun by other objectives than the regionally defined ones that had existed a short time earlier. Other buildings, such as the former school building *La Strada* were also demolished. Whether these existing buildings were considered worth saving or not – either as heritage preservation, or to brand the locality of a virtually non-local project, the object of what is worth saving can be debated – not least here in this thesis, as these spots of interest become mediated and commonly absorbed, and parts of the vision in their specific manner.

### **Individual objects and landscape character**

There is a general tendency in the protection of Swedish cultural heritage; namely that it concerns individual objects in the landscape rather than the landscape's character. Treasured are instead the breaks in the landscape; for example pieces of uncultivated land, trees and windmills, and “[t]he focus on aesthetics thus puts the landshaping processes in the background and work as a naturalization of the cultural landscape” (Germundsson 2005:26). A sense of place is framed through looking at, in the context, small-scale “things”. In the aim for Sweden to incorporate the county of Scania into the common picture of Sweden; Scania's open, agrarian, cultivated and continuous land has been seen as devastated and as having “lost its variety and small-scale character” (Germundsson 2005:27). Instead of being based on an idea of a picturesque image of a landscape, or a symbolically vivid visualisation of historical events that can be associated with it, the formation of a landscape identity could be created through the actual work and activities performed in that landscape, and it could be argued that there is reason to if not preserve the actual rural-industrial field, at least communicate the symbol of the Scanian landscape as a working landscape and the history of the people who were active in it (Germundsson 2005:28). If the rural landscape and its activities were taken as more of an inspiration in the planning documents, perhaps another type of envisioned future would have been the result.

Ingold stresses the necessity of turning away from the dichotomy of an either naturalistic or culturalist view of the world, as well as the need to refuse a separation of the world and the human perceiver, and instead



focus on (human) actions. He argues for a *dwelling* perspective (Ingold 2011:29), where he moves away from the modernist tie of dwelling to mere physical inhabitation, arguing that dwelling rather includes "the entire way in which one lives one's life on the earth" (Ingold 2011:10). The landscape is hereby seen as a record of human dwelling activities in a continuous process – a *taskscape* (Ingold 2000:154ff). Ingold states that people and their knowledge are formed by their everyday engagement and experience of the world; and that the landscape therefore forms their story. To perceive this landscape is to remember (Ingold 2000:190). He poses the question: "[D]oes all meaning and value lie in systems of significant symbols?" (Ingold 2011:95), and continues, "whence come the ultimate requirements of human practice if not from the environment itself?" (Ingold 2011:76). Through von Uexküll's (1992 [1934]) notion of *Umwelt*, Ingold concludes that meaning is found in the immediate connection between perception and action (Ingold 2011:98). Here, we are reminded of Gibson's notion of affordances and how a set of affordances creates a niche for the perceiving subject, however Ingold puts more emphasis than Gibson on the temporal/historical aspects of the life world frame in which things are perceived. Without entering deeper into the theorisation and philosophy of what constitutes our environment, or to what extent Ingold delivers a sustainable theory, a question arises from his reasoning that could be tied to the investigation of planning, affordances, and affects. When constructing, or narrating, the possibilities for the future Lund NE/Brunnshög area, one could of course turn, in perceiving this landscape, not only to random material things or places found in the area, but also seek inspiration from the continuous shaping of the Scanian landscape, formed through the historical interplay between, and current lives of, animals, nature and humans.

### Plans as facts

The illustration of a future Lund NE/Brunnshög in figure 32 was used in the elaborated comprehensive plan for Lund NE/Brunnshög (Lunds Kommun 2012b:3) and on the Municipality of Lund's homepage in April 2014. The same illustration was also the first 'hit' in internet searches for *Brunnshög* or *Lund NE* in April 2014. An illustration mainly depicting a



Figure 32. Future Lund NE/Brunnshög. Illustration Lunds Kommun 2014

future is thus (at Google) equally associated with the old name *Brunnshög* as the more recent *Lund NE*.

A general problem with plans is that their contents are presented as actual facts before anything has actually been realised. In the process of planning, a linear path of evolvement often represents a very complex temporal reality. A structured notion of the world and its evolvement seems appealing to us and a sense of control, power, and meaning is obtained. To advertise a consistent picture of Lund NE/Brunnshög is therefore also an objective in the communication directed to receivers external to the professional community of planners. A more truly representative, multivocal, and unstructured picture of the realities could be problematic in its lack of coherence and comprehensibility. In an attempt to clarify some of the mechanisms of mutual signification in landscape representation, it has been suggested that the interrelationship between representation and represented can be seen as circular: “[t]he particular form of representation can shape the landscape represented, and the landscape thus represented can shape its representation” (Olwig 2004:42). This correlates with ethnologist Tom O’Dell’s exploration of the emotional geography of the ESS, where he finds that “that which is to come is already leaving traces of itself” (O’Dell 2013:70). In attributing meaning to the world, and in order to be able to reflect upon it, Olwig

(2004:42) asserts that in renderings of landscape, if the representations work well, they are not only accepted as showing something of relevance to the viewer, but they are often even accepted as somehow synonymous with what they represent. Olwig denies that a landscape's inner and true meaning can be unravelled through visual representations. He instead advocates that a landscape can be "rewritten" and its meaning extended or changed, and suggests that such environmental change occurs through custom and activity, through our practice of the space (Olwig 2004:59-60). I maintain however that caution should be exercised with the notion of the creating meaning for landscapes solely through custom and activity,<sup>59</sup> as asserting an interpretative prerogative based on established habits and lifestyles can be dangerous. As the social scientist and geographer Doreen Massey puts it: "[a] reimagination of things as processes is necessary (and indeed now widely accepted) for the reconceptualisations of places in a way that might challenge exclusivist localisms based on claims of some eternal authenticity" (Massey 2005:20). Obvious problems of the relative hierarchies between "old" (exclusivist) and "new" places continue to occur; this is an inevitable part of our experiencing places. One must nevertheless be careful, as there is a fine line between acknowledging custom and advocating tradition.

### Temporary positions

When we talk about a place, we are talking about a locus coupled with some type of quality, or investment, or life. "A place is not just the 'where' of something; it is the location plus everything that occupies that location seen as an integrated and meaningful phenomenon" (Relph 1976:3). In critique and extension of Edward Relph's notion of place in *Place and Placelessness*, the architecture theoretician Gunnar Sandin problematises the fact that in a great deal of geographical literature, the sense of place is either taken for granted as genuinely representing the life going on there, or else as a matter being judged from a remote position. Through the experience of a hypothetical visitor, Sandin shows (Sandin 2003:35ff) that Relph is formulating a scale of identification of place between the

<sup>59</sup> Cf. Ingold's claim that meaning is found through perception and action (Ingold 2011:98).

dichotomic positions of belonging and not belonging, whereas Sandin instead proposes a scale of belonging with a similar range to Relph's, but without dichotomizing the presence. According to Sandin, a person who has approached a place as a newcomer with temporary work might in some way desire to become part of the community she is visiting. She may strive at times to be assimilated, but she may also consider the place primarily as a liveable "utility" or taking "a deliberately distant and observing position of interest" (Sandin 2003:36). In this modalised view of how places are experienced, the individual has parallel senses and experiences and the identification with the place relates to differing positions, formulating a complex identity that is not consistent over time (Sandin 2003:41ff). Sandin thus rejects the notion of an allegedly genuine lived *place* – in ethnographical and geographical accounts as well as in architectural judgements – that is often "good" per se, but consequently also produces *placelessness* to other places. (Sandin 2003:22). The quite common opposition of place/placelessness, in everyday opinions, in architectural and planning practice as well as in theories about place, as discussed here through Olwig's circular reference and Sandin's acknowledgment of sites that have partial placial qualities, parallels the polarisation of centre/periphery often used within planning. The obvious result of making a *centre* of attention is the creation of a periphery. When explicitly asked "What is periphery?", my then eleven year-old daughter gave a surprisingly illuminating reply: "It is the rest". Periphery as non-place, placelessness, or marginal space exists as a particular instance in time as well as space – as what is *not* in focus. The centre/periphery issue is in this sense a matter of positions or attitudes, dependent on time and regulated by current status as well as by the prevailing defining operators. These types of axiological, or value-based fluctuations, are, as we have seen above, a factual aspect of what concerns planners and civil servants occupied with the Lund NE/Brunnshög area, but they could also be part of what less involved design professionals bring into their conception of this area, this landscape, or this city part in the making.

Lund NE/Brunnshög is an area on the outskirts of Lund, Sweden. It is also a strong vision for the municipality, as well as for political and business communities in the Öresund Region. It is a vision for a new urban district that attempts to take Lund NE/Brunnshög's future inhab-

itants' interests into account, as well as the interests of those who will someday work in the area. In that respect, this vision – in all its complexity, but also in its streamlined and reduced presentation – is of great impact as regards expectation. It is an enormous economic investment; the research facilities alone have a budget of 17 billion SEK (Lunds Universitet 2015). It is seen as a future place for creativity, innovation and extraordinary science, a spectacular recreational area, a visionary neighbourhood in terms of sustainability and social diversity, and an opportunity for Lund to strengthen its trademark. It is a dream of being part of a bigger world, and of building an ideal city to show it, an ideal city that will possibly shift the pattern of power relations within Lund, and could do the same on a regional level as well. But besides being an objective in a plan, Lund NE/Brunnshög is also a location in its own right. Apart from a limited number of inhabitants and the ubiquitous agrarian production and other pre-master-plan activities such as un-programmed recreation, it already currently – at the point in time when I made my investigations about expectations and affordances – hosts some very concrete activities emanating from the ideas of this place as a land of the future. While I am finishing this thesis in November 2016, the most eye-catching of these is the circular MAX IV laboratory building located closest to the city of Lund, lying there as a futurist structure looking towards the open fields where ESS and the visitor's centre of the future Science Village Scandinavia are supposed to appear. The area still awaits the straight, nearly one kilometre-long ESS laboratory building's physical manifestation. Between the initiated MAX IV and the future ESS lie the old windmill and the adjacent farmhouse at the Wennergren farm, both of them tiny in comparison.

*Driving, Losing, Falling, Dreaming*  
*(About Great Expectations)*

18 February 2013

My mother used to tell my brother and me stories about her work (we never called it Big Science at the time). She told us about practicalities with spectroscopic analysis at Fysicum, about authorities, professors, and scientific struggles. About fights for scaffolding while organising experiments at CERN. About how she had to put her feet up in the air so as not to be hit by the synchrotron light during experiments; worries about radiation when she was pregnant with my brother. About the exhausting night shifts in the accelerator control room where she walked around in order to stay awake, while the machine all the while, without electric interference, performed its best. Best for the machine, worst for the human, she said. At 5.30 a.m., the electricity levels started fluctuating and the beam needed to be continuously adjusted in order to hit the centre of the ring, and not bounce off the walls. In my ears, all of this sounded like adventures, almost dangerous, but still safe (nobody got hurt, not by these events anyway). This is probably where the fascination for Big Science began; a sense of magic connected to an irrational admiration for, from my point of view, unfamiliar skills and professionalism – the logic of mathematics is not the same logic by which I operate; I don't know anything about nuclear physics. Today, this is a child's naïve and uncritical curiosity in a grown-up person. On this cold winter day, this enthrallment sent me on a quest for a previously decided spot on a map – the future centre of the ESS facility ring. The centre of Big Science, as it were.<sup>60</sup>

<sup>60</sup> This exercise was done within the workshop *Parallel Planning* within the course *Temporal Landscapes* 2013. A similar version to *Driving, Losing...* was presented along with the students' work at the workshop review. The photographs and illustrations in this section are author's (2013) and are not included in the illustrations list.



Driving - I'm on my way, I have to drive carefully on the snow and ice,  
I have to stay within the speed limit, stay on the road, not crash the car.





The road conditions, car movement, weather, speed are creating immediate bodily adjustments, responding to the situation at hand. While driving I am looking at my GPS and taking pictures with my camera along my route. I let go of the GPS with my right hand and put it on the passenger seat, I grab the camera, left hand on the steering wheel, check the rear-view mirrors. I'm lost and have to go back. Interaction feels urgent and is performed in a hurry. Body adjustments feel pressing, tell the hands "turn the steering wheel now" (or you will drive off the road). I'm frowning, the facial expression of anxiety and surprise, together with my clinging over the wheel, leaning forward to get closer to the windshield in an effort to try to answer the questions *Where am I? What kind of place is this? How can I manage?*



At last – I found my spot (I think); it's at the location of the Korsbäck Farm.



I get out of the car, I step on something very slippery and fall and hurt my wrist.



I brush off some of the snow - as it turns out I have slipped on a discarded promotional message for the future ESS facility (my wrist hurts).



When I see the position of the signboard some associations come to mind concerning the dismantling of ESS in 2066 – I will be a hundred years old.



I can't find any trace of the Korsbäck Farm (as it was in 2012).



It seems to have vanished completely, except for the vegetation (Why is that?). I see an ESS flag. I realise that I'm slightly west of the spot I was aiming for.



When I look to the southwest, I see the construction site of MAX IV and I experience a sense of expectation; as if I'm waiting for the city to arrive at my spot. Although I mostly expected to look for immediate (bodily) action potential, I am immediately influenced by the prospect of the site and imagine a research facility building site getting closer. After all, "expectation is inevitably a part of perception".<sup>61</sup>

<sup>61</sup> Louisiana Channel/Hustvedt 2013.





A conflict occurs when I see the animal tracks in the snow. I look around, catch a glimpse of a pheasant and



the idea of setting up a nature reserve for all the non-human animals in the area emerges.

As can be seen above, my “unprejudiced” search for affordances on site at Lund NE/Brunnshög proved me to be profoundly influenced by my expectations, history and personal interests. This investigation can be considered a small pre-study for the more developed interventions to come.



### 3. Intervening

In the search for an answer to what causes the gap between the intention to build (urban and city-like) and the result (empty environments lacking a sense of urbanity), the geographer Sara Westin suggests asking architects and planners about their views on urbanity and what can be done to draw intention and outcome closer (Westin 2010:20). However, Westin also concludes that this approach implies that knowledge is something that can be easily transferred. To even attempt a straightforward enquiry of architects' and planners' opinions implies, in her opinion, an enlightenment view of the human being as "rational and transparent to herself" (ibid.).

Westin's thoughts here could be seen as an argument for techniques of enquiry that can access knowledge or direct experiences towards something design professionals potentially hold, but sometimes do not communicate explicitly, or to which they simply do not direct their attention. If aiming for more tacit, or implicit, preferences of design professionals, a method that catches information in indirect or parallel ways must be used. In this work, however, I am more interested in capturing some concrete expectations as to what a future place offers to design professionals,

how these expectations come to the imagined surface, and also whether they are open for change. In order to keep a interpretative approach to the subject matter and to affordance theory, and to gain a view of not only the expectations, but the possible change of expectations, I considered it sufficient to make interventions at the actual site of exploitation – the area of Lund NE/Brunnshög – with participating professionals, where two main investigatory approaches are pursued: to let designers explicitly *verbalise* answers to my questions about future possibilities, but also to let designers *respond* to the simulated futures to which I expose them through induced soundscapes. In this chapter I make an account of my sound-based interventions; their design, their realisation and their results.

My above reflections on affordance and affordance-led educational moments showed that not only direct action-perception, but also instant imaginings of possible worlds, affected by personal history and assimilated education, influence a design professional's expectations of what an environment offers. When visited and confronted physically, the environment is thus sensed on the one hand as affording things that appear self-evident to the perceiver, but that in a second reflection – and possibly just as instantaneously – must also be seen as dependent on backgrounds that have an impact on the relation between perceiver and environment. Seen this way, affordance becomes less a matter of what the environment offers unilaterally, and more a matter of the capacity of the perceiver to act within it. As perception of the world includes co-perception of oneself as well as of not yet materialised worlds, this way of interpreting affordance provides a way to avoid a difficult separation between different constituents of impressions: memories, assimilated knowledge and appearing matter. What is afforded is then not environmentally invariant; the “story” of the environment (including oneself) keeps changing. With this view of affordance, even if we doubt the primacy of what is environmentally given, we can still maintain another of Gibson's original ideas, as pointed out above: namely, that affordance is not dependant on goal fulfilment. If the fulfilment of goals were a determining factor, it would inhibit the basic possibility of an affordance to be an open offering. In my urge to investigate explicit and implicit reactions to an environment des-

tined for exploitation, I have allowed myself be led by this understanding of an open, and thus also openly generative, concept of affordance, and this has influenced my interventionist research approach.

## Capturing expectations at a critical point in the design process

In order to gain insight into what type of expectations, and what type of action potential could be found in relation to the planned large-scale establishment in the north-eastern outskirts of Lund, at an early stage of my research I already began planning for interventions in which I aimed to introduce a foreign object in the environment to which I would link activities and gatherings.

The interventions, carried out in the spring of 2013, focused on the present physical status and the possible futures of Lund NE/Brunnshög. I decided to pursue the intervention at the abandoned Wennergren Farm, which, according to the plans, would be in the very centre of the future Science Village Scandinavia, between the two main facilities for material science research. This part of the investigation included collaboration with the artist group *Learning Site* and the use of their already produced mobile building unit. This unit, which would become my research module, was tied to their project *Audible Dwelling*.

### Audible Dwelling examining and speaking to places

Learning Site was formed in 2004 by the artists Cecilia Wendt and Rikke Luther.

The Learning Site focuses on the local conditions in which its art practice is located. This entails a critical examination of the material resources and economies available within specific situations. Each situation may entail examination of economic and environmental factors, but also labor rights, property rights and the production and distribution of knowledge, which are investigated in tandem to produce a variety of different critical perspectives. (Learning Site, n.d.d)

The Audible Dwelling is an artistic project about site-specificity and public space that revolves around two small buildings emitting sound; two identical mobile units that work as a stereo system at the scale of architectural and urban space. Both units have audio recording equipment and speakers. Each unit can also function as a home and has two rooms; a bigger living room, and a smaller bedroom/office. The Audible Dwelling units are peripatetic and have been used by Learning Site at various locations. Audible Dwelling is thought of as a learning device, capturing voices, environments and histories from the places it visits. Learning Site's practice revolves around the local, as well as national, conditions of where the art practice is currently located. The Audible Dwelling units were designed to "travel to new locations, examine different cultural, social and economic landscapes and speak its thoughts to those landscapes" (Learning Site, n.d.a.). The first set, Audible Dwelling 0.1, was placed in Columbus, Ohio (US) in 2009/2010. There, a speech called *Is this Columbus, Ohio?*, written by Jaime Stapleton about "the economies of urban landscape – cars, asphalt, parking lots, malls, museums" (Vimeo, n.d.) was emitted through the speakers. The second version, Audible Dwelling 0.2, was designed in technical collaboration with Viggo Wichman "to explore the speaking architecture of public places" (Learning Site, n.d.b. ). Audible Dwelling 0.2 was located at a parking lot outside Tensta Konsthall, Tensta (Sweden) in 2013 as a part of the exhibition *The Society Without Qualities*, curated by Lars Bang Larsen. The exhibition "focuse[d] on how artists, activists and architects have devised new languages beyond the alternative, as a way of departing from origin myths and normative historical expectations" (e-flux, n.d.). After this, Audible Dwelling was shown at Krognoshuset and at the Wennergren Farm in Lund, and in this connection became a collaborative part of this research project. This is described in more detail below. In September 2013, after our interventionist co-operation at Brunnshög, Learning Site coordinated a one-day event with both speaker houses in Malmö's harbour area. At the event with invited guest speakers and guests, Audible Dwelling 0.2 addressed the on-going waterfront and harbour politics jointly conducted by Denmark and Sweden Copenhagen Malmö Port (CMP). Later in the same month, the units were moved to the school Siggalycka Folkskola in Blekinge, where they remain as a resource in the school's programme.



## The Wennergren Farm

The site at which the interventions took place did not have a street address at the time of my investigations. Locally, it was known as the Wennergren Farm. The Korsbäck Mill, which is one of Sweden's oldest post mills ("stubbkvarn"), was originally built in 1647 and moved to its present location in 1876 (Frostberg Lowery 2011), where it stands adjacent to the miller's house at the Wennergren Farm. As part of the overall plans for Lund Science Village, Korsbäck Mill was given a place of prominence as a cultural heritage object worth preserving, with renovation resources being allocated as part of the overall plans for Lund Science Village.



Figure 33. The Korsbäck Mill at the Wennergren Farm. Photograph Kopljär 2013

## The process of placing a sound unit at Lund NE/Brunnshög

The process of putting up an Audible Dwelling sound unit at Lund NE/Brunnshög was dependent on and negotiated through contact with the institutional framework of the City Planning Office in Lund. Swedish municipal planning rules thus became a significant actor in my research project, both as a factual juridical authority in the realisation of the project, i.e. in setting up the research module, but also as a participatory actor in the later sound-based interventions.

The first meeting regarding the possibility of placing Audible Dwelling on the municipality's land at Lund NE/Brunnshög took place in October of 2012; the idea was to set up the unit on a temporary basis to support my research project. The Municipality of Lund, through the agency of the Project Manager of the Brunnshög Project Eva Dalman, offered to support this collaboration between science and art, among other things by contributing financially to transportation from Malmö Port, where



Figure 34. Audible Dwelling at the Wennergren Farm. Photograph Kopljär 2013

the Audible Dwelling units were under construction at the time, to Lund NE/Brunnshög. Various exact locations for the unit were discussed and the decision made for a gravelled courtyard close to the entrance of the Wennergren Farm. The location chosen had several advantages: Lund City Planning Office had recognised it as a future key location for profes-

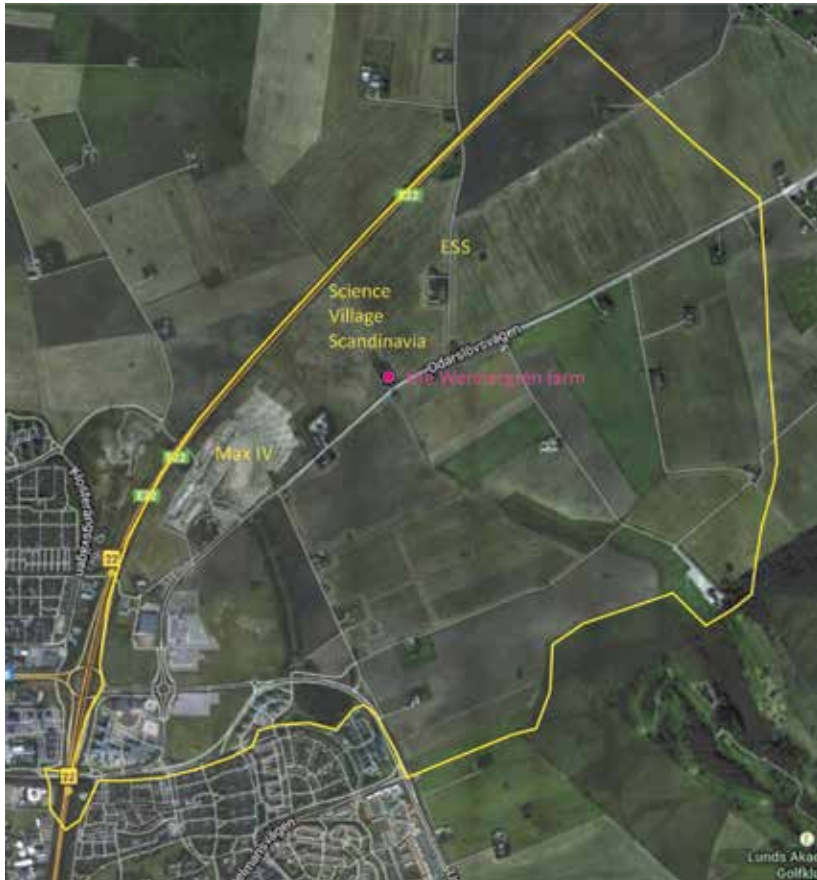


Figure 35. Location of Audible Dwelling at Lund NE/Brunnshög on Odarslövsvägen with the Brunnskög area outlined in yellow. Illustration Kopljär 2014



Figure 36. Location of Audible Dwelling at Lund NE/Brunnshög placed in front of a storage building at the Wennergren Farm. Illustration Kopljär 2014

sional gatherings and tourism in the Science Village area,<sup>62</sup> and as such it was one of the few places in the whole area destined to partly sustain the large-scale establishment, and for this purpose several buildings typical of the agrarian cultural heritage of the area were preserved. Furthermore, as a future place, it was close to the location of the planned tramway's final station and thus deemed a significant public part of the "entrance" to the future area.

<sup>62</sup> As stated by Johanna Wittenmark, urban planner at the Brunnshög Project Office (a sub-division of the Lund City Planning Office), in the local newspaper *Sydsvenskan* on 17 June 2013: "The area around the tram stop we call the heart. It is the most important area of the site." (Nebel 2013).

A certain time gap in the use of this specific site was identified during the spring of 2013, which allowed a temporary placement of Audible Dwelling at the Wennergren Farm: the land was owned by the Municipality of Lund, but awaiting sale to the land use development consortium Science Village Scandinavia AB.<sup>63</sup> In January of the same year, when the Audible Dwelling units were approaching their final stage of construction, the municipality notified me that a temporary building permit was required that stated the necessary dimensions and time limits for the placement of Audible Dwelling at the Wennergren Farm. I submitted the permit application to the City Planning Office on the 29<sup>th</sup> of January 2013. The presence of Audible Dwelling in the Lund NE/Brunnshög project therefore became also a juridical matter, active within and dependent on the procedures of Swedish municipal planning regulation, and the placing of the unit had to be in accordance with the prevalent bureaucratic, economical and legal parameters. Formally, Audible Dwelling at Brunnshög was treated as a “temporary building,” and it was agreed that a general type of official insurance (covering the municipality’s property) should include Audible Dwelling; technical architectural drawings of the unit had to be made for this purpose. The cost of the permit was paid by the research project at the Department of Architecture at Lund University. The temporary building permit was granted in April 2013, and on the 29<sup>th</sup> of April one of the Audible Dwelling units could be transported to the Wennergren Farm at Lund NE/Brunnshög.

At the same time, the twin unit, equivalent in size and operation, was placed in the centre of Lund, adjacent to the Gallery Krognoshuset, where Learning Site was having an exhibition. This unit needed only a temporary placement permit to stand in public space for one month not as a “building” but as an “art object”, close to the gallery on Mårtenstorget in the city centre. A general reflection on this circumstance – that one unit was regarded as “building” and one unit as “art” – shows on the one hand that laws and procedures regarding art are fundamentally different from those that regard architecture; however in this case, the difference in formal treatment was also due to the difference between a less defined place des-

<sup>63</sup> Science Village Scandinavia is jointly owned by Lund University, City of Lund and Skåne Regional Council.

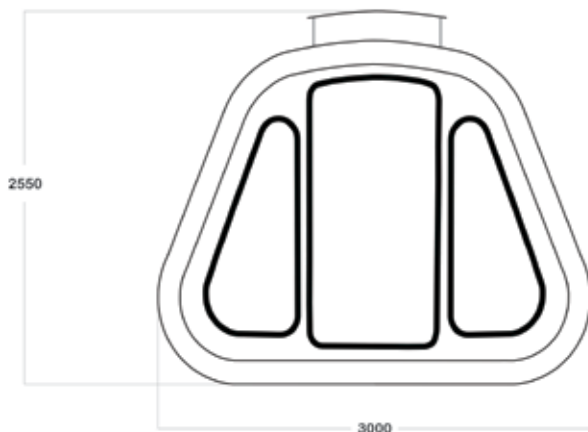


Figure 37. Elevation drawing of Audible Dwelling as used for the temporary building permit in 2013. Illustration Kopljär 2013

timed for transformation (Lund NE/Brunnshög) and a place that continues to be public as usual (Mårtenstorget). The more formalised procedure at Lund NE/Brunnshög points to the fact that despite only loose ideas for this specific site being at hand, the official plans and time schedules and the expectations inherent to them were important, and the regulation was followed to secure any future action on behalf of the owner-to-be. In reality, in terms of an everyday space, the module at Lund NE/Brunnshög received less attention by people, because it interfered less with daily routines than the module at Mårtenstorget. The fact that the Brunnshög module was negotiated and regulated meant that the placement itself became known to strong stakeholders in the area, some of whom I would later invite to my questionnaire-based sound interventions.

At the time, in 2013, Lund NE/Brunnshög was particular as an important locus for large-scale political and economic decisions, but it effectively looked more or less like any other place in the Scanian landscape. The site worked very well with my theoretical point of departure – to envision existing environmental qualities as well as visionary ones. In this





Figure 38. Audible Dwelling was transported to Lund NE/Brunnshög in April 2013. Photograph Kopljar 2013

respect, Lund NE/Brunnshög and the Wennergren Farm itself became acknowledged as a more activated place than the otherwise prevailing condition seemed to imply. This way, I altered its then-current role as an abstract location on a map, or a branded regional name in media and for the stakeholders in the region. By placing Audible Dwelling at Lund NE/Brunnshög, the ambition was to implement a situational investigation that took advantage of invited visitors' intuitive and immediate impressions as a way to examine both the directly experienced physical reality as well as the ideas, attitudes and expectations that circulated about that same reality and its future. The placing of a foreign object at the Wennergren Farm thus created a spatio-temporal gap in a globally influenced planning process, a process that thereby became tangible, but also alternatively or even subversively activated, since the questions asked were not for the immediate benefit of the Science Village Scandinavia project, but primarily designed to be a part of a research agenda about preconceptions in professional expectation patterns.

As such, Audible Dwelling came to act as a platform on which my initiated events could take place. It became a distinct object of interest for invited guests as well as an anchor for sound-based activation of people, most of whom had a professional engagement either in the area specifically, or in architectural design in general. This part of my investigative method developed inspired by interventions made in the art world, however without the ambition to communicate the project in an art context. My goal was to investigate traits of architectural design and planning processes by inviting individuals and groups with varying experience and knowledge about the planned development at Lund NE/Brunnshög: employees at MAX IV, persons active in the nearby urban farming collective *Odla i Lund* ('Grow/Farm in Lund'),<sup>64</sup> design professionals at the Municipality of Lund, or stakeholders active in the planning process of the area. Other invited participants who were not directly involved in the formation of the area were architecture and design colleagues from the architecture school at the Faculty of Engineering at Lund University (LTH), archaeologists active at Lund NE/Brunnshög, participants in an architectural doctoral students' conference, as well as interested friends and family.

As stated previously, in developing a questionnaire I sought to superimpose the visions and plans for Lund NE/Brunnshög on the qualities experienced on-site. I wanted the participants to be attentive to the immediate surroundings whilst keeping in mind the bigger scale of the region, but also to consider the world when responding to certain questions in the questionnaire. I gave the questions to the participants during their visit to the site.

## Unconventional methodological inputs and alliances

Experimental planning approaches and alternative architectural practices with artistic or activist means are seen as necessary for a methodological renewal by both researchers and practitioners today (Jones, Petrescu & Till 2013). The architecture theoretician Meike Schalk argues that an altered planning practice can allow city-making processes to be influenced

<sup>64</sup> See <https://www.facebook.com/Odlailund>



by citizens to a higher degree, and takes the case of “pioneer fields” as an example of how non-formal initiatives can synchronise with formal planning. In the case of Berlin’s Tempelhofer Feld for instance, pioneer-fields initiated by *UC studio/mbup/raumlabor* were thought to lead to a “successive densification of activities, programs, and networks, which could, but need not, manifest itself in buildings” (Schalk 2014:139) and lead to the temporary initiatives influencing a future use (ibid.). Below, I will introduce an example of participatory approach as initiated by the Brunnshög Project Office regarding the future use of Lund NE/Brunnshög.

## Participation initiatives from the Municipality of Lund

### Workshop about outdoor activities in the future Brunnshög

At the City Planning Office in Lund, or more precisely the Brunnshög Project Office, a series of workshops and participatory initiatives were launched in 2012-2014, during the same period as my research project was taking place. A *Workshop About Outdoor Activities in the Future Brunnshög* on Lund NE/Brunnshög, Östra Torn and Norra Fäladen<sup>65</sup> was organised in the winter of 2012 for residents and others who were actively concerned, and drew about twenty participants (Lunds Kommun 2012g). “The aim with the workshop was to get tips about activities that could make the Brunnshög development add value to the neighbouring areas” (ibid.). A tour of the area was part of the workshop, and residents gave information about who is active in the public spaces in their neighbourhoods and what type of activities are performed. Some areas of Norra Fäladen were described as quite unused and abandoned, and an opportunity for densification was identified. The need to create a physical connection between Norra Fäladen and Lund NE/Brunnshög

<sup>65</sup> Östra Torn and Norra Fäladen are neighbouring residential areas to Lund NE/Brunnshög, to the south and west, respectively.

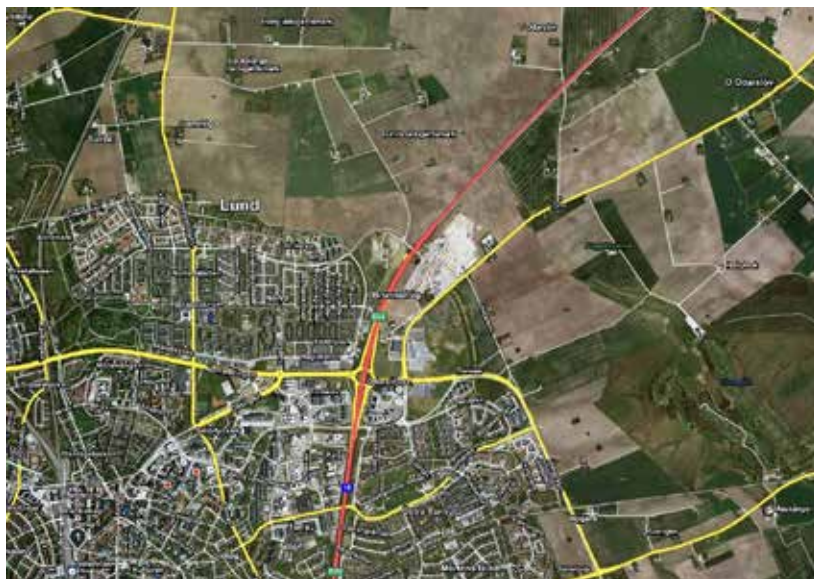


Figure 39. North-eastern part of Lund. The city centre is marked with “1”.  
Illustration Eniro 2016

was emphasised, and a potential was seen for Norra Fälåden and Lund NE/Brunnshög to benefit positively from each other’s areas, provided that the physical connection was strengthened and the possibility to cross the existing borders was established (*ibid.*). The residents of Östra Torn pointed out many popular spots for temporary visits and activities within their area. There were concerns that some of these places would be more heavily used in the future, and a need was identified to secure the interest of “the closest residents’ integrity” (*ibid.*).<sup>66</sup> There were wishes to maintain and upgrade horseback-riding paths and recreational routes, and it became clear that the area of the future development at Lund NE/Brunnshög is already used to a great extent for recreational purposes such as running and walking. The participants emphasised the importance of

<sup>66</sup> This parallels my own experience from a Consultation Meeting at Östra Torn/Djings Kahn about the Solbjer neighbourhood, which I visited early in the planning process (19 May 2011). I had the impression of a very strong protective attitude towards one’s own neighbourhood community and the surrounding recreational areas. For instance, residents expressed a major concern that others from outside their own neighbourhood would take over. Fears of densification, high buildings, heavier traffic and spoiled views were also expressed.

establishing possibilities for activities early in the development process for the Lund NE/Brunnshög area; ideas included a winter wonderland, an info box with a view, or an outdoor swimming pool. There was also a wish for the municipality to strengthen already established paths and activities at some spots in the Lund NE/Brunnshög area, as well as providing more physical connections and pathways to adjacent areas that would cross traffic routes that separated the areas. In a final part of the workshop, the participants were encouraged to role-play and give suggestions for things that could make the future Lund NE/Brunnshög attractive. The suggestions can be read as typical and align with certain age group-related wishes; *The Child Group* wanted playgrounds, animals and greenery and a wading pond; *The Teenager Group* wished for a central official place with mixed activities, low-cost housing and low-cost music rehearsal studios, while *The Researcher Group* wished for “a bohemian alternative” (Lunds Kommun 2012g), which could be interpreted as a suggestion for a solution intended to act as a counterweight to the natural sciences that would dominate the area in the future.

Clearly, the participants in the official Brunnshög Project Office workshop wished for a better infrastructural links between the neighbourhoods in the area, particularly the residents of Norra Fäladen. There were also wishes for opportunities to access the landscape to the east of Utmarksvägen, i.e. to the east of the future site of MAX IV, ESS and Science Village Scandinavia. The workshop participants also wished for progressiveness and wanted activities with a clear profile; they saw this as crucial for attracting visitors to Lund NE/Brunnshög. Apart from the recreational possibilities, a diverse urban life was seen as important, because this could by extension offer activities to the surrounding areas, as well as to those living in or active at Lund NE/Brunnshög; these activities were not expected to become reality if the area was defined as less “urban” (ibid.).

## An initial group excursion and on-site aural simulation

The first sound-based event that I introduced at the Wennergren Farm<sup>67</sup> was developed as an excursion and collective reading-session with a group of volunteers, all of whom were participants in the *10th Annual AHRA Research Student Symposium*<sup>68</sup> held at the School of Architecture at LTH in May 2013. No questionnaires were distributed to this initial gathering; instead, it was designed as a collective and discursive gathering and discussion about the mediation of future places. The event was called an *Excursion to the Fictive and Factual Landscape of a Future Science Village in Lund* in the symposium programme. Before the excursion, I provided an introduction to the symposium participants about the development and current status of the Lund NE/Brunnshög area in a lecture presentation. The following day, a tour was organised to the area. We began by visiting the construction site of one of the future research facilities, MAX IV. At the watchtower adjacent to the on-going building construction, I briefly informed the participants about the future science facilities, and as we continued along Odarslövsvägen – the old national motorway and now the main road leading through the area – I introduced the general setting of the Lund NE/Brunnshög area. In doing so I aimed to give the international, as well as Swedish, visitors an understanding of the typical Scanian landscape, which in its flatness and agrarian culture has a character that deviates from other parts of the country. On our way along Odarslövsvägen, we passed the so-called La Strada building, which was considered historically significant and was slated for preservation at the time of my experiments (Lunds Kommun 2011).

When arriving with the excursion group at the Wennergren Farm, Cecilia Wendt from Learning Site gave a short verbal presentation of

<sup>67</sup> When this work was initiated in 2012, the old farm building on-site (located at what was expected to be the future centre of Science Village Scandinavia), was referred to as the Wennergren Farm (Wennergrenska). The names The Mill Farm/The Millers' Farm (Möllegården/Möllaregården) have been used in parallel by Science Village Scandinavia AB and in the Municipality's Cultural Inventory (Science Village Scandinavia 2014a, Lunds Kommun 2011:26f).

<sup>68</sup> The Architecture Humanities Research Association

the art project Audible Dwelling. The visitors were then asked to take a ten-minute walk in the existing land- and soundscape. After several minutes, I activated the Audible Dwelling unit, playing a sound recording from Copenhagen Central Station at a high enough volume to reach all of the visitors. Slowly, the visitors gathered around the sound-emitting unit. We had a short discussion about the power of intervening in the milieu at the Wennergren Farm and about sound simulation and its effect. In this discussion it was expressed that the sound simulation was a very effective tool for a hypothetical sketching of ideas that could be used not only for planners, but also for neighbours and residents. Participants called the situation “truly surreal”, and the gathering continued with a general discussion about various stakeholders, of which I myself could be considered one.

As “[v]ision is always framed, and perhaps visions of the future are destined to be more starkly framed than visions of the present” (O’Dell 2013:72), I made an attempt to problematise the unambiguous picture painted of Lund NE/Brunnshög’s future. After the initial sound simulation and the discussion about the effects of the loudspeaker unit, we performed the second and final step of this excursion: a collective event in a concerted reading that I directed, where the already mediated visions of Lund NE/Brunnshög and Big Science – in the form of text fragments read and spoken on-site – were blended with the immediate experience of the environment. This was in other words a prepared and orchestrated collision of contrasting scales, the outcome of which could only partly be foreseen. For the reading we used excerpts from statements made directly



Figure 40. Participants in collegial reading. Photograph Kopljär 2013

in relation to the establishment of and vision for Lund NE/Brunnshög. These quotes were taken from lectures, promotional material and information from the Municipality of Lund or organisations working with Lund NE/Brunnshög. In the design of the reading event, where all of the sixteen individuals present stood in a ring, reading one by one from the list of published statements, I aimed to expose utterances of an accepted planning rhetoric and mode of communication, and for these utterances to intersect with the reality of being at the site. The reading generated a lot of laughter, probably partly because some of the quotes – like *When we dream alone it is only a dream, but when many dream together it is the beginning of a new reality* or *We want Scandinavian elegance and modesty*<sup>69</sup> – started to generate new meanings between themselves, or perhaps because of the quotes sometimes expressed rather banal fantasies. It can be noted that I selected these quotes, and that they possibly reflected my ambition to expose a trivial or generalising attitude. If it had been up to someone else to choose from the extensive material and vast discourse about the area, perhaps other quotes would have been selected. Despite a certain awkwardness created by the reading of others' statements, the response was quite controlled. In contrast, the sound intervention worked as a more affective method, creating an encounter of two contrasting environments: the sound environment simulating Copenhagen Central Station, and the natural rural environment of the Wennergren Farm. This intervention points at the consequences of a global context, as taken into consideration in the plans and formulations by the Municipality of Lund or other stakeholders, to the experience of the site and to what is perceived as a realistic future for the area.

During this initial excursion and the sound-based interventions to come in 2013, I occasionally received requests for my own possible input into the planning of the Wennergren Farm. On one occasion, a future executive of the land-owner consortium was interested in the material I produced and whether it possibly could be of strategic use in the planning of the Wennergren Farm site. Regarding this request and other possibilities of a more active and projective participation in the actual

<sup>69</sup> The first quote is by Hundertwasser, as found on Science Village Scandinavia's homepage (Science Village Scandinavia 2013b). The second is by ESS' former, founding CEO Colin Carlile at a lecture on a sustainable ESS (2011). For full list of quotes see Appendix 2.

planning of Lund NE/Brunnshög, I chose to remain true to my investigative approach and not to align with the large-scale goings-on as a design professional. As a researcher, however, one cannot remain entirely on the outside. My work with the Audible Dwelling units, as we shall see, also gave me the opportunity to act as a commentator of the planning as it progressed. On the whole, the stakeholders associated with the area and the design professionals involved in the planning of Lund NE/Brunnshög have remained positive towards my work and welcomed discussion as well as critique throughout my investigations.

## The potential of the Wennergren Farm and Brunnshög - on-site interventions

As seen in the above chapter on affordances, the way we as humans, and as specifically design professionals, identify action potential is partly learned and partly a humankind-specific ability. My ambition in the sound-interventions was to explore how design professionals delimit what kind of information, emotion, matter and biographical history they take into account, and how the decisions lean on the characteristics of a present situation. In order to make the participants in my investigation aware of both immediate and indirectly attainable surroundings, I designed a situation where a questionnaire and sound simulations could work together at a specific site, and as here, where invited participants were requested to answer a set of questions about the future of the surroundings of the Wennergren Farm, as well as of the larger Brunnshög area.



Figure 41. The Wennergren Farm and Audible Dwelling in June 2013.  
Photograph Kopljär 2013

Several groups and individuals participated in a row of equally structured questionnaire-based<sup>70</sup> interventions. I prepared a questionnaire, which the invited visitors were asked to fill in upon arrival at the Wennergren Farm. This questionnaire followed three themes: *The Wennergren Farm*, *The Brunnshög Area*,<sup>71</sup> and *Sound Interventions*. It was introduced to the participants as aiming to “capture associations and reactions from individuals with varying levels of prior knowledge about the Brunnshög area and its planned future”. The participants were also informed that it concerned the actual location of the Wennergren Farm as well as the greater area of Brunnshög. These two scales were staged thus in order to target expectations in relation to a close, first-hand and corporeal experience of the immediate environment and situation, as well as expectations of a more abstract understanding of the larger Brunnshög area; one that is often connected to the vision and future of an expanding city. After a brief introduction, the questionnaires began with the Wennergren Farm section: what it offers today and what potential it holds for the future. Subsequent questions concerned personal wishes for the Wennergren Farm and its immediate surroundings. The questionnaire also asked for suggestions of possible (other) places that could serve as inspiration for the planned conversion of the Wennergren Farm, as well as questions about what the Wennergren Farm could offer Lund/the region/the world today and in the future. No specific dates were mentioned in relation to the future, as my scope was not to gather exact answers or predictions, but rather to capture a general sense of expectation or anticipation of a change of the conditions.

The second part of the questionnaire concerned Brunnshög and followed the same format, only with slightly less focus on the immediate action potential of the place. Brunnshög was presented more as a phenomenon – an area subject to change – than as a perceivable place, al-

<sup>70</sup> See Appendix 1 for a copy of the questionnaire distributed.

<sup>71</sup> In everyday speech the area is merely referred to as *Brunnshög*, while media often use *Lund NE/Brunnshög*. It did not yet feel natural (in 2013) to incorporate the English word *northeast* in an everyday Swedish language. As the newer name *Lund NE/Brunnshög* seems to demand some prior knowledge about the plans for the area, I chose to use only *Brunnshög* in the questionnaires.



though it could of course be sensed as a vaguely present environmental surrounding consisting of an agrarian landscape.

After responses were given to these two initial sets of questions, I introduced various sounds directly in the environment through the strong loudspeaker system of the Audible Dwelling unit. The third and final part of the questionnaire dealt with how the experience on site was affected by the introduction of these sounds. I had chosen four recorded sound environments that I perceived as relevant in relation to the present situation and current expectations. They all referred to different urban situations: a tram line, a train station, a public square, and a fountain. In playing these sounds separately in a consecutive order, the aim was to investigate whether the overall perceived situation of the environment was affected by these sounds, and in that case how. The participants were also asked to leave comments about the present, non-simulated, authentic, sound at the site.

## Participants

The total amount of 34 visitors filled out the questionnaires during May and June of 2013. Most visitors came in groups of three or four, although a larger gathering with participants from the Brunnshög Project Office brought a group of ten. When preparing the different intervention acts and questionnaires, I did not structure, group or characterise the participants in any specific way in advance, but simply allowed the practical constraints and conditions related to the time of year, the duration of the



Figure 42 Participants in interventions on site in May and June 2013.  
Photograph Kopljar 2013

presence of the units, and accessibility to the place, dictate who came to the site to participate. However, as I began to analyse the answers to the questionnaires, I identified four main groups of participants in the interventions. These four groups, introduced in detail below, could be categorised as various relations to the notion of “professional”. I have treated these groups as separate and comparable in some parts of the analysis, where they cast light on differences. The categorisation of the participants in the interventions is based on their level of professional design attitude and involvement in, or potential influence on, the Lund NE/ Brunnsög area. The ordering of the participants should not be seen as firmly fixing characters; it rather forms an understanding of that against which the comments and ideas stated in the questionnaires resonate; i.e. this post-experimental categorisation of the participants gives a hint of the connection between the individuals’ background and some type of preferential answers. My analysis of the material takes into account that an individual enters and exits professional and private personas continuously. I therefore consider it unnecessary to attempt to state any absolute characterisations about either professions or groups, only to determine that certain traits and themes appeared more clearly in certain constellations. As this investigation aims to study the extent to which a design professional is predisposed by expectations – of plans, or of change in general – it has been crucial to be able to recognise those who carry a design attitude on site with them. An “attitude” is what could be regarded as specific for design professionals or design professionals *in spe*, such as planners and architects, but also for project leaders’ anticipations of future change.

The four categories identified in the questionnaire analysis are: the *non-involved non-designer*, the *non-involved designer*, the *involved designer*, and the *involved non-designer*. A *non-involved non-designer* does not work in a design profession and is neither professionally active in or nor has any professional relation to the area. In this investigation, these individuals were residents of Lund and had been invited through personal contacts. The *non-involved non-designer* typically does not have extensive insight into the work process of design professionals. The *non-involved designer* is a person with a design education or a design profession – an architect,

urban planner, landscape architect or designer, i.e. an individual referred to as a design professional throughout this thesis, but whose professional task is not connected to this particular area. The *involved designer* is a person who has a professional relationship to, or/and is active within, the area of Brunnshög/Lund NE: these can for instance be planners or architects working with the planning of the area at the City Planning Office in Lund. Others active on-site at the time were engineers from the MAX IV building site and persons active in the establishment of an infrastructure at Lund NE/Brunnshög, the archaeological team that performed excavations, and a researcher and an artist involved in the design of my own on-going research project. This group is called *involved non-designers*. The involved designer or involved non-designer generally has extensive prior knowledge about the planned development for the area and typically has previous information about the actual conditions at the site. One way or another, their work has a direct influence on the becoming of Lund NE/Brunnshög. Within the group of involved designers/non-designers (i.e. individuals with a professional relationship to Lund NE/Brunnshög) there were a few individuals that can be placed in a subgroup of *significant stakeholders*. The significant stakeholders are among the most influential individuals regarding the future of the area, and could for instance be people with leading positions at the Lund City Planning Office or within the organisation of Science Village Scandinavia AB. They are found within the categories of involved designers and involved non-designers and have not been treated as a separate category in my final analysis; however, in narrative fragments in my text, they cast light on certain aspects within the register of involved individuals. According to the categories proposed here, in my total analysis I have distinguished and counted three non-involved non-designers, eleven non-involved designers, ten involved designers and ten involved non-designers. The group of involved designers includes individuals with a professional training in design: architects, planners, designers or landscape architects or other employees at the Brunnshög Project Office who were somehow active in the urban design of the area. An individual in the category of involved non-designers could be an engineer, an archaeologist, or a corporate executive. The non-involved designers work in design-oriented professions, but are not

connected to the area in their professional practice. The non-involved non-designers have neither a professional connection to the area nor a design-oriented profession.

It should be noted that in this section of the thesis, dealing with the interventions, I have diversified the category of design professionals into two main groups of *involved designers* and *non-involved designers*. While perhaps not having a designerly attitude, an involved non-designer such as an engineer clearly has an influence on the formation of the landscape. However, as the work at hand primarily treats designerly approaches, professionals such as e.g. engineers and archaeologists have not been included in the group of design professionals.

### **Answers from the questionnaires about attitudes towards the Wennergren Farm and Brunnshög**

In the following, I account for the answers and comments gathered in the questionnaires and the sound-based study performed at Lund NE/ Brunnshög. I assembled, contemplated, analysed and categorised the answers, partly in triangulation sessions with my supervisors Gunnar Sandin, Mattias Kärrholm and Catharina Sternudd at the Department of Architecture and Built Environment (LTH). I have striven to distinguish common themes in the material as well as whether those themes could be linked to the participant's professional connection. This analytical process also included an experimental act performed with artistic methods, in which I read the complete file of answers aloud in a public setting. This experiment, entitled *Uttered Expectations*, is described later in this chapter. In the following, I have arranged and commented the answers according to emerging themes in order to communicate what I have identified as the core results of the survey.

#### *On the Wennergren Farm's immediate environment*

*What do you think will happen here?* (Wennergren Farm). The answers to this question almost exclusively depict the plans for Lund NE/Brunnshög as already communicated by the planning authorities in Lund. The following list shows the most common answers first with the others in declining order: a visitor centre or/and Science Village; demolition; a

(tramway) station; infrastructure; expansion of MAX IV and ESS; dwellings; urban development; café; renovated mill; working places; square; stormwater pond.

With the quite open question *How do you see the future of the Wennergren Farm?* I attempted to capture the overall feeling regarding the future of the Wennergren Farm. All of the groups answered in a similar way: about half stated that they felt positive towards the future at the Wennergren Farm. The rest of the answers related more “objectively” to, or by repeating, what was already stated in the formulated plans.

When comparing answers to questions about what the Wennergren Farm offers the city of Lund/the region/the world today and in the future, a majority of the participants thought that the Wennergren Farm’s impact and significance will increase in the future. Many stated that the site did not have any particular significance today, especially not on a bigger scale. Among the involved designers, the most common answer was that the Wennergren Farm did not offer anything today. Some of the involved designers and involved non-designers asserted that what the site offered today was a possibility for development, change, or a future. Proximity to Lund, Malmö, Copenhagen and an airport were mentioned, which parallels what is generally stated in the official planning mediation. Although often acknowledged as a place in its own right, with history and an old mill with historical significance, most of the involved designers and involved non-designers stated that today, the Wennergren Farm did not offer the region or the world much or anything at all, and often not Lund either. Almost every answer related to the plans in some way, even if some responses merely stated that “a lot” is expected in the future of the site. Among the involved designers and involved non-designers there were also some who saw the Wennergren Farm as offering an optimism or belief in the future, as well as a starting point for many visions of the future, recognising it in its own right, but still emphasising it as a resource in a larger scheme. Several answers expressed that today, the Wennergren Farm is a part of the cultural landscape of Scania, and one non-involved designer saw the farm continuing unchanged as a part of the same cultural landscape – an option that was not suggested otherwise by any of the involved designers/non-designers.

*On the wider context of the Brunnshög area*

Regarding what they believed would happen at Brunnshög, all of the involved designers and involved non-designers seemed well acquainted with the plans and answered with what could collectively almost constitute a condensed version of the plans for Brunnshög: the ESS, and MAX IV facilities, the adjacent Solbjer neighbourhood, part of a city promoting Lund internationally, big expansion/development, materials research, small cultural events, big change, offices, dwellings, parks, streets, a tramway, sustainable neighbourhood, high technology research, and a more prosaic choice of words than is commonly used in planning: a working and dwelling suburb to Lund. Two of the participants also expressed hopes of sustainable development. The non-involved designers and non-involved non-designers made predictions along the same lines with a couple of comments from non-involved designers that they had just gotten information about what was planned for the area. One involved non-designer mentioned what is actually *leaving* the area, i.e. farms and farmland, and in doing so shifted the focus within this investigation's dominating attitude, departing from what is new and arriving in the future to what will become history. One comment by a non-involved designer concerned a perceived risk that the obvious functions and needs of research and dwelling facilities could make the area unstimulating for those without a defined interest or business in the area.

In terms of a long-term perspective on the future of Brunnshög, the involved designers outlined a bright and positive future aligned with the plans for the area becoming an important part of Lund's expansion. The typical involved non-designer was also quite positive (although some geo-technical concerns regarding the research facilities were raised), though not as enthusiastically as the involved designer. One statement explicitly related to a future beyond the existence of research facilities, "when the science is obsolete the area will host another type of knowledge than it was built for". Another comment stated that the area could become segregated. Non-involved designers were less positive to the future of Brunnshög in general than the involved designers were, and expressed doubts about the area having good urban quality or something to offer others than scientists. The non-involved non-designers were all positive to the area's future.

*What do you think Brunnshög will offer Lund/the region/the world in the future?* The last question in the Brunnshög section of the questionnaire parallels the final question about the Wennergren Farm. Here, all of the participants had a similar view; the answers to the rather abstract question mostly mirrored the prevailing plans. Among the non-involved designers and non-involved non-designers, the research findings and the research environment were considered important on a global scale. On a regional level, Lund was seen as strengthening its trademark and attracting more tourists, gaining new working places and recreation possibilities. One answer also aligned with the expectations in the prevailing plans.

As can be expected, the involved designers and involved non-designers almost all gather in a cluster that anticipates the future of an environment at Brunnshög corresponding to the plans; i.e. in terms of information about research, dwellings, culture etc. More than half of the informants in these two categories think that the area will offer them work in the future. The non-involved designers expected future offerings in accordance with the plans, advantages from scientific discovery, and professional references. Several non-involved non-designers mentioned that the area could perhaps offer their children something; i.e. they identified potential in a more distant future.

#### *Nature, meeting points and couplings*

When answering questions about what the Wennergren Farm offers or provides today, several participants described a sense of calmness and relaxation. In several questionnaires, the Wennergren Farm was described as an oasis or a green and natural place, and a place with cultivation potential. It was likely that the replies reflected the beautiful, warm weather on the summer days when most of the interventions took place. Sunshine, birdsong and the lush greenery of the early summer probably considerably influence the outcome when one is asked to dream about a possible future or action potential. Several participants pointed to direct experiences in nature, of a secluded place and of birdsong, while others responded that the place made them fantasise about a house with a garden and life in the countryside.

One non-involved designer commented on the sensation of claustrophobia if one does not have access to a car that can take you “away from

there”. Perhaps this was a reverse conclusion to the same experience reported by other as the place offering wide vistas and views over fields; these answers were dependent on an impression of distance from more populated areas. This could be a result of visiting a place that, in comparison to the rather urbanised context of the cities of Lund or Malmö from which most of the participants started, offered a calmer environment. Seen thus, the mere transport – in most cases by car – can be of experiential importance and enhance the perceived distance to or from the city, the workplace or a busy everyday life. There were also obviously work-related answers, for example that the place offered much work or a break from work. These types of answers were given exclusively by involved non-designers active on a building site in the area. Other profession-oriented answers from involved non-designers working with the archaeological remains at Brunnshög related to the meaning of the place from a historical or archaeological point of view: as a “fragment of a past” or “knowledge in the near future”. Some non-involved designers also identified the element of history or a bygone era, although these comments related to the old farm building and not to the archaeological remains found by the archaeologists at the site<sup>72</sup>.

Regarding the questions about the Wennergren Farm’s potential today and in the future, only about ten percent of the answers (delivered by two non-involved designers) did not relate to the future plans or expectations for the area in some respect, but instead merely addressed the physical place itself. One significant stakeholder went as far as to claim that the Wennergren Farm should already be seen as an “important part of MAX IV, ESS, Science Village”. Several participants felt that the place held a potential as a social meeting place. Many of the statements reflect the declarations of stakeholders actively involved in the planning of the area between the research facilities; the Wennergren Farm is considered a central location by the municipality, for example (Nebel 2013). Another example can be found in Science Village Scandinavia’s formulated ambition

<sup>72</sup> The site of Lund NE/Brunnshög as a whole can also be read as a meeting point between the old and the new: large-scale excavations have shown that the area has been cultivated for 6000 years and perhaps constitutes Sweden’s oldest farmland (Axelsson 2013). 5000 years ago, Lund NE/Brunnshög was inhabited by Stone Age farmers, and it was probably an important meeting place (Riksantikvarieämbetet 2010).



for the area: “[t]here will also be service functions such as restaurants, cafes, shops, gyms and other spaces for recreation and culture, and furthermore a variety of various creative venues. Science Village Scandinavia will [offer...] world leading sustainability solutions.” (Science Village Scandinavia 2015b). The possibility of the place to “bear witness of the existent in a future”, as stated by one of the archaeologists, is a slightly cryptic answer, but is presumably intended to communicate the option of the Wennergren Farm to partly remain as a conserved estate, and as such function as a historical link between now/then and the future.

The most commonly recognised potential at the Wennergren Farm concerned the place as a coupling factor or a strategically important place. This aligns with what major stakeholders communicate as the task Science Village Scandinavia is destined to fulfil (Lunds Kommun 2015). Judging from the totality of answers, the identified potentiality of this place articulates four types of coupling possibilities or links: a *social link* (meeting places, dwellings); an *infrastructural/geographical link* (tramway stop, link between the research facilities ESS and MAX IV, a traffic island for the farmland animals and plants); a *visual link* (i.e. a panoramic viewing point from which one can look out over the area); and a *historical link* (preservation of an old place and a couple of buildings that contrast the ultramodern research facilities and Science Village). In this case, the opportunity to connect or link is identified as being perceived as a unit within an *outside* whose character is generally understood as different from the unifying link. Some visitors alluded to the Wennergren Farm as an oasis, which indicates its characterisation as significantly *other* within an otherwise homogenous environment – in this case a technological or scientific environment – and its location at a strategic point.

In conclusion, all of the involved non-designers and most of the involved designers either related in their answers to a certain degree to, or appeared to be aware of, the plans for the area, whereas the non-involved designers and the non-involved non-designers included the plans in their answers to a lesser degree, which implies that the involved designers and involved non-designers to a greater extent have accepted and even assimilated the plans as part of what is connected to, or already is a part of, the area.

### *Immediate options*

Roughly two types of answers were given to the question *What would you like to be able to do here?* (Wennergren Farm). On the one hand were answers that could be read as purely personal wishes, and on the other were answers relating to the individual's professional role. Personal interests mentioned – mainly by non-involved designers – were ride a bike, take a walk, live, play, camp, explore mystery, jog, farm, work, *fika*<sup>73</sup> (“fika” was mentioned in about a third of the answers to this question, and by respondents in all categories), enjoy the landscape, explore the garden and visit the information centre. Besides relating to personal interests, most of the involved designers and involved non-designers also included their professional persona when answering questions about what they wished to do at the Wennergren Farm and related in varying degrees to wishes for exhibitions and connections to the science performed on-site, but also as mentioned above, the wish for fika – in this case perhaps also as part of a break from work. The answers given do not always directly relate to the plans for the area, although they tend to give the same sense of a recreational/scientific/sustainable mix often stated as a goal for the future of Brunnsbö (Lunds Kommun 2015, Science Village Scandinavia 2015b).

All of the involved non-designers expected or wanted a future change, and the new situation often connected to their professional role somehow. This might be because most of them spend their entire working day at the Brunnsbö site. Of the involved designers (who typically do not spend their workdays on-site), less than a third had any expectations/wishes for change, and very few connected change to their profession. The answers had an underlying element of future change to which the formulated visions have very likely contributed. The potential change probably would not have been discernible, at least not to any significant exploitative extent, without the Wennergren Farm being in flux; i.e. being subjected to changing ownership, having interventions performed on location, and being a bearer of plans for the area. When the farm ceased to be a private residence with a garden, several representations and events implying a transition became possible or distinguishable. The

<sup>73</sup> The typical Swedish *fika* can be described as having coffee or tea, possibly with a snack, but also has connotations of taking a break and having an informal social gathering (Nationalencyklopedin 2014).

involved designers and involved non-designers active at the Brunnshög site at that time were also those who connected the official vision of the area to their personal wishes most often, for instance when responding that they wanted a research centre, a meeting place for material scientists and entrepreneurs, an inspirational place for new science, facilities for gaining insight into the place's history, or an exhibition of the place's archaeological history. In general, the plans for the future of the area seem "inescapable" when one has somewhat incorporated them into the mental image of what the future may hold. The many comments about a possible oasis, and a green and "natural" place could be seen as relating to the anticipation of intense development and investment surrounding the Wennergren Farm in the future. At the time of the questionnaires (2013), the Wennergren Farm was in a state of uncertainty; it bore the traits of existing *after* the private owners had left, *before* being renovated, altered, moved or demolished (or even left more or less as it is, as a memorial) for future purposes and needs. The questions about coming possibilities do imply a certain expectation that things will change. Participants who were not directly involved in the development of the area to a greater extent seemed observant of immediately given qualities, i.e. of affordances in terms of immediate actions and possibly even affects generated at site, and provided responses such as "a place for exploration", "sun", "strong fragrance (jasmine?)" and "protection from rain". Individuals involved in the area's development alluded to the future more often, with responses such as a "base for the development of an area". Some involved non-designers and involved designers saw the place as already offering possibilities for work – in a sense, these individuals had already stepped into the frame of a future landscape with an altered main function of the site. The archaeologists emphasising the site's historical significance had probably progressed to a more future-oriented developmental stage. Presumably, the considerable investments in thorough excavations of the site would probably not have been made in the near future if Brunnshög had not been subject to development, and significant discoveries would probably not have been made.

A few of the participants who answered questions about their relation to Brunnshög and what Brunnshög offers them today also reported that they were active at Brunnshög at the time. Being "active" indicated

being present in the area (occasionally or daily) and not only remotely connected to the area – for instance by working with planning at the City Planning Office. Examples of activities on-site were urban farming in the collective Odlå i Lund, construction work at the building site of MAX IV, or activities related to the physical preparation as part of the larger projective plan, such as measuring soil qualities.

When elaborating on what one would like to be able to do at Brunnshög, half of the involved designers' and involved non-designers' responses concerned their personal wishes, and the involved designers often related these wishes to an expected change of circumstances in line with the formulated, sustainability-oriented, plans for the area. "What one would like to do" seemed to elicit responses about personal wishes rather than professional wishes. Nevertheless, knowledge gained in one's professional life sometimes appeared to have an impact on the personal wishes, as the sustainable ambitions related to both personal wishes and to a professional role, such as "sit on green rooftops and drink beer" and sustainable alternatives like growing organic food. However, several responses reflected the particular individual's actual profession: wishes for activities related to scientific materials research or with the scope of telling the history of the surroundings. There were also personal and hedonistic wishes like "to live a rich life" and eat well.

### *Professional expectations of a sustainable development*

In general, the trained architects from the group of non-involved designers shared an attitude common in the contemporary architectural profession; they expected change and wished for good urban quality, to look at exciting urban development, a wish for a dense neighbourhood or a "special neighbourhood with a clear connection to the landscape". There was a clear distinction between the involved designers and other participants in this respect. The involved designers had positive expectations of the quality of the future environment to a greater degree, while the non-involved non-designers all related either to activities already present (such as Odlå i Lund) or to formulated plans. One non-involved non-designer expressed a wish to "if the plans are realized, take a stroll in the surroundings and finish with a fika at the café *Wennergrenska*". This

response related to a personal life, but remained subordinate to the realisation of communicated plans.

*Thoughts about the future and degree of influence*

When comparing the answers to questions about what the participants *think* the Wennergren Farm will offer them in the future to what they *wish* it could offer, the non-involved non-designers and non-involved designers expressed more negativity and also disinterest with regard to the expected future (as it related to what they wished for) than the involved designers and involved non-designers. This could be interpreted as the involved designers and involved non-designers believing themselves to have a greater influence on the future of the place than the non-involved visitors, and possessing more knowledge about the plans, considerations, and negotiations made throughout the process thus far. The non-involved participants in the interventions do not have the same close connection to the plans for the area and maybe therefore lower expectations and less confidence in its future. It might of course also imply a general psychological effect: once one begins taking responsibility for something and investing one's own time in it, the emotional investment also increases and possibly becomes increasingly positive, or at least more engaged in the future outcome. Whether or not it is the effect of work habit and psychology, involved designers display greater trust in the "right" decisions having been made, while the involved non-designers remain more critical.

In response to the question *What do you wish Brunnshög could offer you in the future?*, about a third of the non-involved designers wished for similar things as they said they expected. Sometimes they elaborated their wishes further, while almost half of them wished for better outcomes than they expected. The non-involved non-designers wished for an environmentally sustainable part of the city, "more life in Lund", and a community for those involved. If the involved designers/non-designers' thoughts about the future of the area were quite prosaic and well aligned with the prevailing plans in the answers about the *wishes* for the area, there was a tendency to wish for something out of the ordinary, possibly even utopian and often connected to participants' respective professions,

such as inspiration, creativity and an interesting and diverse part of the city. The more idealistic statements are perhaps the ones that wish “to live with zero climate impact” or for “a journey in the past with a connection to the new use of the place”.

### *References and good examples*

When asked to give examples of inspiration for the future Wennergren Farm, a number of recreational areas or farmhouse cafés with examples from the region of Scania were mentioned, such as *Tirups Örtagård* outside Lund, *Mandelmanns Trädgårdar* or *Olof Viktors* in other parts of Scania. Well-known museums and exhibitions from the Copenhagen area such as *Louisiana* or *Den Blå Planet* were given as inspirational ideas, and in addition to the above, a general comment about “all environments that are creative”. A couple of architecture examples or urban environment references in the region were named by non-involved designers: Bo 01



Figure 43. Audible Dwelling at the Wennergren Farm with the white farmhouse seen from across Odarslövsvägen. On this day in June 2013, it was being visited by intervention participants. Photograph Kopljär 2013

in Malmö and Maria Park in Helsingborg. Perhaps the many references provided could be an effect of architects being trained to give references throughout their education and in their professional life.

Many of the involved non-designers were unable to come up with an example of an inspirational place for Brunnshög, but sometimes connected to their own professional roles when for instance wishing for scientific environments. The largest part of the urban references mentioned came from involved designers. The non-involved designers' answers were almost evenly spread over urban references/other research environments/nature and recreation. Interestingly, some suggestions were made regarding other research environments, although not by the individuals involved in the actual planning of Brunnshög. An explanation for this may be that the stage for inspirational input from other research environments for the responsible design professionals working with Brunnshög had already passed; the project was now in the "next phase" of development.

## **Futurity Imaginings**

### **- emotional experience of *in situ* sound simulation**

The third part of the questionnaire given to the participants at the Wennergren Farm – the sound simulation part – was introduced into my investigations in order to further problematise the issue of what is experienced in an actual environment, and ultimately also how this kind of simulation could form an actual part of certain planning stages. This part of the questionnaire concerned how the on-site experience was affected by sound, and was an attempt to capture the responses to a "future situation". This future environment and situation were produced by introducing artificial sound.

This section of the questionnaire posed questions about five sound situations: a) the sound already existing at the site, b) tram sound, c) water sound, d) Central Station sound and e) public urban life sound. Sounds *b-e* were emitted via the loudspeakers of the Audible Dwelling units and sound *a* was the sound existing at the time and place when the questionnaires were being filled in at the Wennergren Farm.

### *Sound on-site*

When commenting on the already existing sound, the most common observation was that of contrast or a mix – although not always explicit – of the two dominating sound categories that could be labelled “nature” (birdsong, wind, rain) and “traffic” (from the nearby E22 highway, Odarslövsvägen, cars or passing airplanes). Several participants commented that the nature and traffic sounds balanced each other: “bird sounds and cars, they kind of cancel each other out”.

### *Tram sound*

About a quarter of the participants had negative feelings towards the tram sound: stress (“I hope I will catch the tram in time”), danger, or the feeling that it was disturbing or intrusive. There seems to be an obvious, and for some unpleasant, contrast between the situation perceived up until the sudden loud sound of a tram, and the new sound ambience dominated by the tram. The sound was at this point “everywhere” – there was no place in the garden or immediate surroundings where one could avoid it. However, not all of the participants experienced that sound-ambience as definite: one person stated that the sound was irrelevant as long as the tram could not be seen. Equally prevalent as the negative comments about the tram were reports that the sound triggered an urban feeling – “it became a city”. There was a comment about the tram being a sustainable way of travelling, and several that showed that the tram sound functioned as an inspiration to travel or a sense of expectation. On the whole, the simulative quality itself (the virtuality of another place) was acknowledged, but not wholeheartedly and unanimously as a fulfilled illusion, since some were more affected by the mere change in the sound milieu, not by the kind of reality it conveyed.

### *Urban Water sound*

The next sound was a sound of water, possibly a fountain, in an urban situation with some traffic in the background. About a third of the participants expressed positive feelings about the water sound: “lovely”, “feels better in spite of the heavy traffic in the background”, and identified it as a distraction from the traffic sound. There were also negative comments about the water sound. Some experienced it as threatening, for other it



evoked feelings of disgust or the sense that it was hard to connect sound and place; “it felt a little strange with water flowing in the middle of a field”. Equally common as this explicitly negative reaction was a sense of “nature”. A bit surprisingly, four of the participants reported an unexpected bodily response – the need to urinate.

#### *Central Station sound*

The hitherto mentioned sounds did not trigger any explicit recollection of the plans for the area other than in general terms, such as *communication* or *urban*. With the Central Station sound, this changed. One of the involved non-designers now came to think of a “Science Village with high-rises”. About a third of the participants used the words *stress/stressful/stressed* to describe their reaction to the sound; curiously, this reaction was slightly more common among the involved designers. 13 out of 33 of the answers were distinctly negative, while only four were positive. Several statements contained mixed feelings about the sound; it was seen as difficult and loud, but also evoked associations to the big world or “big city sound”. A more nostalgic comment could be: “nature disappears a little with that [sound]”. In general, the Central Station sound was perceived as alien, reminding of a meeting place and giving an urban feeling, sometimes triggering a “not here” response. As regards the method of using sound simulation in general, it can be mentioned that one participant response was “this really makes me understand a new place with a new function here”.

#### *Urban life sound*

In the questionnaire instructions, the final sound was simply labelled *urban sound*. It was a recording of an urban situation with chatter, the sounds of children and sometimes quite heavy traffic. One participant described it as the sound that was furthest away from the rural environment. A comment made by a non-involved designer with roots in southern Europe described the urban sound as peaceful, where one can imagine people walking around in a city. This statement identifies a cultural relativism as it implies that we do not only “see” potential with our body, but also with our emotions and history, which relate to personal culture. The connotations of a peaceful urban place possibly constitute

an “angle of arrival”; i.e. an arrival consisting of both a physical arrival to a place and a figurative arrival that could include the biographical history and cultural formation of a subject (cf. Ahmed 2010:37). In this case, it constitutes a deviation from a possibly more common attitude in Sweden, namely that an urban environment that includes traffic cannot be perceived as peaceful. Other answers show that an ambiguity towards city life was common and could be summed up by the response “sound of people = positive, traffic = negative”. Again, these are conceptions that the initial, text-based affordance investigation, did not access.

This sound intervention, it seems, triggered an emotional and immediate experience to a greater extent than the first “silent” questions about the Wennergren Farm and Brunnshög<sup>74</sup>. In order to avoid associations with the names *Wennergren Farm* and *Brunnshög*, the milieu being asked about in the sound intervention questionnaire was simply referred to as *the place*. Perhaps this contributed to the fact that the associations and statements made when influenced by sound, and which seemed to be based on direct impressions, seemed to generate remarks that often bypassed the expectational load of the professional, instead stimulating a focus on the potential of the instant situation. These direct statements had a tendency to lead to simple and straightforward observations that went past a more elaborated and problematising level, indicating that the respondents activated a different type of attention, a different range of experience, or a different cognitive domain. There appear to be no significant differences emanating from the level of involvement in the Lund NE/Brunnshög planning in this section; i.e. there was no particular difference between comments from non-involved non-designers, non-involved designers, involved non-designers or involved designers. It can however be noted that design professionals engaged in forming Lund NE/Brunnshög’s future showed contrasting experiences depending on whether they were asked questions or if they were encouraged to account for spontaneous associations. While the involved designers were generally

<sup>74</sup> The first group of participants (four non-involved designers) were asked hypothetical questions about the Wennergren Farm and Brunnshög while sounds played in the background. These visitors nevertheless had the same type of “immediate” reactions to the sound part of the questionnaires as the rest of the participants, and the various sound environment seemed to have been less “activating” while the participants were asked to make speculative elaborations on the future of the Wennergren Farm and Brunnshög.

positive towards an increased urban situation with more intense street life, infrastructure, contrasts, a tram and an urban creative environment in the “silent” part of the questionnaire, they expressed a more negative view when similar environments were simulated by the use of sound according to my interpretation of the plans. About half of the comments about the future-oriented sound environments were negative, relating to stress, to the destroyed tranquillity of a rural setting, or to the fact that the sound was overwhelming and intrusive. The positive comments on the other hand expressed the joy of hearing people or a more populated situation.

The introduction of sounds revealed a register of responses and conceptions that the initial, purely text-based sections of this questionnaire-based investigation of affordances did not access, and to a certain extent, different sounds gave different immediate responses. This implies that we need to discuss a widening of the experiential register, when discussing carried and affect-based parts of what we experience as affordance.

Taken together, the responses from the questionnaire-based intervention showed several aspects of how environmental experiences mix with what we – in broader terms – could call culturally inherited knowledge. Some of these aspects will be further discussed in the chapter *Learnings from Interventions*. Before that discussion can begin, however, a third and final type of sound-based intervention will be accounted for.

## Uttered Expectations – A Performative Event through Broadcasting of Spoken Rendering of Written Answers

In order to expand the affective use of sound as a possible element of planning still further – this time not primarily as an illusory effect, but rather as an engaging medium – I conducted one more sound experiment, now with the ambition of triggering issues related to the public domain of planning, and where the emission of sound could be involved in an experimental manner. The Audible Dwelling units also allowed broadcasting from one unit to another, which led to my performance of



Figure 44. Audible Dwelling placed adjacent to the gallery Krognoshuset, June 2013. Photograph Kopljär 2013

an act of public speech that I called *Uttered Expectations*. As an attempt to activate and perform investigations into the public domain of planning and thus also address the protocols of urban design processes, the Audible Dwelling unit that was placed at the Wennergren Farm was connected to its “twin” unit on one single occasion. In June 2013, the twin unit was

placed at the gallery Krognoshuset, which is located on Mårtenstorget in the centre of Lund and is incidentally Lund's oldest building, dating from the 14<sup>th</sup> century. By this arrangement, the event *Uttered Expectations* was made possible as a sound transmission from Brunnsbögh that could be heard at the city square. The previous interventions realised at Lund NE/ Brunnsbögh harvested and documented a variety of wishes, fear, professional considerations, expectations and thoughts about the historical significance and immediate action potential at the site, as well as about the site's future on scales ranging from the corporeal to the global. My intention with *Uttered Expectations* was to use the comments gathered in an event that could function symbolically as a parallel to ordinary planning protocol, and which could be seen as an alternative manifestation of opinions.<sup>75</sup> During the event, I read the questions and answers from the questionnaires about the Wennergren Farm and Lund NE/ Brunnsbögh in their entirety into a telephone while sitting inside an Audible Dwelling unit at Lund NE/ Brunnsbögh. The reading was transmitted to the other Audible Dwelling unit placed outside Krognoshuset. Those interested were publically invited to either visit Lund NE/ Brunnsbögh, from where the transmission was being sent, or Mårtenstorget, the square on which the sound was being broadcast to the citizens in the city centre.

Invitations to the broadcasting event were made through different channels: a press release to local mass media,<sup>76</sup> a mention on the Municipality's website.

<sup>75</sup> At each intervention, I had asked the participants for permission to use their answers for a reading event.

<sup>76</sup> The pressrelease as communicated to local media:

*Uttered expectations: a transmission of sound in Down Town Lund about Science Village in Lund*  
The 27th of June, Gallery AURA and LTH/ Architecture invite interested and concerned for an urban sound transmission. A sound transmission that takes place between Down town Lund (Mårtenstorget) and a farm placed at Brunnsbögh where the future Science Village is planned to be, the terminus for the proposed tram line to the future built area. The reading will take place at Brunnsbögh and is transmitted to Mårtenstorget with the help of Audible Dwelling. Audible Dwelling is the name of a 'stereo speaker dwelling' that the artist group Learning Site has produced and which is placed and used in the ongoing exhibition at AURA, Lund. The dwelling has previously been presented by Tensta Konsthall this spring and at Columbus College of Art&Design, Ohio, USA four years ago. The second speaker of Audible Dwelling in Lund, is placed at Brunnsbögh and has been lent to LTH /Architecture. The research undertakes the expectations of the large scale research laboratories MAX IV and ESS. Interested and concerned persons are welcome to participate in this event the 27th of June with a start at 5 pm. (17.00). Either, one can visit the speaker at Brunnsbögh from where the transmission is done, or one can choose to visit the speaker at Mårtenstorget where the sound is transmitted for the City.

pality's homepage (Lunds Kommun 2013d),<sup>77</sup> and a written invitation at the gallery in Krognoshuset. Apart from a group of personal and professional contacts, very few showed up to take active part as visitors at the site in Lund NE/Brunnshög. The broadcast was thus for the most part experienced by passers-by at the central square who were unprepared for it, and reacted either with silent curiosity, or sometimes by pausing briefly, sometimes turning their heads. Only to a limited extent did people stop and ask what it was all about, or to hear what the sound of the voice actually expressed. Despite the previous general media coverage of Lund NE/Brunnshög and the new science facilities, the citizens of Lund did not – at least not at this point in time – seem to be particularly captivated by the mention of the label “Lund NE/ Brunnshög”, nor did they seem to feel that they could possibly have an opinion about the area, or any impact on the planning, at least not through any initiatives other than those that the Municipality of Lund had officially proposed as public consultation sessions. The event Uttered Expectations has however also been shared as a documentary, and thus as an aftermath experience, at conferences and other open presentations,<sup>78</sup> and in this way given rise to discussions about the relation between the concerned (or unconcerned) citizens and the (protocols of) planning authorities.

<sup>77</sup> ”Uttalade förväntningar: en ljudutsändning i Lunds Centrum från/om Brunnshög. Den 27 juni kl 17.00 bjuder Galleri AURA och LTH/Arkitektur in till ett urbant ljudexperiment.”

<sup>78</sup> The event was presented at the conference Co-laborations at the School of Architecture in Lund in 2016, in the publication *Från konstnärlig högskola till universitet: Konstnärlig forskning–Årsbok 2015* (Sandin 2015a), the Swedish Research Council's yearbook 2015; by Gunnar Sandin at a conference held at the Swedish Research Council in 2015; at a symposium in Lanzhou New Area, China in 2014 and at a presentation of Audible Dwelling at Malmö Port on 8 September 2013.

*An Illusion Trick of Heavenly Proportions*





23 June 2013

I'm writing you this letter of (partial) facts and affectual responses to some events because you weren't with me on that night. On this night, a lonely place and a lonely task intersected. I will tell you what happened, my thoughts and my views, and give you a time frame (for orientation).

We have all been up here already today. Friends and family have participated in sound interventions and filled out questionnaires, the teenagers slightly reluctantly. I went here before the others; I vacuumed, wiped away muddy footprints, dusted the cushions. It looked nice and tidy when they arrived.

21:43

I am on my way once again. I leave my home after kissing the children goodnight. C comes along, and we construct an arrangement with a rope around the construction beams and a padlock so I will be able to "lock" the door. I can drop the door from the inside, but no one can open it from the outside. Will this make me feel safe? He asks me if I'm going to be alright. Yes (no). I park the car right outside the door, as much to protect myself (from the unknown) as to announce that *I'm here* (in the middle of the night). It's a (fairly) warm summer night.



Interior

22:19

I have laid out my sleeping bag in the bigger of the two rooms (and not in the intended "bedroom/office space"). The bigger room feels less dark and isolated, and I have closer access to the front door. I have blocked one of the windows with cushions; I don't want anyone who passes by to look in at me sleeping. I don't particularly want anybody to look at me while I'm awake either. I have a computer and mobile phone with me. And a toothbrush, toothpaste, reading glasses, a book, a thermos, water, pen and paper, soap, rope, napkins, scissors, my car, a sleeping bag and a sleeping mat, a pillow. Expectations. I travelled here in my pyjamas. I send a text message to Cecilia and Gunnar about a temporary change of residence. The last weeks have been hectic, perhaps it's good to get away for a night. Is this getting away? I put on a movie on my computer – to feel less lonely. I start talking to myself. I often struggle to minimise my artefacts and maximise my time alone. Well then, apparently fewer things and being alone do not make me very happy, and not sad either. Displaced? I take pictures of an enormous moon with the camera in my mobile phone. Who besides me tries to capture the moon with a mobile phone?



Supermoon 23:53

The next day I will read in the paper that there was a *supermoon* tonight.<sup>79</sup> This phenomenon occurs because of the moon's elliptic orbit around the Earth, and on this particular night the moon is a little bit closer to Earth. "It is somewhat bigger in reality and shines a bit stronger. But it is the illusion that does the rest." is what it says in the paper.<sup>80</sup>

23:28 I call home. Goodnight. I crawl into the sleeping bag. Try to put the pillow in a comfortable position, one that my neck can bear. I have a sore neck and an injured back, this floor is stone hard and sleeping bags are claustrophobic inventions. I have to get up and get some extra pillows (there are plenty). I occasionally doze off.

01:06 Rain. It never gets completely dark here.

<sup>79</sup> See also *Perigean New Moons* (Byrd & McLure 2014)

<sup>80</sup> *Ett illusionstrick av himmelska proportioner* (Zupanovic 2013)



W. by night<sup>81</sup>

<sup>81</sup> The photographs in this section are by the author (2013) and not included in the illustration list.

03:25      The security guard who checks up on W. and the farm across the road comes by. I feel a little bit guilty being on his territory; I open the door before he has an opportunity to knock. He wears a security company uniform. He is friendly and we chat for quite some time. I talk about my temporary home; he has seen the other one in the city centre. He passes by at different times every night. We talk about camping and military service, and about raising children and teenagers. I laugh and make jokes, as always. There seems to be more time to talk during the night than during the day, as always. We say goodbye and he wishes me a good morning.

Early, early morning

I pack up my things, restless and tired at the same time; the same feeling as when I'm waiting for an early morning train. I go home. There everybody is still sleeping. I go to bed a second time.





## 4. Learning from Interventions

### A methodological and theoretical discussion

In this chapter, I will problematise and discuss the findings from the interventions and explain how the methods used have been developed, as well as how affordance theory has been modified following the empirical investigations. I will also discuss the methods and comment the decision to consider prevailing pedagogical cultures in this work. These discussions also incorporate notes on contemporary planning culture, and to an extent, on wider political implications as well.

The elaboration of the affordance concept, and the interventionist methods – including sound experiments, interviews, and reading actions with a subjective research approach – have generated a set of concepts related to what design professionals perceive in terms of action-potential at a site destined for exploitation. These concepts, presented at the end of this chapter as an overall statement about the theoretical achievement of the thesis, read as follows: *Environmental Alteration Potential*; *Vibrant Affordance*; *Elaboratable Nested Affordance*; and *Carried Affordance*. The concepts have emerged in a theoretical reasoning that apart from affor-

dance theory also includes thoughts on agency and affect; this merger is considered necessary in relation to the empirical work.

While the interventions required an actual site to enable my investigation of the concept of affordance (and as identified later, affect), this site was above all a vehicle to identify a tangible reality in relation to the possible range of impressions of the “place yet-to-be”. The fact that the Wennergren Farm location is of symbolical importance to the future of the Lund NE/Brunnshög area, and not *just any farm*, intensified the controversy between the *perceived* and the *expected* even further. The Audible Dwelling unit was not designed with this specific task in mind, but it brought a couple of specific features to the site: “spectacular looks”; an extraordinarily powerful sound system; shelter; and a temporary anchor for thought, experience, and action. The interventions and events that were performed through the Audible Dwelling – or rather the loudspeaker-building units of the Audible Dwelling project – were experienced through bodily and biographical presence, thought of, and elaborated on, in the questionnaires in relation to the temporal circumstances and the planning and media discourse related to Lund NE/Brunnshög. The interventions in this sense primarily collected a mix of three types of responses or knowledges: corporeal, emotional, and associative. Each of these could be considered predominant, although they are far from isolated, but instead profoundly interrelated in different aspects of the expectations expressed, or revealed, at the site.

Whereas “institutional critique [as it has developed in an art context] insisted on the social matrix of class, race, gender, and sexuality of the viewing subject” (Kwon 1997:88), this project, which to some extent uses an artistic approach as a method of investigation, deals above all with design professionals’ attitudes and a planning rhetoric connected to design professionals’ institutional sources of knowledge. Here, the Audible Dwelling interventions could also help expose the impact of the global research community (of particle physics and development of technological materials, ultimately steered by international organizations like the OECD) on planning. The small-scale research unit of Audible Dwelling could thus help address the local presence of a large-scale political and economic context, including pragmatic regional and local attempts to accommodate and take advantage of the investments following such a

venture. On-site, then, these plans and efforts could be specifically contrasted with the visitors' corporeal and emotional responses.

The interventions at Lund NE/Brunnshög were conducted at a critical point in the design process. In the interventions in 2013, *after* some official plans had been formulated, but *before* they had been executed, responses collected from the involved and not directly-involved design professionals regarding possible futures related to Lund NE/Brunnshög were almost exclusively aligned with the official plans for the area. This particular period of time can be considered a turning point, and could have implications for when an affordance/affect-based intervention could generally be used to renegotiate in practical processes. At the very least, it can provide additional perspectives on urban design otherwise associated with a specific consecutive order, where one thing leads to another along a predefined path, and where designerly action usually is seen as nothing more than one step in a process of previously determined, or contained, nested affordances. Forecasting a situation in a detached manner – for example, looking at a picture and imagining an event or a future environment – does not seem to produce the same response as immersion in the actual situation, although the former may be considered more efficient in a narrow perspective. This is in accordance with how the experience of landscape has been seen in certain psychological accounts of environmental experience (cf. Heft 2010:14). My investigation points out that there is a fundamental difference between looking at utopian and visionary illustrations of a future Lund NE/Brunnshög, and being directly affected on-site by sound, space, and climate.

### **Wishes, expectations and internalised beliefs: An analytical account of the interventions made at Lund NE/Brunnshög**

Creativity, inspiration and experiential distinction were some of the oft-repeated desirable qualities that the involved individuals tie to the future Lund NE/Brunnshög. Planning authorities have also stated these qualities as goals for the new part of the city.<sup>82</sup> It is however intriguing

<sup>82</sup> As stated in Lunds Kommun 2012c:7, 2012d:72, 2012e:9, 2014e.

that the involved individuals who took part in the interventions at Lund NE/Brunnshög seem to *wish for* the high quality to be delivered that is stated in the plans, while they do not seem to *expect* the same success from the area. Perhaps the possibility to wish for something utopian is experienced as attainable for those involved in the development of an area or with a design profession, while individuals excluded from the planning process and the design professions keep their wishes subordinate to the planning activity and the larger scheme of planning institutions. There were also wishes for change among the non-involved designers, wishes that indirectly expressed a certain dissatisfied view towards the future of the area; for example, several participants expressed a wish that Lund NE/Brunnshög could offer them more in the future than their negative expectations at the time of being asked. The involved designers were however almost unanimously positive towards the plans, and the involved participants in the interventions (i.e. the involved designers and involved non-designers), generally incorporated the plans to a very high degree when answering what potential they identify at the site. The wishes and expectations can be discussed in relation to certain themes that emerged from the material, as I will do in the following sections.

#### *Hopes for a better future*

The involved designers active in the area in particular have integrated the plans of making Lund NE/Brunnshög an ecologically sustainable area (Lunds Kommun 2012:3), as many of their answers concern what they would like to see or be able to do in the area are related to sustainability, often connecting to the same sustainability goals as mentioned in *European Spatial Development Perspective, Towards Balanced and Sustainable Development of the Territory of the European Union* (European Commission 1999). The involved designers mostly have a conventional design professional's attitude in that they have incorporated official plans into their expectations, and they generally seem to expect things to become "better" – they anticipate sustainable high quality urban expansion, which is hardly mentioned by other groups. Many of the involved designers and involved non-designers point to a future connected to research in the area, to an increase in the number of workplaces in the region, and to opportunities for collaboration. Exciting and sustainable neighbourhoods are expected.

These opinions are very similar to what was stated before this investigation, in Scandinavian Science Village-oriented meetings and mediations. One involved non-designer remarked that Lund NE/Brunnshög will offer a “continued belief that research leads to a better society for the citizens” – i.e. a belief that Lund NE/Brunnshög will itself also represent continuous hope.

*The presence and preference of “nature”*

The municipal plans for Lund NE/Brunnshög aim to minimise ecological impact and balance the use of good quality farmland (Lunds Kommun 2012d:11) while simultaneously planning for multibillion-crown research facilities on Sweden’s best farmland. The lofty goals for the environment surrounding the facilities could be seen as a strategy that aims to outweigh and compensate for the colossal scale of the resources put into the research facilities MAX IV and ESS. The geographer Erik Swyngedouw problematises sustainability objectives through a view of multiple “Natures”:

[B]efore we can even begin to unpack “sustainability” [...] we urgently need to interpolate our understandings of Nature, revisit what we mean by Nature, and, what we assume Nature to be. (Swyngedouw 2010:188)

Swyngedouw uses examples of contemporary environmental needs and problems such as water management, extreme weather, pandemics, increasing health problems and life expectancy inequalities together with a current upswing of nuclear energy as a response to our insatiable energy needs (and ultimately global warming) to exemplify the unclear limits between nature and technology or “the non-human and the cyborg-human” (Swyngedouw 2010:186). Swyngedouw’s examples represent two sorts of sustainability ambitions: one is the development of “new Natures”, which forces “Nature” to adapt to our social and/or sustainable goals; and the other is undoing our intervention in environments in order to secure our survival (Swyngedouw 2010:187). Swyngedouw refers to the philosopher Slavoj Žižek, who asserts that the present ecological crisis challenges “our everyday understanding of ‘nature’ as a regular, rhythmic process” (Žižek 1991:34). Žižek’s drastic and polemic claim that “Nature does not exist” (ibid.) implies that the nature we see and work with is no more than an

imagined and symbolically saturated nature (Swyngedouw 2010:189); a view of *one* “Nature” that results in:

an unbridgeable gap, a void, between our dominant view of Nature (as a predictable and determined set of processes that tends towards a (dynamic) equilibrium – but one that is disturbed by our human actions and can be “rectified” with proper sustainable practices) and the acting of Natures as an (often) unpredictable, differentiated, incoherent, open-ended, complex, chaotic (although by no means unordered or un-patterned) set of processes. The latter implies the existence not only of many Natures, but, more importantly, it also assumes the possibility of all sorts of possible future Natures, all manner of imaginable different human–non-human assemblages and articulations and all kinds of different possible socio-environmental becomings. (Swyngedouw 2010:189)

Advocating that there is something fundamental in nature that needs – or demands – to be *sustained* circumvents the questions “what sort of Natures do we wish to inhabit” or “what kind of socio-environmental arrangements do we wish to produce” (Swyngedouw 2010:190). Not only do plans tied to sustainability seem to steer the quality of a future environment at Lund NE/Brunnshög, but these plans also merge with, and combine, a range of everyday human and material agency.

The experiences of the participants in the interventions seem indeed to be infused with imagined and symbolically invested, or perhaps biologically derived, preferences. Many of the participants in the intervention at the Wennergren Farm emphasised direct experiences of nature and a secluded place, and also that the site offered a view over the surrounding landscape. The geographer Jay Appleton asserts that this reaction can be connected to an aesthetic preference for what we (as biological creatures) require in any situation; a basic need as it were (Appleton 1996:66). The *liking* of the *need* identifies intermediate means for survival, such as over-viewing or spotting a situation (prospect) and having the opportunity to hide (refuge). So called *prospect–refuge theory* claims that fulfilling these two needs – to see and to hide – therefore becomes an aesthetic preference (ibid.). With an affordance concept in mind, this could mean that *over-viewing* and *hiding* constitute primary action types. The environmental psychologists Rachel and Stephen Kaplan have aimed to distinguish the

factors that steer the perceptual process to extract information about the environment and state “[a]s it turns out, preferences provide a means for discovering the categories of perception” (Kaplan & Kaplan 1989:14). They comment on the similarities between professionals and non-professionals when assessing the environment: “there are strong similarities between the process used by the expert in making an appraisal and by the untrained individual who is making a preference judgement. For both [the] expert and nonexpert, a great deal of experience is brought to bear on the decision, and categorization is necessarily an aspect of the decision” (ibid.). The Kaplans’ *Information Variables Table* (Kaplan, Kaplan & Brown 1989:516) is an attempt to explain preferences for certain environments. As part of this table, the variables *understanding* and *exploring* (ibid.) involve ways of how one through perceiving one’s environment aims to understand it and seeks opportunities to explore it. The *mystery* variable has proven essential in pointing to “what can be expected” and triggers the search for new information (ibid.) and could be associated with the many comments suggesting that this is a place awaiting exploration, or that it conveys a sense of mystery, even a possible secret activity, but also arousing curiosity about the abandoned house and place.

Aesthetic preferences, inherent biological instincts and distinguishable action potential can thus be seen as strongly interconnected. Accordingly, the possibilities we distinguish in an environment could align with our urge to feel safe, and detecting means for survival. However, Kaplan & Kaplan’s research does not remain undisputed, e.g. by the environmental psychologist Harry Heft, who criticises their methods, saying that their findings “have more to do with ‘taking in a view’ of landscapes, or most often their photographic surrogates, in a detached manner and at a remove from them, rather than perceiving landscapes in the course of active engagement” (Heft 2010:14). In the collected answers from the interventions reported here, one can find many examples of perceiving the environment as a viewpoint or as hiding place, in line with what Kaplan & Kaplan emphasise. However, throughout my investigations I have kept the precondition that the participants should spend time in an actual environment, rather than looking at an abstraction of an environment in a detached experimental situation; thus, I have operated more in line with Heft’s view than with Kaplan & Kaplan’s. Furthermore, I take the



Figure 45. A group of students claimed that this place affords that one climbs to the top of the hill. Illustration Andersson, Andersson & Bosson 2011

methodological liberty of discussing tendencies and singular responses in a qualitative manner in order to examine various aspects of the “mental portfolio” that design professionals bring into their practice.

The frequent association with nature is somewhat peculiar, since the Wennergren Farm and its surroundings consist of a garden encircled by a cultural landscape of industrial farming. This association could have its origins in the obvious decline of the condition of this garden itself and the traits of wilderness in the rotten parts of the building and the uncut bushes, trees and grass. It could also simply suggest an experience of a “greener” place than the city. In my investigations, there have been more associations to nature than to human labour connected to agricultural environments; in fact, the latter is almost absent from the answers. Perhaps these environments are unfamiliar to many, and the matter of which they are made is rather linked to what we, as urban citizens, perceive as nature than to what we perceive as connected to human culture and man-made. Designed artefacts made up of processed matter in sophisticated



industrial manufacturing could in this sense be understood as more profoundly invested in than “nature-like-stuff” produced by the agricultural industry.

### *Rural nostalgia*

Judging from the questionnaires, the Wennergren Farm has become a symbol of – and a suitable site for – a connection to the history of a Scandinavian rural landscape. The farm building’s formal historical value is not mentioned in the cultural heritage inventory (Lunds Kommun 2011); it is rather the overall layout in form of the road Odarslöfsvägen’s bend and narrowing, and the view it offers over the landscape that is considered worth preservation. The white building close to the road is also mentioned as an important marker for the road’s pull (ibid.). My impression is that although the farmhouse’s formal historical value is not rated very highly, visitors both sense nostalgic value and identify it as positive. The combination of the garden, mill and farmhouse makes it not only a suitable object for the branding of heritage and inclusion of “history” in the official visualisations and architectural plans of the future Science Village Scandinavia; on an intimate level it also seems to work as representative, bringing memories or imaginations of a rural life into the present. In turn, this kind of affect is exactly what visionary work aims to evoke, at least in part (Thrift 2008). Later in this discussion, I will return to the general need to take affects into account when discussing affordance and environmental alteration.

### *Immediate impact and scattered influence*

The involved professionals in the investigations have varying impact regarding the timescale and repercussions of their actions on-site (regarding both the Wennergren Farm and the larger area of Lund NE/Brunnshög). The individuals engaged in putting up a testbed (an Audible Dwelling unit) at the site have little intentional long-term impact on the future formation of the place; however the results of the interventions might have some significance for how interventions can be seen as a tool for investigations of (or in) planning processes. Nevertheless, the influence of some of the people referred to here as involved non-design professionals can be considered “scattered”. The engineers engaged in the actual construc-

tion of MAX IV have in an obvious, material sense a significant lasting effect on the future of Lund NE/Brunnshög, even though the formation is subordinate to somebody else's overall design. The design professionals engaged in on-site infrastructural work produce design suggestions that entail for example the alterations of roads that quite possibly originated in the Viking Age (Lunds Kommun 2011); i.e. in the event that they are realised they also have a great impact on the surroundings and their historical value, both as a material and spatial physical change, but also as to what one can and cannot see when travelling through the area. These kinds of indirect visual effects are part of the potential nestedness that an immediately perceived affordance in the landscape may reveal.

### *Internalised plans*

The impact of the prevailing plans for the future development of Lund NE/Brunnshög on the answers in the surveys cannot be overstated, and expectations can indeed be seen as an important part of the context and environment at the site. Comments that make reference to the Wennergren Farm as a place just waiting to be explored and the associations of the area to an oasis clearly reveal expectations of intense and positive development. Even if the wishes, identified potential and suggestions cannot always directly be attributed to the formulated plans, they depend most likely on the fact that the area was in a transformative stage when the visits took place. Elaborations in the responses on what the Wennergren Farm offers in its current state are often more emotionally based, expressing feelings and nostalgia. The overall beautiful weather, birdsong and lush greenery probably contributed to the mostly Scandinavian visitors' positive attitudes towards the almost vacation-like (if short) sojourn there. At the very least, this meteorological factor allowed positive feelings to find sufficient room for articulation on the day when the questions were answered, probably making it easier for the informants to come into contact with other associations that usually require a certain state of relaxation to emerge. The involved designers and involved non-designers did to some extent relate to personal interests, especially in the sound part of the interrogation, but on an overall basis they let their professional roles surface, making associations in terms of work or work interest.

One significant stakeholder even claimed that the Wennergren Farm was *already* an important part of the main function of the area. In general, the development plans for the future of the area appeared internalised in the involved designers' and involved non-designers' anticipations to a greater degree than the rest of the visitors'. A related optimism and belief in the future could be distinguished, particularly with the involved designers, which implies a mostly predefined sequence: a kind of contained nested affordance acted on by the participants, as if executing a pre-determined course of events leading to a specific future. With the exception of the individuals already corporeally active in the area, e.g. archaeologists, engineers and others, the participants almost unanimously related the abstract and larger area of Lund NE/Brunnshög to associations and abstract plans more than immediate experience and inspiration.

*The impact of future – a methodological note*

This thematic account of the interventions could go on, depending also on what I myself bring into the search. I will therefore halt here temporarily in order to link these results to my own expectations about where this research project could lead. First of all, the executed interventions support my own previous experience of the area of Lund NE/Brunnshög. In the personal excursion and search for affordances accounted for in previous chapters (e.g. *Driving, losing, falling, dreaming (about great expectations)*) I experienced a similar sense of expectation that many of the participants reported in the interventions. Like them, I was influenced by the produced visions for the site to the extent that I could not help imagining and taking the research facilities into account. In spite of the open-endedness of my investigations, my thoughts and fantasies were often – though not always – in line with the official planning. The progress of the official plans on a hypothetical level is apparently perceived as inescapable as reality. For instance, despite being granted the possibility to imagine, invent, or wish for just about anything, not one participant in the interventions wished for things at the Wennergren Farm to return to a previous state. Of course, this immense presence of “new futures” in the answers can be partly explained by the fact that I myself, despite taking precautions not to impose specific futures when designing and

introducing the questionnaires, in this very research design and certainly not least as an intrinsic element in the sound part of the questionnaire sessions, still inevitably brought “future” to the fore.

*Differences as regards the type of professional involvement*

To reiterate, design professionals with a professional relation to Lund NE/Brunnshög were faithful to their professional planning attitude when answering questions directly related to planning, whereas participants without a design professional’s background elaborated more freely on how the place and area could benefit them or their family in their personal lives. Although acknowledged, the Wennergren Farm’s historical significance and historical features could not compete with the future plans in the eyes of the individuals involved in the establishment or planning of Lund NE/Brunnshög. Professionals at the site at the time who were working with other tasks, such as engineers employed at MAX IV, remained more critical to the vision. Some of the most negative comments about the development of Lund NE/Brunnshög came from individuals involved in technical questions at the site; one of these was a geotechnical engineer specialised in soil stabilisation. According to the engineers involved in the construction of MAX IV, the vibrations from the E22 motorway that runs parallel to the MAX IV and ESS building sites are actually too strong for the research facilities to be placed adjacent, since operations in the facilities demand minimal vibrations. Apparently, this led to some doubt regarding the master planned placement, as one remark indicates: “it is a stupid location, it is a decision made by politicians”. Remarks were also made about the temporal logistics, pointing out that the MAX IV facility would be inaugurated before the construction of ESS was completed, and the construction would cause vibrations that can disturb the activity at MAX IV. Jokes were made about working in day and night shifts at the research facilities in order to take advantage of the hours when there is a break in the construction work. These comments imply that although the facilities are unquestionably dependent on state of the art technology, “the politics of the site” make their voice heard throughout the entire process. I did not explicitly ask for negative or critical comments in the questionnaires; an enquiry into the negative aspects could have been incorporated however, and would have possibly led to an increased number

of pessimistic remarks. The rather critical comments relating to infrastructural and technical issues were made in the open-ended discussions that followed the more formalised interventions. In further work with this type of questionnaire, allowance and opportunity for such types of critical comments would need to be more consciously incorporated.

The tendency to advocate one's own private or professional interests, rather than assimilate the immediate environment supports a view reminiscent of some of the results in my initial pedagogical workshops, namely that an "empty", or "green" arena is regarded as opening itself for exploitation.

In general, the answers from individuals with extensive knowledge about the plans for Lund NE/Brunnshög tend to be steered by their "search image" (von Uexküll 1992 [1934]:373f); i.e. when looking for potential, what the participants "know" is going to happen is also what delimits their imagination of what they believe is possible (cf. Ingold 2000:177). The participants with minimal prior knowledge of the plans for the area provided answers that were more often conditioned by the emotional responses to what was immediately perceived in the situation. Possibly, these responses constitute the available register when being asked questions about a place that is unknown. In general, we can see that the experiences and statements made on-site show that the investigations evoked "all-stuff responses", in the sense that they were influenced by distributed agency of a variety of agents in the process of accounting for their wishes, fears, associations and expectations for the future Lund NE/Brunnshög site. These influencing agents included negative emotions, sustainability expectations, future changes, *search images* according to plans, professional considerations, the Scanian rural landscape, Audible Dwelling and a range of impressions directly given by the physical location. Before returning to a discussion of how the complexity of agency has an affectual impact, I will make an account of the implications shown by the interventions as regards pedagogical implications and official planning culture.

## Pedagogical considerations

In the studio teaching accounted for earlier, I aimed to test the possibility that the affordance concept – i.e. a strictly theoretical device – could be introduced in situations otherwise conducted by streamlined, formalist or function-driven proposal work. This critical insertion of theory was aligned with what bell hooks says about avoiding being a passive receiver of unified systems of knowing:

When we make a commitment to become critical thinkers, we are already making a choice that places us in opposition to any system of education or culture that would have us be passive recipients of ways of knowing. As critical thinkers we are to think for ourselves and be able to take action on behalf of ourselves. This insistence on self-responsibility is vital practical wisdom. The vital link between critical thinking and practical wisdom is the insistence on the interdependent nature of theory and fact coupled with the awareness that knowledge cannot be separated from experience. And ultimately there is the awareness that knowledge rooted in experience shapes what we value and as a consequence how we know what we know as well as how we use what we know. (hooks 2010:185)

It is difficult to claim that we can ever entirely “think for ourselves” or be completely autonomous, as we are all more or less set in our ways and positioned in our zones of comfort. That notwithstanding, if design professionals (and not least future design professionals) are allowed to practice the type of thinking that hooks advocates, they can find alternatives to unified systems of knowing-how-to design. While hooks is devoted to a more general intersectional feminist and ethnical struggle, I choose to align with her thoughts in my more specific task of searching for alternatives in a normative design culture. Just as hooks denies an absolute separation between theory and practice, instead practicing a thinking-doing based in our experience (hooks 1994:73), I see how design professionals have the possibility to create situations for themselves where it is possible to change mandatory thinking and acting. Personally, in my teaching I have used my own experience as grounds for further discussion, and in struggling against a normative design attitude and against silent agreements about “the rules of design”, I have departed from a conviction

similar to hooks'; namely that if experiential knowledge is accepted as coexistent with other sources of knowledge and neither is privileged, this minimises the risk of knowledge being used to suppress, silence or assert an "authority of experience" (hooks 1994:84). In hooks thoughts on political struggle based on the philosopher Paolo Freire's work (hooks 1994:45ff), a double skill appears that should be crucial for formation of the aspiring design professional's professional identity: the need to incorporate a process of critical awareness of one's identity as well as of the social circumstance related to one's professional thinking and action.

In the studio workshops for students accounted in earlier chapters, I saw that a critical affordance concept has the potential to unsettle the anticipations brought into an environment in a transformative stage. It resulted in students avoiding mere formalist aesthetic approaches, but also certain conventional repertoires of functions such as accessibility, navigability and space-making. In these teaching activities within design education, I thus incorporated a self-reflective and critical element into the more traditionalist and practice-steered reflection-in-action that usually guides sketching and modelling, by suggesting a quite pragmatic application of a theoretical concept. The affordance concept has been used here as an iterated critical "reminder" that helps avoiding unreflective subjection to conventions already assimilated by the practitioners *in spe*, thus possibly influencing their own evaluation of future design thinking. While affordance as a theoretical concept is usually regarded as a general psychological and situational capacity or opportunity for action, in these educational workshops I have deliberately activated the concept as a critical trigger of what it is that one carries along as a design professional.

Letting affordance be part of educational moments and at the same time situating the workshop thematically to the ongoing site-specific planning of Lund NE/Brunnshög made it necessary to reflect on and discuss not only what a situation allows one to *do*, but also to what it allows one to *think* and *feel*. The affordance concept was in other words taken to a limit, in the studio work and in discussions with students, where it had to be re-considered and ultimately supplemented with other concepts, associated with theories on agency (in order to handle the multiplicity of possible influences when perceiving actions to take) and theories of affect (for the handling of what role emotions play when actions are taken).

## On the official stories of planning

The official governing of planning and design, including its mechanisms for presentation and mediation of futures to come, can be criticised by exposing the power play within a process. One way of doing this is questioning what can be considered valid knowledge and who can be regarded a “knower” (Sandercock 2003:68). Often, this criticism is directed at exposing unjust circumstances, thus attempting to increase the communicational link, or as it were, decreasing the power gap between those governing planning and those subjected to it. Even if I fundamentally recognise and react to certain power patterns in planning in this investigation, I have not been primarily interested in the effect that planning has on potential users and concerned communities. Instead of focusing on the knowledge of the receiver as a source of critique, or on the overall social effects of planning, this work has more indirectly targeted these potential problems of urban development and design, by concentrating on the design professional’s actions, and on her potential to criticise and problematise her own work and process. Nevertheless, I have also exposed some of the mechanisms of official planning records that inform the design professional, and in doing so have also been able to comment on these processes in their societal context. In the following section, I will give a short account of how the city of Lund and other official planning agencies have appeared in this investigation, as a consequence of my attempt to evaluate the views on a place that physically did not yet exist.

In the dissertation *Planned, All Too Planned* (2012), Sara Westin problematises the notion of the rational, sensible and unprejudiced planner. Westin challenges the notion of a planner as a neutral expert, claiming that planners are not “in control of their own thoughts and actions” (Westin 2012:311). With the ambition to investigate the discrepancy between the *planned* (the ideals of planning) and the *reality* (the built), Westin aims to deconstruct power/knowledge and conceptualise those conflicts while making use of her own memories and feelings (Westin 2012:311f). The point of departure is set between the conflict of the two located perspectives of body and mind (Westin 2012:63ff). While Westin and I have a common interest in the professional, there are fundamental differences as regards method and empirical material. While Westin



uses written material by architects, planners and classical works of fiction (e.g. August Strindberg or Virginia Woolf), I have in my work turned to planning and policy documents as sources of knowledge and ideals, as well as to the situated reactions from design professionals themselves, for an exploration of immediate, bodily and emotional attitudes and knowledge. I have thus considered a design professional less *not in control of her own thoughts and actions* (Westin 2012:311) and more *not in sufficient contact with an immediate situation and location*. Where Westin turns to the result of planning, i.e. the built, I have investigated parts of the ongoing process of planning/design and the expectations tied to the outcome of the same planning. I have thus exposed some of the correlations – or lack thereof – between planning ambitions and rhetoric as outlined in planning documents, and the instant professional understandings, associations and memories, as a result of intervention studies at the actual site waiting to be exploited. I have, as it were, tried to peer into the design professional's *situated experience* of the site, thus also enabling a critique of the impact of the “cloud of information” as part of what the design professional carries into the project.

Densification has been argued for as a sustainable way to develop cities and is one of the main factors emphasised in contemporary Swedish urban planning and in the EU:

DENSE CITY: The sparse and sprawling city is neither ecologically, economically or socially defensible. In Lund NE/Brunnshög we build close to public transport, and densely. (Lunds Kommun 2012c:23)

Promotion of better accessibility in cities and metropolitan regions through an appropriate location policy and land use planning that will stimulate mixing of urban functions and the use of public transport. [...] Support for effective methods of reducing uncontrolled urban expansion. (*Policy Options* as stated in ESPD by the European Commission 1999:23)<sup>83</sup>

<sup>83</sup> ESPD by the European Commission (1999) was at the time of its production “arguably the most international planning text that exist[ed]” (Faludi & Waterhout 2002:ix). “[The ESPD] will serve as a policy framework for the Member States, their regions and local authorities and the European Commission in their own respective spheres of responsibility” (European Commission 1999). Ambitions for a sustainable development permeate policy documents throughout the governmental hierarchy; as in the directives from the European Commission. This is reflected in the triangle of objectives linking the three following fundamental goals of

It is hardly surprising that many of us like to see mixed and lively city centres: “[a]s *city* is a mainly positive designation, and the centre is the ‘natural’ city, it is the old inner city/town centre that becomes the norm for urban development” (Tunström 2009:93, original emphasis). It has even sometimes been claimed that we are living in the era of city renaissance (Franzén in Jacobs 2005:9). Although conceptualised and written in a 1960’s American context, Jane Jacobs’ *The Death and Life of Great American Cities* (2005) supports contemporary European and Swedish ideals of dense and diverse city life. By turning to a mixed-use neighbourhood concept (*blandstad*)<sup>84</sup> in line with Jacobs’ critique of the modernist project, today’s planning aims to produce a creative, inspiring and *diverse* city (Lunds Kommun 2012c, 2012e:9, 2014e). In municipal planning in Sweden, there has been an increased interest in not only preserving the “city core”, but also to making it into an exemplar (Fredriksson 2014:11), and the pre-modernist European city and building pattern are seen as more interesting here than the modernist or sprawled city, which is considered to “lack urbanity” (Fredriksson 2014:12). As a consequence, a lot of Swedish urban planning today is characterised by an ambition to break from the modernist methods of which urban sprawl is a result, and to instead advocate building densely, as in the inner city (Westin 2012:19). Although the epithet *urban* currently seems increasingly hard to define, development projects in Sweden are often formulated with an aim to build *city* or *city-like* (Tunström 2009:11) – where “city” is to be understood as a density indicator set against urban sprawl or rural areas that implicitly do not hold enough urban quality (*ibid.*). The same ambition can be noted in planning documents about Lund NE/Brunnshög, which

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European policy: economic and social cohesion; conservation of natural resources and cultural heritage; and more balanced competitiveness of the European territory. (European Commission 1999:10).

<sup>84</sup> The term *blandstaden*, translated here as “mixed-used neighbourhood” is tentatively defined by the National Board of Housing, Building and Planning (Bellander 2005:5) as:

“The mixed-used neighbourhood is described as complex in design and content with a dense but intelligible building structure which is considered to give proximity between businesses and people, continuous experiences and events in space and a varied and changing street life that we associate with the concept of the city. The mixed-used neighbourhood is also considered to give socially and diverse living environments and less travel, which is why it is highlighted as a planning goal in many municipal planning documents. A crucial quality in the mixed-used neighbourhood is that it is populated throughout the day and thereby provides conditions for increased safety and security.”

stress urban qualities; *the innovation city*, *urban gym*, and *the park city*. As a consequence of this already foreseen urban expansion of north-eastern Lund, *urban farming* is also stated as an objective (Lunds Kommun 2012c) – oddly enough, one may reflect, since Lund NE/Brunnshög consisted of farms and farmland until now. Support for the goals in the Municipality of Lund's planning for Lund NE/Brunnshög is found in the EU policy document *European Spatial Development Perspective, Towards Balanced and Sustainable Development of the Territory of the European Union* (1999). Here, there are arguments about how the compact city is the solution for social, economic and ecological problems (Tunström 2009:12, cf. Lunds Kommun 2012c:23). The document also promotes “small planted areas in urban green spaces” and “[p]romotion of better accessibility in cities and metropolitan regions through an appropriate location policy and land use planning that will stimulate mixing of urban functions and the use of public transport” and an aim of “reducing uncontrolled urban expansion” (European Commission 1999:22f). Several of the aforementioned EU policies are repeated in the municipal planning for Lund NE/Brunnshög, e.g. the urban farming ambitions (Lunds Kommun 2012c:13, 60) or the “urban paths with mixed development in a density that creates urban life and provides a basis for public transport” (Lunds Kommun 2012c:18). As mentioned above, the “sprawling” or peripheral city is seen as lacking *any* value. At first glance, the whole endeavour of establishing “the dense” may seem to simply be sound and sociologically sustainable objectives without any particular underlying ideals. However it also has an inverse effect: stating that the inevitably more peripheral parts of the city are not socially sustainable because they are not dense enough might be a problematic claim, not least for the individuals currently living in such areas. Considering the actual places in the periphery, the human geographer, Moa Tunström points to a fragmentation of the urban and the city or urban space as fixed categories, and rightly asks – does the centre of attention today lie in the periphery or in what has since long developed as the urban sprawl? (Tunström 2009:11). Even if assessments of built or envisioned environments are not always enough to criticise the overall political ambitions to brand certain spots as city-attractive, such assessments do serve the task of identifying the strong idealisation of a dense city, an ideal that needs to be problema-

tised in relation to existing peripheries. The planning-oriented studies of documents and plans that have been part of my investigation point on the whole to some of these societal problems concerning the overall (ambitions to provide for) social richness and endurance.

In 2012, the administrative authority responsible for guidelines concerning planning and the built environment in Sweden, the National Board of Housing, Building and Planning (Boverket),<sup>85</sup> formulated the policy document *Vision för Sverige 2025* (Boverket 2012). Several of the goals stated in it appeared soon afterward in the planning documents for Lund NE/Brunnshög: an expanded use of rail traffic in public transport (Boverket 2012:33); densification;<sup>86</sup> urban farming; an expectance of growth of knowledge based environments such as university towns (Boverket 2012:33, 63).

The growing population's needs for housing, services, culture and meeting places is served by densification, developed public transport within the region and better walking and cycling routes within the regional centres to stations and hubs. Workplaces located close to stations and hubs in smaller towns have increased, as has access to daily services. (Boverket 2012:34)

In this document we also see the request for a “city for all” stated in relation to problems of segregation and health, depending on differences as regards physical disability, ethnicity, income, etc. (Boverket 2012:42f). If cities have historically been associated with environmentally negative effects, urban development and urbanisation are today perceived, at least officially, as promising means for achieving a sustainable development (Metzger & Olsson 2013:2).

<sup>85</sup> “The National Board of Housing, Building and Planning is the administrative authority [in Sweden] for issues concerning the built environment, management of land and water areas, territorial planning, construction and management of buildings, housing and housing finance.” (Boverket 2014b)

<sup>86</sup> This is of course not possible at Lund NE/Brunnshög, but a goal is set against sprawl and for building densely (cf. Lunds Kommun 2012c:23).

## Reflections on methodology

### *On the group reading performed at the site*

In the first use of the Audible Dwelling loudspeaker unit on site at the Wennergren Farm, accounted for in the chapter *Intervening*, a group of people performed a reading of published statements about the future Lund NE/Brunnshög area. This event as such enabled an initial attempt to superimpose an imagined future and an actual place. Here, a method is borrowed from site-specific art that “adopts strategies that are either aggressively antivisual – informational, textual, expository, didactic – or immaterial altogether – gestures, events, or performances bracketed by temporal boundaries [where] [t]he ‘work’ no longer seeks to be a noun/object but a verb/process, provoking the viewers’ *critical* (not just physical) acuity regarding the ideological conditions of that viewing” (Kwon 1997:91, original emphasis). For this event, the Wennergren Farm was given a role to play in several contexts: in planning discourse, on the global/OECD scale, on a national investment level, on the regional spin-off site, in the local planning, local neighbourhood, and in national and international research discourse. By letting the participants partake in a display of the ideological content in the visions, the reading event was collectively sensed as pointing to the gap between the actual situation at hand and the mega-scale of the visions. In a sense, the method used in the collective concerted reading at the Wennergren Farm worked with the same tools as did the sound simulations: it juxtaposed a “theory” (as statements made about the future of Lund NE/Brunnshög) with the “reality” of being on-site. The reading thus brought to the fore an ideal future of scientific and sustainable excellence, resulting in a sometimes comical critique. The sound simulations, which also contrasted a “theory” (sounds of the future) with the “reality” (an instant experience) rather actualised and directed the attention to the immediate situation, and the result was almost the opposite of the orchestrated reading: the simulations gave a more nuanced picture of the present situation and the thought-out future. The evoked emotions deriving from sound simulations of plausible futures were not more “true” and did not “uncover” an immanent state, but rather directed attention to what was immediately happening and away from what was thought out beforehand.

*A public reading event. Notes on intrusive methods.*

Another event and method described above, *Uttered Expectations*, marked the conclusion of the period when I had access to both the land and the loudspeaker unit, and it holds an element of intrusion into socio-spatial circumstances over which I had no control. In the following passage, I discuss this “intrusion” in relation to other interventionist initiatives with “obtrusive” elements, in research as well as in artistic practice – initiatives in which the ordinary order of social space is deliberately disturbed. The first one concerns a semiotic and social intervention in the monastery and guesthouse *La Tourette*, designed by Le Corbusier. Through renegotiation of established temporal and territorial segmentation, made within the format of a workshop where participants were not informed beforehand, the architect and semiotic theorist Manar Hammad takes advantage of the space and time frame of a conference (1982) and stages a set of precise and obtrusive situations (Hammad 2002; Sandin 2003:114ff).

The intrusions accomplished by the experiments [...] can be interpreted as a temporary dispossession of the master of the place: to break open the entrance of his space is equivalent to denying to [the master of the place] the control of his place and take possession of it for the time of the visit. (Hammad 2002:21)

By occupying spaces (rooms or seats at the dining tables) some participants in this conference were “evicted” from their usual territories, and by this Hammad’s group destabilised the habits of those individuals, which resulted in alternative spatial configurations (Hammad 2002:23ff). In this work, Hammad acknowledges non-human actants such as architectural elements, contracts, and tacitly produced power structures, and allows for instance “the social and legal relations be at least as important as materiality, when it comes to the production of architectural space” (Sandin 2003:124). In Hammad’s experiments, there is almost a role-play evolving, without the participants always being conscious of their participation. In this sense, one could claim that the interventions parasitize on the unsuspecting participants’ experiences. The interference with the users’ habits in some cases had a lasting effect – such as when the tables in the refectory were occupied by yet another unsuspecting group

the following day who was unaware of the first experiment (Hammad 2002:25).

One can detect a parallel between Hammad's experiment and how Uttered Expectations proceeded as my reading of the collected wishes and expectations from my questionnaires was broadcast in its entirety to the public square Mårtenstorget in the centre of Lund. My reading was a way to interfere with the temporal procedures of the official planning ritual, as well as with how research data is normally treated: a voice formulates wishes, visions and concerns that are quotes, or "opinions" from both professionals and laymen, "revealed" in their raw state to the public, by appropriating an aural space in the dense, old, centre part of Lund. Even if agreements to use the questionnaire material publicly had been made with the informants beforehand, the reading the answers aloud can be seen as capitalising on the participants' will to participate in the interventions at the Audible Dwelling /Brunnshög. It can also be seen as taking advantage of the space of the listeners in the city, who had no choice but to participate in the sound-event as they passed by. As in other parts of my investigation, my intention was to expose on-going plans for the city, specifically the future science village, but this time by literally "telling" the expectations tied to the plans directly to the citizens of Lund. I had no great expectations myself as regards the actual effects on the goings-on of this event; rather I saw it much as a symbolic, yet actual, event, and I was also aware of the "serious danger of romanticizing and/or appropriating the visions of the less powerful while claiming to see from their positions" (Haraway 1988:584). The event thus evoked an ethical issue as regards the involvement of two types of participants, i.e. informants and receivers. Although in one sense playing on the blurry distinction between voluntary and involuntary participation, the intention was to address the two main groups of participants in a way that would allow them to maintain a degree of freedom as social individuals. The visitors at AD/Brunnshög were all volunteering for the sake of a research project, and the "involuntary" passersby at Mårtenstorget were apparently not offended in any way by my voice. While Hammad makes more drastic offensive moves, and then elaborates and draws conclusions about his findings through semiotic analysis, the Uttered Expectations

event could rather be seen as a proposal to consider a discursive critique of planning in the making; a proposal which, if applied methodologically to actual planning practice, would draw attention to both the intentions and the workflow of the planning process. As a performance event, it drew attention among other things to the recurrent principle in official city planning of giving the citizens things that are presented as advantageous – in this case, as a circular referencing to some of the expectations originally derived from the *official plans* (and recapitulated by the participants in the questionnaires, before being read aloud) voiced again into this public space, almost as if implying additional *plans* (having the chance of creating new expectations, and so on).

The Uttered Expectations intervention was also a way for me to actualise the wishes and expectations of design professionals and laymen, almost like a fictive design professional trying to account for the broad spectrum of concerns in trying to create an area with something “for everyone”, that will last over time and, in this case, even has a global objective. The difference from a real planning situation was that the declaration that I read aloud to the unaware audience in the city centre was not edited by any professional community. It was in fact not edited at all, in the sense that data was neither added nor extracted: the reading simply followed the chronological order in which the comments were originally given, and this way accounted for all of them. At the same time, there was a certain levelling of otherwise hierarchical voices in Uttered Expectations; the design professional at the top of the hierarchy was given an equally strong voice as the lay visitor when their comments were communicated, literally spoken through my own voice. Of course, my specific voice steered the tone and modulation of the speech, and it was escorted by my conscious and unconscious standpoints and nuances. Here, one could also have used a reader and speech from outside the research project – someone less entangled in the whole project – and possibly arrived at a different result. I imagine that the reader’s age would have impact, for instance – a child reading wishes for the future for an area under exploitation would perhaps have contributed with a certain, possibly cosmetic, innocence or ethical pathos. The public being addressed by the reading was not granted any formal opportunity to comment or influence the



content of the readings, besides the spontaneous possibility to stop and react during the reading at Mårtenstorget.

In an exhibition by the American artist Mierle Laderman Ukeles at Wadsworth Athenaeum in Connecticut (1973), Ukeles was given the opportunity, as part of a performance work, to take charge of the museum guards' keys – and her locking of offices and galleries turned the spaces into a “work of ‘maintenance art’” (Molesworth 1999:115). “In each performance Ukeles's role as ‘artist’ allowed her to reconfigure the value bestowed upon these otherwise unobtrusive maintenance operations, and explore the ramifications of making maintenance visible in public” (ibid.). Ukeles also performed a cleaning of the museum's floors and stairs and thereby renegotiated the associations of who performs such work (Sandin 2015b:220f). Her performance was conditioned by, and pursued in an immediate connection to, individuals and institutional rules not associated with the art world (Sandin 2015b:221). Ukeles thus expands the notion of space specificity when regarding not only physical and spatial objects as artistic (and political) material, but also cultural and institutional frameworks. This artistic intervention could represent a whole range of art works that have since blended a “raw” social context with institutional art. What was specifically interesting with Ukeles' work, serving here as a reflective device for my Uttered Expectations intervention, was her ability to literally and symbolically break into the otherwise undisputed daily procedures that maintain a space; in her case the Wadsworth Athenaeum museum localities, and in my case the “space” of planning. The Audible Dwelling unit that was placed at Lund NE/Brunnshög occupied a space otherwise subjected to the daily maintenance conducted by the Municipality of Lund, and most importantly, it occupied a discursively significant location, without the location itself being unique if seen within the immediate geographical context. The specific place of the Wennergren Farm did not become important for this investigation until its ability to perform as a backdrop for the imagined consequences of the ongoing planning was discovered. At that moment it could start “triggering” visions for its own future (besides the immediate corporeal impact it also had on the visitors). The Wennergren Farm thus became an influential factor, steering the instant outcome of

the affordance-based interventions, as well as being discursively present as a decisive element and reminder of the plans into which it was already mounted.

Placement of the Audible Dwelling unit at Lund NE/Brunnshög was dependent on planning and legal frameworks, and indebted to the inertia of the planning process. Overall, Audible Dwelling resembles literally “taking art out of the art gallery”, while the Uttered Expectations mechanisms worked rather with taking planning – or at least, some facts from the announcement of possible futures – out of the ordinary planning institution. In Uttered Expectations, reactions and answers to questionnaires represent design professionals in their roles as official professionals and in their roles as private design professionals. Arguably, this creates a situation that is still what the site-specific art that the curator and art historian Miwon Kwon refers to as:

*subordinate* to a *discursively* determined site that is delineated as a field of knowledge, intellectual exchange, or cultural debate [...and] this site is not defined as a *precondition*. Rather, it is *generated* by the work (often as “content”), and then *verified* by its convergence with an existing discursive information. (Kwon 1997:92, original emphasis)

This kind of discursive site – in my case determined by actors tied to planning on a range of scales and interests – is what the interventions aim to investigate. By relocating the “planning production” normally executed by the makers of the official planning, the *Uttered Expectations* event could be seen as a transgressive act, suggesting a renegotiation of the understandings and principles of an institution (Sandin 2015b:218). Seen thus, the gesture of the event operated both *outside* and *inside* of a normal discursive context of planning.

In her work from 1973, Ukeles shifted the status of rooms and space through her role as an artist in the museum, and highlighted the invisible labour of maintenance. In my case, in Uttered Expectations I did not fundamentally change the comprehension of an “actual” place the way Ukeles did, but rather problematised on the one hand a discursive place consisting of not much more than expectations tied to designing, formulating, printing, and distributing plans; and on the other, the normal handling of “data” in research. As a researcher, the reading event stimu-

lated wider thoughts on the relation between physical facts and discourse, as well as provided a methodological input; a way to simply approach and digest the harvested information from the questionnaire interventions. Reading the “data” aloud demanded that I focused on and communicated this body of site-specific knowledge in a way; i.e. by imagining a receiving “public” body from my position in the Audible Dwelling unit at the Wennergren Farm. This could hardly have been done in private contemplation or in a merely pretended outreach.

*Conflicts between plans and immediate perceptions*

The idea to carry out an affordance-based study in a concrete situation emerged as a staging of the intersection of a place and its discourse. Findings from the interventions and the initial elaboration on the notion of affordance coupled with additional theoretical input<sup>87</sup> revealed the need to develop, or divide, the affordance concept in order to capture the successions, emotions, and all-pervasiveness of the action-possibilities that appear in an environmental situation.

Most people use their visual perception to tune out and not pay attention to ambient sounds of a given space. By carefully placing naturally occurring environmental sounds in a space where they normally do not belong, this perceptual masking technique is defeated and people are confronted with sounds they cannot ignore. (Rudi 2005:98)

When the sound simulations at Lund NE/Brunnshög were on, an estrangement from the immediate environment became possible; the simulations could even illustrate various plausible future scenarios based on imagined outcomes of present plans; e.g. the sounds of a tram station or the urban sounds of people and traffic. The overall tone of the reactions in the responses was quite different than it was in the answers to the plainly stated questions. It was neither as unanimously positive, nor as tolerant towards the official planning. The reactions to the sounds often expressed disapproval of the staged futures, and hence possibly of future executed plans for the area. A recurrent disparity arose between what is

<sup>87</sup> Through the writings of Bennett 2010; Gaver 1991; Gibson 1977, 1986; Hartson 2003; Ingold 2000, 2011; Nilsson 2009; Norman 1998; 1999; von Uexküll 1992 [1934].

planned and envisioned for the area, and what is perceived as good and desirable. These results indicate that the use of sound simulations can be a critical tool for investigation of underlying expectations in urban development and evolutionary processes.

The answers given in relation to the sound interventions imply that while being asked to formulate answers about the potential of the site, the tendency was to provide rehearsed and agreed-upon answers more or less harmonizing with the visions in the plans with which most of the involved professionals have been working for a number years. For example, the question *What would you like to be able to do at Lund NE/Brunnshög?* prompted the answer “be a tourist in a research environment”. Answers to the question *How do you see the long term future at Brunnshög?* pointed out that the area will be an “important part of Lund’s urban development”. When letting the participants respond in a simulated acoustic situation (implying a possible future, or a possible other place), the reactions appeared less premeditated. Sound – operating directly with the affective register or subjective emotions – seemed to overcome the consciously elaborated and professionally internalised “planning” answers, thus giving a broader range of input from the participants.

The geographer Peter Merriman challenges the fixation in human geography where space and time<sup>88</sup> constitute the key elements of events, and formulates a critique of the prioritisation of the concepts of time-space when drawing the attention to sensation, affect and movement as helping to establish events (Merriman 2012).

[W]hy not position movement, rhythm, force, energy or affect as primitives or registers that may be of equal importance when understanding the unfolding of events, and why approach space and time as privileged *measures* for conceptualizing location, position and context? (Merriman 2012:24, original emphasis)

<sup>88</sup> Merriman (2012) considers the work of Doreen Massey and Nigel Thrift examples of how human geography has theoretically interwoven concepts of space and time. An example of this can be found in Massey’s work: “thinking of time and space together does not mean they are identical [...] rather it means that the imagination of one will have repercussions (not always followed through) for the imagination of the other and that space and time are implicated in each other” (Massey 2005:18).

The sound-based interventions in this research project took advantage of a spatio-temporal gap in an internationally, as well as locally, steered development process. The Wennergren site was pending exploitation, having been acquired by the City of Lund from private owners, but not yet been exploited. This state of temporal hiatus in a planning process allowed me to pursue the sound simulation experiments, which brought to the fore that learned assumptions about the area, and about one's role as a design professional when one regards time and space in a project like this one, tended to move to the background. The force (of sound) and the affect (caused by sound) came to the fore and activated an understanding of an immediately present situation. This way, the design professional's register, active in the ability to experience afforded qualities, could be seen as being broadened and diversified.

*Methodological account: Designing an intervention*

The questionnaires used at Lund NE/Brunnshög may appear conventional and in line with traditional inquiries in social sciences; however, the content and implications of the questionnaires suggested an experience-based investigation where participants could elaborate freely on the offers to which they were exposed at the site. These expansions on the theme of a subjective experience of the site and discourse *do* somewhat capture the “[p]ains and pleasures, hopes and horrors, intuitions and apprehensions, losses and redemptions, mundanities and visions, angels and demons, things that slip and slide, or appear and disappear, change shape or don't have much form at all [and] unpredictabilities” that the social scientist John Law asserts that the social sciences typically *do not* cover (Law 2004:2). The questionnaires were structured to capture notes on two site-specific contexts (intimate and extended) and an added sound effect, but they did not gather any easily digested knowledge that could be compiled with straightforward statistical methods. It has been necessary to read and reread the answers numerous times to get an understanding of the overall material, recurring themes and underlying nuances in the free text-based answers.

The intervention methods and approaches have had to adapt to a larger planning process, to the routines of the City Planning Office in Lund, to the possibility of gathering participants, and to the art project

Audible Dwelling. The flexibility of my investigations had both positive and negative effects. A certain open-endedness offered opportunities to test new theories, concepts, and methods as they emerged; however, loss of momentum and efficiency were detrimental side effects if efforts led in the wrong direction. The design of the questionnaires and interventions could perhaps have been more controlled, sharp and coherent, had I initially had a more precise idea about the expected results; I chose instead to adapt along the way, due to the uncertain circumstances, and sketch the method and formulate problems in parallel. I initially thought that I would have a more balanced and comparable proportion between laypeople and design professional participants, while in reality, as it turned out, gathering enough participants from outside the design professions proved difficult, despite targeted efforts. I chose instead to see this difficulty as part of the communication problem of planning to reach those affected by the planning objectives, and decided to use the design professionals' opinions as a qualitative resource. This in turn made trying to identify differences among design professionals more urgent; in a comparative survey, they might have run the risk of being treated too much as a single, homogenous group. The people visiting Audible Dwelling and the Wennergren Farm had a tendency to relate to their profession, allowing a varying degree of intersection with their private life, when filling out the questionnaires. This "highlight[s] the constant movement that individuals experience between different subject positions, and the ways that 'who we are' emerges in interactions within specific spatial contexts and specific biographical moments" (Valentine 2007:18). The classification of design professionals depending on their degree of actual involvement and their designerly task in the area was not used as a static or binding typology, but was an attempt to problematise, by way of rough grouping, the fact that different professional backgrounds and training influence the ways we enter a situation. Throughout the questionnaires, the participants were unintentionally reminded of, but also explicitly inspired to associate to, aspects of their professional and private life.

The investigations made in relation to the questionnaire-based sound interventions are partly a circular, or reverse participatory practice – design professionals "take part" in another agent's intervention on site (mine), but are in fact confronted with and envisioning mostly their own

design intentions, which I ultimately interpreted. The intervention process addressed the design professionals active within an official and regulated – and in that sense democratically conducted – planning process; however, when addressing their wishes of the future everyday life, the often predefined answers (in accordance with the authorities' plans) were more prevalent than the view that the area could continue being negotiated. The fact that the most common design professional view aligned with already established ideas is of course partly a matter of the kind of decisive role to which one is accustomed, but can on the whole be considered a contained nestedness that holds a predefined outcome. Exposure to sound simulations – or in this case: the *pursuit* of sound simulations – revealed a way to problematise this nestedness.

Initially, this thesis was intended largely to focus on the actual problem of how Lund NE/Brunnshög was mediated and developed. As the work progressed however, the design professionals' anticipations of design grew gradually more distinct; it turned out that was only logical, since the problem of affordance was there from the start and essentially led to the unfolding of the whole project.

### **Interventions and the agency of sound**

Visions and plans are typically described through images and text in urban planning practice. Sound is not extensively used in everyday planning activities. One of the intervention methods created and tested within the scope of my research on Lund NE/Brunnshög was the simulation of future places through the use of sound. Sounds were, as accounted for earlier in this thesis, experienced as providing emotional or affectual response in a direct way, to the extent that they could influence and even alter the already assimilated knowledge that participants carried with them to the site of investigation. Here, I will make some concluding remarks in regard to these results related to sound impressions.

Despite the fact that the sounds provided only a fragmentary simulation of a situation, sound has in this investigation appeared to have a significant effect when it comes to producing a discernible scenario. The contrast between the visual context and the experienced sound was noted in one response as: “the view I have is so closely connected to silence”,

thus identifying a perceptual conflict. To some extent, the responses could be supposed to mirror the sensory conflict between the layers of what is felt, seen, heard, and what is known based on assimilation of information and prior experience. In this respect, Lund NE/Brunnshög has not only functioned as an environmental backdrop, or thematic example kept at a distance in my research project, but as an active agent in an ongoing experimental and experiential process that includes a number of additional actors, such as other design professionals, facets of Swedish planning culture, promotional material, the wills of artists, media input and constraints, contemporary disciplinary discourse, and other operative aspects of history, archaeology, education, research, and so on. My experiments with sound actualise such an agency-based view on planning. Such a view could increase into an ungraspable amount of actors, but the approach of focusing on the affordance aspects employed here has rendered it possible to articulate. I have concentrated on the facts that influence the very act when possibilities or potentialities are detected. Here, the sound interventions have been observed to cast additional light on the fact that the possibilities of some occurring affordances are *carried into* a situation. Furthermore, the sound experiments also show on an overall basis that an active use of sound alters the experience, as well as highlights the impact that environment has on us. Whether or not this alteration potential can be methodologically brought into actual design decision processes is a question that can be put to a practice community. One would then have to consider the purpose, and determine the extent to which it could function as an instrument for reflection and critique. There are of course numerous other ways to apply sound simulations, or transfers of sound; mine has to some extent been biased by my own experience of the official planning (which for instance had an impact on the choice of sound). One can imagine other domains of sound transfer that are not based in profession-specific practice or research interest, but on other grounds, such as artistic ones.

One attempt to transfer a sound environment was performed by Bill Fontana in the project *Entfernte Züge (Distant Trains)* in 1983 (Rudi 2005, Beyst 2004). In this case, live sound from Köln Hauptbahnhof, which was the busiest European train station at the time, was broadcast over an empty field in Berlin where the Anhalter Bahnhof – the pre-



war equivalent of the central station in Cologne – had been. Where the sounds of trains in this case pointed to a distant but similar place and thus evoked questions about historical relocations, the Uttered Expectations event rather problematises the relation between citizens in the periphery and in the centre, symbolically pointing out the difference of importance that planning politics may impose on peripheral and central populations. The sound intervention performed at the Wennergren Farm as part of the questionnaire based survey, on the other hand, connects a situation and location more specifically and more concretely to another time, an imagined future reality. At the Wennergren Farm, urban sound was introduced in a *less* urban situation, confronting the participants with an aural display of motor vehicles, trains and voices in the public. The immediate responsive associations seemed to override the affordance-based responses relating to *alteration* potential. I could identify intuitive responses – such as “dangerous – look out” to the tram sound, or “I am slightly disgusted” to the water sound – that appeared to be based on personal preferences or instant reactions of a more idiosyncratic type than the more thoughtfully elaborated answers relating to the envisioned futures of planning and urban development.

Taken together, the sound interventions that I carried out at Lund NE/Brunnshög can be described as a piece of aural architecture that creates a spatial experience of a virtual or illusory space. The space from which the sound originated in my examples is not a virtual place in the synthesised or architecturally constructed sense, but rather presented a virtually present other, a “real”, geographical location as it were, “competing” for a couple of seconds with the immense force of the official declarations about the “real” science village to come.

## **Affordance, agency and affect**

### **- a theoretical conclusion and expansion**

#### **Affordance and the actions of design professionals**

In the following, I will elaborate on various aspects of affordance, with a specific attempt to adapt this theory to actions taken by design professionals, starting with the specific kind of intentionality that is part of any planning and envisioning of alternative futures. A consequence of thinking in terms of affordances sequentially and temporally is that the idea of the future, as envisioned in planning and imagining, is actualised. As we saw already in the initial, theoretical phase of this investigation, the concept of nested affordance (Gaver 1991) could open up for ways of relating to urban contexts by letting us distinguish temporal possibilities; i.e. actions that are part of a continuous process rather than a once-and-for-all response, or an imagination of one finished result. Nestedness of affordance can occur as an unravelling of an inherent state; it can also imply an evolving path where a reaction to an affordance leads to a result which in turn makes new affordances emerge, leading to new possible reactions. Ingold (2000) turns to practice and sheds light upon functions that could be seen as nested; he makes a distinction between animals and humans that Gibson does not. Ingold states that while animals' relation to their environment is immediate and set up through practice and action-taking, the world of humans is a more complex story. According to Ingold, human environment is covered by mental representations, and humans possess the ability to see an intentional world – while animals find reason for immediate action, humans have the ability to also see that which goes beyond the immediate and are limited only by their imagination (Ingold 2000:177). Although I do not agree with Ingold's assumptions about animals' limited range of intentionality, it must be admitted that humans do have a representational capacity that is not equal to other animals', or rather, at least not equal to how we presume animals to act. This thesis is not about the difference or equality between humans and animals, but (in mere figurative) accordance with how Ingold sees a difference as regards what humans and animals are predisposed to, we could assume that a design professional's ability to see an intentional

world differs from what a non-professional sees. Professionalism could be distinguished as a predisposition to recognise certain forms for intelligible change of the environment, i.e. seeing options to effectuate change. Perhaps more important is the ability to see the restrictions to possible alteration that others may not see. Furthermore, taking education into account, the design professional's "seeing" is conditioned by certain established "schools" of proportion, contrast, harmony, etc., which makes the design professional's also an aesthetic mind of specificity. We could say – again, only figuratively – that non-professionals may have a stronger connection with some of their capabilities than the highly trained design professional has; i.e. it is quite possible that a non-professional can sense things precisely because s/he is not trained as a professional (cf. (Jones, Petrescu & Till 2013 on "expertise"). This was indicated in the material collected by certain answers given by non-involved non-designers who seemed aware of a time frame beyond the planning authorities "future" of increased job opportunities and sustainable neighbourhoods. Such comments, made by a couple of non-involved non-designers, acknowledge the possibility that the area will possibly not offer *them* anything personally, but perhaps their children. These answers communicate another kind of sustainability than the one usually promoted by the planning authorities.

One viewing ability, such as a trained one, could thus also obscure other abilities, and ultimately cloud the view of a future environment. This figure of reasoning is not to say that design professionals walk around producing too restricted views – even if that may occasionally be the case – but rather that my investigation shows that by triggering the perception in experimental ways, the imagining resource itself, in each perceiving being, could be triggered to allow other possibilities.

As pointed out both theoretically and methodologically in this investigation, it is impossible to think of the value of an object as static, since "the story" of the object keeps changing and is reliant on the specific circumstances of the situation. While Gibson tends to see affordances as statically defined resources "sent out" by the environment in certain passages, the conditional view of affordance that I advocate would rather see the perception of environmental qualities as a cyclical variation where affordance is not invariable: offers are presented through an inter-

actional act; affordance changes due to new circumstances; a next step of affordance appears; this triggers consecutive acts, and so forth. Another question arises if we, in relation to the design professional's task, assume the position of the observer as the main agent, the main definer of affordances. If so, we may ask if affordances should be classified based on the quality of outcome and level of goal fulfilment, as is the case with affordance concepts tied to expedience, efficiency of communication and usability (cf. my critique of this stream of thought in the chapter *Affordance Theory and its Limitations* through Hartson 2003; Norman 1998, 1999; Nilsson 2009). Here, I have pointed to the risk that this would inhibit the concept and that affordance would consequently lose its inclusion of offering potential. The concept would in that case be seriously limited to describing fixed outcomes, also losing its intrinsic ability to cover non-obvious opportunities in given situations. If we want to go hunting for an environment's possibilities, or even if we want to just walk around somewhere, we cannot predefine all our desired goals. When we define and fulfil goals, we are in another game which – as important as it may be in certain moments of design processes – is not the subject of this investigation.

### **Smaller and larger scales of impact: affordance, agency and “all-stuff”**

“The theory of affordances is part of the ecological ontology: It is a statement of what is available in the world to be perceived” (Michaels 2003:136). While affordances, from the horizon of ecological psychology, could be considered to exist independently of a perceiver (Michaels 2003:136), this position implies an underlying anthropocentrism where affordance's perceptibility is tied – or not – to a human/animal perceiver. However, if we take Bennett's ecology as a starting point (Bennett 2010), where *perceivers* (i.e. agents, also other-than-human-subjects) attend to offers for action, the story changes. Affordance is then neither seen as dependent nor independent of animal/human perceivers, but affordance instead occurs between all “stuff” – including the stuff (and constitution) of animals and humans; cf. Bennett's thoughts on “same-stuff” (2010:xi).

This view on affordance evokes the question of who, and how many in collective spirit, can experience affordances. The psychologist Claire E. Michaels claims that perceiving affordances on behalf of others ought not to be part of an affordance concept (2003:138), stating that “[t]o deem such [delegated, my term] perception to be the perception of affordances is to make perceiving affordances nothing more than perceiving relations” (Michaels 2003:139). When formulating an affordance concept that can function in relation to design however, this seems to be exactly what is needed – to perceive relations to geographical history, political expectations and to other design professional’s expectations of agency and autonomy, and not least, to be able to use the concept in relation to other people’s needs.

In my opinion, seeing that the outfielder will be able to catch the ball is more like seeing that the falling tree will hit the house than it is like seeing that I will be able to catch the ball. There ought to be something very special about perceiving affordances, in that such perception presumably can set up action systems to act, direct attention to appropriate action-guiding information and so forth. (Michaels 2003:139)

As it turns out, Michaels’ above claim – i.e. what affordances ought not to be – can thus inversely and in part be considered a description of what is needed from an affordance concept covering the types of attentions and situations that a design professional faces, including for instance a transfer of action-guiding information towards those who will construct and experience the result of the design professionals’ work; i.e. design. In this case, the difference between having the capacity to imagine and transfer action possibility and merely perceiving action possibility is what pinpoints a design professional’s attitude. Accordingly, to come closer to previously assimilated capabilities’ role in how we perceive things in more general terms, we have to acknowledge either a broader or more diversified notion of affordance. So far in this thesis, I have indicated that an expansion, or rather a diversification, of the general affordance concept could be discussed in at least three aspects: the character and capability of the experiencing agent; the dynamic effects of sequential experiences; and the all-pervasive presence of possibilities in an environmental situation.

These three aspects can be given some extra articulation if we consider them in relation to a theoretical frame that uses a somewhat different ontological ground for defining what a subject or agent is.

While Bennett (2010) pursues a political project in relation to society's view on matter by questioning the corporeal limitations often tied to the concept of "subject", my aspiration in this thesis is rather to use the agency of "things" specifically for the purpose of investigating what feeds the process of perceiving, and ultimately the re-making impulse in designing. On the whole, I want my discussion of the notion of affordance to encourage a reflective design process or the critical evaluation of the varying state of things. That includes also the multiple actantial view that Bennett advocates: "[h]umans, for example, can experience themselves as forming intentions and as standing apart from their actions to reflect on the latter. But even here it may be relevant to note the extent to which intentional reflexivity is also a product of the interplay of human and nonhuman forces" (Bennett 2010:31). In contrast to an elaborate plan and the definition of agency as a moral capacity where action is equivalent to intended motion by a subject, "[a] theory of distributed agency, in contrast does not posit a subject as the root cause of an effect. There are instead always a swarm of vitalities at play." (Bennett 2010: 31f). As a consequence of recognising the power of matter, an extended definition of affordance, not so far from Gibson's thoughts on nature, could read as follows: "the affordances of the environment are what it offers the animal and matter, what it provides or furnishes, either for good or ill" (cf. Gibson 1986:127).

Regarding Bennett's same-stuff concept, I remain sceptical: if the whole world were composed out of same-stuff, this would constitute an aesthetically immaculate and symmetric ontology. But is it relevant to view the world as consisting of the same substance (Bennett 2010:x in reference to Spinoza) and "composed of different sets of protobodies" (Bennett 2010:31)? How does this kind of abstraction help us understand big aggregates such as car engines, typhoons or urban planning? What about dreams, ambitions or elaborate plans that I understand as connected to living matter? Bennett resists putting the human in a privileged centre and persists; we are equal without being the same. The crux, if one follows Bennett, is that we should look more to compositions of

matter, where some (indeed many) congregations are human, instead of focusing on compositions as units (such as a human body) constituting a starting point. We often make the mistake of considering these units the basic component – not only in the network, but ontologically, in the world. The problem can be considered as one of scale; Bennett encourages us to view things at a larger scale than we are used to, implicating that a larger amount of agents needs to be recognised, agents that could be constituted out of protobodies at a smaller scale. The scale spectrum is thus widened; according to Bennett's critique we as humans have so far looked at a limited range. We are encouraged to look closely at the assemblages instead of at a causality that starts with a human individual, and where the rest of the actors in the event are kept at a controllable level or overlooked completely.

If we want to avoid the tendency towards an atomistic view, perhaps Bennett's same-stuff claim should instead be labelled, or turned into, an all-stuff claim. We might by that avoid the view that *all is the same* but rather emphasise that *all is stuff*. Bennett's view on matter makes it possible to argue for a more serious consideration of everything that affects a design process. An all-stuff concern (cf. Bennett 2010:xi) lends constitutional importance to all parts in the design process. In my investigation, Bennett's view – if taken not as building on complete equality between influencing entities and rather allowing the significance of several matters on different scales – may further clarify what can influence our comprehensions of places, and more specifically of sites for exploitation. It is a view that allows us to regard geographical history, global and regional political expectations, designing agents' biographical history and their internalised beliefs in their own agency as components that not only merit studies as concurrent forces, but that can be seen as instantly active in design situations.

## Introducing emotions

In scientific world-views, emotions have often been considered disruptive for objective data, but emotive facts have been increasingly included in academic scholarship of late (Bondi 2005). We have recently seen attempts to give affect the role it clearly deserves in perception, in thinking,

in cultural production, and also in theorisation itself (Thrift 2008). Nevertheless, the question of how to incorporate this concept into architecture and planning theory is not settled. And the issue of how to make use of this knowledge in architectural and planning production is highly relevant as an issue of practice. In relation to the projective forces in design and planning, the results from the interventions included in this work – i.e. results that show that design professionals and planning cultures can unsettle parts of what is uncritically expected – also imply that feelings and emotions can be used as vehicles that guide self-reflection and a personal, individually informed critique in a pedagogical perspective; i.e. ultimately, for future conceptions of what it means to design, the results have shown that such an unsettling tactic-in-action could be inserted as a trigger for creative identification of potentiality. Two important factors in my investigations could not be pinpointed or explained with the affordance concept as it usually stands in design theory. These are *personal experience* (or experience based on biographical history) and *preferences* (not quite possible to chart in all its diversity). Tied to subjective action, these factors can instead be investigated through emotional or affectual responses. In my investigations, the notion of affordance was seen as a prime theoretical instrument for dealing with impulses, sequential inspiration and bodily acts, but in order to address the relationship of our interactions with the environment tied to our emotional state, I have had to merge affordance with affect- and agency-based theories. Thus, this investigation has provided a set of reconsiderations of the notion of affordance – these will be elaborated on further in the sub-chapter *Reconsidering the Affordance Concept* – accounted for through four concepts: elaboratable nested affordance, environmental alteration potential, carried affordance, and vibrant affordance.

The various affordance theories discussed in this work inevitably arrive at a position where they have to recognise relationality. Heft (2010) prefers to view affordance as a matter of a two-fold moment, stating that firstly, affordances have value, and secondly, how an individual perceives what an environment affords is conditioned by her history. “In short, affordances are not usually properties of the environment at which individuals gaze indifferently. They are meaningful, value-rich features of experience that *in the course of action and in the context of an individual’s history*



*are often alluring*, and sometimes repelling.” (Heft 2010:25-6, original emphasis). Heft continues: “we should think about the individual’s momentary psychological field as an array of dynamic, multiple influences” (Heft 2010:25). If we think of the individual’s meaningful encounter with environment and objects that are biographically connected to the individual, we might associate this situation to a person having strong emotions or feelings, as in the sound simulation interventions reported on in this work. Depending on what we mean by “value”, we might also reverse Heft’s order and describe the unsettling situation when someone changes attentive spectrum as already value-specific, in the sense that value is part of the experience conditioned by “who we are”. In this case, the unsettling of values would steer the way design professionals predisposed by designerly expectations or by other biographical features would perceive action potential, or as it were in their case, alteration potential. Emotionally based associations and experiences can in this way appear parallel to a perception-action process. These are experiences that perhaps do not always influence immediate bodily actions, but that may profoundly steer inspiration, identification of (future) potential and mental connections.

### **On the merging of affordance and affect**

In this thesis, my take on affect has been the emotional and atmospheric sensing of a circumstance that appears before, during and after actions are taken or conscious considerations are made. Affect implies a sensing of a situation, such as the one generated by the sound in the interventions presented in earlier chapters. Affect is also involved when one matter affects another matter<sup>89</sup> or one body’s impact on another body. The “affect-body” of the sound is part of the environment, just as other objects in the environment, but the sensing is conditioned by the perceiver’s character; hence, we could speak of carried affordances. The participants’ reactions seem to emerge as something other than conscious knowing – rather as embodied subjective experience (Merriman 2012) – and as in Heft’s take on affordance, as dependent on something that incorporates

<sup>89</sup> Cf. to “equate affect with materiality” (Bennett 2010:xiii).

multiple influences, with strong value, on the individual's psychology (Heft 2010:25). My initial starting point for this work was to exemplify and test how we as humans –and more specifically as design professionals – see potential to act. I wanted to explore whether the official planning of Lund NE/Brunnshög “accompanied” design professionals to the actual site, and investigate how we bring our biographical history (which can involve a profession) into a situation. As I performed sound interventions, I encountered an unexpected reaction from the participants. I found myself in a situation in which I had unsettled the generalizable, rational knowledge through the use of emotions by harvesting the emotion-based associations about the future of Lund NE/Brunnshög, as the human geographer and psychotherapist Liz Bondi (2005) expands on. The sound simulations showed that individuals are not “autonomous, bounded, intentional agents” (Bondi 2005:436)<sup>90</sup>. The sound interventions became a first step in overcoming the separation between an objective and a subjective world. Their impact on the participants showed that there is no escape from subjectivity that permeates all human activity (Bondi 2005:435f).

What people actually feel or do when they express fear or stress can be juxtaposed with what they *say* they do; here for instance, involved designers used terms such as “intrusive”, “stress”, “worry” to describe their reactions to a tram sound, and plan and advocate for an intense urban city with a tram station that is considered to give good qualities to a new part of town. *Saying* and *doing* can thus occupy conflicting positions between what is *thought* and what is *felt*. However, we must – and not least in pedagogical contexts – be considerate towards what we regard as sometimes oppositional feelings or emotions; they are not necessarily more “true” or “appropriate” to the planning situation than the calculated, pre-existing solutions. The strong feelings could also be a result of the stark contrast of what is *seen* and what is *heard* in each moment. The emerging result of the sound interventions must be problematised, just as other parts of the planning are problematised, and we should not give impromptu precedence to for instance particular designerly results based on exposure to sound.

<sup>90</sup> I read bounded here as meaning delineated or unassociated.

Nevertheless, the emotions are a result of a method that aims to problematise what design professionals are influenced by, and can be used to reflect on urban planning and design processes. We cannot be certain of how this performance informs a design process, but what does seem clear is that it can challenge seemingly general agreements as regards solutions for the future. The sound intervention method described in this work of drawing participants' attention to an experienced reality can hopefully be developed into a critical tool of investigation that can answer to the need that Bondi identified to broaden the use of emotions beyond individual experience:

On the one hand humanistic geography's commitment to attend to the full richness of subjective experiences of places and spaces has provided an important source of inspiration for geographical engagements with emotion. On the other hand, its failure to unsettle the alignment of emotion with individualised subjective experience meant that it has not developed in ways that necessarily problematise the politics of liberal and neo-liberal individualism. (Bondi 2005:436)

If critical tools of investigation are created – an attempt made here through for instance thoughts on pedagogy (hooks 1994, 2010); on professional planning culture (Westin 2012); or through interventionist site-specific acts (Kwon 1997) – we could come closer to problematising cases of planning and urban design. In this work, this has meant investigating a small part of an urban development that did not yet physically exist, but that was already steered by global capital, channelled through national and regional investments, and formed by expectations of wealth and abundance by the offshoot of the investments.

In order to describe the emotionally based and immediate answers collected from the sound interventions by way of the notion of affordance, I have merged a modified affordance concept with the notion of affect on a theoretical level, resulting for instance in the concept of carried affordance, which is a particularly apt concept for capturing aspects of affect when something is perceived and afforded to perception and action. To outline how this merging is theoretically underpinned, in the following I will sketch how the concept of affect has contributed in this theoretical construction of carried affordances.

Throughout the process of working with an affordance concept as a theoretical base, I recognised that neither classical affordance theory, nor the various affordance concepts I use – including my developed affordance concept, which includes nestedness and alteration potential – can single-handedly shed light on the responses and results of the interventions. The theorisation based on affordance theory needs to be supplemented in order to achieve the necessary capacity to explain the additional outcome of the interventions, where sound simulations informed and altered the otherwise contextually conducted experience. The introduction of an additional concept – carried affordance – was considered necessary to clarify the emotional responses in the form of feelings or associations accessed by the sound based interventions. In the following, I will reflect upon how affect, dealing with or a sort of emotional intelligence, can be fused with the affordance concept.

Concurrently, it is practical wisdom that leads us to recognize the vital role played by intuition and other forms of emotional intelligence in creating a fertile context for the ongoing pursuit of knowledge. (hooks 2010:188)

When I decided to use sound as means for simulating a possible future situation, I was unsure of what to expect. Through pursuing the sound interventions and discovering that sound can evoke emotions that appear to outweigh an internalised expectational mass that the design professional brings to a situation, and anchor an experience to the specific location, I realised that theoretical proposals regarding affordance were necessary; for instance, that it can appear as vibrant and carried, and that in specifically designerly actions, it can appear as openly nested. In the next section, I summarise these theoretical proposals and the additions to affordance theory, especially as it appears in design-oriented disciplines.

## **Reconsidering the affordance concept**

Besides contributing to a general theoretical discussion about affordance, in this thesis the concept of affordance has been considered potentially able to function as a critical framework in professional design processes and thus to contribute with additional perspectives on design, as it cap-

tures different facets of what I have found here to be part of particularly designerly attention. The new concepts I have elaborated can hopefully also inform the design professional in a rather direct way in situations where an extended awareness is needed and when criticality is at stake, especially when traditional expectations or tacit agreements and conventions tied to the design process are prevalent to the point of rigidity. With these design professional aspects in mind, an expanded, or at least more diverse, affordance concept emerges; one where affordance could include also thoughts, emotions and designs, besides denoting a direct possibility to act in an immediate way. In my investigation, offers that initially appear hidden, or appeal to sensation and thought (of which more below), or as depending on expectations carried to a site, are seen as central aspects.

### Environmental alteration potential

Affordance usually denotes what type of action is immediately possible in an environment, and it can thus be described as *environmental action potential*. Environmental action potential deals with immediate responses such as for example sit, stand, fall or lay down. In this work, this devotion to corporeal action has been modified to account for the more design professionally oriented *environmental alteration potential*, which could likewise be made on an immediate basis, such as when we rearrange chairs around a table or pick flowers, but makes the acting agent less a mere follower of possibilities and more an active subject that alters these given circumstances. These types of changes have a tendency to effectuate more permanent changes to our environment than the actions suggested by environmental action potential do. I have used the notion of *environmental alteration potential* as an overarching concept that to a certain extent complements a conventional notion of *affordance*, and which has to do with the design professional's alteration-oriented impulse towards the environment (such as proposing a certain design of a site, a building or an artefact, rather than a merely action-oriented impulse given by the environment; i.e. environmental action potential). Affordance of this kind, which deals with possible (future) alterations of an environment, sometimes implies a certain suspension if compared to an immediate re-

sponse to environmental action potential; although a design professional is of course primarily concerned with action-oriented impulses, as part of what it means to be a human being. As we saw above, the reverse is also the case: now and then, non-professionals also see alterations as the immediate action that has to be taken.

## **Elaboratable nested affordance**

In this thesis, I have been able to make a distinction between two types of nestedness based on how options for change in a situation are revealed as nested consecutive steps for action. *Contained nested affordance* indicates an apparent or even causal course of action (as in the example with the door handle by Gaver 1991 in the chapter *Affordance Theory and its Limitations*). *Elaboratable nested affordance* on the other hand involves an undetermined course of action – as in a design process or the writing of a text, where each stage of representation, imagining or sketching constitutes a starting point for the following stage of design, alteration, or writing. The processes of official planning, or of making designed buildings and products, when they follow a regulated order containing decisions, proposals, negotiations, permits, and construction, may – not least to the design professionals involved in it – appear to consist of inevitable steps, or be constituted by an answer to a predetermined course of action that recalls the function of a contained nested affordance, where the end of one action automatically leads to the start of another pre-given one. In order to capture the possible deviation from such tracks, as well as the openness to actually existing conditions that are neither hidden by imposed information or prescriptive action, this thesis highlights the need to discuss the nestedness that has a more open-ended (series of) actions and result(s); namely elaboratable nested affordance – a concept that does not have the same predefined progression.

It is worthwhile to think of affordance in terms of nestedness, since it may clarify the theoretical attempts to frame affordances either as a single “immediate” impression or as generative action-potential. In order to handle not only the “correct” or presumed nestedness, i.e. how one thing is revealed after another, but also letting the nested actions appeal to the desire to change the environment itself, the concept of elaboratable nest-

ed affordance may contribute to the theoretical framing of affordance on a larger temporal scale, and not only as tied to the immediate response of the experiencing body. Most often – and in accordance with how Gibson stated it – reactions or bodily answers to affordances are thought of as immediate, non-reflected and made on impulse. Affordances, as we have seen them in this investigation, may however consist of more elaborated chains of actions, such as in the consecutive making of design suggestions as potential answers to the question of what a situation affords. In this case, the response is more dependent on the subject's capacity to construct notions of futures as impulses leading into design. To be able to plan or design, one has to imagine the change, even if the design is still only in an inspirational stage or potentially offered by an environment. A trained person can see a register of elaboratable nested affordances and the way they relate to professional actions to a greater extent than those without training. The contained nested affordance, then, would remain as straightforward nesting where the action potential is unveiled in sequences necessarily devoted to “what to do next”, and where the direction of action appears clear. Here, the physical prerequisites for the chain of action are present throughout the process, and the action possibilities are distinguished as sequential and pre-programmed. Elaboratable nested affordance, on the other hand, means relating to a more open-ended understanding of action potential. An end result of nested situations might even be that one is presented with a previously unimaginable environmental alteration. This type of action potential, possible to elaborate in each new step, allows also changes of circumstances (and thus new affordances), though with a somewhat more enduring consequence, since the elaboratable nested affordances may occur as crucial for further action as they suddenly appear. This open-ended type of nesting can be recognised in design processes where each suggested step taken can give inspiration for a new understanding of a situation that would be difficult to conceive without the previous step of imagining, sketching or other representational alteration. It appears in design operations on virtual stand-ins for existing circumstances, albeit in more controlled ways. Urban developmental processes use delimited or restrained, but still developable models, for instance of physical or topological circumstances. But as processes situated in a political reality they are in their multi-agency capacity de-

pendant on a certain (predetermined) contained nestedness to be able to make progress. As this investigation has shown, they can also offer moments where elaboratable nestedness – as it appears to the individual or collective mind, and not least the professional mind – enriches the view of what affordances may be.

## Carried affordance

The impact of previously assimilated knowledge on those participating in the sound interventions at Lund NE/Brunnshög can be described as follows: sound affected the participants in the interventions, and the emerging emotional reactions can be seen as affectual subjective responses that depend partly on *carried affordances*, i.e. the type of pre-programming that one brings to a site. This was exemplified in participants' comments about what they liked ("positive, to start a trip"); did not like ("disturbing"); or what distressed them ("quite unsafe"). These responses influence further conceptualisation of the place, including its context. Although the visitors to the site cannot be considered part of an "ocean of lamentation" (Thrift 2008:196), their responses certainly form a puddle of doubt to the formal planning. In terms of affordance, it would seem firstly that the intervention's revelation of doubts confirms Heft's mentioning of affordance as a "repelling" as much as an "alluring" force (2010:25), but above all that the notion of affordance – to be useful beyond the mere stating of possible offers – needs to be supplemented, and in the applied sense expanded with attributes that address the all-pervasiveness, the affections involved, and the sequentiality promised by the first impression. Carried affordances are the offers perceived in a situation and that are largely conditioned by what is carried into that situation in terms of assimilated knowledge and previous experiences. In the case of the design professionals, such designerly oriented competences often lead to motivations regarding aesthetics, practical experiences of design, proportionality considerations, harmony and coherency principles for the ordering of elements in a design. Connected to these ambitions is also the design professional's (non-)alignment with prevailing form and aesthetics. This subjectively inclined affordance includes affective capabilities, professional attitudes or acquired expectations connected to a project or



its environmental context. Carried affordances are reliant on the actor to a significant extent, or as the case may be, on the design professional, in contrast to external, environmentally conditioned offers provided by the environment. To some extent, the latter also depend on the actor's capacity to recognise them; otherwise we would not speak of affordance but simply of various objects' features – but Gibson apparently also saw that they are less reliant on the actor's individual and previously, especially culturally, acquired capabilities. This work demonstrates that sensibility to offers presented in the environment is conditioned by a perceiver's individual history (Ahmed 2010, Heft 2010). The feminist author Sara Ahmed, when elaborating on the transmissions of affect, states, “how we arrive, how we enter this room or that room, will affect what impressions we receive” (Ahmed 2010:37). This take on affect suggests that, in addition to “mere” perception, biographical conditions and knowledge can also be considered a part of what is felt as afforded. The more emotionally charged answers in the interventions can be regarded as a type of intelligence that deviates from what we normally call theorised thinking (cf. Thrift 2008:175) or surfacing reactions that are parallel to a conscious knowing (cf. Gregg & Seigworth 2010:1), but still an intelligence that cannot be treated as separate from emotions. In the work at hand, I have argued for a view on affect in which the unavoidability of a mix of environment, thinking and response in a state of action are acknowledged (Thrift 2008:176). In other words, that thought and assimilated information are not devoid of affect. Therefore, the experienced intensity in these responses could for instance be seen as deriving from non-conscious experiences, displayed as emotions of disgust, fear, joy, and recognition (Shouse 2005). Thus, carried affordance is to be regarded as the subjective, biased, and experienced type of attention-in-action where affect and affordance merge.

### **Vibrant affordance**

In this work, affordances are understood to be situational and contingent, but not goal-oriented. The character of environmental alteration potential is not like that of usability; rather, it can be described as a vibrant existence, a multitude. In the above, affordance has been treated not as a mat-

ter of specific choice, but rather as omnipresent possibilities. This vibrant character of affordance has to do with the atmospheric conditions of any location, suggesting a view that affordance is flexible and fluid. *Vibrant affordance* is the all-pervasive, continuous and adaptive occurrence of possible actions rather than – as is quite often the case in usability-oriented affordance theory in particular – discretely detected objects of action, or even detected functions. Vibrant affordance is an affordance concept that changes and adapts according to the temporary location and orientation of the “perceiver” of these continuous and diversified conditions, unlike Gibson’s notion of environmentally manifested and isolated affordances. It is thus situational, and relationally dependent with a certain prevalent and experiential vagueness. We can regard this mode of affordance as an offer that shares qualities with something fluid or vaporous; the volume or number of offers is constant (infinite), and an adaptation can be made quickly to new circumstances – “[t]he most obvious physical properties of a liquid are its retention of volume and its conformation to the shape of its container” (Encyclopædia Britannica 2016). Here, the *container* should be understood in its broadest sense: i.e. more as a *situation* than a vessel. Accordingly, the vibrant affordance is non-solid and unstable. It permeates every corner of a situation and includes the situational awareness of the unlimited offers given in an environment for individuals, or in relation to what I theorised above as all-stuff, for inter-material mutual adaptations (Bennett 2010). Environment is in this regard a broad term that can incorporate the extremely complex effects of, say, a discourse, or of an expectational cluster of terrains, artefacts and rhythms.

Elaboratable nested affordance, carried affordance, and environmental alteration potential include the flexible and adjustable fluidity of vibrant affordance. Vibrant affordance can thus be considered a characteristic of all the adapted affordance, or affordance-related, concepts in this work. In the same way, the four concepts with which I have opted to summarise my theoretical findings are not isolated from one another, but are features that operate simultaneously, in the very moment at which environments are perceived.

# Unsettling Expectations

This work concerns how design professionals perceive options for design in urban development processes and what they expect from them – how they think about places yet-to-be. For the sake of acknowledging transparency in design communication, I have considered it necessary to problematise and contextualise the design process while it goes on and weigh it against what influences the design professional. This has led me to acknowledge the demands on professional perception as it is formed in design education as an important source. Furthermore, I have made an effort to investigate the municipal and national planning directives, both in their capacity to “guide” designers toward what to look for, but to some extent also in their capacity to represent democratic modes of communication. As I see it, in democratic planning processes where design plays a part in how futures will affect us, it is important that design professionals can shift perspective and let go at certain stages of predefined ideas of future realities. Today’s urban planning processes are influenced both by apparent and obscured factors, ranging from local characteristics, needs, and plans to global demands and corporate interests. This study investigates how design professionals are predisposed by

expectations of change dictated on the one hand by planning objectives, and on the other by professionally acquired designerly attitudes. To varying degrees, both of these influence the specific perceptual situation when the designerly action is realised. As pointed out previously in this thesis, design professionals may focus for instance on improving given environmental qualities while at the same time making ethical and economic considerations. Using affordance theory supplemented by affect theory, I have used interventionist methods and sought to investigate design professionals' attitudes towards futures already heavily invested with official expectations. Given these complex clouds of influence, I have tried to formulate how designerly attention and expectations could be diversified, and how designerly perception in turn generates a need to reconsider a given theoretical modelling of action potential as expressed in affordance theory. Regardless of the scale design takes, there is always "a swarm of vitalities at play" (Bennett 2010:32) or a widely distributed agency influencing the outcome. In line with this, a basic assumption of the work at hand is that a design professional constantly relates to things outside of the characteristics of the object given for alteration. Therefore, a basic methodological and also practice-oriented question has been asked: Can a restrained influential cluster be unsettled so as to include a more diverse spectrum of impressions?

Using interventionist methods, this study has enabled access to some of the basic predispositions at hand when design professionals perceive and solve a problem. As acculturation and socialisation in design schools has a fundamental effect on the design professional's "eye" and urge to act (Banham 1996; Dutton 1987; Till 2009; Webster 2005, 2006, 2008; Westin 2012), educational exercises contributed initially in this work to paving a methodological way for the interventions that were later performed on-site at Lund/NE Brunnshög. In parallel, the particular plans for the case of Lund NE/Brunnshög, which are more or less representative for Swedish urban development, were mapped and problematised as part of the influential spectrum. The guiding theoretical concept – affordance – was deemed in need of a reconsideration. Thus, a "critical" affordance theory, obtained to a certain extent by merging affordance and affect theory, was used to investigate how offers for action and alteration in a planning situation can be understood. Hence, a set of theoretical

concepts has emerged as a result of the exploration of the design process tied to intervention methods. This way, the thesis work has oscillated between methodological exploration, site-specific investigations and a theoretical approach to what it means to see potential in an environment, and these parts have all informed each other.

The interventionist methods in this work have used simulation techniques on location (with the help of sound), as opposed to the kinds of simulation or virtual construction that is distanced from the actual site being treated that is used in the majority of architectural design work. My methodological approach has illustrated how interventions in an urban development process can access how design professionals perceive action potential at a site of exploration (and exploitation). Emotional and situated experiences, here evoked by sound stimuli, have been seen to differ from, or stand parallel to, previously contemplated ideas aligned with already gained knowledge about a project. In this thesis, I propose that in urban development processes, pre-established expectations of change – including projective envisioning of futures – together with professional design conventions profoundly influence distinguishable options for designed environmental alteration. By accessing an early phase in an urban development process, and scrutinising the self-sufficient attitudes involved in designerly decision-making, this work has brought otherwise “tacit” influencers on design outcomes to the fore, including projective, traditionalist, biographical, and affectual factors. As a way to intervene – not only in a geographical place, but also into the process of seeing options for design – sound simulations were introduced, and they have exemplified how an unsettling of an otherwise black-boxed design process can expose some of the expectations steering a development process. This thesis illustrates how already-made investments in visions for the future operate to push development further, and it thus presents a potential method for on-site analysis of exploitations. In this work, I have used various methodological techniques, such as on-site intervention, sound simulation, curiosity-driven excursions, collaborative work, and student workshops.

Two performed events had the critical objective of commenting the ongoing planning strategies related to Science Village Scandinavia and Lund NE/Brunnshög. One was the broadcasted reading event *Uttered*

*Expectations*, which took place simultaneously at Lund NE/Brunnshög and in the centre of Lund, and the other was the collective concerted reading with a group of international researchers that formed part of the *Excursion to the Fictive and Factual Landscape of a Future Science Village in Lund*. Through Uttered Expectations, I had an opportunity to embrace and understand the answers from the previous interventions in their entirety, and in the initial Excursion to the Fictive Landscape, the discussions indicated that sound impact could be used as an effective change of environment and as a useful tool for problematising an ongoing planning process, and that intervention can be seen not only as a one-shot action, but as a effectuator of permanent change. These insights helped me design further sound experiment based actions in my project. Both of these performative sound events were used in the thesis to expose communicational planning mechanisms, and they cast light on the scale on which Lund Science Village likes to presents itself and the extent to which these municipal- and consortia-made presentations were medially anchored among a local population.

A series of shorter introspective narratives have been used in this thesis as a freer form for actualisation, and as triggers of the themes and places occurring in the dissertation – such as stories about how longing for new technology occurs just because the technology suddenly exists, or how a ride in a car in a wintery landscape affects the comprehension of that landscape. In a couple of cases, image manipulation has been used in order to actualise how planning documents steer the formulation and shape of the subsequent planning.

The most substantial empirical study in this thesis, in which most of what we usually regard as data was gathered and where the physical environment and professional attitude were concretely weighed together, are the questionnaire- and sound-based interventions performed at Lund NE/Brunnshög. Through the platform of Audible Dwelling, a habitable and transportable loudspeaker unit created by the artist group Learning Site, these intervention acts took place at the site of the Wennergren Farm, which was temporarily activated as testbed zone for two months. The interventions were designed to capture two main types of response to the surrounding environment: to let participants *formulate* answers about perceived potential or offers on site; and to let participants note

their *reactions* to simulated futures. The answers given in these investigations showed that design professionals involved in the project were more influenced by the plans for the area before they were exposed to sound simulating possible future situations. The reactions to these exposures suggest that the “search image” (cf. von Uexküll 1992[1934]:373f) carried to a perceiving situation moved to the background at the expense of an instant understanding of the situation obtained at the site.

As a continuation of the methods suggested in this work, the already proposed ways of interrogating a design process could be fine-tuned. In future studies, sound interventions like these might be calibrated more carefully to address certain emotional spectra, and participants could – especially if the simulation method is seen as a part of a modelling phase in a building project – revisit a site for broader and more diversified material. In follow-up studies, it may prove fruitful to invite participants to elaborate on the method itself in more structured and engaged ways and for instance let participants bring sounds of their own or decide duration. Instead of merely using sounds from external locations, the sound already at the site could, as an option, be magnified in order to investigate if this could “anchor” perception and understanding to an actual location to a higher degree, thus making the actual location play a more substantial role in the planning process as a whole.

This investigation has been directed primarily towards a qualitative search for reactions from design professionals. As a way to further contrast biographical and professional background, it would be valuable to balance the proportions between different groups in other ways. It would also be possible to contrast one area to other areas of development, or to different stages of completion, which could give further knowledge about expectations tied to the particular development.

The question of how design professionals are affected by pre-determined expectations in their design process has been addressed mainly through theories of affordance here. By elaborating on and methodologically linking the investigation to the notion of affordance, I found a theoretical framework against which I could analyse perceivable offers in the environment, offers that appealed in the broadest sense not only to direct corporeal action, but also to designerly action, understood here as what was immediately sensed as possible to alter in the area. On the

whole, the investigations have suggested that in their understanding of a physical place, design professionals often are steered by expectations tied to their professional role, by pre-conceived solutions to design problems, as well as by already existing tangible investments such as established programs, buildings and structures. Although certain place-related qualities and features on-site, such as the presence of old buildings in vast agrarian landscapes, were sometimes revealed to play a designerly part as qualities to react to or to alter, the official plans for development took precedence over the recognised present qualities. All design professionals involved in the planning of Lund NE/Brunnshög gave more or less predefined answers about the potential of the area, repeating the official planning policy. In terms of affordance, this assimilated professional attitude expressing particular future solutions can be considered equivalent to following a process with a predefined outcome where the answer to what a place offers aligns with what the designer carries to that place, and less with taking the offers of the actual place into consideration.

An analysis of the answers showed that a basic alignment with the plans for the area among all participants was differentiated, depending on their professional background. Design professionals involved in the planning expressed ambitions that were in line with officially stated national and international planning policies, such as building for a diversity of inhabitants or creating an ecologically sustainable infrastructure. Since they were well acquainted with the prevailing plans, the place seemed to afford a navigation towards what they found feasible, thus confirming, rather than questioning or opening up, given objectives (cf. Ingold 2000:177).

The initial focus on the impact of expectations can be funnelled into various concepts distinguishing the ways in which offers appear in perceived objects, as here in an agrarian environment objected to become a science village. This thesis has shown that what a situation affords is to a significant extent a subjectively constructed offer; i.e. the kind of action that is suggested often depends more on the individual than on given environmental features. The significance of the experienter's expectations in relation to what is given by the environment or by the projective task was therefore further investigated, and the affordance concept in this work was correspondingly developed to also incorporate emotions as responses to what an environment affords. Consequently, in this thesis I presented



and discussed a set of concepts that all can be seen as theoretical “responses” to the dilemma of handling a vagueness that persists in the affordance concept. These are *vibrant affordance*, *environmental alteration potential*, *elaboratable nested affordance*, and *carried affordance*.

Vibrant affordance was recognised in this thesis in reconsideration of the all-pervasive sense of opportunities that strikes anyone who is open to more than discrete functions or mere usability. Vibrant affordance also recognises that not only intentional wills exert an influence on what we as humans beings experience when we experience action potential. I have taken into account the notion of *all-stuff* as an acknowledgement of the fact that influence can be seen as occurring between materialities, or bodies, themselves, without any present explicit will of human subjects (cf. Bennett 2010). Sound itself was seen (or heard) in the experiments as an all-pervasive change of circumstances, with a vibrant quality that opened up, rather than closed in on, action potential. Still, due to my focus on the cultural influences there are on professionals in action, my work in this investigation primarily concentrates on the wills of human agents.

As my work focuses on what could be assumed specific for the urge to change a place or a landscape, in designerly action, I soon realised that affordance in general, following Gibson (1977, 1986), is theoretically mostly seen as *environmental action potential*, whilst a concept like *environmental alteration potential* could accordingly better account for the specifically professional eye that seeks ways to do something with (the environment as) an object. Environmental alteration potential can be considered a general concept that describes the offers to change something in an environment, and even if it has been regarded here as in relation to the design professional, such as when the Wennergren Farm area was instantly recognised as a park-like partition of a future visitors centre in the questionnaires, environmental alteration potential of course also describes possibilities for humans (and other agents) in general – not only professionals – such as when we place a plank of wood over a ditch in order to get over it.

A more “defined” offering, and causal outcome of an action, is given by the concept of nested affordance (cf. Gaver 1991), essentially a sequential set of offers that gives a predetermined course of action. As it appears in design theory, nested affordance deals with how one thing af-

ter another is exposed, and identified as a potential. In the context of this thesis, I had to conceptually look for something beyond the contained nested affordance that Gaver saw as working in a specific and repeatable set of consecutive actions, since I looked for ways to describe open-ended designerly action, rather than closed circuit user response. To this end, I suggested a concept that I labelled *elaboratable nested affordance*, implying that each step in a sequence of seeking action is an undecided and open-ended course of action. Elaboratable nested affordance is essentially close to a concentrated form for reflection-in-action, reflection without reasoning as it were; i.e. here understood as the very common trait in creative acts where instantaneous open-ended potential is recognised in successive steps. While contained nested affordance follows a given sequence (as when opening a door with a handle), it corresponds to the type of passivity or rather behaviouristic action that prevails in affordance theory, while elaboratable nested affordance, as it is introduced here, has a stronger element of creativity and modification, such as in iterative steps developing a design. Elaboratable nested affordance can thus also easily be associated with environmental alteration potential, even if the latter is often guided by external demands that can be quite static and allow for mere pre-established alteration, as we saw in the questionnaire intervention. Elaboratable nested affordance can emerge as successional steps in a sketching process as well as in the course of large-scale planning, as a sequence of formulated plans for urban development which are adapted to new circumstances along the way.

In this work, the notion of affect as the instant emotional and/or biographically conducted reaction to a circumstance has been merged with the usually strictly situational and relational notion of affordance. This is a result of the fact that the sound simulation experiments, as well as my own reflections in the introspective narratives, revealed that emotions can appear to take precedence over the perception of action potential, and lead to further action. Theoretically, this resulted in the adjustment of affordance into the concept of *carried affordance* – here targeted towards the design professional, but again, possible to see as more general than that. Carried affordance pinpoints the individual complexity, including emotions and “search images” (von Uexküll 1992 [1934]) that is brought into an action situation, more or less independently of the specific en-

vironment. Carried affordance stands for the offers for action perceived and affected by the perceiver, and apart from professional considerations, it also takes biographical, situated and emotionally based knowledge into account.

In this work, it has been validated that intervention methods can challenge normative design thinking by identifying offers (for alteration) in an environment at a stage separated from a more targeted and result-oriented stage of sketching or constructing. Through these methods, I have shown alternative ways of investigating design, planning and education, presumably developable to situation-specific methods of self-evaluation and critique in planning and design processes. When deducing what presented visions and proposals are dependent on and how they inform carried affordances, a multidimensional picture can be drawn of what informs the design process. Furthermore, by comparing identified offers, or affordances, at different places, a more precise exposure of for instance recurrent expectations or figures of applied aesthetics could be made in the future.

The pragmatic contrast between “theory” (in the sense of thought-out visions and plans for an area of development), and “reality” (as experienced in a factual environmental situation at a given place) has through the method of sound simulations directed the attention to an actual and experienced situation. This in itself became a method of unsettling expectations through a sort of “experienced” critique. In further studies, carried affordance could be increasingly scrutinised and diversified, both in terms of its impact rooted in memory, education, profession, biographical background, etc. This work has proposed possible methods of investigations of design professionals’ work processes, and to some extent planning processes as a societal phenomenon. On a theoretical level, it has discussed the necessity to separate between specific modes of affordance by introducing terms that cover various situational and relational aspects of action potential. It has demonstrated how identification of carried affordance can function as a critique of expectations in national and regional urban development processes, and thus identified the wider potential and possible implications of subjective knowledge (cf. Bondi 2005:436). On a general level, this work has shown the influence of perceptual and emotional processes in design decisions, and thus indicated

how knowledge can be gained about how professional ideas about future space are initially conceptualised. Hence, I also view my work as part of a discussion about the effects of education, and about how education that incorporates a critical attitude can be established. In addition to that, this work can supplement existing knowledge and techniques of research intervention, as well as of how artistic research approaches can be used within planning, and planning research.

Through elaboration on the notion of affordance and the use of interventions, my study indicates that we cannot realise our reaction towards an imagined future until it is in some way represented. We cannot begin to comprehend our reactions to a tram, or a busy city centre more fully until they are somehow experienced. Interventions, partly through artistic means, enabled an estrangement of the familiar in this work in a way that is commonly inaccessible to the planning practice (Metzger 2011:1). The sound intervention methods developed and tested here simulated envisioned futures that ruptured the sequence of contained nested objectives that merely follow official plans. The investigations have exposed how sound, as an introduced strange element, can facilitate access to emotional and affectual registers, and how adapted professional expectations could consequently be problematised. In responding to sound simulations, design professionals and non-designers both responded by letting other sides of their personas come forth, which indicates how emotional targeting – as here through sound – can function as a challenge of an otherwise hierarchical status of expertise between professionals and laypeople. An increased consciousness of the dependency of cultural and professional demands should hopefully result not only in a better disciplinary understanding of the design professional's agency in design processes, but also of that to which we as receivers of designed futures are subjected.

Populärvetenskaplig sammanfattning

## Att se möjligheter för framtida platser

Denna avhandling handlar om hur gestaltande discipliner, med professionella designaktörer såsom planerare, arkitekter och designers, uppfattar potential för förändring av miljöer. Avhandlingen tar upp sådan förändringspotential dels till design i allmänhet, men specifikt i förhållande till byggd miljö, och med den huvudsakliga studien förlagd till de stadsdelsvisioner som är tänkta för etableringen av forskningsanläggningarna ESS och MAX IV i området Lund NE/Brunnshög i Lund. Ett övergripande mål för detta arbete är att formulera en typ av undersökning som omfattar såväl teoretiska som metodologiska bidrag till gestaltande discipliner, och som en del av detta behandlas planering kritiskt, dock inte så mycket som en analys av samhällsförhållanden och konsekvenser, utan snarare genom att undersöka vanor och uppmärksamhet i designarbete på ett omedelbart sätt. Detta har gjorts dels genom utveckling av nya s.k. interventionsmetoder, dels genom att studera och kritiskt reflektera över lokalisering, planering och diskursiva omständigheter i samband med etablerandet av en storskalig forskningspark. Avhandlingens mål är att få en mer diversifierad bild av vad som influerar en designprocess, samt

att, utan att förneka gestaltningsprofessioners kompetens, utmana vissa rådande antaganden om rationalitet i planeringsprocesser.

Planeringen och gestaltningen av våra samhällen är en demokratiskt förankrad och resurskrävande process, med ett stort antal involverade aktörer. Förutom politiker och olika grupper med särintressen så har de som gestaltar och planerar ett uppenbart inflytande på denna process, då de levererar visualiserade eller skrivna visioner om en framtid. Riktlinjer på nationell och internationell nivå angående till exempel tillgänglighet, hållbarhet och ekonomiska ramar styr dessa planerings- och stadsutvecklingsprocesser. I detta arbete ses dessa formulerade och visualiserade förväntningar i storskalig planering som faktorer som i sig för stadsutvecklingsprocesser framåt. Samma förväntningar kan också ses som begränsande faktorer då de kan kringskära designaktörers handlingsutrymme. Inlärd förhållningssätt till förändring och utformning av miljöer kan t.ex. identifieras i ambitionen att skapa samstämmighet, att överlag förbättra en situation, eller en långsiktig strävan mot att saker helt enkelt skall bli bättre än vad de är idag. Detta kan ses som yrkesspecifika förväntningar på framtiden. Denna undersökning har visat att förutom uppenbart bidragande influenser och omständigheter i stadsutvecklings- och designprocesser, bidrar en mängd ”gömda” faktorer till vad designaktörer ser för möjligheter att förändra en plats. Det har visat sig att vad individer ”har med sig” in i själva designsituationen, såsom yrkesspecifika förväntningar, men även självbiografisk och emotionell erfarenhet, styr vilken potential som uppfattas på en plats. Jag har därför haft som mål att besvara huvudsakligen två huvudfrågor i detta arbete:

*Vad har den som gestaltar med sig in i processen att lösa en designuppgift som inte är omedelbart kopplat till själva designsituationen, eller till karaktären på den omgivande miljön? samt Hur kan de som gestaltar själva få tillgång till det som de bär med sig in i designprocessen?*

Det är viktigt, både ur ett demokratiskt perspektiv och ur ett omedelbart behov kopplat till kvaliteten på det byggda, att yrkesverksamma som arbetar med gestaltning av vår framtida miljö kontinuerligt ifrågasätter vedertagna sanningar och konventioner i relation till vad som gestaltas och planeras, och att de också förhåller sig kritiskt till den egna arbetsprocessen. Arkitektur- och planeringspraktiken behöver därför metoder

som utmanar etablerade arbetsprocesser, och svarar mot de krav på transparens och läsbarhet som ett samtida demokratiskt samhälle ställer. Trots att medborgarsamverkan idag är vanligt förekommande för att säkra frågor om mångfald i planeringsprocesser, styr ofta förutbestämda mål och principer om samförstånd planeringen. Som ett sätt att problematisera detta faktum föreslås det i denna avhandling att man i planerings- och designprocesser inför självreflekterande kritiska praktiker som en del av sitt arbete.

I avhandlingen undersöks hur individuell erfarenhet och kunskap påverkar dem som gestaltar och ser möjligheter för omvandling av miljöer. Teoretiska begrepp utvecklas för att beskriva: 1) denna medhavda erfarenhet att "se" vad en designuppgift erbjuder (*carried affordance*) samt vidare 2) hur man kan beskriva viljan att förändra, snarare än enbart agera i, en miljö (*environmental alteration potential*), 3) att det är mängd föränderliga intryck som erbjuder handling (*vibrant affordance*), samt 4) hur en designhandling ger upphov till nya handlingsmöjligheter (*elaboratable nested affordance*). För att undersöka de erbjudanden som ges i en miljö har jag bland annat intervenerat i en pågående storskalig stadsutvecklingsprocess kopplad till Lund NE/Brunnshög i Lund. Här har jag genom en undersökningsmodul, ett "högtalarhus" benämnt *Audible Dwelling*, utfört experiment och undersökningar på plats. Högtalarhuset har gjort det möjligt att med ljud simulera tänkta framtida platser, dvs. en slags fiktiva ljudmiljöer som kan kopplas till vad som beskrivs i officiella planeringsdokument för den framtida stadsdelen. Exempel på sådana ljudmiljöer är ljudet av en livlig stad eller ljudet av en spårväg. Genom denna simulering uppstod nya erbjudanden på platsen, och dessa har använts för att upptäcka och problematisera de förväntningar som de deltagande designaktörerna i interventionerna hade med sig till platsen. Genom stadsutvecklingsprocessen på Lund NE/Brunnshög har jag visat hur de som gestaltar är influerade av politiska och ekonomiska förväntningar, som i detta fall är kopplade till vetenskapliga framsteg, ekonomisk tillväxt, samt till den lokala möjligheten att etablera en helt ny stadsdel. Undersökningarna har visat att ljudsimulering har en potential att minska påverkan av på förhand assimilerade visioner och planeringsmål, att upplevelsen av en plats kan förändras och att denna upplevelse kan bidra till en mer mångfacetterad bild av en framtida miljö.





# Abstract

As a part of a democratic demand for transparency in urban development processes it is important that design professionals hold the ability to scrutinise their own work process, and at certain stages let go of predefined ideas of future realities. This work revolves around how design professionals perceive options for design in such situations. A basic assumption in this work is that a design professional continuously relates to things outside the immediate characteristics of a design task. In order to problematise a design process and investigate how design professionals are predisposed by various demands, both obvious and obscured factors surrounding the design situation are regarded. Educational background, municipal and national planning directives, regional and global developmental demands, and other profession-related expectations are thus here considered to influence design professionals perception of places yet-to-be.

In this work, theories of affordance and affect have, together with interventionist methods, been used to investigate design professionals' expectations. I have let my observations of professionals' perception inform a theoretical diversification and reconsideration of what we mean by *affordance*, or *action potential*. In this regard, sound interventions have proved to be an effective method. Through simulations of soundscapes, participating professionals could address and express their immediate experiences. This broadening of a perceptive spectrum could thus function as a supplement to the predominant reliance on hypothetical and expected understandings of an environment. The sound interventions have in themselves become a method for unsettling expectations, as well as some of the basic predispositions that seem to reappear whenever a design situation is faced. This unsettling has been captured primarily through questionnaire-based sound interventions on location in an area under development outside Lund, Sweden that is destined to hold large-scale research facilities in the future. In addition to these informant-based,

on-site interventions, two methodologically designed and performed actions comment the ongoing planning strategies related to Science Village Scandinavia and the area Lund NE/Brunnshög. The first of these, called *Uttered Expectations*, publically broadcast the answers gathered from the previous questionnaire-based interventions in their entirety. The other event, called *Excursion to the Fictive and Factual Landscape of a Future Science Village in Lund*, was a concerted reading that problematised the rhetoric surrounding an ongoing planning process. In this thesis, a set of interrelated concepts are developed for the investigation of how offers for action and alteration in a planning situation can be understood. The concept *carried affordance* is used to describe the kind of action that is previously assimilated and then carried into a design situation. The perceived offers to alter an environment are pinpointed using the notion of *environmental alteration potential*. This concept stands in partial contrast to Gibson's original affordance concept (1977, 1986), which primarily deals with immediate action potential. In this thesis, how one action can give guidance for a following action through the concept of nested affordance (Gaver 1991), has been adapted to an open-ended design process through what I have called *elaboratable nested affordance*. The continuous offers of a changing environment, including also matter influences matter, are framed through the formulated concept of *vibrant affordance*, with inspiration from Bennett (2010).

This work, surveying a case of large-scale and global stakeholder exploitation and showing some of its driving mechanisms, has brought the existence of official as well as tacit influences on design outcomes to the fore. Emotional and situated experiences evoked through sound interventions have been seen to differ from influences that design professionals initially brought to the project. Therefore, in this thesis it is suggested that predetermined expectations of change, including established envisioning of alternative futures, together with design conventions, profoundly steer distinguishable options for designed environmental alteration, but also that these expectations are alterable in acts where "the professional eye" is given an opportunity for self-reflection.

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## Sounds, videos

The sounds used for the interventions with Audible Dwelling at Lund NE Brunnshög were downloaded on 2013-05-23 from [freesound.org](http://freesound.org).

*tram sound* (tram exterior08 driveby stops leaving fade away.wav)  
<http://www.freesound.org/people/notchfilter/sounds/43695/>

*water sound* (City » Fountain\_2.wav)  
<http://www.freesound.org/people/martats/sounds/156974/>

*Central station sound* (copenhagen central trainstation ambience.wav)  
<http://www.freesound.org/people/Kyster/sounds/123142/>

*urban sound* (City ambience.wav)  
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# Appendix 1

The English version of the questionnaire used during the interventions in May and June, 2013, at the Wennergren Farm at Lund NE/Brunnshög in Lund, Sweden. The answers to the questionnaires are transcribed and stored at the Department of Architecture and Built Environment, Faculty of Engineering, Lund.

The aim with this survey is to capture associations and reactions from individuals with varying levels of prior knowledge about the Brunnsbög area and its planned future. The survey consists of two main parts; "**WENNERGRENSKA**" which concerns the actual place where we are, and "**BRUNNSHÖG**" which relates to the greater area of Brunnsbög. Your responses will remain anonymous. Please ask if anything is unclear.

Thank you for your participation!  
Sandra Kopljär

**Please tick one of the boxes, (If you work with/at Brunnsbög or not):**

<input type="checkbox"/>	<b>Professional relationship to Brunnsbög</b>
<input type="checkbox"/>	<b>Nonprofessional relationship to Brunnsbög</b>

**Age:**

**Describe yourself with five words.**

**Describe your interests with five words.**

## **WENNERGRENSKA**

**What does this place (Wennergrenska) offer you today and what potential do you think it has (today and in the future)?**

**What would you like to be able to do here (Wennergrenska)?**

**What do you think will happen here (Wennergrenska)?**

**How do you see the future at Wennergrenska?**

**What do you think this place (Wennergrenska) will offer you in the future?**

**What do you wish this place (Wennergrenska) could offer you in the future?**

**Do you know of any other place that could inspire at Wennergrenska?**

**What do you think the place Wennergrenska offers Lund/the region/the world today?**

**What do you think Wennergrenska will offer Lund/the region/the world in the future?**

## **BRUNNSHÖG**

**Describe your relation to Brunnsbö - what does Brunnsbö offer you/afford today?**

**What would you like to be able to do at Brunnsbö?**

**What do you think will happen at Brunnsbö?**

**How do you see the long time future at Brunnsbö?**



**What do you think Brunnskög will offer you/afford in the future?**

**What do you wish Brunnskög would offer you/afford in the future?**

**Can you think of any other place that could inspire the future Brunnskög?**

**What do you think Brunnskög will offer Lund/the region/the world in the future?**

Is your experience of the place affected by sound and in that case how?

a) The sound already on site

b) "tram sound"

c) "water sound"

d) "Central station sound"

e) "urban sound"

# Appendix 2

These are the quotes used in the collective concerted reading that was a part of the *Excursion to the Fictive and Factual Landscape of a Future Science Village in Lund* on the 2013-05-04 at the Wennergren Farm, Lund NE/Brunnshög. These are the selected quotes to be used at the event, some were not read.

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Science Village Scandinavia will play a key role in the emergence of good institutions and infrastructure for the large group of scientists who will travel to Lund to do experiments at ESS and MAX IV Laboratory. The Science Village will serve as a second home for the researchers during their stay Lund.

(Skåne 2013)

We must ensure that visiting researchers receive the best service and are given many opportunities to interact with each other and get new ideas. Science Village Scandinavia will become a meeting place for creative ideas. (ibid.)

Today, there are several research facilities based on neutron sources in Europe, which raises the question, "So why do we need another neutron facility?" Most existing sources are based on nuclear reactors, an approach that has reached its maximum capability and cannot be developed further. It is time for a new approach to neutron science. (European Spallation Source n.d.e)

Businesses and people from all over the world are coming to Brunnshög. (Lunds Kommun 2013a)

It must also lead the science community towards a future of sustainable building and design, in keeping with progressive planning principles that

foster sustainable and enriching lifestyles. (European Spallation Source n.d.a)

The area has a unique concentration of science, research and innovative companies concentrated in a broad area from Lund historic downtown towards Brunnshög and the new research facilities. (Lunds Kommun 2013c)

Through sustainable urban development The Science Road will refine the area's unique knowledge environments by concentrating densification and open up businesses along clear paths and nodes. (ibid.)

The aim with the Science Road is to develop these knowledge and innovation environments as a more integrated part of the urban fabric. (ibid.)

ESS will be one of the most advanced science infrastructure projects ever built. The scientific and the symbolic value of the facility for the university town of Lund, for Sweden, Europe, and for the global science community at large, calls for work of unquestionable architectural beauty and functional excellence. (European Spallation Source n.d.a)

A mixed-use neighborhood is being planned, with around 3,000 dwellings and businesses providing employment for 20-25,000 individuals by 2025. (European Spallation Source n.d.d.)

The challenges and unpredictability of the Scandinavian climate during winter will be taken into account, and the effects minimized, when planning the landscape design. (ibid.)

Pedestrians and bicyclists will be given priority over car traffic. (ibid.)

As part of the ESS "zero impact vision", where the goal is to avoid emitting any pollutants into the environment, a system for treating polluted storm water will be designed (ibid.)

The buildings at the ESS facility should reflect the core values of excellence, openness, and sustainability. (European Spallation Source n.d.b.)

Research with sub-atomic particles such as neutrons requires a high level of radiation protection and awareness. Radiation protection and safety will be key aspects of ESS's operations, and will be carefully monitored by the regulatory authorities. (European Spallation Source n.d.c.)

We want Scandinavian elegance and modesty (Carlile 2011)

Aim for ESS to be multi-cultural –politically, nationally, scientifically (ibid.)

We want birds and animals (ibid.)

Design should be people-oriented (ibid.)

Lund's strengths with knowledge-intensive activities, charming urban environment and an international population is further developed as the city grows to the northeast. (Lunds Kommun 2013a)

At Brunnshög heart and mind will meet. (ibid.)

The scientific and the symbolic value of the facility for the university town of Lund, for Sweden, Europe, and for the global science community at large, calls for work of unquestionable architectural beauty and functional excellence. (European Spallation Source n.d.a.)

Beginning with a green field site today, ESS will create a world-leading research facility with an attractive and functional work environment, all housed within a significant architectural design that will make an impact on the world stage. (ibid.)





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