

THESIS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

UTOPIA-DRIVEN PROJECTIVE RESEARCH

a design approach to explore the theory and practice of Meta-Urbanism

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ABSTRACT

In this thesis a design-based approach is developed to address the issue of reconceptualising urbanisation. The approach is called utopia-driven projective research and is the result of a process of reflection on a number of conceptual design projects the author participated in. The research builds on the idea of 'theory-through-design' and shows how the projects are brought into interaction with theoretical frameworks that serve as another kind of design perspectives. Through the process of abstraction and extraction that is thus set in place, the core elements, both on the level of the subject-matter and on the level of the design approach, were distilled from the projects and developed into a research topic and research approach. The development of utopia-driven projective research must be seen against the backdrop of the general condition of unsettlement our society finds itself in – a condition that raises the issue of how to maintain the habitability of our world(s). The assumption made in this thesis is that in a context of systemic changes (economic, environmental, political) there is a growing urge to make sense of the situation. Sense-making involves to an important degree the revising and restating of values, and it is an issue of learning from the future. In this situation the default mode of thinking is imagineering and projecting and this type of thinking is characteristic to a critical and utopian designerly thinking. Through utopia designerly thinking gets a model-theoretical character, useful to future-orientated sense-making, stance-taking and hypothesis-development. Hence, utopia-driven projective research is proposed as a way to investigate the futurity of the way we inhabit our environment. Utopia-driven projective research is orientated to the integration of scientific modes of knowledge production and design-based, poetic modes of knowledge building, which are particularly relevant in a context of sense-making. The field, in which this specific research approach is operative, is called Meta-Urbanism. Meta-Urbanism studies how the worldview of a people generates deep rooted form-giving principles of urbanisation. It is a transdisciplinary field in which urbanisation is investigated against a context of worlding. Worlding concerns the development of concepts of territory that differ from the currently dominant one of growth and consumption of space. Meta-Urbanism offers urbanism a 'laboratory' for collective future-orientated sense-making about alternative ways to inhabit the environment.

Key-words: Utopia-Driven Projective Research, Meta-Urbanism, Unsettlement, Sense-making, Worlding, Urbanisation, Projectivity, Imagineering, Poetic knowledge building, Theory-through-design.

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INTRODUCTION

In this introduction I briefly present some aspects of my educational and professional background that played a part in the way this thesis is conceived. The position I took as a researcher was strongly influenced by my background as a designer, especially since the main questions guiding this doctoral study arose from my design experience. As a first orientation to the reader, I will therefore start with an outline of my design experience and what role it played as a constituting factor in the overall set-up and approach for the research presented here.

Researcher's position

I was trained as an architect in the Sint-Lucas School of Architecture in Brussels in the period 1989-94. At that time the leitmotif 'designing in a researching manner and researching in a designerly manner' had permeated the design studios. In the Sint-Lucas School the notion of research by design first came onto the scene in the beginning of the eighties. The idea was further developed through the school's involvement in the International Laboratory of Architecture and Urban Design (ILAUD) founded by Giancarlo De Carlo. ILAUD organised summer residencies in Italy in which architecture students exchanged research

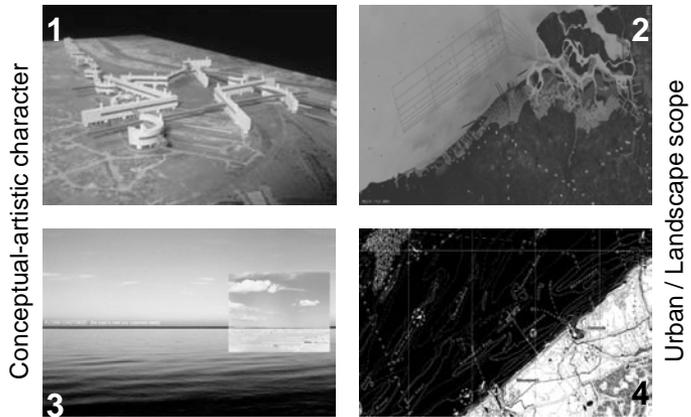
and design methods while working on specific cases. I participated in such a summer residency in 1993. Although this combining of design and research offered a definite direction and perspective for my design training, the result was more an intuitively adopted design attitude than a clear, explicitly articulated view on design, research, and the relationship between them. As a student I developed a particular interest in this 'researching in a designerly manner' and therefore, once graduated, I chose to work at T.O.P. office, where a similar approach to design and research ruled in an equally implicit way. T.O.P. office is a Belgian firm known as a conceptual design practice operating in the field of art, architecture and urbanism.¹ While I worked there my initial interest in urbanism developed further. We investigated the broad societal interest in urbanism by design. The underlying assumption was that a designerly perspective could contribute to the understanding of societal issues. This translated into the proposition of imaginary or utopian urbanisation models. Working for many years at T.O.P. office, I built up a design experience that was focused on projects with an urban and landscape scope and that had a conceptual-artistic character rather than belonging to a commission-driven building practice. This particular character of the practice is accompanied by a particular mode of thinking – a kind of questioning, critical design attitude. Design here is explicitly used as a mode of inquiry to investigate often radically different perspectives on certain issues, resulting in a spatially expressed vision on urbanism. Later, during my post-graduate urban planning studies at the KU Leuven, the mode of conceptual, critical designing we developed at T.O.P. office was criticised as somewhat incompatible with the way design is positioned in current Flemish urban planning practice. Commission-driven design here was more restricted to interpreting and refining a predefined vision of urbanism into spatial quality. One was expected to formulate a concrete answer to a specific problem. Conceptualising was only to be used in so far as it could help solve the pre-formulated problem. I experienced here how the role and quality of conceptualising differs in different design processes – design processes that intend to give an answer to a real-time problem, and design processes that intend to address a given problematic with a large degree of investigative freedom, which I call here conceptual design practice. My interest lies in the latter, based on

what constitutes the main part of my personal design experience. After my work at T.O.P. office, that experience developed further through my involvement with FLCextended, a conceptual design practice formed by a network of designers in free association.² I consider the high quality level of conceptualising and imagining aimed at in conceptual design practices like T.O.P. office and FLCextended to be of great importance for architecture and urbanism.

Starting from this design position, the challenge to me then became to articulate what particular type of design research was potentially present here and what the proper subject matter could be for this type of design research. The choice to investigate this was based on my fascination for the potential I saw in that kind of conceptual design practice and on my frustration with the inadequate use of that same potential. Mostly I was frustrated by the feeling that more could be made of the *research* potential in the conceptual design projects. So I took as the starting point of this doctoral study my experiences with a number of conceptual design projects that had an urban and landscape scope and that had a conceptual-artistic character. And I questioned these projects: What were they for, what could they achieve – not in terms of a commission, but as something inherent in the projects? What value did they contribute in terms of potential design research? In general parlance these projects were positioned more to the artistic, utopian side of the spectrum of design in urbanism. Their operative role was defined as stimulating awareness and triggering debate. As such, they were ascribed a character of investigation rather than application, but in my opinion, the true research aspect inherent in the projects remained only vaguely recognised. The question to me then was what kind of research could be derived from a conceptual design practice and to what aspects of urbanism could this research contribute. To investigate this I had to develop a double track: it concerned both the development of a research approach and the development of the subject matter, which is urbanism. Problematizing issues of urbanism opens up a wide range of possible subject matters and approaches due to the highly multidisciplinary character of the field. Arguably the two main constituent groups of the field are the scientific disciplines and the design disciplines, often perceived as two opposite poles that, so to

STARTING POINT

design experience with conceptual design projects



RESEARCH POTENTIAL

1. The Unadapted City – T.O.P.office
2. M.U.D – FLCextended2005M.U.D
3. COASTOMIZE! – FLCextended2008COASTOMIZE!
4. The Future Commons 2070 – magnificentssurroundings.org

speak, cannot escape each other if they are to act meaningfully in the field of urbanism. My position in this field is on the design side.

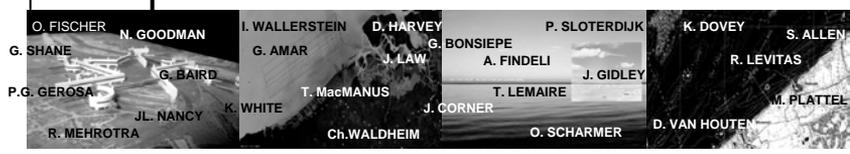
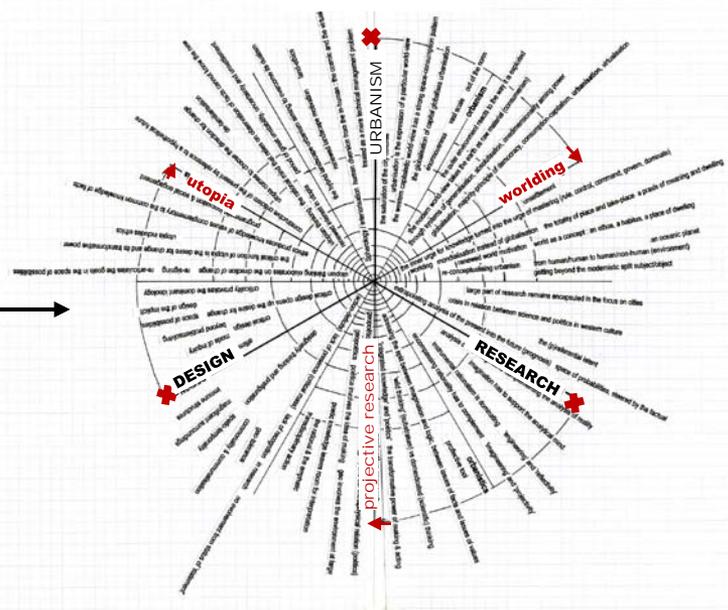
Thus we have an initial positioning of the researcher and the research. The breeding ground for the research is my design experience, built up over a span of approximately fifteen years through involvement with a particular kind of practice – a conceptual design practice. The starting point is the observation that the true research aspect inherent in the projects remained largely unarticulated and therefore unclear. From this follows the aim to investigate what the potentials were of the different design projects to contribute to research, to articulate what particular type of design research was potentially present here and what the proper subject matter could be for this type of design research. As my area of interest was urbanism, the question to me then was how an approach through these specific design projects could help to develop the understanding of urbanism, i.e. to delineate and develop the subject matter of urbanism.

Research approach

I started my research by reflecting on four design projects I co-authored, trying to develop a better understanding of the issues they address and what design approach they use. As such, the work presented here did not start from a clearly delineated subject or question. Instead, I departed from a set of concerns, issues and doubts about urbanism and the potential role that conceptual design practices could play in this field. Through a process of continuous reflection, I gradually built up a research topic and research field, as will become clear in the course of the text. So my research starts from a reflection on my own practice and as such the starting point of the research is project-grounded. I chose from my practice the projects that, to me, best exemplify the design approach used and the issues at stake. All have a critical design attitude, reflecting and conceptualising the way to inhabit the environment through visionary spatial models. In these projects, design is explicitly used as a mode of inquiry. They are examples of a designerly investigation into urbanisation models. In that respect,



abstraction
extraction



they surpass the mere design project and show a potential to become a project-grounded kind of research. The role of the projects here is to provide both the design experience and the design material from which I develop the research topics. From the projects I derived, first in a very broad and general sense, two fields of interest: *urbanism* and *conceptual design thinking*. The deeper concern and possible meaning of the relation between these fields becomes gradually more articulated into more specific topics through further reflection on the projects. I set up the reflection as a process of extraction and abstraction, two operations that allowed to bring out the meta-level embedded in the concreteness and situatedness of the design projects. The reflection is also guided and stimulated by a process of exploring issues raised by design in a wider disciplinary context. This wider context is not conceived here as the choice of a theoretical framework to be studied thoroughly in relation to the issues raised by design, and from which then follows an evaluation and positioning of the design approach in relation to the chosen theory. Instead, in a rather associative, non linear manner a range of both design and theoretical perspectives were brought together and woven into a landscape of thoughts and practices. This landscape is simultaneously built and explored in a nomadic way. This means that it was not so much a matter of searching a specific point in the landscape where the research could be firmly rooted but rather of grazing and exploring the design material that emerged from the site as it was constructed. This modus operandi served also as an exploration to see how to engage with theory in a design-based research context. In that respect, the standpoint chosen was to engage theoreticians as designers in their own right, offering concepts, frames of thought, perspectives on the world, and more specifically perspectives on urbanism that could be brought into interaction with the concepts, frames of thoughts and perspectives offered by the design projects. As such, working with the design projects, bringing them into interaction with one another and with theoretical frameworks in a research context instead of in the context of a design practice, eventually resulted in the delineation of an area of research that outreaches the projects. This involved a somewhat spiralling process, interweaving theoretical and design explorations in a non linear research process characterised by a back and forth movement between projects and theory.

The research area, as stated above, in general terms is situated in the field of urbanism and of conceptual design. My own definition of urbanism in the context of this research is: 'to reflect and to conceptualise the way we inhabit our environment'. This might seem a rather general and broad definition. However, there are some specifics present in the formulation. The *first* is that, with the formulation 'the way we inhabit our environment', I want to open up the field of urbanism somewhat. That is, I want to avoid an overly exclusive focus on cities and urbanised areas. I intentionally avoid relegating the inhabitation of the environment quasi automatically to an urbanised form of inhabitation. I want to keep the question open as to whether inhabitation of the environment necessarily entails urbanising the environment. Hence, this broadens the meaning of urbanism beyond issues of cities and urban life. Half the world's population lives in an urban environment and the percentage will continue to increase. This unbridled growth is now approaching its limits. We are witnessing a general crisis in the relation between the overall environment and the way we inhabit it. Nevertheless, most research remains encapsulated by a focus on cities themselves and the urban way of life. Therefore I want to emphasise the broader human-environment relationship, be it in cities or other forms of settlements and presences in the environment, as a subject for reflection. This relates to the unsettling character of contemporary urbanisation, which I characterise here as a conflictual relation with the overall environment. *Secondly*, I introduce or insert a certain design characteristic in the definition of urbanism – that is, I am not concerned solely with 'the study of the way we inhabit our environment', as though it were an object or phenomenon that needs to be analysed and described. Instead, I emphasise conceptualisation as an approach that can benefit greatly from some of the specific qualities of designerly thinking. Reflecting then on what role conceptual design projects can play here, I have detected some problems that I like to call 'action-deficits' – that is, problems that cause a deficit in the projects' general agency in urban design and urban planning practice or that hinder them from operating on the level of research and from contributing to the development of a design-based knowledge paradigm. Lacking a clearly defined role, conceptual design often does not evolve from 'statement' to research, which causes many conceptual design projects to become

'dead end' contributions. That is, the projects have at best a kind of inspirational role rather than a fully developed investigative role. When conceptual design is not effectively positioned in the knowledge production process, then research in urbanism does not include the designerly way of thinking in an effective way. In the absence of a fully developed design-based knowledge paradigm, the research approach is often dominated by scientific analysis, prognosis, and extrapolation of different trends into the future. This is an approach that risks being insufficient because in urbanism the complexity of overlapping time and scale frames and conflicting rationalities creates a problematic that, in my opinion, is impossible to grasp by mere analysis and explicit knowing. The field of urbanism misses out on a powerful reconceptualising tool when it is unclear about the role of conceptual design, especially today when reconceptualising the way we inhabit our environment seems to be an urgent challenge. One of the assumptions in this thesis is that enabling some specific qualities of conceptual design projects to be better positioned and better used for systematic inquiry into the way we inhabit our environment will enhance the relevance of conceptual design practice for the wider field. The assumption related to this is that the action-deficit of conceptual design is due to a mislocation of this specific type of design within the general process of knowledge building. This is of course not to say that only designers should busy themselves with thinking about the way we inhabit our environment. A broad range of different disciplines is concerned with this subject. The point, in the context of this research project, is that designerly thinking, properly embedded in research, can contribute to the already vast body of knowledge on urbanism with an original form of knowledge production.

Premises

The title of this thesis presents ‘utopia-driven projective research’ as the topic of study. Utopia-driven projective research is a design-based approach I develop to address the issue of *reconceptualising* the relation between people and environment. More specifically, I address the human-environment relation as it is expressed in human settlements in general and in urbanisation in particular. The study of such a broad topic obviously can result in radically different outcomes depending on the perspective from which it is performed. So before delving into the actual material discussed in this thesis, I will take some time to set the scene – that is, I will construct the background against which the choices of topic and of approach should be understood. As such, I want to depict for the reader the perspective from which the material is staged. Hence, the following might be considered an outline of the general context that frames the research.

The first stage serves as a general background stage and can be considered a kind of political-ideological setting, an underlying movement the general characteristics of which, I would say, can be captured in the notion of *unsettlement*. The second stage is more of a foreground stage to my investigation and pictures more specifically *urbanisation* as the actual field I am working in and describes its actual state as being unsettled. Then I will present *designerly thinking* as the actor in this thesis and argue why and how this type of thinking can act meaningfully in the conditions of *unsettlement* and *unsettled urbanisation*.

UNSETTLEMENT [Background Stage]

We live in a period in which one crisis follows another at an ever-increasing pace. More and more signs indicate we are heading towards an Age of Unsettlement. Most obvious and most tangible is the ecological problem we face. The consequences of our severely unsettled ecology reach the national and international news on a nearly daily basis, be it as natural disasters like flooding and earthquakes or as man-

made disasters like gigantic oil spills, poisoned food chains or nuclear catastrophes. This crisis is now rapidly followed by the financial crisis in the Western world, the effects of which are becoming as visible and tangible as the ecological one. The broadening of the gap between rich and poor is a commonly known example. The Aftermath Network, founded by Manuel Castells, points at another less recognised effect of this condition of unsettlement, namely the anxiety about the future that permeates society, the sociological consequences of which are not yet fully recognised.³ The ecological crisis – and particularly climate change – struck the developing countries of the South first and, thus far, most severely. The impact in the North has been relatively manageable or not immediately experienced. The financial crisis and its consequences, however, hit the North far more directly. As a consequence, also the political system is becoming increasingly unsettled. Nations find themselves on the verge of bankruptcy and trust in political leaders is hitting rock bottom. If we look at all the movements that are emerging, such as the Arabic Spring, the Occupy movement and the political activation of the Internet generation, a redefinition of the practice of democracy seems at stake. Given the unsettlement on many systemic levels, we might probably rightly diagnose the current state of affairs as a civilisation impasse. The map of the world is in the process of being redrawn in many respects – not only physically, due to climate change, but also on the societal level, with mass migrations of ecological and economic refugees. In the wake of this we can notice an increased systemic unsettlement of previously stable concepts of what the world is, how it is structured, and what it looks like – concepts, some of a metaphysical character, that are prerequisites for having and maintaining a sense of habitability of the world. Staging unsettlement as the general background is staging a situation in which everyone agrees there is a problem but not many agree on the exact nature and cause of the problem and even fewer agree on the possible or desirable solution. This is in fact staging the problematic of goal setting and, in parallel, problem setting. Unsettlement is also about staging what Irit Rogoff calls the condition of ‘without’. ‘Without’ indicates a state ‘in which we acknowledge that we had some navigational principles and some models of critical analysis to hand, but that they no longer quite serve us in relation to a new and emergent conjunction of problems’

(Rogoff 2003). Rogoff characterises the condition of being ‘without’ as a state of simultaneously knowing and being unable to know. In light of the above, I interpret this as having a lot of knowledge and data available but the frame needed to make sense of the data, the paradigm, is distorted and hence it becomes difficult to see the future that is emerging. Indeed, a substantial number of theories and strategies are developed to cope with this condition of unsettlement, which is often perceived as a problem of complexity and uncertainty. These theories teach us a lot and offer a lot of knowledge on the situation. The question, however, is whether perhaps our way of learning and knowledge building is also in crisis. Otto Scharmer explains that there are two different *sources* of learning: learning from the experiences of the *past* and learning from the *future* as it emerges (Scharmer 2009). The first type is well known and widely practiced. The second type of learning is largely unknown. In Scharmer’s view, the most common and trained response to problems is ‘downloading’ – that is, retrieve all possible information on the matter and all experiences from the past to sort a way out. Downloading, in Scharmer’s definition, is re-enacting patterns of the past – viewing the world through one’s habits of thought (Scharmer 2009, p.39). The reaction to the financial crises, for instance, seems a typical example of downloading. Scharmer distinguishes three levels of response to problems. ‘Level 1 is *reacting*: to respond by operating on existing habits and routines. Level 2 is *re-designing*: changing the underlying structure and process. Level 3 is *reframing*: changing the underlying pattern of thought. Most time and resources in our current organizations and institutions are spent on level 1 and 2’ (Scharmer 2009, p.51).

The assumption made in this thesis is that in a context of systemic changes, profound reconceptualisations are required. My guess is that this requires reframing as in Scharmer’s definition. The condition of unsettlement is essentially one that causes pre-given frames to disappear or to become dysfunctional. Responding then by operating from existing habits and routines is highly inadequate. In this situation, I believe that we need a kind of reversal in our accustomed thinking from past to future; we should instead think from future to present. In that respect I take as inspiration Scharmer’s idea of learning from the future as it emerges and the questions that are posed from that posi-

tion: 'How can we learn to better sense and connect with a future possibility that is seeking to emerge? How can we act from the future that is seeking to emerge, and how can we access, activate, and enact the deeper layers of the social field?' (Scharmer 2009, p.8). The inverted perspective does not replace the perspective of learning from the past. But it does provide a necessary complement to achieve more comprehensive problem setting. Comprehensiveness is here understood as adding the capacity of future oriented sense-making next to problem solving. Sense-making refers to Scharmer's better sensing and connecting with a future possibility. In a situation of unsettlement things start to lose their sense and become sense-less. Projecting and constructing something new then has to be seen as part of a sense-making process that acts both on the level of goal setting and on the level of creating a navigational frame in which facts receive a renewed sense. This involves to an important degree the revising and restating of values.

Unsettlement is thus the core notion from which the attention and intention regarding the issue of this thesis, reconceptualising urbanisation, originates. Urbanisation is profoundly affected by systemic changes. This is quite obvious when it concerns environmental unsettlement. A large number of cities are built in inappropriate areas that are quite vulnerable to flooding, for instance. Economic unsettlement is tangible in the growth of slum areas and the abandonment of cities due to economic downfall. The current state of urbanisation being unsettled forms the second and foreground stage of this research. The many problems of urbanisation could be analysed and described here but in the light of unsettlement, which is a condition that is strongly linked to a feeling, the following section rather depicts a general atmosphere.

UNSETTLED AND UNSETTLING URBANISATION

[*Foreground Stage*]

State of the Land ⁴

Urbanisation is everywhere nowadays,
driven by revolutionary technological development
and huge population growth,
gaining almost explosive speed,
escaping more and more from the designer's control,
landscaping the territory of the Earth,
in fact ...

defining the quality of our living environment itself.

In 1800, only 2% of the world population was urbanised. In 1950, only 30% of the world population was urban. In 2000, 47% of the world population was urban. More than half of the world population will be living in urban areas by 2008. By 2030, it is expected that 60% of the world population will live in urban areas. Almost 180,000 people are added to the urban population each day (United Nations Centre for Human Settlements 2001, p.1).

The future of most of humanity now lies, for the first time in history, in urbanizing areas. The qualities of urban living in the twenty-first century will define the qualities of civilization itself (Harvey 2000a, p.40).

Worldwide,

land is being consumed

by fast growing settlements of different kinds:

city districts, gated communities, slums, paradise islands on the sea...

an almost monstrous growth fed by seemingly

uncontrollable urban consumption of energy, raw materials and space,

causing uncontrollable sociological and ecological transformations

of the living environment in every remote corner of the Earth.

Accompanying the growth

are large-scale destructions of urban tissue

sneaking up slowly in droughts and economic downturn

or striking suddenly in the form of flooding and earthquakes

creating the unsettling landscapes of debris.

Cities on the move...

Researching urbanism

Urban space is a favourite subject for research
many disciplines occupy this area,
which has an agreed upon and sanctioned subject for their activities:
improving the quality of urban life
because urban life is human life,
urban space is our natural habitat
our local world creation that has become global
the world interior space
that is considered a good place

Urbanization: A Positive Force for Transformation. [...] The prosperity of nations is intimately linked to the prosperity of their cities. No country has ever achieved sustained economic growth or rapid social development without urbanizing (countries with the highest per capita income tend to be more urbanized, while low-income countries are the least urbanized) (United Nations Human Settlements Programme. 2008b).

And as such, it needs to be protected and maintained
as our self-made cosmos
the materialisation of how we stand in the world.

But

this spatial format of urbanisation creates an enormity of problems
every one of them carefully dealt with by research
on safety, mobility, economy, demography, governance, ecology...
resulting in planning and design strategies galore
a continuous effort to correct and adapt
to changing times and circumstances.

Collection and analysis of data on the urban is a never-ending activity,
rigorous studies on the effects of the urbanisation process are abundant
'technically' or 'theoretically' speaking
there is even a solution to present
for each of the many problems at hand.

Yet

multi-levelled, multi-scaled and highly dynamic as it is,
the issue of urbanisation of land
seems a messy, confused, turbid, ill-structured problem

and therefore in the end

always manages to escape the many acts of technical problem solving.

It is not by technical problem solving that we convert problematic situations to well-formed problems; rather, it is through naming and framing that technical problem solving becomes possible (Schön 1987, p.5).

So perhaps we need to reset the problem ...

We need to invest in training our intellectual skills
to rename and reframe hard-to-grasp situations.

Therefore,

and if we agree that

the worldwide process of urbanisation is

one of the major challenges of the immediate future,

we need a review of the common concepts, categories, paradigms, ...

in short, of the 'language' of urbanism.

We need to invest in meta-urbanism.

Urbanism still struggles

with a language deeply rooted in dualistic thinking:

city versus landscape, urbanisation versus ecology, rural versus urban.

But the relevance of maintaining these dichotomies is questioned

and in an attempt to overcome this oppositional thinking

categories are merged:

the urban landscape, urban ecology, rurbanity, landscape urbanism...

The dichotomies of 'humanity and nature', 'technology and nature', 'mind and matter', 'self and world' are not real per se. They are the result of metadesign. These dichotomies result from the use of a dualistic, rationalistic, materialistic epistemology – modernity's most common mode of perception and conception – the analytical and classificatory consciousness that separates subject and object, the observer and the observed, into dualistic categories. Most people are unaware of how profoundly their experience, values and aspirations, their entire worldview, are still affected by metadesign impulses that go back to Descartes and even Plato (Wahl 2006).

The doubting of dichotomies fits into a more profound shift

from dualistic thinking to more integrated,

some might say holistic thinking

but the merged terms still seem more descriptive than imaginative.

We lack appropriate, critical and, above all, inspirational language
to conceptualise the future of human settlement.

How can we create imaginative and powerful visions on urbanisation?
How can we develop a mental frame as an open space of possibilities?
These questions press somewhat for more active involvement
of conceptualisation and imagination rather than yet more analysis.
These questions therefore appeal for enhanced designerly thinking.
The design disciplines, then, are proud
of their orientation to the future and their explorative nature,
so they should invest in exploring this language,
this meta-level of future shifts in thoughts and practices,
especially in times
when a sense of unsettlement is permeating every level of society.

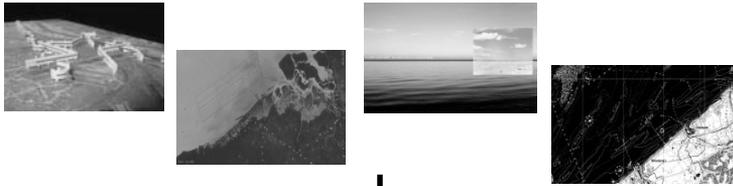
Admittedly, grasping the full complexity of this unsettlement
is far outside the realm of the design discipline,
as it is of any one single discipline.
Nevertheless, architects and urban planners are part of the game,
and thus this meta-level of urbanism is also their concern.

DESIGNERLY THINKING [Actor]

Against the background of unsettlement, the problem of revising our goals and reframing our patterns of thought comes to the fore as a question of learning from the future – learning from what we are unable to know. I suggest that in this situation the default mode of thinking is imagineering⁵ and projecting. And these, in my opinion, are both characteristic of a specific type of designerly thinking. Projectivity and imagineering, resulting in prefigurations, render prospective alternatives subject to discussion and anticipative reflection. This anticipative reflection we could call ‘profflection’, instead of looking back on things that have happened, it is looking forward to things still to happen. Profflection is linked to a kind of meta-observation – observation of facts that have not yet attained the character of reality. However, this must not be seen as a form of prediction. Profflection enables reflecting on



EPISTEMIC ROLE OF DESIGN
'utopia-driven projective research'



UNSETTLED URBANISATION
human-environment relation



future possibilities and desirability, while prediction is rather reflecting on probabilities. In that sense, design characteristics as projectivity, imagineering and prefiguration act on the level of the 'unable to know', their contribution being characterised not by problem solving but by developing concepts that can reframe our thoughts and open up other vistas. The designerly thinking staged here is in a way acting on a meta-level. Or as Tony Fry states: 'It's about understanding the power of imagination and the power of design as liberated prefiguration. This is a power that transcends design as a professional practice; design as a cluster of disciplines; design as an instrument of commodification' (Fry 2011). By singling out two specific design characteristics, projectivity and imagineering, the design attitude deployed is one that enables comprehensiveness, the combining of facts and values, the linking of future and present. Zooming in on the stage of unsettled urbanisation, the issue of reframing further translates into reconceptualising urbanisation in order to recreate the frame of thoughts and practices that structures the human-environment interaction. Using the designerly thinking of projectivity and imagineering, this involves creating prefigurations of new visions on the contemporary and future space by developing urbanisation models that have a critical and utopian character. Bringing utopia onto the scene is a way of strengthening the emphasis on comprehensive goal setting in the context of the urban. Via utopia designerly thinking gets a model-theoretical character, useful to further sense-making, stance-taking and hypothesis development. In this respect, this kind of designing is closely connected to theorising. Design work here is done to explore possible new directions for theory construction, which I call 'theory-through-design'. Working within this context of unsettlement and from the perspective of learning from the future as it emerges, I want to articulate a level of thinking in the design disciplines that does not depart from the applied perspective with which architectural and urban design are usually associated. It is not for designing solutions to problems in the current urbanisation. Instead, I suggest an approach that seeks to extend the research practice of urbanism by actively engaging with future oriented sense-making, which I consider to be especially relevant in this age of socio-spatial unsettlement. With this I want to contribute to the collective sense-making process of unsettling conditions and systemic shifts in the way we in-

habit our environment. The field in which this collective sense-making is operative I will call 'Meta-Urbanism'. Meta-Urbanism⁶ will be defined as the systemic level characterised by continuous shifts, adaptations and creations of paradigms for urbanism.

Thus the main argument of this thesis is that if conceptual design projects are consciously positioned in a research context, they can form the base for a design-based, project-grounded approach to reconceptualising the human-environment relation. The relation between human beings and the environment is a topic of study in many different fields but I approach it from within the field of urbanism and from a designer's perspective. Hence, the epistemic role of design in this process of reconceptualising must be specified. I will argue that the characteristics distilled from the design thinking at work in the projects, projectivity and imagineering, relate to critical design and utopian thinking and that they can serve as a complexified form of testing. I therefore suggest that the composition of these selected conceptual design qualities into a mode of inquiry intentionally directed to reconceptualising will lead to a specific form of research that I call 'utopia-driven projective research'. This type of research is one that uses visionary, utopian design projections as a procedure for experimenting and developing a deep understanding of the relation between urbanisation and the environment. Utopia-driven projective research aims at theory and practice evolving and developing side by side, as part of one and the same design process, as such broadening up the research field of urbanism with theory developed through design. This research approach is presented as a tool to build up the field of Meta-Urbanism which is oriented to systemic reframing. Meta-Urbanism has to be understood as a space of sense-making, offering urbanism a laboratory of permanent exploring of ways to inhabit the environment.

PART I

MAKING SENSE OF URBANISATION

In this first part of the thesis I mainly elaborate the context in which the problem of urbanisation is positioned, seen from the condition of unsettlement. A number of key themes are brought together in order to constitute a frame in which the 'projective research' approach will be further developed (Part II). *Chapter 1* identifies the problem at stake as the unsettled and unsettling state of urbanisation and pinpoints its main characteristics. Here *a view on urbanism* is outlined in which I distinguish between urbanisation as a phenomenon, theorising on urbanisation, and the practice of this field. In response to the problems stated, *Chapter 2* looks for directions to reframe urbanisation. In this chapter the focus is on conceptualisations of the world and of worlding that offer both a general background against which to revise notions of urbanisation and a perspective on modes of knowledge production that are design-oriented. The chapter ends with two frames for thoughts and practices that capture both the subject matter of worlding and the designerly approach to knowledge production. Based on what has been discussed in the previous chapters, *Chapter 3* presents as a kind of summary of Part I, the core elements, organised in *two lines of inquiry* that will be further developed in the thesis.

Chapter 1.

A VIEW ON URBANISATION

The research project is concerned with finding ways to reconceptualising urbanisation, so this first part of the thesis is focused on making sense of what constitutes the subject of 'urbanisation'. In general terms urbanisation can be understood as the socio-spatial process whereby cities grow and societies become urban. In dictionary terms it is the quality or state of being urbanised or the process of becoming urbanised. The urban settlement that results from this urbanisation process can be looked upon as the actualisation in physical reality of the relation human beings establish with one another as a society and with the environment at large. The form of this settlement can vary considerably, ranging from dense high rise cities to low-rise urban sprawl. Due to reasons that will be further discussed, this specific type of human settlement has become unsettled and unsettling. I argue that the conflictual relationship of urban settlements with the natural environment contributes substantially to this state of unsettlement. Addressing this issue then involves to an important degree the revising and restating of values and goals with regard to urbanisation. In that respect, what is at stake is the (re)creation of the frame of thoughts and practices that structures the interaction between people and environment. Studying such frames can be done basically in two ways. One can study what has been structuring the relation between people and environment in the past. This implies analysing what values and practices have dominated in urbanism and how they became actualised through urbanisation processes. The other way is to study how such structuring relations can

be redirected. This implies looking for ways to create new values and practices that can provide a base for reconceptualising urbanisation. I chose to emphasise the second way. It is on this second level that, in my opinion, conceptual design projects, properly embedded in research, can act meaningfully – that is, offer a tool to find redirections. To embark on this journey, one needs a horizon, a view on urbanism that provides some points of reference while developing ideas on how to reconceptualise urbanisation. These points of reference will be assembled in the course of the following sections. I construct the horizon taking three different perspectives on urbanisation – that is, I look at urbanisation as a phenomenon that we can observe, as something that is theorised, and as something that is practiced. But first, and in order to set the direction for the journey, I will outline what I take here as the problem regarding urbanisation.

1.1

A VIEW ON THE PROBLEM OF URBANISATION

The issues at stake regarding urbanisation are manifold and are situated on many different levels: social, ecological, cultural, economic and spatial. The real difficulty however lies not only on the level of all the many different problems as such; it essentially emerges from the strong intertwining of all the problem levels, the scale of the issues, and the speed with which different phenomena evolve – e.g. rapid urbanisation in developing countries, the large number of cities under threat of climate change, and abandonment of cities. The seemingly unbridled growth of urbanisation seems to surpass critical thresholds as well on the ecological, social and political-organisational level. With the globalisation of capital, the urbanisation process too becomes global. The urbanisation of the world has taken on enormous proportions. The French philosopher Jean-Luc Nancy formulates it as follows:

The city spreads and extends all the way to the point where, while it tends to cover the entire orb of the planet, it loses its properties as a city, and, of course with them, those properties that would allow it to be distinguished from a 'country'. That which extends in this way is no longer properly 'urban' – either from the perspective of urbanism or from that of urbanity – but megapolitical, metropolitan, or co-urbational, or else caught in the loose net of what is called the 'urban network'. This network, casted upon the planet – and already around it, in the orbital band of satellites along with their debris – deforms the orbis as much as the urbs.(Nancy 2007, pp.33–34)

As a phenomenon urbanisation seems to have developed into something that completely dominates the inhabitation of the world, and because of its relative success, urbanisation has become ever more out of control. The problem is thus the 'enormousness' that causes every problem solving effort to be a kind of running behind the facts, repairing instead of anticipating. Enormousness is here understood first in the sense of a vast scale and complexity, and second as e-normous – as being (grown) out of the normal. The problem of enormousness then is paralleled by the problem of what I would call the mono-perspective of the urban on human settlement. With this I refer to the all-invasiveness of urbanisation which tends to absorb every other possible type of life world into the overpowering logic of the urban environment. This unifying movement was already expressed in 1867 by the Catalan engineer Ildefonso Cerdà who, in his book '*Teoria general de la urbanizacion*' called for ruralising the city and urbanising the country. According to Pier Giorgio Gerosa, a historian of art, architecture and urbanism, this makes Cerdà 'the precursor of the theories of today on the disappearance of the city and on its replacement by an urbanised continuum' (Gerosa 2001, p.105). Through the emergence, both in thoughts and practice, of the idea of the urbanised continuum, there is a risk of losing the 'biodiversity' of our concepts of living environments. Gustavo Esteva, in this respect, claims that with the loss of diversity our creative ability to develop alternatives diminishes. This is due to the impoverishment of our mental space that accompanies the loss of cultural and social diversity (Esteva 1992).

The question then might be to what degree this evolution of urbanisation puts the habitability of the world in an even worse state of unsettlement. Jennifer Gidley, psychologist and futures researcher, says in that respect that for the duration of two millennia we have ‘tamed and transformed the Earth through architecture, road, sea and air infrastructure, and technology. Arguably, these processes of development can be justified as long as they are sustainable, but this is no longer the case’ (Gidley 2007, p.194). This points at the limits of the carrying capacity of the Earth and is linked to the problem of enormousness. The predominance of the urban over other forms of life worlds threatens the diversity and hence the resilience of the overall inhabitation of the world. Both the aspect of enormousness and the aspect of predominance are of a rather unsustainable nature. Therefore, I believe they should be problematised in the context of reconceptualising urbanisation. Urbanised areas and cities have many problems to deal with that are related to the urban system itself – problems on the social, cultural, economic, ecological and spatial levels, that need to be solved in order for the urban system to continue functioning and to function better. A vast number of urban theories backed up by an impressive amount of research are being developed in a continuous effort to address these problems. But besides that, and in the context of the enormousness described above, we also need to look at the relation the urban system develops to the very territory it is colonising. We are witnessing a general crisis in the relation between the overall environment and the way we inhabit it. This marks another level of the urbanisation problem that is becoming more and more apparent – and, this concerns the problematic relation between the urbanised and the non-urbanised area. The urbanised is here understood as built or otherwise cultivated land (which also includes open space such as infrastructure, parks, public space and even to a certain extent agricultural land). The non-urbanised then mainly comprises the natural areas that have retained a degree of autonomy vis-a-vis the urbanised, such as the deep seas, the forests and the poles. It is by now common knowledge that the current scope of urbanisation has a big (negative) impact on these parts of the environment. Moreover, there is also an increased tension between the urbanised environment and those dimensions of our environment that escape control, as the climate and diverse geo-dynamics,

like earthquakes, that destabilize the very ground our urban settlements are located in.

Major, profound and long-term evolutions like climate change, globalisation and population growth, result in an increased systemic unsettlement of previously relatively stable concepts of how to inhabit the world. Urban settlements are affected in many ways by this systemic unsettlement, not least in their sheer materiality and physicality. One has only to think of, for instance, the issue of flooding that has already wiped out and is expected to continue to wipe out entire settlements. A vast number of cities worldwide are situated along coastlines or in areas under threat of flooding. Here, the conflictual relation of urbanised areas with the non-urbanised and uncontrollable aspects of the environment is quite obvious. The Earth as an eco-system, food-chain, weather-chain, fossil-fuel-chain, etc. has long been objectified as a passive background and mere raw material. The consequences of this attitude of unbridled exploitation have now become highly unsettling. We are ever more regularly confronted with the limits to our way of living and consuming the environment. Because of the major unsettlement on the spatial level, with stable land becoming highly unstable due to flooding and a plethora of related ecological shifts, the map of the world is in the process of being redrawn, not only physically but also on the societal level, by mass migrations of ecological and economic refugees. These migrations increase the already dense populations in certain areas but also create new kinds of settlements such as refugee camps and slums that differ in many respects from what we conventionally call the urbanised. In this context of unsettlement, can we revise the notion or concept of how to inhabit our environment taking into account the problematic relation of urbanisation with the non-urbanised and the dynamics of nature, and look for other ground, not only physically but also mentally and conceptually? Can we think beyond the urbanisation of the total environment and instead conceptualise the diversity of life worlds of which the urban is but one aspect?

The problem is rooted in our way of living and dealing with the physical environment. This implies that the more fundamental problems have the character of a civilisation impasse. In view of this the overall

approach to the problem is in itself problematic because there is a strong tendency to address the socio-ecological issues with a set of management strategies – resource efficiency, risk management – aimed at planning, organising, formalising and controlling what is disorganised, chaotic and unstable. This shows that, as I noted earlier, what in fact is no less than a civilisation impasse is currently treated as a technical problem and a lot of effort is being devoted to developing and implementing ever more sophisticated corrective strategies. The UN reports on the state of the world’s cities are illustrative in that respect. The analyses of the state of urbanisation are followed by policy guidelines that are full of terms like mitigating, managing, and remedying (United Nations Human Settlements Programme. 2008a; United Nations Human Settlements Programme. 2008b). These approaches, although necessary, are in themselves almost by definition incapable of addressing the root of the problem. In short, many issues regarding systemic changes (ecological, economic, social and cultural) are conceptualised as a worldwide problem to be addressed with management and corrective strategies while in fact they should be conceptualised as a problem of how we conceive our world and its habitability, which requires another type of thinking.

1.2

URBANISATION AS PHENOMENON

Looking at urbanisation as a phenomenon is here understood as looking at how the urban way of life manifests itself in the world – how it evolves and takes shape. I will take a macro-perspective here – that is, I will not look into detail at a specific type of urban settlement but will instead consider it as a general concept of inhabitation that worldwide has become the dominant model of settlement in our times. The urban type of settlement as we commonly know it was and still is the model of human settlement generally considered most effective for organising

human inhabitation on Earth. In fact we don't seem to have any other model that can really be considered a viable alternative to provide a place to live for an ever-increasing amount of people.⁷ For the sake of definition, I consider human settlement to be the materialisation and expression in physical reality of the relation human beings have towards one another and towards their place in the environment. It is an instantiation of how they stand in the world, or make a world to live in. Human settlement can take on many forms but the one that dominates, the most 'optimal' socially, culturally, economically and more recently even ecologically is the city or the urban settlement. In our society we 'think' urban. And this has certain consequences. Because of its dominance, the urban settlement as we know it today (and as it has been developed in the West for centuries) is not merely considered a type of *settlement*, it is seen as *the* optimal, default type of settlement. Given the way it overrules other possible types of settlements, I believe that it can be considered the materialisation of a particular worldview.

Urbanisation is the materialisation of a worldview not only in physical reality but also in metaphysical reality. This, to me, is an important given when looking at the concept of urbanisation from a macro-perspective. The metaphysical dimension is well formulated by the German philosopher Peter Sloterdijk when he states that human settlements never merely occupy a sector in a certain physical or juridical space. People always first have to produce the space they want to inhabit as an '*animated sphere*'. And this is something that cartographers and field sociologists are not attentive to, according to Sloterdijk (Sloterdijk 2003, p.540). Sloterdijk describes spheres as immune-systemically effective space creations that create the dimension in which humans can be contained (Sloterdijk 2011, p.28). Human settlements always possess this capacity to create their own specific interior space and its specific sphere.⁸ He relates this to the notion of 'local world creations'. 'World' here is understood not merely as a space or a location but as an animated space – that is, in the strong sense of a *place* (Sloterdijk 2003, p.540). According to Sloterdijk, high cultures are the arduous attempts to come to an (impossible) identification of the house or home with the cosmos, which results in the semi-animism

of the house. Therefore the history of high culture necessarily is a history of building houses (Sloterdijk 2003, p.555). In these practices of creating homes, of creating inhabitation, Sloterdijk positions what he sees as the unbridled atmosphere-generating quality of mankind. Space, in Sloterdijk's thinking, is strongly connected to sphere. He explains how man continuously throughout history creates spaces as a kind of what he calls 'immune systems' for himself and by extension for the community, the society. This creating of spaces as immune systems is done both on the micro level (house) and on the macro level (city), and both on the physical level and on the non-physical level or metaphysical level, which can be for instance the spiritual, religious or social level. Linking space to sphere and to the idea of immune structure, refers again, in my opinion, to the idea of place. The point to keep in mind here is that human settlement, far beyond any mere functional considerations, is a form of local *world* creation – especially since contemporary urbanisation has increasingly become *global* world creation. Urban settlement is a specific socio-spatial format designed to actualise a specific life world. The spatial format people design for their settlements is strongly influenced by the stance they take towards space, by their 'spatial awareness'. Spatial awareness can be considered the concept of space developed by people as a collective. Concept of space is here understood in a rather metaphysical sense, as how people define their place in the cosmos. This concept of space has changed drastically over time. Jean Gebser, philosopher and linguist (1905-1973), describes how a fundamental shift into spatial awareness occurred when in 1336, Petrarch climbed Mont Ventoux, near Avignon in the French Alps, breaking a cultural taboo, and reaching into the wonder of the new world of the explorers. With that Gebser points to the exact moment in global history – in the early 14th century – when someone for the first time saw the physical landscape of the Earth from an objective mental perspective rather than as a dream-like inner-soul response. In the same way that medieval humans were afraid to sail too far out from shore so as not to fall off the flat Earth, humans were also collectively afraid, according to Gebser, to climb mountains, which they believed were the homes of the Gods (Gidley 2007, p. 191). It is clear that such shifts in spatial awareness cause equally important shifts in the design of spatial formats of human settlements, such as their

location and morphology. It shows that the physical concept of space is always guided by a metaphysical concept of space. 'Concept of space' is a very broad term that generates very different understandings and connotations depending on the context in which it appears, whether it be the mathematical, philosophical, physical, psychological or architectural interpretation of the term. However, in the description of Gebser provided here, there is a connotation to the way people appropriate space. Building further on this specific connotation I propose to specify the term as 'concept of territory' since, in the context of urbanisation and unsettlement, what seems to me the important aspect is the way people claim space in terms of use and ownership. In that perspective 'space' becomes 'territory'. It is related to what Gilles Deleuze calls 'Land' (*terre - territoire*) in the geographical sense of a cultivated area, to be understood as the space, subjected to the endless processes involved in the 'becoming-human' of the planet Earth (Deleuze & Guattari 1980, p. 602 and 607). Land, to Deleuze, refers exclusively to striated space, and is that terrain that can be owned, held as stock, distributed, rented, made to produce and taxed. Land is constituted by the over-coding of territories under the signifying regime of the State apparatus and can be gridded, distributed, classified and categorised without even being physically experienced. (Protevi 2005, p.81)

A telling example of how concepts of territory differ and of their metaphysical character is the way Australian Aboriginals, rather than asserting ownership rights to land, invert the relationship and consider that they are in fact owned by the land. Western culture on the other hand goes very far in the opposite direction, asserting the rights of the individual in terms of land ownership. This shows that concepts of territory vary not only over time but also from one culture to another. The British sociologist John Law explains that in Aboriginal culture there is no empty, Euclidian space that can be measured and appropriated as is the case in Euro-American culture. Instead Aboriginals enact a spatiality that is indissolubly linked with the Tjukurpa, the telling, the re-enacting, and the re-crafting of the stories of the ancestral beings. These are practices to which the notion of an empty space is foreign (Law 2004, p.131). Land ownership as we know it in the West, performed by legal documents that rest on the enactments of survey

methods and cartography, is without meaning for Aboriginals. Cartography plays a central role in the concept of territory developed during Europe's colonising endeavours. Sloterdijk points in this respect to the deep rooted notion that whoever *draws* the map in a sense *owns* the land – that is, he acts as someone who has a right to it culturally, historically, juridical and politically (Sloterdijk 2006, p.113).

The very static concept of territory of Euro-American culture tends to fixate the land in space and time, while the Aboriginals concept of territory is more flexible, moving and evolving, re-establishing the relationship with the land time and time again. Deleuze and Guattari define a concept of territory that is also more dynamic than being a sedentary place maintaining firm borders. 'As an assemblage, a territory manifests a series of constantly changing heterogeneous elements and circumstances that come together for various reasons at particular times. [...] Through this we can see that a territory is primarily marked by the ways movement occurs over the earth rather than by State borders' (Message 2005, p.275). Deleuze and Guattari define territory more as a process whereby it continually passes into something else, driven by the dynamic of 'deterritorialisation' and 'reterritorialisation'. They define deterritorialisation as the movement by which something escapes or departs from a given territory; reterritorialisation then does not mean returning to the original territory but rather the ways in which deterritorialised elements recombine and enter into new relations (Patton 2005, p.70). Deleuze and Guattari refer to the fact that, to them, a territory has two important effects: a reorganisation of functions and a regrouping of forces (Deleuze & Guattari 1980, p. 624). 'The creation of a territory leads to a restructuring of time and/or space that causes the chaotic forces to stay as much as possible outside. The transformation process of territorialising consists of two components: a de-territorialisation or decoding of the old structure and re-territorialisation or coding anew in a new structure. The de-territorialisation or decoding has to take place in order for a new territorialisation to become possible' (Cobussen 2009, p.255). Although the philosophy of Deleuze and Guattari on territory is very relevant to urbanism, it has not been dealt with in this thesis. Their ideas on concept of territory are briefly mentioned here to illustrate the range of concepts of territory, the metaphysical character of

the concept and its possible (future) application to maritime environments.

What is important to consider from a macro-perspective, then, is that urbanisation is a specific spatial format based on a meta concept of territory and a particular worldview. I consider such understandings of urbanisation especially relevant in the context of unsettlement, discussed earlier. We could ask ourselves how a worldview unsettled by systemic changes will affect the (meta)design of human settlement, how it will affect the current urbanisation models. Can we in the effects of planetary unsettlement, of economic exploitation, of pollution, of global urbanisation, of climate change and overpopulation find clues for a renewed concept of territory?

To better understand the urbanisation processes and how they are related to a particular worldview and a concept of territory world system analysis can offer some important insights. Peter Lelie explains that world system analysis studies the mechanisms of the world-system, which is currently the capitalistic world-system. World system analysts search for explanations regarding phenomena that act on a global level, as the global political structure, the inequality in welfare and world wars. They consider the world as an integrated system, consisting of different levels of interaction (ranging from local to global) and consisting of more or less interdependent political, economic and cultural subsystems. World system analysis departs from a broad spatio-temporal focus. The spatial unity of analysis is the totality of the Earth. The founding father of world system analysis is the American sociologist Immanuel Wallerstein. His theory is based on the world economy approach. The problem of the evolution of capitalism and the unequal distribution of welfare are central in this approach (Lelie 1994). The point of interest in light of urbanisation and evolving concepts of territory is that world system analysis explains how the ruling capitalistic system appropriates and uses space. An answer to the question ‘What is the space-consumption pattern (or the spatial format) of the capitalist world-system?’ is of course very interesting when we consider urbanisation from a macro and also meta perspective. Space and the use of space play essential roles in the development and survival of the capitalist world-system. Space is like the fuel of the system and is also

used as such as shows in phenomena like geographical expansion, capital that lands and takes off again in the built environment and the urbanising of rural populations. David Harvey finds it quite ironic that in the twenty-first century we would have to recall Henri Lefebvre's remark made in 1976, that 'Capitalism has survived by occupying space, by producing space' (Harvey 2000a, p.31). Operating as such, this system largely contributed to the far-reaching process of urbanising the world. Urbanised areas and urbanisation processes as such play a major role in this world-system. The Belgian geographer Erik Swyngedouw explains how capitalism affects space when he describes how the gigantic flows of capital change and restructure the geography of the mondial space. A polarisation and exclusion is happening between world regions that have access to the cyberspace of financial flows and those that are excluded from it. Economic processes are largely dominated by transnational institutions and organisations, like the EU, the World Bank, the IMF, and the World Trade Organisation. The organisation of these financial networks, in the first instance, is a pronounced urban activity. In spite of the apparent decentralisation and delocalisation, it seems that an enormous nodal concentration is occurring. The de-territorialisation, which is the central pillar of digital financial transaction, requires equally a re-territorialisation. Capital has to territorialise, to be fixated, in order to function as investment capital (e.g. real estate). It has to circulate and territorialise simultaneously. Henceforth, the chaotic and hectic dynamic of de-territorialisation en re-territorialisation has become one of the major characteristics of the contemporary city (Swyngedouw 2002).⁹ This shows how the capitalistic world-system or worldview is in fact the main form-giving or design agent for urbanisation as we know it. With the capitalistic world-system goes a particular concept of territory that resulted in the spatial format of the city and in the spreading of this spatial format worldwide due to globalisation, which is inherent to capitalism. This concept of territory translates in the built environment as a socio-economic construct. It also translates in how human settlement relates to the environment, to the earth off which it is feeding. In line with capitalist mechanisms, the spatial awareness of urbanisation seems to be founded on the idea of growth and consumption. The urban settle-

ment in its characteristic of being built and fixed, proved to be the best investment and thus motor for capital growth.

The urban form of living was for a long time a very successful and sustainable type of organisation. This was mainly due to the fact that energy and resources were locally and regionally produced. Nowadays cities have become very consuming and polluting entities that often lack the former direct local and regional connection. The cities that are most successful economically are those that succeed in externalising their waste and other negative ecological consequences and transporting it to faraway regions. The unbridled consumption behaviour of contemporary metropolises causes socio-ecological transformations of living environments in every remote corner of the Earth. Currently half of humanity lives in cities, and within two decades, nearly 60 % of the world's people will be urban dwellers. Urban growth is most rapid in the developing world, where cities gain an average of 5 million residents every month (United Nations Human Settlements Programme. 2008a). This means that the quality of the urban environment will determine in a significant way the quality of living on Earth but it also means that the Earth, as part of the living environment is put increasingly under pressure. Urban settlement is a socio-economic construct, an 'interior' human environment created and designed according to a particular concept of territory and a particular worldview but it is also a construct that stands in and takes a stance towards the environment at large. This environment and in particular the geodynamic aspect of it, is now causing trouble. It seems that the carrying capacities of the Earth has reached its limits. Global warming and the resulting climate change confront us with the (re-)active presence of the planet. And this unsettles the dominant concept of territory when urbanised areas, conceived as fixed entities with a rather limited regenerative quality, become very fragile. This so-called ecological crisis is accompanied by increasingly persistent socio-economic crises that are causing the current world-system to become highly unsettled. In the context of this staggering worldview, the question arises as to whether the ruling concept of territory and its translation into urbanisation is in need of some serious revision.

1.3

URBANISATION AS THEORISING

Urbanisation as a phenomenon is being studied and theorised, resulting in the development of a range of ‘urban-isms’. Urbanism was initially intended as a science, the term coined by Ildefons Cerdà who described it as the science of human settlements at various scales and times, including countryside networks. The original 1867 definition has of course been altered over time and the most important alteration is perhaps that, according to Christopher Gray, whilst Cerdà’s original definition referenced ‘countryside networks’, the impact or understanding of the influence of development on natural systems appears to have been lost in contemporary definitions (Gray 2006, p.27). The study of urbanisation processes results in models and theories that each highlight a certain stance or perspective on the urban. These models and theories in turn guide the understanding and practice of urbanisation. They are both interpretations of and visions for the further development of the urban way of life. An example of such theories can be found in the Michigan Debates on Urbanism series that was organised in June 2004 at the University of Michigan. This event featured three in-depth debates designed to explore three disparate schools of urbanism that have emerged in the last decade: Everyday Urbanism, New Urbanism, and Post-Urbanism. This tripartite classification was referred to as characterising contemporary urbanism. Douglas Kelbaugh refers to this tripartite as the ‘intentional, more self-conscious urbanisms being practiced, theorised, and written about’. These ‘thought through’ urbanisms are contrasted to, what he calls, the ‘conventional urbanism, which is largely market-driven, characterised by “laissez-faire” and not particularly coordinated or coherent’ (Mehrotra 2005, p.8). Rahul Mehrotra summarizes these three paradigms as follows: ‘Everyday Urbanism is seen as community-based, race-savvy, bottom-up, unpretentious, and democratic. Post-Urbanism is viewed in the academic world and the media as hip, avant-garde, or post avant-garde. And New Urbanism is generally perceived as civic, traditional, and nostalgic. [...] The three represent genuinely different values, sensi-

bilities, and modalities' (Mehrotra 2005, p.9). Kelbaugh then states that a mature metropolis needs and benefits from multiple urbanisms. In other words, all three paradigms could and should be present in the city (Mehrotra 2005, p.10). David Grahame Shane then draws an interesting parallel between 'New Urbanism' and 'Generic Urbanism', the latter belonging to the category of 'Post-urbanism'. He states that 'although the New Urbanists are opposed by the Generic Urbanists' camp (championed by Rem Koolhaas and Dutch groups like MVRDV), both base their arguments on the logic of the marketplace and the calculus of real estate. Both seek a scientific order within the flows of the market' (Shane 2005, p.102). In that sense, Post-urbanism seems to be especially illustrative of how the ruling worldview – which is currently that of capitalism – translates into conceptions of urbanisation.

The three contemporary urbanisms described here focus very much on the built environment and the people, taking the dynamics of human society as guiding principles for urban development. Neither Everyday Urbanism, New Urbanism nor Post-Urbanism as representatives of contemporary urbanism, seem to foreground the current conflictual relation between urbanisation and the natural environment. One might ask whether the process of rapid urbanisation, as it covers the Earth to an ever greater extent, does not necessitate the theorising of the dynamics of nature influencing urban development. As early as 1981, Kevin Lynch theorised the Ecological City model, which responded to the growing influence of the dynamics of nature in the thinking on urbanisation. The Ecological City was based on the logic of Frank Lloyd Wright, who had sought an organic relationship between the elements of his Broadacre City (1935), turning each home into a miniature farmstead. In the Broadacre City model the landscape and larger ecological systems play an important role in merging the city with the countryside (Shane 2005, p.49). The link drawn to Broadacre City, illustrates clearly that it is about the relation of urbanisation to the land, to the landscape. Secondly, the term 'ecological' emphasises the importance of dynamic systems, that are self-organising, as a base of city-modelling. Lynch's large-scale Ecological City design strategy drew heavily on the work of landscape architects and regional planners. It comes as no surprise then that this model finds further development

in the Landscape Urbanism movement. The term 'Landscape Urbanism' was coined by Charles Waldheim and first occurred in a March 1997 conference and exhibition. Landscape Urbanism describes the practices of many designers for whom landscape had replaced architectural form as the primary medium of city making. Waldheim saw landscape urbanism, like landscape architecture, as an interstitial design discipline, operating in the spaces between buildings, infrastructural systems, and natural ecologies (Shane 2006, pp.58–59). Landscape Urbanism looks broadly at the organisation of industrial society and its use of natural resources as constituting an urban landscape far beyond the scale of the traditionally bounded European city (Shane 2005, p.69). Lynch's global, regional, and ecological concerns in particular are embodied by this Landscape Urbanism movement but also the idea of the self-organising dynamism. The emergence of Landscape Urbanism is one of the many signs that the conflict between rapid urbanisation and the environment is picked up and theorised in yet another urbanism that brings the dynamics of landscape to the fore as a guiding principle. In recent years, one can notice that architects and architecture schools are developing an increasing interest in landscape. Generally, there is also an increase in the number of publications about landscape. According to the Dutch anthropologist and philosopher Ton Lemaire, this revived interest indicates that our relationship to landscape has become problematic (Lemaire 2002, p.52). This relation (or perhaps, this non-relation) is in crisis and this crisis, again according to Lemaire, is part of the identity crisis of modern man.

If this attention for landscape signifies a crisis in our relation to landscape, then the term Landscape Urbanism can also suggest a crisis in our relation to the urban. For the first time in history, more than half of the world population lives in cities and in heavily urbanised areas. It is probably no coincidence that in this context, there seems to emerge again something that Augustin Berque called a landscape motivation. Unlike the concept of territory of the modern worldview that radically objectified the earth and the land, Berque, a cultural geographer and orientalist, does not define the environment as an object but as a relation, the relation of a society with it (Berque 1995).¹⁰ The emphasis on relations is also apparent in Landscape Urbanism. The shift from a 'tra-

ditional' urbanism approach to a 'Landscape Urbanism' approach might be described as follows: 'Models of "closed" or "balanced" systems that were assumed to be in constant movement towards a climax state have been dropped in favour of contemporary approaches in which relationships between processes and patterns are complex' (Hill 2001, p.92). This focus on complex processes and patterns, in my opinion, introduces the 'unplanned' or 'the impossible to plan' in urbanism as a kind of counterweight to the idea that everything can be made that, according to Lemaire, is stronger than ever in the techno-industrial society we live in. Lemaire states that the entire landscape is completely planned, organised, ordered and tailored to the needs of (post)modern society. Even a certain amount of 'wild nature' is provided for (Lemaire 2002, p.53). In my view, this tailoring to the needs of society is a form of functionalising and incorporating of the landscape in the overall urbanisation process. In Lemaire's perception, the different functions landscape can have (nature, recreational area, industrial area, agriculture, living areas, etc.) have been designed and planned more and more as autonomous parts, segregated from one another, causing a fragmentation of the landscape (Lemaire 2002, p.53). This type of thinking in urbanism (the 'zoning-reflex'¹¹) is now changing and the Landscape Urbanism movement is clearly opposing this kind of static thinking. James Corner says that 'the landscape project is less about static, fixed organizations than it is about 'propagating organizations, provisional sets of structures that perform work to construct more of themselves in order to literally propagate more diverse and complex lifeworlds' (Corner 2007, p.91). He uses the term lifeworld intentionally here to invoke, as he says, the imaginative, programmatic, and urban, as well as the natural or biological dimension (Corner 2007, p.91).

Landscape Urbanism departs from a quite different perspective than Everyday Urbanism, New Urbanism and Post-Urbanism by positing landscape as the central guiding principle. It proposes a rather fundamental shift regarding the relation between landscape and urbanisation, as is apparent in the descriptions Corner provides of Landscape Urbanism in his seminal article *Terra Fluxus*: 'Landscape is not only understood as the interest in geographical studies – ecological and cultural –

*Selection of a historical overview of the theorising of the city
based on P.G. Gerosa's analysis.*

Gerosa discusses how the city was theorised starting with the Enlightenment. The theories of the Enlightenment set down the foundations for the study of the socio-economic processes of the growth of the city, and launch hypotheses on urban form as a controlled chaos, yet also propose the classification of urban activities for the establishment of spatial order. In the nineteenth century the discipline of Town Planning was born and Gerosa mentions two theories of the city that were elaborated in that period. One was based on Ildefonso Cerdà's identification of the two fundamental urban activities as being movement and rest, to which urban dynamics are reduced. The other contribution was developed in the direction of the recapture of the interests of the city as an artefact and as a form by the Viennese architect Camillo Sitte who formulates the first theory of the unity of the built world (the object of knowledge is no more the individual building but the urban ensemble composed of full and empty spaces). According to Gerosa, an abrupt change in the formulation of theories of the city occurs early twentieth century. The break primarily deals with the modes of creating the city and is due to the emergence of new spatial and aesthetic conceptions. The urban theories of the break are primarily elaborated within the International Congresses of Modern Architecture (CIAM), which produced the theory of the functional city. In the Fifties and Sixties the general characteristic of the theoretical approaches is the atemporality or timelessness of the city, the widening of functional thought, and the non-textual formalization of the concepts. Here Gerosa notes Christopher Alexander's morphological research in the theory of the 'patterns' and Kevin Lynch's approach based on visual perception. The search for theories of the city as an artefact also follows the philosophical orientation of phenomenology according to the formulation given by Martin Heidegger in his works on dwelling. The credit for this transfer belongs to Christian Norberg-Schulz. As for contemporary directions, Gerosa notes epistemological functionalism, which restricts itself to the heuristic elaboration of connections and levels of complexity, and which refuses to take an ontological standpoint. He refers here in particular to the paradigm of complexity, systems theory, the sciences of the artificial, and the theory of fuzzy sets. (Gerosa 2001, pp.104–115)

but also the study of landscape in its conceptual scope, as a tool to theorise, to design and organise large urban sites, territories, and systems (ecological, programmatic, infrastructural)' (Corner 2006, p.23). Putting the dynamics of nature more in the centre might indicate a slight shift in the overall concept of territory attached to the prevailing worldview. Actively engaging with landscape in urbanisation signifies at least an interest in the dynamics of nature in relation to urban development. The question remains, however, whether having the emphasis on landscape will result in further functionalising and subjugating the land to urbanisation. Richard Weller in that respect fears that architects might only be interested in just more effectively getting on with the job of covering the entire Earth with the brutalist mechanics of the city (Weller 2006, pp.79–80). Or can we detect in Landscape Urbanism indeed a sign of a changing concept of territory, a changed stance towards the way the land is appropriated?

The urbanisms discussed here all theorise a certain guiding principle that makes urbanisation evolve according to certain preferences. Throughout history a wide range of such principles, evolving with changing worldviews, changing epistemologies and ontologies, have given birth to an equally wide range of urban theories. Gerosa points out that theoretical approaches to the city are characterised by their plurality and sometimes incommensurability since the city belongs to diverse modes of being and exists in various modes, and as such it is being interpreted within diverse sectors of knowledge and diverse epistemological fields (Gerosa 2001, p.103). From a designer's perspective the interesting thing to notice is how urban theoretical principles result in or relate to spatial form. Or as Gerosa formulates it, how the subject and the social entities position themselves in an empirical space, spatialising and rooting themselves by means of the exercise of transitivity: 'The rooted entities which result from that process, and among which the city is included, are not to be considered from an objectivistic perspective. On the contrary, they are ontologically unstable entities, that emerge from the structural coupling of the subject (or of societal entities) with empirical space (or the environment), so long as that coupling lasts' (Gerosa 2001, pp.116–117).

This is a central point with regard to what I stated earlier, namely that urbanisation results in a specific spatial format based on a meta concept of territory and a particular worldview. This means basically that there is a direct relation between spatial forms and the societies that produce them. The relationship, however, is more complex than one being simply a translation of the other. Gerosa describes how Karl Popper and John Eccles describe the existence of three ontological worlds in which the 'World of ideas, theories, and values' can subsequently be autonomised in the hypothesis of the 'World of artefacts' and the 'World of social entities'. According to that philosophy, the city is part of the ontological worlds of artefacts and societal entities, but it also contains the ideas, theories and values which orientate its constitution, and moreover it reinvolves the subject (Gerosa 2001, p.116). This is in a sense about what Gerosa calls the relationships between subjects and societal entities on the one hand and the artefacts that carry out their rooting on the other. Gerosa refers in this respect to the recent epistemological direction called the middle way of knowledge or production, the approach which conceives knowledge as a 'middle way' between a knowing subject and an object (in the case of the city it is about an environment), which are mutually constructed by conditioned co-production (Gerosa 2001, p.117).

The meta-level of worldviews from which concepts of territories are derived that in turn translate into concepts of urbanisation is mostly studied by philosophers, historians and sociologists and is relegated to the World of ideas and theory. I would like to suggest that designers too should be active on this meta-level because it forms the breeding ground for form-giving principles that are latently inspiring our built environment (and thus go almost unnoticed). And vice versa, in this World of ideas and theories even philosophers, historians and sociologists could and should be considered as 'designers'. This level is a prerequisite when it comes to reconceptualising urbanisation in conditions of unsettlement. It is about the question to which meta-project (regarding underlying principles and values, worldview, concept of territory) the contemporary urbanisms described earlier contribute. For instance, is the notion of landscape as used in Landscape Urbanism strong enough to act as a foundation to (re)create the frame that struc-

tures the interaction between people and environment? And how can design contribute to the creation and development of such guiding principles?

1.4

URBANISATION AS PRACTICE

The practice of urbanism is a complex one. It involves a lot of disciplines and also engages actively with the non-disciplinary field. In that sense, it is a transdisciplinary practice. With respect to the theory, the practice is both the breeding ground from which theories are derived and the actualisation in daily reality of theoretical principles. Every urbanisation model or urban theory needs an adequate planning model to execute its principles in practice. Gerosa says that the fundamental characteristic of urban planning, as it has taken shape over the nineteenth and twentieth centuries, is therefore to set objectives concerning both society and space (Gerosa 2001, p.105). Urban planning is essentially an instrument for organising all the different stakes and stakeholders in both the societal and professional field, such that a pre-defined urbanisation goal can be achieved. One of the players in this complex planning practice is the designer (architect, urban designer, landscape architect). Departing from my experience in a conceptual design practice, I am particularly interested in the role that is attributed to design in urban planning practice. Ellen Braae and Anne Tietjen say that 'urban planning became largely separated from design-based approaches to the organization of our urban landscapes. While urban planners focused primarily on two-dimensional land utilization plans, urban designers were more or less reduced to the development of solutions for predefined programs on a priori delimited sites'(Braae & Tietjen 2011, p.64).

When we look at the different models and theories described above, we can notice that they dedicate some more or less specific role to the

designer. In Post-Urbanism, for instance, the designer gets a quite autonomous role. Shane explains that the model of independent fragments, the de facto operating system of the postmodern city enabled individual designers to proceed with their fragment with a minimum of coordination with others, closely mirroring the activities of free-market operators in large-scale subdivisions (as is also the case of New Urbanism) (Shane 2005, p.138). In Everyday Urbanism the designer can be considered what John Kaliski calls a small scale city-designer. 'Kaliski envisions a democratic dialogue between parties on a level playing field, with the city-designer as facilitator and illustrator of alternatives. The hidden, ordinary stories of the city are to be rendered more intense and "more visible" by the city-designer, who seeks ultimately to weave individual and group narratives together into an "arrangement" negotiated among all interested parties'(Shane 2005, p.71). Kaliski dedicates a special role to the architect as privileged city-designer to enter these dialogues, helping to shape the frameworks within which these acts occur. This is quite in line with the role that currently is dedicated to design in urban planning processes. Nowadays, especially in urbanism, design is often used for its communicative, decision facilitating, scenario-developing and program-tuning capacities. Particularly in participation processes, such as occur in urban planning projects, these design qualities are used under a range of different names: workshops-by-design, communication-by-design, negotiation-by-design, action-by-design. What designers do here is exploring different possible scenarios in order to facilitate the planning process. Braae and Tietjen state that in this respect 'In contemporary spatial development processes, design increasingly plays a mediating role in long-term proceedings that involve many different people. Communicability and connectivity of urban and landscape design become more important' (Braae & Tietjen 2011, p.70). In the context of Landscape Urbanism, where one of the key issues is the shift from object to field, Richard Weller observes that 'in privileging the field over the object, architects, in theory and in scope, are now becoming landscape architects'(Weller 2006, p.79). The design practices here have to be contextually responsive, temporal and open-ended, adaptive and flexible, and ecologically strategic. James Corner asserts, however, that this does not imply that formal, material precision is irrelevant:

Proponents who argue for strategy over form, for strategic modes of practice over formal, material practices, or even for a kind of objective naturalism over subjective creativity are misguided. First, as landscape architects, architects, and urban designers, we give physical form and shape to the world – geometry and material are fundamental. We draw from strategy and from various disciplines that deploy strategic and organizational thinking not to become master strategists per se but rather to find greater efficacy and potential for the physical reshaping of the world' (Corner 2007, p.92).

Moreover, Braae and Tietjen explain that in the context of contemporary large-scale regional planning design gets a more active role in knowledge production. They state that, for instance, site survey is not only a precondition of design action on a large scale ; the formulation of the design task or brief becomes an integrated part of the design process. 'The survey is not a comprehensive process of analysis of a site, but rather one that actively defines the site, revealing areas where design intervention is required.' The design processes, according to Braae and Tietjen, depend not only on knowledge production, but also become themselves a form of action-oriented, situational knowledge production (Braae & Tietjen 2011, pp.64–65). It is clear that the role of design varies according to different urban theories. In order to get a better view of how the design practice is positioned in urbanism, it seems useful to first clarify the distinction between the two most clearly delineated professional practices in this transdisciplinary field: urban design and urban planning.

The distinction between urban design and urban planning varies a great deal among different countries and professional cultures. Even the terms vary: city design, city planning, spatial planning, physical planning, etc. In Flanders there used to be no requirement for a separate education or degree to become urban designer or urban planner.¹² Urban design and urban planning was considered part of the architect's education and in many countries it still is. If we look at the emergence of urban design as a term, the first professional group called 'urban designers' emerged late 1960's, in New York. Jonathan Barnett describes how an advisory group (including Philip Johnson and I.M. Pei)

was set up as a specialised section within the city planning department. Urban design was meant to be a new, smaller scale, more flexible discipline that would not solely rely on the universal, rational-scientific context envisioned by Cerdá. They started to work with mini-plans tailored to each community and as such, according to Barnett, the urban design movement involved a momentous shift away from top-down planning (Shane 2005, p.120). With this Urban Design Group, the modernist master plan was abandoned for a system of fragmentation that allowed for customised bottom-up design. Although originated as a reaction against modernist master planning, Shane explains that 'urban design, in its initial, post-war, suburban formulation, inherited a Modernist and functionalist base. Its narrative was fundamentally mechanical, in the Newtonian tradition, but was applied to urban fragments instead of whole cities'(Shane 2005, p.64). Urban design thus seem to have been originated as a reaction against some drawbacks of (modern) city or urban planning. Shane refers in this respect to a 1974 Encyclopedia Britannica article where Lynch wrote that 'urban design as a separate profession arose in response to certain gaps between the older arts of environment, disturbing gaps which appeared, for example, when it became necessary to build large building complexes for multiple clients. The new profession aspired to the design of entire cities, under the misapprehension that they might be detailed in the same way buildings are, as if constructed rapidly for a single client. It tended to stress the psychological and sensual aspects of form, because these factors were generally disregarded at the scale of the community, region, or large engineering work' (Shane 2005, p.59).

According to the descriptions above, we might summarise that urban design, is a kind of 'up-scaling' (and up-scoping) of architecture and 'down-scaling' (down-scoping) of urban planning. An essential difference is that, contrary to urban planning, urban design's emphasis is on designing the form of parts of cities in a quite detailed manner, almost like architectural objects. Urban design is focused on fragments of cities, while modern master planning wanted to design the whole of the city. In an urban design process, city fragments are considered tied to the local situation more than the masterplans that result from urban planning processes are. However, the predominantly top-down ap-

proach of urban planning has changed a lot in recent times. Urban planning processes now also integrate bottom-up approaches. The relation between urban design and urban planning is also not as oppositional as it was previously. For instance, in so-called Strategic Spatial Planning, urban design projects are incorporated into larger, long-term urban planning process as strategic projects. Today the distinction between urban design and urban planning is not so clearly defined as the former being bottom-up and the latter top-down. Nevertheless urban planning is still clearly distinct from urban design. The focus on economic and social policy is developed strongly in urban planning, as Lynch has argued, and planning operates in a far less physical way than urban design. The Dutch spatial planner Barrie Needham points to another important characteristic of urban planning or spatial planning in general, namely that in spatial planning there are very few possibilities for changing the spatial disposition directly. Most work must be done mainly indirectly, since achieving goals is dependent on the actions of (often very many) others (Needham 2001, p.126). He states that 'most of the ways in which a planning agency can shape the spatial disposition of activities, buildings and spaces are *indirect* (i.e. measures to influence the actions of others who create and use the physical environment)' (Needham 2001, p.132). Lynch tried to define something that could, in a way, surpass or overarch the binary urban design /urban planning. He called it 'city design'. 'City design, crosses disciplinary boundaries and includes architectural design, object design (i.e., design of a single article, such as a chair or a bridge), system design, and environmental (ecological) design issues' (Shane 2005, p.63). In 'Good City Form', Lynch gives the following definition: 'City design is the creating of possibilities for the use, management, and form of settlements or their significant parts. It manipulates patterns in time and space and has as its justification the everyday human experience of those patterns. [...] City design concerns itself with objects, with human activity, with institutions of management, and with processes of change. [...] Its peculiar features are the consequences of the scale and complexity of its domain, the fluidity of its events, and the plurality of actors, as well as its imperfect and overlapping controls' (Lynch 1981, pp.290–291).

Important to note in the context of this research is that Lynch considers city design to be a new kind of design that will provide for a stock of models and theoretical constructs which integrate process and form and which must be sufficiently independent and simple to allow for that continuous recasting of aims, analyses, and possibilities, inherent in the conduct of city design (Lynch 1981, p.291). The tension between planning and design as two distinct activities, remains however unresolved in the term 'city design'. The field Lynch wants to describe remains ambiguous, 'seeming to lie between city planning and architecture or landscape architecture'(Shane 2005, p.67). It is clear that urban design and urban planning are two distinct but also closely related professional practices. Both concern urbanism but they act from a different perspective and with a different goal. Weller relates this difference to the difference between art and instrumentality. Talking about landscape architecture and Landscape Urbanism, Weller states that

landscape architecture's scope and influence, whilst in all likelihood increasing, is still weakened by its own inability to conceptually and practically synthesise landscape planning and landscape design, terms which stereotypically signify science and art, respectively. In common parlance, planning concerns infrastructure (both mechanical systems and land-use designation) which, while essential to everything else the city comprises, bears a low semantic load in and of itself. On the other hand, design is perceived and practised as the rarefied production of highly wrought objects or specific sites that bear a high semantic load. For its focus on intentional meaning, design sacrifices the scale and instrumentality of its agency, whereas that what planning gains in scale and efficacy it inversely loses in artful intent (Weller 2006, p.71).

The Landscape Urbanism movement presents itself as a way of thinking, working and designing that can bridge the gap between planning and design. James Corner states that Landscape Urbanism is a hybrid practice for territorial urban design and ecological urban planning. Collapsing the divide between planning and design, according to Weller, entails a compression between architecture and landscape, between field and objects, between instrumentality and art (Weller 2006, pp.71–72). Corner states that contemporary urban projects

demand a new kind of synthetic imagination – a new form of practice in which architecture, landscape planning, ecology, engineering, social policy, and political process are both understood and coordinated as an interrelated field. (Corner 2007, p.93). Given the transdisciplinary nature of urbanism, bringing together knowledge bases of different kinds, such as art and science or art and instrumentality, as Weller states, seems almost evident. How design or design thinking actually functions in urban or spatial planning however remains subject to debate. Regarding spatial planning as a design discipline is not undisputed. According to Needham, since spatial planning works indirectly, designing here is not only the designing of the spatial disposition of activities, buildings and spaces (e.g. making a spatial plan) but mostly the *designing of a policy* for realising a desired spatial disposition of activities, buildings and spaces (Needham 2001, pp.121–122). Then there is the role often attributed to design in urban planning processes, as instrument for investigating different scenarios, fine-tuning programmes and facilitating decision making around a pre-defined urbanisation goal. In Landscape Urbanism as a practice that integrates knowledge bases we find then yet another role for design thinking: achieving synthetic imagination.

In the context of professional urban design or urban planning practice the role of design is clearly not situated on the meta-level of urbanism referred to earlier. Nevertheless, and as stated previously, I believe that design thinking has a role to play on this meta-level, the development of which I consider not only of theoretical importance but also essential for the development of the field of urbanism and its practices. Looking at the conceptual design practice that is my point of departure, it is quite clear that the design projects resulting from this practice do not belong to the professional urban design or urban planning practice described above. However, as will be explained later, this kind of design has the potential to work on this meta-level in urbanism. Design is used here as a mode of inquiry and more research oriented. Defining the role of design in research then, to my mind, is a quite different matter than defining its role in profession.

Chapter 2.

REFRAMING URBANISATION

In the previous chapter, urbanisation was presented as a manifestation of a worldview and its related concept of territory. The currently dominant concept of territory, belonging to the capitalistic worldview, results in what I called the enormousness of the worldwide urbanisation process and the predominance of the urban world incorporating to an ever-increasing extent the overall environment. On top of that we are now also confronted with the problematic effects of climate change on our urban life world. The habitability of the world seems to be unsettled, and hence reframing our ways of inhabiting the planet becomes an urgent matter of concern. In that respect, I consider it important to be aware of the level of systems and evolutions that, almost unconsciously, structure our thoughts and actions. Awareness of this meta-context enables us to see what kinds of conceptualisations of space are taking place (identifying) and how certain ideas are embedded in practices (enacting). In this chapter I look for conceptualisations of world and for ways of conceptualising worlds, in order to obtain a view on possible reframings of the interaction of people with the environment.

2.1

CONCEPTUALISATIONS OF WORLD

If, as was argued in the previous chapter the problem of urbanisation is not merely a worldwide problem but also a problem of becoming world, it is important to see how we conceptualise our world. In the first chapter I have already referred to world system analysis, a theoretical perspective that can shed some light on how the current capitalistic world-system determines the use of space, and thus the concept of territory on which contemporary urbanisation is based. As a macro-perspective based on economic and political evolutionary systems, it offers some interesting insights on possible conceptualisations of world.

World system analysis is interesting because it takes the world as a unit of analysis, but, more importantly because it develops an understanding of the structural changes (socio-economic processes) that happen from a long term perspective. World system analysis also gives an insight into the capitalistic world-system's macro-spatial structuring of the world and the mechanisms that are at work therein. The capitalistic system has two solutions to the ever-recurring economic crises: external geographic expansion and internal expansion by opening up new markets and proletarianising labour (which results in urbanising rural populations). So far, periodic economic crises have been addressed by a reorganisation of the spatial hierarchy (Wallerstein & Hopkins 1996). In the context of urbanisation, the relevance of world system analysis lies in the understanding of the mechanisms of the system and how this ruling system uses space (for instance, geographic expansion). This shows that the phenomenon of urbanisation as we know it, and the way it manifests itself in space, is to an important extent linked to the capitalistic worldview. With the globalisation of capital, the urbanisation process too becomes global, having an enormous impact on the overall environment. Globalisation and capitalism, in its politico-economic orientation, increasingly consumes space and stimulates processes of de-naturalisation. This goes hand in hand with the modern worldview that sees man as the ruler of nature, taking the Earth as raw material to

consume. Lemaire notices an intensification of this neglecting of the Earth in the post-war period when nature and landscape disappeared largely in literature and in arts in general. He suspects that this phenomenon reflects the growing urbanisation and dominance of the big city. Making the city into something absolute has deep roots in our tradition. Lemaire mentions Hegel who declared that the human mind could only become truly conscious of itself in the city. This idea has unconsciously become a deep conviction of our time and has a major impact on the way urbanisation is conceived. Lemaire calls this tendency to judge and evaluate everything from the perspective of the urban, the city and the citizen, 'urbanocentrism': the economic and ideological dominance of the urban. Lemaire states that the disappearance of landscape from visual arts and literature in the course of the twentieth century most probably has everything to do with the combined effects of urbanisation, industrialisation, commercialisation and technologicalisation of our society (Lemaire 2002, p.45). This urbanocentrism is a strong characteristic of how we conceptualise our world. The ruling worldview is thus an urban worldview.

Sloterdijk with his theory of spheres also contributes to conceptualisations that link urbanisation and world. Discussing the early cities, he suggests that the overwhelming thing about the city (as concept and format) is that it trusts that as a (walled) space it can be constructed and maintained as a single animated interior space. Here, Sloterdijk states, the technical experiment 'world soul' starts. From this moment on, politics, architecture and theology are combined into a macro-immunologic project. The big political body appears as the builder of the 'world interior space' (Sloterdijk 2009, p.588).

Many of our current urbanisation processes are expressions of globalisation. It is therefore important to see how the notion of globalisation relates to conceptualisations of world. In this context, notions such as planetary or planetization and mondialisation or world-forming denote a counterbalance to, or at least distinction from, globalisation. Gidley explains that the term planetary denotes a more anthropo-socio-cultural and ecological framing, and thus represents a critical counterbalance to the more politico-economic term of globalisation. For Gidley, a fully integral theory of planetary consciousness would transcend and include the politico-economic notion of globalisation. She

regards the notion of globalisation as an attempt to dominate cultural worldviews and consciousness around the planet (Gidley 2007, pp.108–109). The term planetary, to Gidley, refers to the critical awareness of the impending planetary crisis. She admits that technically the term 'global' could be used here instead of planetary, but this term in her opinion has too close semiotic links with globalisation and thus may taint its meaning (Gidley 2007, p.109). 'The notion of planetising, a term coined by Teilhard de Chardin in the middle of the twentieth century, is distinct from the notion of globalisation in the sense that the former emphasises the more inner oriented developments of psychology and culture, with respect for individual and cultural diversity, whereas the latter refers primarily to a politico-economic movement based on the agendas of multi-national corporations, but tacitly carrying with it, like a Trojan horse, a largely modernist, materialistic, mono-cultural worldview' (Gidley 2007, p.108).

Also Nancy looks for a term that is distinct from the notion of globalisation, while keeping the meaning of the totality of the parts of the world in a general network. For Nancy, the French (untranslatable) *mondialisation* does the trick. He emphasises the importance of keeping the semantics of 'world' (*monde*) in the term as not without theoretical interest. The term 'mondialisation' keeps the horizon of a 'world' as a space of possible meaning for the whole of human relations (or as a space of possible significance). This gives a different indication than that of an enclosure in the undifferentiated sphere of a unitotality, which is to be understood by the English term globalisation (Nancy 2007, p.28). Nancy explains that the world, if it does not want to be a land of exile or a vale of tears, or simply the un-world (*immonde*) that it is becoming today, must be the place of a possible habitation. The world is the place and the dimension of a possibility to inhabit, to coexist. To him, it is the place for a proper taking-place and dwelling. This properness indicates here the ethical dimension of the world, an originary ethics of being-in-the-world. In this context, Nancy points out that the originary meaning of ethos is dwelling. The world then, as a concept, simultaneously holds the different meanings of an ethos, a habitus, and a place of dwelling (Nancy 2007, p.10). The habitability of the world is indeed a matter of ethics and since the majority of the

world's population is living in urbanised areas, the problem of urbanisation has a direct impact on the habitability of the world.

With the term 'mondialisation' Nancy aims at a more open kind of 'world-forming', not limited, as in globalisation, to economic and technological matters (Nancy 2007, p.29). He associates globalisation also with the planetary domination of the process of de-naturation brought about through technology (Nancy 2007, p.13). Nancy feels that 'the world has lost its capacity to "form a world" [*faire monde*]: it seems only to have gained that capacity of proliferating, to the extent of it means, the "un-world" [*immonde*], which, until now, has never in history impacted the totality of the orb to such an extent. In the end, everything takes place as if the world affected and permeated itself with a death drive that soon would have nothing else to destroy than the world itself' (Nancy 2007, p.34).

When the overall environment becomes to an important degree unsettled, the habitability of the world is under threat. In that respect, the emerging world consciousness is obviously related with what Gidley calls 'the imminent possibility of a major planetary catastrophe, and a climate increasingly inhospitable for human habitation – already correlated with mass extinction of species' (Gidley 2007, p.189). A vast number of authors, in this respect, already call for an urgent reframing of human relationships with nature and with the Earth. Amongst them is the Scottish poet and writer, Kenneth White who states that 'world' emerges from a contact between the human mind and the things, the lines, the rhythms of the Earth, the person in relation to the planet (McManus 2007, p.183). White searches for another conception of world, based on a set of ideas and practices he assembles under the notion of 'geopoetics'. He argues for 'worlding', 'world-thinking', and in that context refers to Leo Frobenius, the German ethnologist and archaeologist (1873-1938) who stated that, 'if techno-economic civilisation [– the fourth great period in the evolution of human culture, according to Frobenius –] is culturally rundown, it has, by encircling the globe, re-introduced, beyond national divisions and identities, the question of world' (White 2006, p.47). White concludes then that 'it is at the end-point of civilisational evolution that, not only would

the sharpest criticism of techno-economic civilisation in its end stages be made, but that a new world-thought, world-thinking, based on a new "seizure of reality" and renewed creative energy, might come into being' (White 2006, p.47).

Sloterdijk also points to this encircled globe and states that earthly globalisation is the only thing upon which a theory of the contemporary era can be based. Even if the various cultures lived separately before, because of the distance-destroying revolution of modernity, they are now forced to recognise that they live all on the same planet, since each is within reach of every other culture (Sloterdijk 2006, p.152). Hence, re-introducing the question of world beyond national divisions and identities, as Frobenius said, is at stake. The question for Sloterdijk is how to create a viable form of 'inhabiting' or 'being-with-oneself-and-the community' in a large-scale world? (Sloterdijk 2006, pp.162–163). In Sloterdijk's terminology, the challenge for postmodern man is the successful new design of liveable immune circumstances (Sloterdijk 2006, p.166). I interpret spheres and immune-structures as being about creating habitability. This means that an encapsulated or interiorised sphere concerns not only material protection but mostly a sense of belonging, being at home in the world. The notion of habitability is inextricably linked to the notion of world, world-forming. As Nancy states:

To inhabit is necessarily to inhabit a world, that is to say, to have there much more than a place of sojourn: it is place, in the strong sense of the term, as that which allows something to properly take place. [...] A world is a common place of a totality of places: of presences and dispositions for possible events. (Nancy 2007, p.42)

This implies a creation of the world as a praxis of meaning and of dwelling. This he contrasts with globalisation, which is 'the exponential growth of the globality of the market – of the circulation of everything in the form of commodity – and with it, of the increasingly concentrated interdependence that ceaselessly weakens independencies and sovereignties, thus weakening an entire order of representations of belonging' (Nancy 2007, p.37). In order to grasp once more what is at stake in the question of the world, Nancy proposes to consider the

question, What is a world? Or what does 'world' mean? A world, according to him, is primarily a totality of meaning: 'If one speaks of "the hospital world", one grasps immediately that one is speaking of a totality, to which a certain meaningful content or a certain value system properly belongs. Belonging to such a totality consists in sharing this content and this tonality in the sense of being familiar with it' (Nancy 2007, p.42).

World and world-forming, in this respect, must not be understood as becoming one unified entity. On the contrary, as the American philosopher Nelson Goodman pointed out, 'the movement is from unique truth and a world fixed and found to a diversity of right and even conflicting versions or worlds in the making' (Goodman 1978, p.X). According to Goodman we are not speaking in terms of multiple possible alternatives to a single actual world but of multiple actual worlds. These many different world-versions are of independent interest and importance, without any requirement or presumption of reducibility to a single base (Goodman 1978, p.4). This irreducibility to a single frame of reference is somewhat hard to grasp in Euro-American culture, which assumes ontological singularity and universalism. It depicts a world that is ontologically single and therefore inhabited by a finite number of objects, forces and processes that may be more or less well known (Law 2004, pp.136–137). From that point of view, the world is something that is out there, as one single entity, waiting to be discovered, found and revealed by scientific study. Goodman, however, states that worlds are as much made as they are found and that to know a world one must make a world. Comprehension and creation happen together (Goodman 1978, p.22). This is exemplified by Aboriginal Australian peoples who have a vast repertoire by which the world can be re-imagined, and in being re-imagined be re-made (Law 2004, p.138). William McNeill notes that we must not see the world as one particular or determinate thing but as something more like a tone, an attunement, a certain gathering whereby certain possibilities are opened up, or suggest themselves, while others remain closed off and never occur to us. It is an ever-approaching gathering of possibility that is at work in the shifting of worlds, in the transition from one world to another. This, according to McNeill, is the enigma of art or

techné, and as such the enigma of design (McNeill 2006). This points to what Law calls a sense of the world as an unformed but generative flux of forces and relations that work to produce realities (Law 2004, p.7).

2.2

CHANGING WAYS OF THINKING

The ecological crisis made us aware again of the presence of the Earth and the role this plays in an overall change of collective consciousness is probably not to be underestimated. More than a century ago Rudolf Steiner demonstrated the significance of environmental catastrophes that marked transitions between major movements of culture and consciousness. He theorised a major geo-climatic event of freezing and melting – the end of the ice-age – during which the sea levels rose such that the face of the Earth was totally changed in regard to the distribution of water and land, contributing to a change in consciousness from archaic consciousness to magic consciousness (Gidley 2007, p.59). If we look at the macro historical context of the evolution of consciousness, Gebser defines four great periods: the period of archaic consciousness, the period of magic consciousness, the period of mythical consciousness and the period of mental-rational consciousness. The mental-rational consciousness is still very much in place but there are signs that a new, postformal-integral, consciousness is emerging as a transdisciplinary, planetary phenomenon (Gidley 2007, p.122). Such changes of consciousness are accompanied by a change in worldview, and hence, a change in concept of territory.

The growing awareness of a potential planetary crisis has highlighted the significance of finding new ways of thinking, if mankind is to move through our current complex challenges (Gidley 2007, p.18). Gidley refers to Ervin László who sums up this critical imperative as follows:

Einstein was right: the problems created by the prevalent way of thinking cannot be solved by the same way of thinking. This is a crucial insight. Without renewing our culture and consciousness we will be unable to transform today's dominant civilisation and overcome the problems generated by its short sighted mechanistic and manipulative thinking. [...] The conscious orientation of the next cultural mutation - the shift to a new civilisation - depends on the evolution of our consciousness. This evolution has become a precondition of our collective survival. (Gidley 2007, pp.17–18)

Gidley notices that signs of its emergence can be perceived within various disciplines, and also between disciplines, through the holistic, integral and transdisciplinary urge to integrate knowledge (Gidley 2007, p.103). This urge to integrate knowledge may also be witnessed today in the growing influence of the so-called 'Mode 2' knowledge production that is starting to complement 'Mode 1' knowledge production and the growing interest in transdisciplinary approaches to complex problems. Referring to the now canonical work *The New Production of Knowledge* (Michael Gibbons et al.) Halina Dunin-Woyseth and Fredrik Nilsson explain Mode 1 as 'the complex of ideas, methods, values and norms that has grown up to control the diffusion of the Newtonian model of science to more and more fields of inquiry and ensure its compliance with what is considered sound scientific practice. [and] Mode 2: Knowledge production carried out in the context of application and marked by its transdisciplinarity; heterogeneity; organisational hierarchy and transience; social accountability and reflexivity; and quality control, which emphasises context and use-dependence. Results from the parallel expansion of knowledge producers and users in society' (Dunin-Woyseth & Nilsson 2011, p.89). They also note that 'transdisciplinarity and Mode 2 have appealed to the design scholars as a new 'in-practice model' of research that has great similarities with design. This mode opens for various ways in which the design professions could contribute to knowledge production' (Dunin-Woyseth & Nilsson 2011, p.89).

Interdisciplinarity, transdisciplinarity and integration of different perspectives and methods begin to blossom when all kinds of dualisms (space-time, subject-object) that structure our thinking seem to collapse, which started to happen with the emergence of new dimensions in science due to the development of Quantum Theory. This kind of fundamental evolution in science has, according to Wallerstein, a major impact on the functioning of the world-system. He explains that the structure of knowledge of the modern world-system was the displacement of philosophy and theology by science as the central organising metaphor of knowledge. Moreover, one particular mode of scientific method, Newtonian science, assumed a position of dominance, with his strong claims on universalism (Wallerstein & Hopkins 1996, p.7). The Newtonian, positivist, determinist science became in the last two centuries the reigning faith of the modern world-system (Wallerstein 1996, p.223). Increasingly the predominance of this science has been called into question contributing significantly to the unsettling of the (capitalist) world-system.

Thinking in dualisms was inherent in the dominant scientific paradigm of the modern world-system. Law mentions three such dualisms that tend to reinforce one another. First, a division was erected between the *human* and the *non-human*, which led to the common divide between knowing *subjects* on the one hand and *objects* of knowledge on the other. Similarly, there is a division between the *social* on the one hand and the *natural* on the other, whereby as a rule nature is assumed to be governed by general and invariant laws. The social, by contrast, though it might also be subject to laws of determination, in addition offers the prospect of creativity and human freedom. There is further dichotomy in these three since the human, the subject and the social are considered to be *active*, potentially creative and potentially autonomous. The non-human, the object and nature are considered to be *passive*, acted upon and predictable (Law 2004, pp.132–133). In recent philosophy of knowledge these dichotomies are very much questioned and the agency of the non-human and objects becomes ever more foregrounded.¹³ The weakening of the sharp division of the world into object and subject makes the re-thinking and re-grounding of the relation between human and the environment more possible than ever.

White states in that respect that with Descartes and modernity man had a very precise project: becoming ruler of nature. With progressing modernity, the subject became ever more subject and the object ever more object, from which followed a total separation between the human being and the Earth. The Earth was considered mere raw material to use (White 1994, p.23). Tony McManus points out that ‘Newton accelerated the alienation from Nature, since, with him, the human being is an independent observer of the universe from outside. [...] What occurred was the split between science and philosophy’ (McManus 2007, pp.122–123). By extension we could say that a split also occurred between science and art, and moreover between the dominant science and other forms of knowledge production in modernity. The movements from Thermodynamics to Relativity Theory announced a critical turning point in science and paradigms of knowledge production. McManus says that at this point ‘the poet, banished from science, comes back in – not as a sentimentalist, not as fantasist, not as a linguistic juggler, but as a conceptor’ (McManus 2007, p.125). With this re-introduction of the poetic way of thinking another epistemology joins the scientific way of thinking. This poetic type of epistemology plays a crucial role in languaging and conceptualising the world as contribution to the changing worldview. Baseline regarding the issue of languaging (or, more generally, of expression) is that creating a new vocabulary will enable minds to elaborate new thoughts and in that sense it is essential that the routine, accustomed modes of perception are challenged. McManus remarks in this respect that ‘people do not see what is really there, but see what they are encouraged to see unless and until someone or something forces them to look differently, from a new angle, with a new linguistic apparatus’ (McManus 2007, pp.64–65). The poetic, not in the linguistic sense but in the sense of formation and becoming, is also central to Heidegger’s concept of ‘world-formation’ (*Weltbildung*). William McNeill explains that ‘world’ is here understood not simply as a phenomenon that already exists, but as an ‘event’ that occurs, an event that itself is a coming into being: ‘it forms itself, it is intrinsically poetic, transformative. The formation and happening of world, as manifestation, of beings as a whole in their being, is itself a poetic event: that of an originary *poiesis* of which we are not the origin, yet which, happening in and through us, first en-

ables our dwelling'. From here, according to McNeill, it is but a short step to Heidegger's 'Origin of the Work of Art', where the work of art is said to open up a world, or the 'worlding' of a world (McNeill 2006). In the context of worlding or worldmaking Goodman stresses the fact that the arts must be taken no less seriously than the sciences as modes of discovery, creation, and enlargement of knowledge in the broad sense of the advancement of understanding, and thus the philosophy of art should be conceived as an integral part of metaphysics and epistemology (Goodman 1978, p.102).

In sum, we might say that the changing ways of thinking discussed in this section are directed to bridging the gaps of dichotomy, to recognising the world as 'becoming' and to (re)introducing the poetic as a mode of thinking and making that is intrinsically related to becoming and able to conceptualise beyond dichotomy.

2.3

FRAMES FOR THOUGHTS AND PRACTICES: ORBANISM & GEOPOETICS

In the previous sections the conceptualisation of world is proposed as a base against which to revise urbanisation. Planetisation and mondialisation are suggested as possible perspectives for developing other concepts of territory and consequently spatial formats other than the dominant globalisation when it comes to urbanising. With this change of perspective comes a change in the type of knowledge production. The absolute hegemony of scientific knowledge production is questioned. Poetics is re-introduced in the knowledge landscape. I would like to point out here that when talking about reconceptualisation there is a significant coincidence or *combined action* of creating a new concept and a new mode of thinking. That is, changing the type of knowledge production is in a way a necessity to come to a changed concept. This refers again to Einstein's saying that problems created by the prevalent way of thinking cannot be solved by the same way of thinking. What I

look for is a frame of thoughts and practices – that is, a frame that constitutes a close interaction between *what* ideas are being developed and *how* they are developed. In casu: between conceptualisations of urbanisation and knowledge production as it occurs in a conceptual design practice. Of course, these two levels always go together to some extent. In most design practices this happens rather unconsciously. The more explicit emphasis on this two-level character originates from my design experience at the conceptual design practice T.O.P.office. In this office the notion of ‘urbanism’ was developed and it was there that the first implicit interconnection between a theme, a concern and the development of a particular mode of inquiry got more articulated.

Urbanism was developed by T.O.P.office/Luc Deleu, the conceptual design practice I was part of from 1994 to 2001. The notion is situated in the art and skill of organising space (architecture, urban design, spatial planning). Urbanism refers to the totality of the world, the human and non-human, both space and society, as context for planning and design. But urbanism does more than drawing our attention to a wider context in which a particular discipline acts. First of all, urbanism formulates a specific attitude and motivation, a specific ethos regarding the world. Luc Deleu formulates it as follows:

Urbanism stands for a worldview that involves solidarity and correct proportions and is intrinsic (in se) eco-centric, well balanced and unique. Urbanism opposes the worldview of globalisation that involves egocentrism and that is anthropocentric, unbalanced and generic of nature (Theys 2001).

Secondly, it points to a specific responsibility and role for the disciplines that organise space, more specifically concerning the role that is dedicated to imagination and creativity:

Urbanism stands for a design practice that is integrated on a planetary level. This design practice dedicates an important role and responsibility to the development of theoretical, conceptual and visionary organisational models of space, without however denying the necessity of daily, pragmatic and problem solving urban design. A conceptual de-

sign practice, by means of its examples, design methods and strategies on the formal, spatial, structural and programmatic level, is able to produce a stimulating frame for daily practice. (Theys 2001)

From Deleu's statements, it becomes clear that orbanism formulates a specific theme and concern regarding urbanism and couples to this theme a particular way of investigating, in which conceptual design plays an epistemic role. To me, the notion of orbanism as it was developed in the design practice was a trigger to further investigate the relationship between urbanisation and world, which resulted in the study of worldview, concepts of territory, conceptualisations of world and poetic knowledge building, as discussed in the previous sections.

Centrality of the geo

The notion of geopoetics, in this respect, can be considered another possible example of a frame of thoughts and practices that unifies both this matter of world consciousness and the matter of knowledge production. The term geopoetics was first introduced by White. What he addresses intrinsically is about re-thinking, re-grounding and re-expressing the relation between human beings and the overall environment, i.e. between mankind and the designed environment. As I understand it, geopoetics fundamentally questions the way we inhabit the environment and proposes principles for a closer, more sensitive relationship between the dynamics of human agency and the dynamics of the environment. The 'geo' involves the environment at large, being both the human and non-human. It is important that the 'geo', as macro-perspective, is coupled to the notion of poetica. This involves the idea of making (it is about being '*un géopoéticien et non un géopoète*') and it refers to a 'poetic intelligence'. In taking the world as unit of thought, geopoetics shows a parallel with the notion of orbanism. Looking from another perspective (literature and geography) but grounded in a similar concern, it can offer other elements that can deepen or complement the notion of orbanism which was developed mainly by design. Deleu wrote 'The Orbanist Manifesto' in 1980. This, remarkably, coincides with the moment in time White formulates his

first ideas on geopoetics. It is also remarkable that this manifesto pleads for a harmonious co-existing of all forms of life, human and non-human. The manifesto positions the concept of orbanism in the art and skill of organising space – that is, architecture, urban design, landscape architecture and spatial planning. In that respect, orbanism could be a kind of sub-division of geopoetics.

After the mondialisation of Nancy, the planetisation of Gidley and the orbanism of Deleu, White's 'geo' adds yet another slightly different emphasis or perspective to the notion of world and worlding. In *Le Plateau de l'Albatros: introduction à la géopoétique*, White describes the roots of this concept of geopoetics from a scientific, philosophical and literary point of view. To him geopoetics is 'a movement that concerns the manner itself through which man grounds his existence on Earth. This is not a question of constructing a system, but rather to accomplish, step by step, an exploration, an investigation, while situating oneself somewhere between poetry, philosophy and science' (White 1994, p.12).

One of the important things in this description is the term 'movement'. White is always careful not to talk about definitions. He is always on the move and 'intellectual nomadism' is therefore one of the key features of his work.¹⁴ The geopoetic project is a discourse on movement, moving out of established systems (of thoughts, of analysis, of expression, away from -isms and -ologies), moving between fields (different sciences, philosophy, art, etc.), moving towards a new base (another rapport, an opening up). This is very much in line with the idea of reconceptualisation that I want to address. White explains that within geopoetics, one is not confronted with a problem that needs to be solved. It is not about making some kind of phenomenon explicit or describing it (White 1994, p.241). Geopoetics is involved in clarifying a 'presence' - the presence of the Earth as ultimate ground from which to start. In that respect the accent is not on intervention but on immersion (White 1994, p.114).

As a movement, geopoetics concerns the very manner in which man grounds his existence on Earth, his way of being in the world. White makes it clear, however, that this is not about a subjugation to nature

but all about a question of establishing a rapport between humans and the Earth (McManus 2007, p.74). White points in this respect to an interesting etymological perspective on the relationship humans-Earth: 'humain' = 'humus' = 'terre' (earth). He considers the relation between human and non-human to be the most existential and most exciting and inspiring. 'We need society. But we also need something else – a relationship to the non-human. Every deep and lasting culture has always known this' (White 2006, p.45). This expresses White's credo quite clearly. He also insists that the tension, the paradox, intrinsic to geopoetics, is situated in the fact that it concerns the meeting with what is to us at the same time the most estranged (*le plus exotique*), namely the non-human and the most near and substantial: the Earth. And this paradox, according to White, should be maintained. This said, he warns that geopoetics is not about losing oneself in a pseudo-unity or harmonic fusion with nature. In that case we would lose the intriguing and inspiring force of the paradox. What is taken as a base in geopoetics is 'sheer physicality'. 'The bottom line is a sense of space and materials, movements, animation within that space' (White 2006, p.45). The earthly base, this 'sheer physicality', the importance attributed to the knowledge of territory, ties in almost automatically with ecology. However, White does not think 'that ecology is an adequate term for the expansion of thought and culture necessary today. Even if we add to it adjectives such as "human", "spiritual" or "deep" (some of which lead to all kinds of aberrations), we still don't have an adequate language, a satisfying thought-process' (White 2008). About the aspect of ecology, Lemaire concluded that geopoetics stands close to ecology but nevertheless goes beyond ecology because geopoetics concerns our sensory, intellectual and practical relation to the Earth, not only the preservation of the environment (Lemaire 2002, p.182). Geopoetics aims to rethink radically the relation of mankind to the world and as such bring about a real cultural transformation (White 1994, p.38).

A key point in geopoetics is the relation to the Earth – this radical other, this non-human presence that is still basically human (*terre*). I believe that it can offer an interesting perspective on the field of urbanisation. For centuries the urbanisation process foregrounded the presence of humans, neglecting the presence of the ground itself, the

Earth. This is due to the concept of territory that objectified the Earth and commoditised the environment, leading to a far-reaching claiming of ownership of the land in all its aspects. As I noted earlier, the relation with the non-human in our era (the modern world-system) has become very scientifically oriented, objectified, distanced and merely instrumental. Our perspective on the world is highly anthropocentric. According to White this is problematic:

Most of our language is involved exclusively in this interhuman context, whereas a live, lasting, life-giving, evolving culture needs also a language connecting the human being and the universe (chaos-cosmos). Most of our thinking consists of commentaries on this human context, sometimes analyses of it, but never gets out beyond this precinct, never fronts the open. Whereas it is this confrontation with the open, this opening of the mind and of culture, which would renew and refresh the interhuman, sociological (sociopolitical, sociocultural) context. That is the geopoetic project. (White 2006, p.53)

For White, developing a 'sense of world' is about considering the human in relation to the Earth, instead of (exclusively) attempting to understand the human in relation to itself. White witnessed a loss of this 'sense of world' and this has been the impetus of all his work.¹⁵ It seems that this geopoetical perspective might lead to a changed concept of territory, or at least contribute to the shifts that are taking place – for instance, a shift away from human centeredness, anthropocentrism and the related urbanocentrism. Lemaire says about this that not history but geography – space, landscape, places – play a major role in the geopoetic project. However, it does not concern so much scientific geography because this is too narrowed down to the modern world-view. The geography envisioned in geopoetics has a strong aesthetic and also spiritual dimension (Lemaire 2002, p.182). This particular geographical dimension is literally concerned with re-grounding thoughts and actions. It seems worthwhile to me to consider how such a specific geographical point of departure (an earthly interest) would affect visions of urbanisation.

Poetic type of thinking

Adding the aesthetic and spiritual dimension to geography points to an attention to the metaphysical dimension of world consciousness. It also refers to the poetic knowledge building that is inherent in geopoetics. The shift to poetics in geography shows, for instance, in the advocating of a genre of cartography that is different from many of the mappings that currently are being used in architecture and urban planning. The available technology allows for huge amounts of information to be processed and represented. For instance, innumerable images employing video and photography are produced when a site is being represented. However, much of these maps often deploy an 'empty look' in which the observer is absent – absent from the act of perception. At the same time, the representation does not transmit desires, ideologies, or connotations. The kind of cartography White aspires for aims to bring what he calls a mindscape in a landscape: 'Obviously, we have objective-scientific maps galore – geographical, geomorphological, geological, tectonic. But, however much I delight in these, I've been looking, fundamentally, towards something else: the shaping of a mindscape in a landscape' (White 2006, p.58). The idea of searching a mindscape in a landscape goes beyond the already acknowledged fact that maps always hold a moment of interpretation. It shows this tendency to break away from the split between subject (human) and object (non-human) and this view on cartography might be an important tool to investigate different concepts of territory. Geopoetics is concerned with developing a sensitive and intelligent contact with the Earth, and with working out original ways to express that contact (McManus 2007, p.183). This original (in the sense of authentic) way of expression is the 'poetics' in 'geopoetics'. White wants to reintroduce the poetic perception, long marginalised in the (modern) worldview, as something that transcends and deepens scientific knowledge. This shows in White's global concept of geopoetics that reintegrates science and poetics, the fields of knowledge and experience, and in working on the language and the rhythms and tonalities required to express this wholeness, achieves a "sense of world" combining both abstraction and sensation' (McManus 2007, p.133).

Through White's writings, it becomes clear that geopoetics often centres on the concept of expression. As noted, geopoetics is not so much about establishing a unifying theory but rather looking for a new voice, a new language that assembles and captures science, art, economy, technology and ethics. Creating this new language is needed because during the techno-economic period we have lost the capacity to name things. Instead of naming we are used to categorising, giving things a fixed place in a predetermined formal system (Amar 1992). Geopoetics clearly embraces the notion of irreduction, a poetic type of thinking, and wants to break away from the notion of reduction as present in scientific thinking.

Relation to landscape urbanism

In geopoetics as developed so far there are only scarce explicit references to urbanism. Patrick Geddes, a well known biologist and urban planner (1854-1932), is mentioned as an inspirational figure because he called for a new way of looking and living on Earth that looks forward to a 'geotechnical' world (McManus 2007, p.63). Volker Welter describes Geddes's interest as the interaction of life with the environment, which also underpins his fascination with cities and mankind's urban environment. Welter refers to the two diagrammatic drawings, the Valley Section and the Notation of Life, that summarise Geddes's basic ideas about the city: 'Both diagrams are more than graphical representations of complex trains of thoughts, they are calls for action to improve the built and natural environment. The Valley Section depicts an ideal regional-urban condition, whereas the Notation of Life embodies concrete architectural proposals how to realise that ideal condition' (Welter 2001, p.89).

But it seems to me that there is today another potentially inspiring reference for geopoetics in urbanism: the Landscape Urbanism movement. Several principles that underpin Landscape Urbanism resonate with geopoetic principles and also provide potential starting points to answer Lemaire's complaint about the urbanocentrism and city-centricity of our contemporary world and the consequent alienation from landscape. After all, Landscape Urbanism shifts the focal point

from city to landscape. Landscape becomes both the lens through which the contemporary city is viewed and the medium through which it is constructed (Waldheim 2006). The earlier mentioned current revival of interest in landscape for Lemaire, signifies a crisis of the landscape caused by the high tempo of changes and man's inability to adapt at even pace to the changing landscape. The adaptation problems, according to Lemaire, are not so much caused by the fact that the landscape is human made but rather the big scale, rudeness and fast pace with which the landscape is shaped (Lemaire 2002, p.52). This ties in with the dimension of enormousness identified in the previous chapter as part of the problem of urbanisation. The predominance of the urban type of settlement seems to have caused an uneasiness regarding landscape in so far as it escapes being conceptualised and functionalised as part of the urbanised area. White says that 'over the centuries and the millennia, along what I call the highway, the autostrada of civilisation, we have witnessed a progressive loss of this relationship to landscape' (White 2008). Modern technique and world powers have loosened people from their local ties. In a negative sense, this means that they are disorientated in an unstable and indifferent environment. Lemaire calls this 'delocalisation': a disintegration of the rapport between people and the landscape (Lemaire 2002, p.51). According to Lemaire, everything that happens in society, eventually reflects in the landscape and becomes visible in its structure, its forms and colours. In the landscape, he says, we are continuously confronted with our selves, because the landscape is for the most part the sediment of our history. There is permanent interaction between people and their environment in the sense that people influence and design their environment but, are also influenced by their environment (Lemaire 2002, p.52). The state of mind of a people indeed reflects in and has great consequences for the relation to and design of a landscape. The relation to landscape is, in my opinion, an important aspect of the concept of territory mankind uses in conceptualisations of world. According to White (and also Lemaire) this relation becomes critical at the beginning of modernity – that is, with René Descartes. White notes that in the course of modernity, as a consequence of the separation of subject from object, the outside environment is increasingly considered as simply raw material, raw space, to be exploited, and human being have become separated

from the external environment (White 2006, p.7). Lemaire discusses a same kind of alienation from the land. He observes the on-going rapid urbanisation of the world as a tendency, seemingly impossible to stop or to redirect into more land-sensitive forms. However, Lemaire acknowledges that there is a growing understanding that man is part of the 'tissue of life' and hence, a growing respect for the Earth and other living creatures – an evolution which can be considered part of the planetisation movement. Taking this evolution into account, he proposes that the time is now right to develop a 'land-ethic' (Lemaire 2002, p.70). Developing a land-ethic would then necessarily involve revising concepts of territory, revising concepts of claiming rights to the land. If we look again at Landscape Urbanism then, we see that as geopoetics, Landscape Urbanism envisions a broader interpretation of ecology. In his discussion of James Corner's work, Gray notes that 'the interest in ecology as a lens by which to understand the complex inter-relationships of the contemporary city has been noted, but where Field Operations perhaps goes further is to apply such ecological concepts to more than the traditional natural systems which appear somewhat removed from the city; political and social components are considered as part of the overall city ecological mass, along with cultural and economic systems which are embedded in and interact with "natural systems" of the traditional ecological realm. In broadening the view, but still applying familiar concepts, the possibility is the development of a space-time ecology that treats all forces and agents working in the field and considers them as continuous networks of inter-relationships' (Gray 2006, p.64).

This opening up of ecology and including urban life is something that the Landscape Urbanism movement seems to address when considering the problem of contact with nature and the Earth in heavily urbanised areas. A common criticism of the geopoetic perspective is that the contact with earth, the direct contact with the lie of the land and the geography is not evident in dense cities and heavily urbanised areas. White's answer to this is that 'even in the most urbanised context there are always signs, traces that we can locate and be attentive to once our mind is sensitive to it' (White 1989). However, White doesn't elaborate further on how these signs and traces should be in-

terpreted and developed geopoetically. Gray states that 'we are perhaps in a period where the understanding of "natural" systems in cities is only just starting to emerge. The conceptualisation of the ecological structure to cities and their supporting landscape systems is a critical problem when the global trend is for more and more people to live in urban areas' (Gray 2006, p.XIII).

The poetic aspect, in the sense of another way of knowledge production and searching for another language is manifested in Landscape Urbanism too. Charles Waldheim, in his 'Reference Manifesto', mentions the search for a new language as central to Landscape Urbanism (Waldheim 2006). This concern to develop a new language, a new voice is indeed another parallel with geopoetics and is accompanied by a similar dedication and attention to the development of appropriate modes of expression, with again a special focus on different kinds of richer cartography, akin to the development of a mindscape in a landscape advocated by White. The question of expression is coupled to the larger question of working method. With regard to the working method, Corner suggests an approach which seems akin to geopoetics:

working synoptic maps, alongside the intimate recordings of local circumstances, comparing cinematic and choreographic techniques to spatial notation, entering the algebraic, digital space of the computer while messing around with clay and ink, and engaging real estate developers and engineers alongside the highly specialised imaginers and poets of contemporary culture. [...] the failure of earlier urban design and regionally scaled enterprises was the oversimplification, the reduction, of the phenomenal richness of physical life. A good designer must be able to weave the diagram and the strategy in relationship to the tactile and the poetic. (Corner 2006, p.32)

It is clear here that similar concerns to the ones expressed in literature and philosophy (referring here to White and Lemaire) have been and are currently picked up by design disciplines as architecture, landscape architecture and urban planning, and that discipline-specific answers to similar concerns are being developed. Landscape Urbanism is one example. The notion of orbanism mentioned earlier is another. An im-

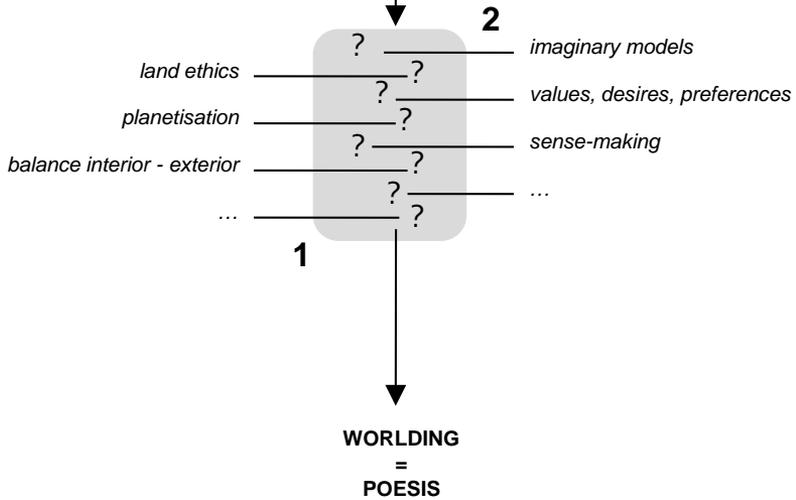
portant aspect that is common to Landscape Urbanism, urbanism and geopoetics is ethics, or more particularly land-ethics, as Lemaire calls it. In that respect, geopoetics and urbanism to a certain extent discuss conscientiation. Urbanism is not urbanism on an even bigger scale; urbanism instead wants to develop the *ethos* of urbanisation. The urbanist approach wishes to emphasise that the local urbanisation process has to relate itself to the global urbanisation process. This implies taking responsibility for the entirety without the intention to actually design the entirety. Urbanism wants to foreground the global socio-ecological program that needs to be understood behind every particular urban program, whatever its scale. The socio-ecological perspective urbanism formulates, however, somehow fails to go beyond the propositions also found in the sustainability discourse. Geopoetics seems to offer a more radical and philosophically challenging foundation for rethinking the way we inhabit our environment. Urbanism relates more directly to architecture, urban planning and design, whereas geopoetics relates more to literature, philosophy and geography. However, the 'sheer physicality' in which geopoetics is grounded, seems very appealing to designers, while urbanism at certain point risks gliding into almost purely socio-political issues.

Chapter 3.

TWO LINES OF INQUIRY

Looking back at what has been discussed in the previous chapters it seems to me that the context of climate change and the evolution towards a planetary consciousness, will have an important influence on our changing worldview and on our concept of territory. To my mind, this inevitably needs to be reflected in the spatial format of urban settlement. This is of course, already being addressed in the sustainability discourse, with lots of studies being made and brought to practice in the idea of 'sustainable cities'. The sustainability discourse takes an essentially corrective stance – that is, it aims at mitigating, remedying and repairing the negative or plainly perverse effects of our current concept of territory and way of urbanising. This focus on corrective measures is in line with the management approach mentioned earlier. There is no doubt that this corrective approach is badly needed. Not only is there an immediate need to solve urgent problems, corrective measures are also a means to gradually prepare and guide our thoughts and practices towards a more profound change. However, in times when environmental issues have made it to the top of (part of) the world's agenda, it seems to me that we need to do more with the relation of human settlement to the environment than applying corrective measures to the city. What is needed here is reconceptualisation. We need to get out of the techno-mechanistic level in which many of the issues of urban and environmental sustainability regarding urbanisation and the environment are rooted. In this study so far, two lines of development have come to the fore along which this reconceptualisation can be further explored. One line concerns the *context for reconceptualisation*, the other line concerns the development of *a way to reconceptualise*. The following will summarise the issues discussed in the previous two chapters into these two lines of inquiry.

URBANISATION
Habitability of the world



1. Context of reconceptualisation: world / landscape motivation
2. Way to reconceptualise: poetic knowledge building

3.1

REFRAMING URBANISATION IN A CONTEXT OF WORLDING

We are witnessing a general crisis in the relation between the overall environment and the way we inhabit it. The current worldview has become global, and translated into an unbridled space consumption that is putting mounting pressure on the environment worldwide. This results in a growing impasse over the impending unsettlement of the habitability of the world due to an unsettled urbanisation process embedded in an unsettling worldview. This creates the context in which to argue that we should invest in exploring potential shifts in worldview and how this can create a renewed context for urbanisation. I suggest that a reconceptualised urbanism will emphasise a renewed relation between the human and the non-human and that the purpose of this reconceptualisation is to revise the frame that structures the interaction between the agency of humans and the agency of the environment. The challenge is to re-orient our focus to a renewed spatial format of urbanisation such that the growth of the 'exterior' environment (based on land-ethics) and the growth of the 'interior' environment (the inner working of urbanised areas) become more balanced. The previously described impending over-extension of urbanisation and consumption of space is already triggering reactions that address the relation of the urban to the overall environment and the sense of relating to a broader context (both physical and metaphysical). This is expressed in what we might call a growing 'world motivation' and 'landscape motivation'.

World motivation

With 'world motivation' I refer to the globalised scale and scope to which the concept of urbanisation has grown, covering an increasingly large portion of the Earth and gradually parts of the sea as well. As a reaction against globalisation, of which much of our urbanisation models are an expression, some other notions are emerging like planetisation and mondialisation. With these terms some more fundamental changes in worldview are envisioned. Therefore, I believe the concept

of the meaning of 'world' to be constitutive for reconceptualising urbanisation. This issue of world motivation is quite well summarised by Nancy in the following question, which can be seen as a design question:

Our task today is nothing less than the task of creating a form or a symbolisation of the world. [...] This is neither an abstract nor purely formal task – whether this word is taken aesthetically or logically. It is the extremely concrete and determined task – a task that can only be a struggle – of posing the following question to each gesture, each conduct, each habitus, and each ethos: How do you engage the world? How do you involve yourself with the enjoyment of the world as such, and not with the appropriation of a quantity of equivalence? (Nancy 2007, p.53)

Basically the issue is that the concept of urbanisation is a type of coexistence that people constructed to make the world inhabitable to them. So how can we (re)act and think anew if the way we urbanise the planet now threatens the overall habitability of the world?

Landscape motivation

Since modernity, a city-centred worldview is dominating the discourse on human settlement and draining the most design activity to the issue of the urban, the city. In contemporary urban theory the concept of urbanism seems to be restricted to centre on the urban way of life. The 'countryside networks' from Cerda's original definition, or in an enlarged sense the physical environment, the territory, the landscape, is still largely left out of the equation – or, it is certainly no leitmotif. The rather rudimentary attention that is given – especially in large-scale urbanisation processes – to the impact or understanding of the relation of urban development to the physical environment points to a very anthropocentric, and hence city-centred, society. The emerging landscape motivation and the consequent shaping and designing of the landscape is not necessarily a retreat from this urbanocentrism. As Lemaire pointed out, landscape is very much planned and designed to fit neatly into the typical land-use designation and zoning-reflex of urban planning. This is a sign that the landscape is in fact also submitted or rather, incorporated into the overall urbanisation process. That is, it is made

and designed in function of the urbanised areas, functionalised as breeding space for the densely populated urbanised areas, as a garden for society. However, despite this often urban mind-set towards landscape, this emphasis on landscape announces a change in the relation between human beings and environment. Moreover, there also seems to be a change on a deeper (metaphysical) level which resonates, for instance, with Lemaire's pleas for the development of a land-ethic (Lemaire 2002, p.70). Developing land-ethics is of course fundamentally different from 'landscaping'. It has to do with developing a stance about how to inhabit the world and how to materialise this state of mind of a society in physical reality. In other words, it is about the concept of territory.

So this landscape motivation (as for instance expressed in geopoetics) holds the potential for a reconceptualisation of urbanisation. A first step in the search for a shift in the concept of territory is moving away from the urbanocentrism and city-centredness, as can be noticed to a certain extent in the Landscape Urbanism movement. To me, the term Landscape Urbanism is an expression of a problematised relation between landscape and urbanisation – or more generally between the environment and the way we inhabit it. As such, it expresses a search for another kind of structuring of this relationship. Landscape Urbanism does not concern the development of yet another type of landscaping, a kind of designing urban landscapes. Its ambition is more far-reaching, situated on the level of conceptually re-thinking both landscape and urbanism and aiming to overcome the dualism still inherent in the term. The central position of landscape, the emphasis on territories and systems, suggests a movement away from city-centeredness and anthropocentrism. A strong focus on human relations, human needs and related problems dominated the thinking in urbanism during the modern period. This mono-perspective is now being complemented by other perspectives, including the relation with the land and with nature, and not in a romantic manner but based on an awareness of the complexity of our relation with the non-human.

The number of studies available on urbanism is vast, covering many different traditions and a wide range of different angles (from sociology

to morphology). A large portion of the current research, however, remains encapsulated in a focus on cities themselves (as phenomena to study) and the urban way of life, or the inner working of urbanised areas. This research is badly needed and must be continued, since many issues must be resolved before the city and the urban function as properly designed living environments. However, I believe that we also need to invest in research that focuses on how the concept of urbanisation defines our living environment – that is, how the enormosity and the predominance of the urban way of inhabiting and creating a world might be revised through changed concepts of territory. This implies that research in urbanism should also include the meta-level of the concept of territory as a form-giving factor – a level which is currently not enough acknowledged in research on urbanisation. I suggest that we work actively with this growing world motivation and landscape motivation in order to explore the possibilities for shifting our concepts of territory.

3.2

A DESIGN-BASED APPROACH TO RECONCEPTUALISE THE HUMAN- ENVIRONMENT RELATION

In the first sections I described a context of systemic changes, which is linked to climate change – with multiple spatial implications – but also to geopolitical and socio-economic changes. In the current situation of increasing unsettlement there is an immediate urgency to solve problems but on a deeper level there is a growing urge to make sense of the evolutions. This situation of unsettlement requires the gathering of our collective intellectual capacities, as well as intensified creative capacities, to come to a reconceptualised relation between human beings and the environment. The research approach in urbanism, being such a multidisciplinary field, is often dominated by modern scientific analysis, prognosis, and extrapolation of different trends into the future.

The present tendency to treat the socio-ecological problematic as a mere technical or management problem causes a deficit in the fundamental reconceptualisation of the way we inhabit our environment. Moreover, the nature of the problematic at stake is impossible to grasp by mere analysis and explicit knowing. Sense-making in our society is dominated by the scientific rationality paradigm which results in an essentially technical, management approach to the issues at stake. But don't we have to assume that in situations of unsettlement, reconceptualising and sense-making require a different approach, a different rationality so to speak, than technical problem solving? When the prevailing paradigm is staggering, we need to intensify our processes of collective sense-making. Through the research presented here I identified the possibility that this kind of sense-making requires not only considering knowledge of facts but also actively engaging with issues of values, which would lead to a more comprehensive problem setting. This is in fact about the necessity to integrate different kinds of knowledge production. Hence, another kind of knowledge building, poetic knowledge building, is introduced into the problem setting. I therefore propose to implement designerly ways of knowing to complement the scientific analyses because design is trained in combining issues of facts with issues of values. Moreover, if we agree that urbanism is still a discipline based on two equal, inseparable levels – science and design – then, I believe that the role of design in research in urbanism should be further developed and articulated. Using a design-based approach, models for a reconceptualised way of inhabiting the environment can be created that do not pretend to be neutral or scientific but are instead 'imaginary', imbued with values, desires and preferences and as such contribute to poetic knowledge building. From this perspective my proposition is that designing reconceptualised urbanisation models can contribute both to developing a theory of the currently evolving situation and to the investigation of the spatial consequences of a redirected worldview. Such a design-based investigation could explore questions such as: What spatial format would the redirected worldview require? What shift in concepts of territory can be achieved? What this design-based approach could look like will be elaborated in the next part.

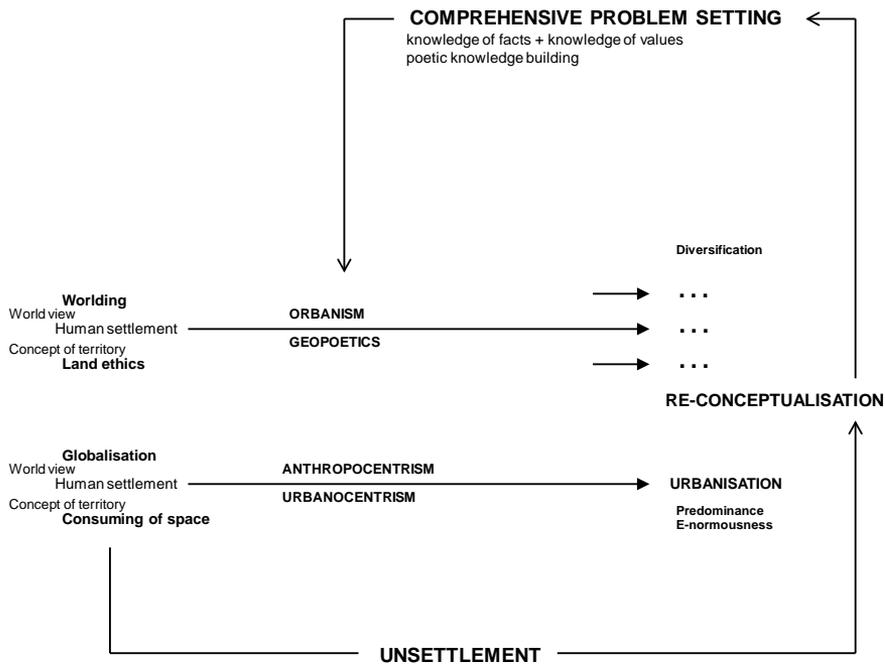


DIAGRAM – PART I

The diagram maps the key concepts discussed in the previous chapter. In the legend to the diagram the concepts are organised alphabetically and described as they are understood in the context of this thesis. The description is constructed from the discussion in the text and represents how I developed an understanding of the concept.

Anthropocentrism: Foregrounding the presence of humans and their interrelations, and neglecting the relation with the radical other, the Earth by objectifying it.

Comprehensive problem-setting: A problem-setting for the human-environment relation that not only departs from technical issues of facts but also actively engages with issues of values. Comprehensiveness is sought in the combining of instrumental and encompassing rationality, the combining of present and future and adding the capacity of sense-making to the capacity of problem solving as an appropriate way to redefine urbanisation in a context of redirected worlding. The designerly way of knowing inherently has this capacity of comprehensive problem setting.

Concept of territory: Connotes the stance people take towards space and the way they appropriate space. In the context of urbanisation, the concept of territory refers to the way people claim space in terms of ownership and use. The concepts of territory constitute the meta form-giving principle of (urban) settlement and act as the metaphysical guiding principle of urbanisation.

Geopoetics: A movement that concerns the manner itself through which man grounds his existence on Earth as the ultimate ground. Geopoetics foregrounds mankind's relation to the Earth as 'radical other' because of its non-human presence that is still basically human (*humain = humus = terre*). It is a movement that aims to radically

rethink the relation of mankind to the world and as such brings about a real cultural transformation. It proposes principles for a closer, more sensitive relation between the dynamics of human agency and the dynamics of the Earth. It thereby goes beyond ecology because geopoetics concerns our sensory, intellectual and practical relation to the Earth, not only the preservation of the environment. The Geo involves the environment at large, human and non-human, the 'sheer physicality' as a sense of space and materials, movements, animation within that space. Poetics involves the notion of a making, a poetic intelligence, a geography with a strong aesthetic and also spiritual dimension. Geopoetics accomplishes an exploration somewhere between poetry, philosophy and science. The accent is not on intervention but on immersion.

Globalisation: A politico-economic movement with a largely modernist, materialistic, mono-cultural worldview. Globalisation refers to the globality of the market – of the circulation of everything in the form of commodity – and with it, of the increasingly concentrated interdependence that ceaselessly weakens independence and sovereignty, thus weakening an entire order of representations of belonging. Globalisation is to be understood as an enclosure in the undifferentiated sphere of a unitotality, an attempt to dominate cultural worldviews and consciousness around the planet. The related concept of territory is one that increasingly consumes space and stimulates processes of denaturation

brought about through technology. This goes hand in hand with the modern worldview that sees man as the ruler of nature, taking the Earth as raw material to exploit (consumerism).

Human settlement: The materialisation and expression in physical reality of the metaphysical relation people take towards one another and towards their place in the environment. As such, it is the materialisation of a particular worldview, the creation of an 'interior' human environment according to a particular concept of space and a local world creation.

Land ethic: Springs from a growing respect for the earth and other living creatures due to a growing understanding that man is part of the 'tissue of life'. Land ethics is an important aspect of urbanism and geopoetics as movements that offer a more radical and philosophically challenging foundation for re-thinking the way we inhabit our environment. Developing 'land-ethics' is fundamentally different from 'landscaping'. It has to do with developing a stance on how to inhabit the world and how to materialise the state of mind of a society in physical reality. In other words, it is about revising the concept of territory, revising concepts of claiming rights to the land. It starts from an awareness of the complexity of our relation with the non-human.

Mondialisation: Keeps the horizon of a world as a space of possible meaning, of possible significance for the whole of human relations. Planetisation and

mondialisation are suggested as possible perspectives from which to develop concepts of territory and consequently spatial formats for urbanisation other than the dominant globalisation.

Urbanism: Opposes the worldview of globalisation. Urbanism holds that a theme, a concern and the development of a particular mode of inquiry must go together. The theme concerns the totality of the Earth, human and non-human, space and society and the aspiration to formulate a specific attitude and motivation, a specific ethos regarding the urbanisation processes. Concerning the mode of inquiry a specific responsibility and role is attributed to the disciplines that organise space, and to the development of theoretical, conceptual and visionary urbanisation models.

Planetary: Offers a counterpart to globalisation, aspiring to a more anthropo-socio-cultural and ecological framing of the world with respect for individual and cultural diversity. The term planetary refers to the critical awareness of the impending planetary crisis. Planetisation and mondialisation are suggested as possible perspectives from which to develop concepts of territory and consequently spatial formats other than the dominant globalisation.

Reconceptualising urbanism: Revising the frame of thoughts and practices that structures the human-environment interaction. The enormity and predominance of urbanisation, combined with climate

change, confront us with the unsettled habitability of the world and thus an urge to reconceptualise our ways of inhabiting the planet. Reconceptualising urbanism requires programmatic innovation and social engagement. It concerns the meta-level of urbanism, the concepts of territory. It is a matter of re-signing.

Unsettlement: The feeling of being 'unable to know' not because of a lack of knowledge of data, but because the frame for making sense of the data - the paradigm - is distorted. This situation is caused by profound systemic shifts on the social, economic, political, ecological levels. When the overall environment becomes to an important degree unsettled, the habitability of the world is under threat. This raises questions about the validity of established concepts of inhabiting the environment and worlding. Unsettlement requires an intensified process of sense-making.

Urbanisation: The process of the becoming urban of societies. Urbanisation is an instantiation of the ruling worldview whereby macro and meta-systems act as often unnoticed form-giving factors. The urbanisation process in its current expression represents the dominant concept of territory in the capitalistic worldview. It constitutes one of the driving forces of the capitalist world-system, incorporating and subjugating the entirety of the world to the urban logic: globalisation. The urbanisation of the world happens through connecting, making accessible and functionalising every remote

corner of the Earth, thus creating a networked structure cast upon the planet, an urbanised continuum. The rapid urbanisation of the world seems impossible to stop or to redirect towards more land-sensitive forms. This results in the enormousness of the worldwide urbanisation process and the predominance of the urban life world that is incorporating to an ever increasing extent the overall environment.

Urbanism: The study of the urban way of life in all its aspects, including urbanisation processes and types of urban settlement. Urbanism is trans-disciplinary by nature, theorising and practicing the concept of inhabitation of the world from an urban perspective.

Urban design: As a kind of up-scaling and up-scoping of architecture, and down-scaling and down-scoping of urban planning, urban design involves the design and physical reshaping of urban fragments.

Urban settlement: The manifestation and materialisation of the urban mind-set into a specific spatial format. Urban settlement has reached the status of the default type of settlement worldwide.

Urban planning: Operates in a rather immaterial or far less physical way than urban design. Urban planning, as part of spatial planning, shapes the spatial disposition of activities, buildings and spaces mostly indirectly by influencing the actions of many involved stake-

holders. It involves to a large extent the design of processes and policy.

Urbanocentrism: The tendency to judge and evaluate everything from the perspective of the urban, the city and the citizen. Urbanocentrism is the economic, cultural and mental, ideological dominance of the urban. It results in a monoperspective on concepts of inhabitation.

World: Is a totality of meaning, a totality to which a certain meaningful content or a certain value system properly belongs. It is place, in the strong sense of the term, as that which allows something to properly take place. A world is a common place of a totality of places: of presences and dispositions for possible events. This implies a creation of the world as a praxis of meaning and of dwelling, since inhabiting necessarily means inhabiting a world. A world can also be seen as something more like a tone, an attunement, a certain gathering whereby certain possibilities are opened up, or suggest themselves, while others remain closed off and never occur to us.

Worlding: The recognition and creation of multiple actual life worlds, a diversity of right and even conflicting worlds in the making, against ontologi-

cal singularity and universalism. Worlding is based on a new 'seizure of reality' and renewed creative energy to re-imagine and remake possible worlds. The notion refers to a sense of the world as an unformed but generative flux of forces and relations that work to produce realities. Worlding is concerned with shifting of concepts of territory. It is about creating a viable form of 'inhabiting' or 'being-with-oneself-and-the community', the successful new design of liveable immune circumstances which involves not only material protection but especially a sense of belonging, being at home in the world. Worlding leaves the sharp division of the world into object and subject in order to re-think and re-ground the relation between human and Earth. With worlding as a guiding principle, the challenge is to re-orient our focus to a renewed spatial format of urbanisation such that the growth of the 'exterior' environment (based on land-ethics) and the growth of the 'interior' environment (the inner working of the urbanised areas) become more balanced. Worlding is a form of originary *poiesis*, enabling our dwelling. It requires the shaping of a mindscape in a landscape. Poetic knowledge building is an integral part of the metaphysics and epistemology of worlding.

PART II

PROJECT-GROUNDED ELABORATION evolving from design to research

In this second part of the thesis four design projects take the lead. They constitute, and in a way summarise, a specific part of my design experience and design interest, and as such they have formed the breeding ground for developing the research approach and for delineating the research topic. These co-authored design projects produced the material from which I derived the issues and concerns regarding reconceptualising urbanisation as described in Part I. They also serve as instances of a certain genre of design from which I will derive some more specific design characteristics. I suggest that the composition of these selected conceptual design qualities into a mode of inquiry intentionally directed to reconceptualising, may lead to a specific form of research that I call ‘projective research’.

In *Chapter 4* the context and content of each of the design projects is described separately. Then follows a process of abstracting from the projects design questions and principles that concern the general topic of urbanisation and worlding, thus bringing particular design topics to an overall research topic. In a similar process, the projects are subsequently analysed in terms of the typifying aspects of the genre of design that could evolve into research qualities. Based on the characteristics distilled from the projects, the potential epistemic role of this genre of design in research is then further elaborated in *Chapter 5*. The main design characteristics of the conceptual design projects are related to critical design, utopian thinking and poetic knowledge building, and then related to research. Part II thus mainly elaborates how the agency of the design projects can change from critical proposal to critical inquiry.

Chapter 4.

CASE STUDY: FOUR DESIGN PROJECTS

As a way of immersing the reader in the material from which I gradually developed the research topic, I will describe four design projects in which I was personally involved: The Unadapted City (T.O.P.office), M.U.D (FLCextended), COASTOMIZE! (FLCextended) and The Future Commons 2070 (magnificentsurroundings.org). My involvement was different in each project and situated in different periods of time in relation to the actual research. I was involved in the first project, The Unadapted City, as architect-designer for six years. The team working on the project varied over time from two to ten designers. This project was finalised before I started my PhD studies. The second project, M.U.D, was also finalised before I started my PhD studies, but I worked on it during the preparatory phase of my PhD as part of a team of seven designers. It was a short project of only four months. The COASTOMIZE! project took three years, the last year concurrent with my PhD work. My involvement consisted of reflecting on the design steps that were taken. The Future Commons 2070 project evolved in parallel with my PhD project. I was involved as researcher, advisor, co-author for a number of papers, and took part in workshops throughout the development of the project.

4.1

THE PROJECTS

The projects have a critical design attitude, conceptualising the way to inhabit the environment through visionary spatial models that challenge prevalent values and problem settings. They have an urban and landscape scale and scope. The four design projects are analysed according to four topics:

The context in which the project was born: ‘the story of the brief’

The resulting response to the brief

The project definition and objectives

The working method

Depending on the specific characteristics of each project the four topics can have different emphases. While in one project the story of the brief is important (i.e. The Unadapted City), in another project the working method is emphasised (i.e. M.U.D).

The CD addended to this thesis provides more images that slide-show the context, the design process, artefacts and publications of the different projects.

THE UNADAPTED CITY / T.O.P.office - [1995 – 2004]



The Unadapted City - Model VIPcity, Zeemijl – T.O.P.office

THE STORY OF THE BRIEF

In 1995 Luc Deleu, founder of T.O.P.office, initiated a design project called The Unadapted City.¹⁶ This project became the central design in the office for over eight years. There was no external commissioner for this project and as such no conventional or clearly delineated brief, or timeframe. The project did, however, have a kind of internally formulated brief. T.O.P.office is mostly known as a so-called 'conceptual design practice'. Apart from a relatively small amount of building projects, this office devotes a lot of time and energy to conceptual (urban and art) projects. The Unadapted City was such a conceptual project that was conceived in the general design philosophy of the office. The basic statement that drives T.O.P.office is that a conceptual design practice, by means of its examples, design methods and strategies on the formal, spatial, structural and programmatic level, is able to produce a stimulating frame for daily practice. Hence, this can be considered the general context in which The Unadapted City was developed.

Internal brief: developing the concept of 'urbanism' by means of spatial models.

Within this general context of developing conceptual design projects as a stimulus for daily practice, T.O.P.office developed a more specific design philosophical framework called, 'urbanism'. The project The Unadapted City is part of the further development of this concept of urbanism. The start of the development of this concept was the formulation of the 'Urban Manifesto' in 1980. This manifesto was at that time a rather unusual and provocative plea for what is now called sustainability directed towards the design disciplines. Urbanism, a concept developed within the design field of art, architecture and urbanism, has a lot in common with the concept of sustainability in urbanisation as it was developed in several academic disciplines. Urbanism is an ethical-theoretical context of thinking and designing and the denominator under which the whole oeuvre of T.O.P.office/Luc Deleu can be placed and understood and it is an idea that succeeds in bringing together a whole range of opinions and attitudes in one notion. That notion, concisely formulated, describes a mental frame that is not only relevant for the work of T.O.P.office but also for research conducted

in other disciplines. In a way, urbanism is about developing an adequate conceptual frame, needed to get a grip on the nature of the social and ecological problems that urbanisation pose upon the world. A specific and typical aspect of the urbanist approach is that the urbanisation process is always considered and studied in relation to the world, to the Earth as a whole. Urbanism starts from the assumption that the Earth in its entirety and as a system constitutes the context for acting in space. This seems somewhat obvious and also rather abstract. Of course acting in space is situated on Earth, and so this planet forms the context, background and physical space of spatial research. But what urbanism wants to make explicit is that acting in space is not simply situated somewhere on Earth but that the area that is organised or designed is part of a more all-embracing system. Therefore good design, from the urbanist point of view does not only searches for coherence and dialogue with the local context but also searches for a coherence and dialogue with the entirety of the globe. Urbanism in that sense stands for a design practice integrated on a planetary scale. The Unadapted City as a design project has been set up to further elaborate this overarching concept of 'urbanism' and as such basically investigates the preconditions and adequate models for a socio-ecologically fair urbanisation process by means of theoretical, conceptual or visionary spatial models. This we can consider the internal 'brief' for the project The Unadapted City.

Trigger of the project: Vienna Usiebenpole (1994-1995)

The Unadapted City investigates – as the name indicates – the city, or rather, the organisation of urban life. It is a design project that builds up understanding and develops vision about urbanisation. The trigger for this project was a scheme for a 22-km-long city extension for 120.000 inhabitants we designed during a summer school in Vienna.¹⁷ We were struck by the number of residential settlements that were built in the open space around Vienna at that time. Although a lot of attention was given to qualitative architecture in these new settlements, they were situated as islands around the city, characterised by low density, lacking amenities and adequate connections with the city. Therefore, even if some of the architecture was conceived in a sustainable matter, the overall urbanisation model of the extensions was con-

sidered unsustainable. Together with an international group of students we developed an alternative extension on the Danube-Island with a very high density, close to the city centre, well connected to public transport and the airport. Back at the office we started The Unadapted City with a study of all urban amenities that are needed in relation to a number of inhabitants. This resulted in an 'Atlas of Urban Amenities' consisting of large paintings and a calculation program for urban amenities. With the calculations as a base we then started to develop spatial models for an ever-increasing number of inhabitants.

Since The Unadapted City took several years, there are a lot of themes and issues incorporated in this design project. The main starting point, however, was to fundamentally think and rethink the phenomenon and features of urbanisation, since urbanisation processes determine our physical environment – especially in a densely populated area as Flanders, where almost the entire territory threatens to be consumed by a rather unsustainable form of urbanisation, namely 'urban sprawl'. In line with the general concept of urbanism, the underlying core guidelines for the design of the spatial models were the social sustainability and ecological sustainability of urbanisation. The social sustainability in The Unadapted City was mainly approached through the development of public space, including infrastructure, as the prior structuring principle of the urban models. We therefore adopted the statement that the opinion of the public character of space holds the key to a socially just and more human urbanisation process. Hence, thinking about public space that brings about a more social, human urbanisation process, is a central concern of the urbanist approach in general and The Unadapted City in particular. The following questions then became part of the internal brief:

- ✓ How do we generate concepts for more socially shaped public spaces?
- ✓ How do we cope with the pressure that private companies increasingly exert on public space?
- ✓ How do we create a differentiated, multiple public space?

The ecological dimension is faced through a careful search for different ranges of density, different ways of 'touching the ground' and most of all a great emphasis on the design of public transport infrastructure. The Unadapted City must be understood here as a reaction against the

Flanders context. Flanders presents itself as a distribution region – situated as it is in the centre of Europe – and therefore over the years has developed a huge, very dense, road network. The result is a car-oriented society that is now confronted with hundreds of kilometres traffic jam every day, which causes a lot of environmental damage. Over time public transport was neglected, became nearly impossible to organise due to urban sprawl, and developed a bad reputation. Part of the internal brief for The Unadapted City was to investigate alternative models to counter this situation.

THE RESULTING RESPONSE TO THE BRIEF

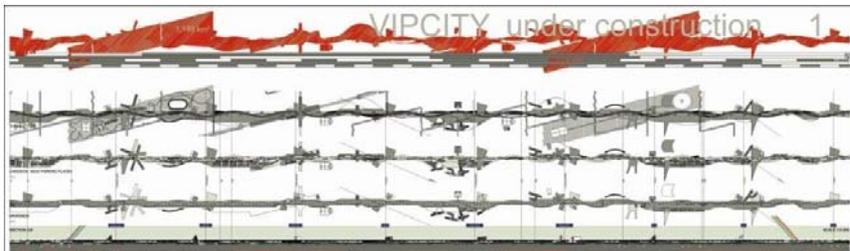
The Unadapted City – the development of spatial models with a special focus on public space and public (infra)structure.

[adapted from (Janssens 2008)]

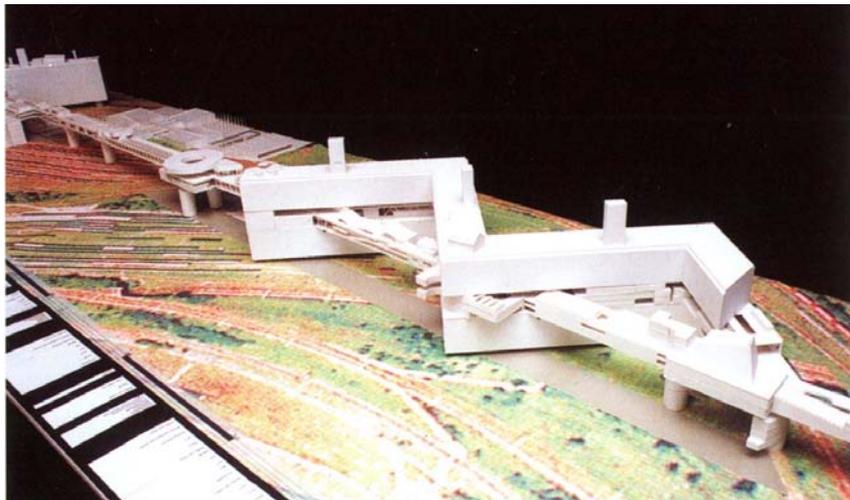
A series of ‘Unité d’habitation’-like buildings, one placed after the other in a kind of rhythmic arrangement. They are all laced together by a multi-deck bridge. A linear structure, a linear city that stretches itself out over the landscape. The ground is only touched by the pilotis that support the buildings. At first glance, due to the overwhelming presence of the ‘Le Corbusier housing blocks’ this project may be interpreted as a kind of neo-modernistic design exercise. However, choosing a qualitative ‘ready-made’ element to represent the inhabitants was not a stylistic choice but rather an indication of the desired density and a statement of our intention to leave the housing to the inhabitants to develop and instead focus our design attention primarily on the ‘interstitial tissue’, the public space and infrastructure, in order to generate a spatially and socially interesting living environment. Therefore the design of the basic structural form of The Unadapted City sought to bring urban amenities, infrastructure and living into interaction with one another so that a new form of public space was generated – one dense enough to create an intense and vibrant public sphere. This resulted in a basic concept for an urban-architectonic structure that was



The Unadapted City - Atlas of Amenties, Paintings – T.O.P.office



The Unadapted City - Model VIPcity, arrangement, Detail – T.O.P.office



The Unadapted City - D.O.S. XXI 98 Model Brikabrak, Detail – T.O.P.office

developed into a pragmatically indeterminate but formally strong architecture. The structure consists of three main components: first there is a pedestal. This pedestal contains a car tunnel that borders on and gives a view over several peripheral, car-orientated, urban facilities. The pedestal is a 'car-city'. Above the pedestal floats a tram, attached to a monorail beneath the multi-level bridge. The bridge is packed with urban amenities that are situated next to bicycle and walking tracks. The bridge functions as a meeting place for the district and offers a wide panorama of the landscape. On the promenade decks there are sports facilities, little parks and kiosks. Along the way, the promenade is sometimes inside, then again outdoors, covered or completely in the open air. This multi-level bridge is a three dimensional, spatial promenade axis that floats high above ground level. A public transport system and other infrastructures are attached to it. The bridge connects and penetrates the apartment blocks and other very diverse buildings that are 'plugged-in' along the way. This megastructure becomes more and more refined so that free and organic infill becomes possible and evident. Thus the following programmatic principles are used: the ground level is left untouched as far as possible. Housing accommodation is paired with general urban comfort and the utmost care is given to a calculated but unadapted mixture of urban amenities. Car traffic is underground and public transport is above ground. Public transport is the main infrastructure support, the backbone of this new city, and is visualised and symbolised as such, high in the sky. The designing principle used investigates how, starting from a calculation of the amenities needed, an ensemble of spaces that is as varied as possible can be offered (Deleu 2002, pp.21–37). The above-mentioned only reflects a part of a much more elaborate and complex design project. Since The Unadapted City was developed over the course of several years (1995-2004), a great many themes and issues were incorporated into this design project that consisted of several sub-design projects. One of these 'sub-projects' was called 'VIP City'. In 'VIP City' we find an exercise in connecting the local to the global scale, in accordance with the ethical-theoretical context of urbanism. As mentioned previously, according to the urbanist approach a good design does not only search for coherence and dialogue with the local context but also for coherence and dialogue with the whole of the

globe. At a certain point in the design process the question arose as to how to define the size of a suburban lot. It could be done on the basis of the desired building typology, the intended buyer, the size of the lot, the desired profit from sale, or the ideal form. In *The Unadapted City* the idea emerged that, from an urbanist approach, the size of a lot initially simply had to be determined by the amount of space available on Earth for each inhabitant. 'So the maximum size of a lot was fixed by the globally available inhabitable space per human being – in other words, it was fixed in an urbanist way. At first the total land surface, 149.664.000 km², was divided by 6.093.888.813, the population on Earth as found on the Internet at that time. This gives the available land surface per capita of 2456 ha' (Deleu 2002, pp.72–73). Apart from the undoubtedly multiple methodological objections and the relevance (depending on the specifics of the local context) of other criteria, this starting point is conceptually quite clear in every way. The clarity of the starting point is to be found in the way the size, in itself meaningless, of the globe, the abstract level of the whole, by means of very rudimentary reasoning based on the principle of solidarity, suddenly appears very concretely as the size of the individual local lot – a reasoning similar to that of the 'ecological footprint' as a regulative idea. Private living space in this way becomes embedded and integrated in universal living space and shows a feeling for scale and measurement, a feeling of connection with the whole. The idea is interesting for how it relates the concrete local situation to the more abstract, global context and indicates that appropriate importance has to be devoted to the link between local urbanisation and global urbanisation.

In response to the questions formulated in the 'brief', *The Unadapted City* dedicated a lot of study and thought to public space. On a philosophical level, the public sphere is the place where society is shaped, or at least where the collective will towards the future of society lies. With that the relationship between the public sphere and physical space is of utmost importance. *The Unadapted City* wants to express multiplicity. In that sense the design of the public domain aims at provoking an unconstrained spatial diversity, provoking or enhancing user diversity and avoiding interventions that may make this impossible. As soon as a place evolves from a multiple to an unequivocal use or meaning, that place becomes in a certain way expropriated, as is the case in

shopping malls, for instance, or theme parks. Such places are in fact deprived of public character because they are directed to only a certain segment of society. One of the tendencies that currently structures the public space and also brings about an evolution towards unequivocality and expropriation of public space is what Hajer and Reijndorp call the 'functionalisation' of space (Hajer & Reijndorp 2001). In *The Unadapted City*, urban facilities are organized from the perspective that 'a patrimony of facilities, integrated in an entity of infrastructures and a truly public space, could be a lasting testimony of a human urge in light of the current apparently unavoidable public-private cooperation' (Deleu 2002). Within this context, the designers searched for new distinctions between diverse forms of public space and new ways of creating public places in the city. A design methodology was developed that, starting from numbers, calculations of the necessary infrastructures, facilities and living space in a city, tries to create an ensemble of spaces that are as diversified as possible. Urban amenities, infrastructures, and 'private' spaces are all spatially and formally arranged and connected to one another so that they give the public space maximal surplus value. We could say that in the most ideal case and with a more socially fair urbanism in view, the design tends to place all 'capital' at stake in the most optimal way to realise the one thing that is not on the agenda of private investors, namely public space as a truly open and unrestricted space. *The Unadapted City* tries to generate an urbanism that results in spatial and social overlapping and interweaving. To achieve this, a lot of attention is paid to the arrangement, distribution, concentration, combination and clustering of urban amenities.

PROJECT DEFINITION AND OBJECTIVES

Project definition

The *Unadapted City* is a design project that generates models – models that concern the organisation and arrangement of space. In that respect, the project contributes to the development of knowledge about the organisation and design of space. *The Unadapted City*, as a design project, explores and makes explicit certain notions and opinions by

means of models, both physical and conceptual. The research starts from a specific attitude and motivation regarding space. It contributes to the development of vision regarding the organisation of space. The subject of the designerly inquiry that is conducted with The Unadapted City is, as the name implies, the city – or rather, the organisation of urban life. So we could define The Unadapted City as a project that builds up *knowledge* and develops *vision* about urbanisation. It is clear that the models that were developed by The Unadapted City do not represent a search for variations, in the sense of perfections of existing or commonly accepted forms of urbanisation. Instead, The Unadapted City seeks to develop alternative forms of urbanisation. A search for alternatives involves a criticism or dissatisfaction with the existing and the commonly accepted. This dissatisfaction originates from the feeling that some things went wrong and therefore should be regarded from another angle. The polarisation of ‘the existing’ and ‘the desired’ define the mental frame from which the motivation is derived to develop models such as ‘The Unadapted City’.

Objectives of the design

The Unadapted City basically investigates and critiques urbanisation issues through the development of alternative spatial models, almost exclusively ‘by design’. The different sub-projects of The Unadapted City were exhibited frequently and on many different occasions in Flanders and abroad, mainly in France and in the Netherlands. In this context we could say that the main objective of the project was to confront the public and policy with different visions of urbanisation and to trigger important questions about our way of organising our living environment. The Unadapted City seeks to develop alternative forms of urbanisation. It is critical of current urbanisation models and expresses this critique in the design of a prospective alternative. The Unadapted City frames within the concept of urbanism. Urbanism is concerned with the far-reaching and unbridled space consuming pattern that the global capitalist economy imposes on the world. Furthermore, a strong belief in the necessity of another, more socio-ecological approach towards space is articulated. These very general standpoints should be further developed into a more articulate and precise spatial frame in order to become truly inspiring for the field of urbanism. An

objective of a project like The Unadapted City is to investigate this. Another objective for The Unadapted City is to search for design principles and strategies that could form a counterweight for market-driven corporate urbanism. Therefore, The Unadapted City looks for models of urbanisation that relate local space-consumption to global space-consumption. It is concerned with the available space on Earth and how to use it carefully and ethically.

WORKING METHOD

The fact that there was no client for this project created a special, rather unusual situation to work on an architectural design project. The dynamics that drove the project were completely dependent from the internal dynamics in the office, the drive to design and think about the issues and the motivation to continue the work over many years despite a lack of funding. A way of working that ruled in the office was that at any moment in the design process we worked towards a very concrete 'artefact'. So every step in the thought process was guided by means of expression and design and always resulted in a product that could be exhibited. The aim was to validate and consolidate all study in an expressive artefact. These artefacts in turn were instruments for guiding and developing thought. The products were paintings, models, drawings and books. Often the project got a boost when an opportunity to work towards an exhibition was present. Many different people over the years worked on the project, so a great deal of energy was invested in conveying all the information on the project to new people. In the office, there were debates on a regular basis. Occasionally also external experts were invited. For years the project was always present or 'exhibited' in the work rooms of the office.

M.U.D / FLCextended2005M.U.D - [2005]

The intentional rupture of the coastal membrane to induce the age of Multi-User Dimension

67kilometers of Belgian coastline, satellite image – FLCextended2005 M.U.D



Artist Impression – FLCextended2005 M.U.D

THE STORY OF THE BRIEF

In 2005 Adriaan Geuze, founder of the Dutch office West 8 was appointed curator of the second International Biennale for Architecture Rotterdam. He chose 'The Flood' as the overall theme of the event. Within this general theme, there was a subtheme called Mare Nostrum. Of all the International Architecture Biennale Rotterdam 2005 exhibitions, Mare Nostrum was the most international and most markedly research-oriented. The Biennale team framed this subtheme as follows:

Mare Nostrum is concerned with one of the most conspicuous trends in globalisation, namely the rise of (mass) tourism, and its relation to the presence of water. Specifically it focuses on the coastlines of countries, in temperate and sub-tropical climates, that during the past centuries, decades or recent years have become a favourite destination for recreation and retreat. Starting off in 19th century Britain, the phenomenon of coastal tourism has gradually spread over the world, with diverse cultural, environmental, economic and political implications.¹⁸

The Flemish Architecture Institute (VAi) was asked to curate the Belgian submission to this exhibition. They installed the following project procedure: in November 2003, the VAI launched a call towards all Belgian designers who are working on the topic described above. They received over twenty responses from designers, architects, critics and photographers. A team of experts was appointed to define the design question or design brief, based on the material that was submitted. They also had to select a design team to design the project about the Belgian Coast under the framework of the Mare Nostrum exhibition. The committee decided that the working title of the Belgian submission would be 'Seascaping / Landscaping: Future Conflict' and defined the project brief as follows (28 jan 2005):

The Belgian *Atlantic Wall* almost uninterrupted separates the sea from the polder landscape. With the coastal road and coastal tramway as main axes, the 67 km of Belgian coast was submitted to total tourist

exploitation. Driven by speculative and private initiative and by mere pragmatism, the Belgian coast was transformed to a lingering, but extremely narrow, urban entity. The pressure of luxurious living, (mass) tourism and recreation on this urbanised strip and on the landscape behind it ever increases. Agricultural tourism, holiday resorts and landscape recreation conquer the hinterland. But also the sea is potentially an area to exploit. Seascaping is emerging. An integral spatial approach of both the urban and the natural landscapes is pressing. In a case study, the focus will be put on a cross section of the coastal strip. With the sea as main player and the protection of the 'Coastal Linear City' as theme, the design team, departing from a scientific analysis of the maritime and landscape characteristics of the sea, will study which spatial concepts and scenarios are possible. The coastal defence is one of the most important challenges of the coming future. Not only the economical strength of the harbours has to be preserved, also one has to carefully address the cultural and experiential value of the Belgian coast and the special relation between people and the sea.

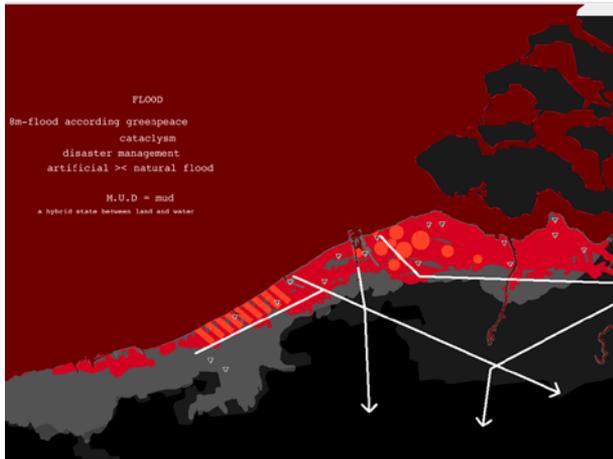
The committee appointed two teams to work together on the above described design brief. The teams were GAUFRE and FLCextended.¹⁹ GAUFRE was an interdisciplinary team of researchers of the Maritime Institute of the University of Ghent. They had submitted a scientific research project, called 'A Flood of Space, towards a spatial structure plan for sustainable management of the North Sea.' in response to the call from the VAI. The GAUFRE team ended their study with a couple of spatial scenarios that, according to the committee, lacked design quality. The other team, FLCextended, consisted of designers in free association who had already designed a number of projects along the coast. These had a high design quality but, again according to the committee, lacked profound scientific analysis. Hence, the committee concluded that the two teams could complement each other. The committee asked FLCextended to approach the urbanistic problematic of the Belgian coast from landside as counter image to the scientific GAUFRE research project of the University of Ghent, which was a study of the sea. The committee also suggested to work on the city of Ostend as a case study, since Ostend was perceived as representative and there was a lot of available information on the city.

THE RESULTING RESPONSE TO THE BRIEF

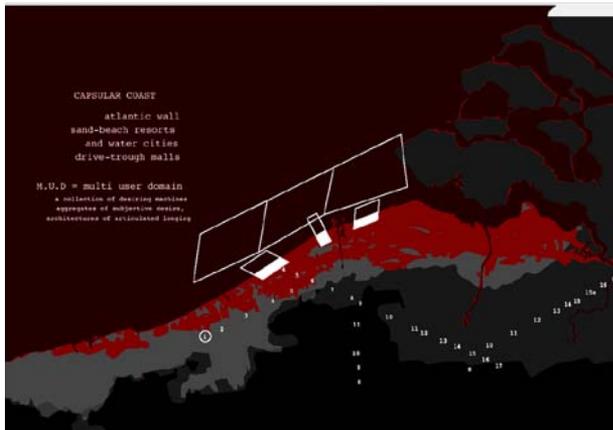
Prologue [*excerpt from (Godts & Janssens 2012)*]: 67 kilometres of Belgian coastline. Every metre of this heavily exploited strip along the North Sea is considered by its users to be a highly personal possession. A possession to whose many aspects they simultaneously lay claim. The Belgian coast is for individual consumers and is in no way attached to any sort of sense of collective responsibility whatsoever. Where hyper-individualism and the economy of experience intersect, that's where Mare Nostrum Mare Meum is. Mare Meum, 'my own personal sea', is under threat, and with it the illusion of the enchanting world for which we, the consumers of experience, are constantly in search. With the possibility of a deluge and a number of social phenomena at the back of our minds, a manipulated satellite picture crystallizes, on a tapestry, the premonition of a new era, one of mud. In the MUD era there are on-going negotiations over the dividing lines that were formerly fixed boundaries. Boundaries between water, land and air and also between use and development. In the MUD era concessions to the rising water are compensated by risk management and local super-defences. And each point within the MUD barrier zone is capable of transforming or upgrading itself economically, culturally and socially. This image is not a scenario for the distant future. It shows explicitly what is already under development – though scattered and fragmented – or is being kept under control. The division of land on the polders, the flooded fields after a downpour, the over subsidization of agriculture, the holiday villages and tropical resorts, the reports on the coastal defence strategy and the urban beaches. These elements all had a significant influence on the creation of the final picture.

Flood/Capsular society/Hyper-economy: three global trends as the basis for a local scenario

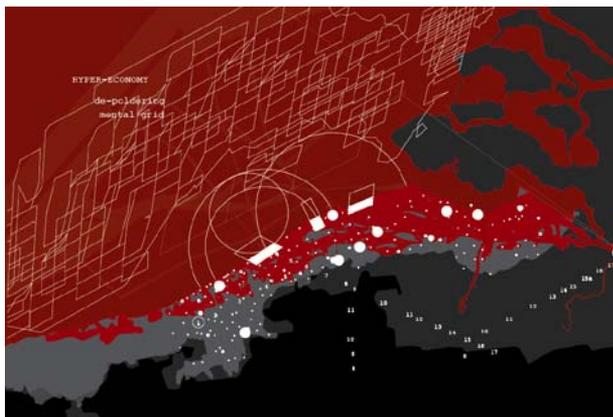
The design team picked up on three social trends as usable ingredients. Although floods, the capsular society and the hyper-economy are contemporary concepts, it has not yet been established to what extent they will influence the future. However, they do provide three original angles to look forward from the existing reality to a possible reality.



FLOOD – FLCextended2005 M.U.D



CAPSULARITY – FLCextended2005 M.U.D



HYPER ECONOMY – FLCextended2005 M.U.D

1) The changing climate and rising sea level force us to re-examine the relationship between land and water. The 'Flood' phenomenon does not revolve solely around the danger of flooding, but round the interaction between water and land and the effect it has on the border area between the two. Belgian coastal defences are not based on the possibility of a deluge. Without additional measures, the sea will break through the dykes and reoccupy the old polders. What if we were not to stick to a strict dividing line but, instead of reinforcing the dyke, allow water and land to fight for their own territory? In this scenario the borderline would change into a transitional area in which the surf is free to play with time and space. The following perimeters might be used to fix the conflict zone behind the dyke: the line marking the expected rise in sea level; the original polder landscape and the corresponding Pleistocene geological substratum; the historical territory of Flanders; the geographical zone where the beaches of fine sand are deposited. When the high-water line moves inland, the resources not deployed for the additional reinforcement of the dykes would be invested in disaster management. Depending on the landscape behind, the sea gushes or seeps through dyke breaches into the controlled flood areas.

2) Capsules are the nodes of a network society. A capsule is an artificial, strictly organised and controlled sphere. It provides physical and mental protection against an environment seen as chaotic and unsafe. In a world where non-places take the upper hand, capsules are an attempt to provide real places. They do this by simulating a parallel reality in which everything is focused on individual experience. The 'Atlantic Wall', the strip of high-rise holiday homes along the Belgian coast, is a form of capsular urbanism. Inwardly-oriented and clearly distinct from their surroundings, the Belgian coastal towns satisfy specific needs. They develop as unambiguous spheres of experience which are explicitly intended to make an abstraction of everyday reality. This minimizes the chance of outside disturbance. Breaking through the line of the coastal defences influences the capsular development of the coastal towns. Where major breaches of the dyke ensure the connection to the flood area, urban conurbations arise that throw up defences like a stronghold. No longer hindered by their connection with the

land, they now arrange their walled beaches on the land side too. As capsules in a landscape of water and mud, these fortified coastal beach towns can continue to develop their own identity without interference: Ostend – cultural paradise; Blankenberge – family resort; Knokke-Heist-Duinbergen – luxury island. The installation of a flood area creates an inland coastal front with regular if not constant views of the sea. Towns in this zone can develop into water-based towns. They will acquire a ‘bathing’ side and will tend to make use of their enclosed areas of water that are regularly connected to the sea. Motorways to this new coast are enclosed by dykes. Large-scale infrastructures will here and there attach themselves to their turn-offs. They will house accommodation, catering and shopping facilities but can also be transformed into sickbays, relief centres and bases for emergency services.

3) The world economy is evolving rapidly. The place where things are produced and the nature of what is on offer is constantly changing. In the West the accent is shifting from an oversupply of standardised products to a less material level: that of the idea, the design and the experience. The term ‘hyper-economy’ refers to this vaporization of the economy. The evolution from a commodity economy to a data and service economy means that the role of the polders as an agricultural area – the reason this area was reclaimed from the sea – is now outdated. We no longer need land for our economy. The context of a dynamic sea-land conflict may lend support to the hyper-economy. In the flood zone, ground-based production is replaced by an invisible grid – an idea for possible economic development. To give one example, an eco-energetic floating field might attach itself to the grid, moving with the rhythm of the sea and using or converting this movement into an economic process. This grid might be the mooring for a floating university. It might be a drilling platform, a software company or a hotel. Everything is changeable within the grid: every point can at any time enter into relations with any other point(s). And any point can at any time change its nature and function, depending on circumstances. The hyper-economic grid is more of a concept than a material structure. This technological development zone would send out feelers to Lille, the metropolis, the Flemish Diamond and the Randstad.

CONCLUSION

M.U.D. stands for mud, the substance that is a mixture of water and land. But M.U.D. also stands for Multi-Users Dimension. When territory and ownership are subject to the dynamics of the sea, newly interested parties negotiate again and again on varying points inside the conflict zone. There are capsules, as atmospheric bastions of control and self-defence. And there is the regularly flooded outer area, where possibilities appear and disappear and where control is always relative. Mare Meum spreads out. That which is not wanted or claimed by anyone, which is sometimes the case and sometimes not, cannot be set down in rules. That creates freedom.

PROJECT DEFINITION AND OBJECTIVES

Project definition

The M.U.D project formulates an answer to the brief by means of a spatial scenario for the Belgian coast in the context of flooding and explores by design the influence of the Flood scenario on the development of tourist cities and economy. Primarily, it offers a prefiguration of a new, dynamic interaction between land and water, between natural landscape and urbanised landscape. The final pro-active prefiguration, according to the designers, points to the weakness of stifled planning. According to the designers, the current spatial planning, in its search for (impossible) perfection, uses outdated procedures that are based on archaic territorial norms. These planning principles are outpaced by the dynamics of a reality that is being steered by processes and movements that are global, interchangeable, synchronic, relative, abstract and volatile (Goossens 2007, p.49). The M.U.D project is an inquiry into the possibility of shifting from a controlling, territorial urbanism to a multidimensional, dynamic urbanism. The Flood erases the landscape and shows how relative planning is. With M.U.D another kind of planning is proposed: no functional planning of land/space but continuous negotiation and relativising of space and its function, which can change with a probability of twice a day or once in a thousand years (storms). The designers consider the question of the

truthfulness or the reliability of the proposed scenario less important than the question of the project's relevance in questioning other possibilities. The project is an 'artist impression', meaning that it has a relation with reality but does not represent it.

Objectives of the design:

- inspiring as a consequent magnification of reality
- result should be relevant and useful
- triggering imagination by means of a challenging manifesto
- inspiring reflection and generating discussion

WORKING METHOD

If we put the project brief and the project outcome next to each other, we notice that some elements of the brief have been quite drastically reformulated and re-interpreted in the design project. The most striking changes are: first that the design proposal does not elaborate a cross section over the urbanised strip but instead focuses on a rather general overall plan; and second, that the design proposal encompassed not just the city of Ostend but the whole of the Belgian coast. So the area of design was considerably extended. The theme that was put forward in the brief, namely, the protection of the 'Coastal Linear City', and consequently considering the coastal defence as one of the most important challenges of the coming future, was also interpreted in a peculiar way that resulted in what seems almost the opposite of what was intended. In the scientific study of GAUFRE, the issue of coastal defence is studied and all different defence systems and weak spots are mapped, as is all information on the specific characteristics and diverse uses of the sea. The intention of the brief was to get a design of scenarios or concepts based on this scientific data. However, the design proposal does not seem to be embedded in the scientific study. This has everything to do with the working method of FLC extended.

What defined the working method and final product of M.U.D?

In a text that explains the genesis of the M.U.D project, four – quite diverse – reasons are mentioned as defining the working method of the FLCextended team in this project. First, the limited time frame was a strongly influential factor. Only three months were left between the assignment and the exhibition. A second important factor was the presence of a full-fledged scientific study of the sea, made by the GAUFRE team. Then there was the overall presence of the design philosophy of FLCextended that emphasizes generating or ‘designing’ future conflicts instead of offering customised solutions for relative problems. The last defining aspect was the available display at the exhibition space in Rotterdam which from the very beginning was a determining factor for FLCextended in the design process (Goossens 2007). Fairly early in the process the FLCextended team decided not to work with the scientific study of GAUFRE. The team wanted to keep an independent position towards the scientific analysis and not to interfere with it. Also they decided not to design a detailed scenario for a well documented part of the coast, Ostend, as was requested in the brief. Instead, they decided to spread the attention over a larger area – zooming out instead of zooming in – and to focus on an approach that could be characterised as ‘research by design’.

All these decisions somehow relate to the issue of data- and knowledge handling in the design process. The relation towards information and analysis is one of the prime aspects in the design process and is seldom explicitly foregrounded. It seems here as if the designers chose to work with less knowledge than was available to them – as if they intentionally disregarded part of the information and a certain type of knowledge and scientific data. One might expect that, confronted with a limited time frame, designers would prefer to work on an area and problematic for which much if not all information is available so that no time should be spent on searching for data and acquiring knowledge on certain issues. The FLCextended team drew the opposite conclusion. In their opinion, the more extensively and well documented a place or area of design is, the harder it gets to come to new and relevant design statements and concepts, *especially in a limited time frame*.

Therefore, zooming out, spreading the attention to the whole of the coast instead of one coastal city was seen as a way to enhance the chances of working without restrictions to achieve fresh insights and innovative concepts (Goossens 2007, p.43). We might say that by liberating themselves from too much knowledge of facts, the designers wanted to create the best circumstances to use their imagination to the fullest. In this situation, they could only use imagination to fill in the gaps in the explicit known. The design mind-set of 'imagineering' is activated rather than the design mind-set of 'engineering'.

Design steps

The design team first considered the general theme of the Mare Nostrum exhibition: linear coastal cities and mass tourism in the specific Belgian context. As already noted in the response to the brief, their interpretation and summary of the Belgian situation was formulated as follows: 'Every metre of this heavily exploited strip along the North Sea is considered by its users to be a highly personal possession. A possession to whose many aspects they simultaneously lay claim. The Belgian coast is for individual consumers and is in no way attached to any sort of sense of collective responsibility whatsoever. Where hyper-individualism and the economy of experience intersect, that's where Mare Nostrum Mare Meum is (Godts & Janssens 2012, p.48). Living, tourism and recreation increase the pressure on the elongated urban entity alongside the Belgian coast and also on the polder landscape situated behind the urbanised strip. *Mare Meum* pointed at the necessity of an integrated approach of both the urbanised and natural landscape (Goossens 2007, p.43).

This is meant to be more like an observation of facts than a statement. The team redefined Mare Nostrum to Mare Meum as a first entry to the design process. This interpretation of the current situation served as a kind of knowledge of facts – that is, neutral and not to be seen as a value that is desirable or not desirable. One can sense that this reading of the Belgian coastal condition implicitly holds or points to possible/probable conflicts when it comes to the use of the territory. Since the design philosophy of FLCextended is very much focused on conflicts, this is not considered a problem that needs to be resolved. In-

stead, conflicts are considered to be opportunities: they result in a continuous negotiation over the function and use of territory. This became the driving force of the final design proposal.

The decision to spread out the attention over a larger area, the whole of the Belgian coast, suggested the need for a new demarcation of the design area. The search for a definition of a new, enlarged area was linked to the theme of Flood. It was decided that geographical parameters like the constitution of the typical sand beaches and geological substrate would form the basis for the territorial demarcation of the design area. It turned out that this demarcation zone coincided with the area that according to a Greenpeace report would suffer the direct consequences of the expected rise of the sea level (Goossens 2007). The scenography for the exhibition had a constant and profound influence on the design process. The design process took place on two levels: the level of the design of a scenario for the Belgian coast and the design of an exhibition. These two levels influenced each other. So while a base for a new demarcation was sought geographically and linked to the theme of the Flood, it was also linked to the issue of the scenography: the dimensions of the available display were such that this newly defined area fit the exhibition space extremely well. Subsequently, FLCextended linked two societal trends to the phenomenon of Flood. The first was 'capsularity', the second 'hyper-economy'. Both of these trends were picked up by the team as intriguing concepts that the team encountered during their study of aspects of societal and economic changes. Also these concepts can be considered to have emerged from an 'enlarged' look at the brief. They are surely not directly or exclusively linked to the societal and economic situation of the coast and the phenomenon of mass tourism. They refer to broader evolutions – evolutions of which the exact spatial consequences in a particular context are not yet known. Hence the opportunity to use them as input in a process of research-by-design. This meant in concrete terms that the team let these two trends proliferate in the mud landscape while magnifying them, or over-articulating them, by design.

COASTOMIZE! / FLCextended2008COASTOMIZE!

- [2005 – 2008]

PRIVATE VIEW
2005-2008

DYNAMIC VIEW
UNIVERSITY OF WILFRID

VIEW OVER VIEW
ARCHITECTURE

SATELITE VIEW
2007-2008

COASTOMIZE!
Be used to meet your needs

WAGGONGAO WETENSCHAPSPROJECT
FLC extended vzw associate van ontwerpers
WIRP Vlaamse Architectuurraad
WIRP Departement Architectuur Sint-Lucas Brussel
and VUE vzw

© project werd ondersteund door het ontwerp Researchprogramma in Interactieve, een initiatief van de Vlaamse Overheid

www.hellocooling.com/extended/08

COASTOMIZE! super scheme / MODEL OF INTERACTIVE COAST: interactive spaces of experience – FLC extended2008COASTOMIZE!

THE STORY OF THE BRIEF

In 2005 the Flemish government's department of Science and Innovation launched a call for project proposals in the context of their action plan on Science Communication. This yearly initiative frames in the policy of the Flemish Government to enhance the popularisation of the sciences, technology and technological innovation. The aim is to provide objective, yet easily understandable information on scientific and technological evolutions, to show people the importance of these evolutions for our well being and prosperity and to encourage young people to choose a scientific or technological education (Moeremans 2008). The free associating designers FLCextended decided to submit a proposal in collaboration with the Flemish Architecture Institute (VAi) and the Hogeschool voor Wetenschap & Kunst, School of Architecture Sint-Lucas Brussels.²⁰ The project proposal was called COASTOMIZE! It was one of the fifty-one projects submitted and one of the nine that were selected. The jury chose COASTOMIZE! mainly because of the originality and creativity of both the content and the form, because of the interactive character but also because of the intelligent weaving of art, science and technology. The fact that the technological message of the proposed project also contained a significant humane message was considered to be a guarantee that the message would reach the target group: the general public (Moeremans 2008). The project proposal as formulated in the original application documents, submitted on 16th November 2005 to the Flemish Community, Ministry of Science and Innovation can be summarised as follows.²¹ The title of the project is COASTOMIZE! It is a play on words: adapting the coast to the wishes of the user, to customize the coast. The aim is to simulate an interactive coast and to show how technology, science and design research are involved in this.

With this project the designers want to simulate the spatial model of an interactive coast by means of a playful, interactive, three dimensional projection of light, sound and image, set up in the public and semi-public space at the coast and guided by a digital environment of registration and data processing of movements, behaviour and preferences

of a broad public. As such, it will show tourists, local government and spatial planners how technology, science and design research can be used to achieve this. The intention was to exhibit the installation for a broad public at one of the top locations at the coast and on one of the peak moments during the coastal season of 2006. As such, the project would reach thousands of people directly and indirectly and can visualise the movements and preferences of hundreds of thousands of people. In a more detailed description of content and form of the proposed project the following key elements were put forward.

The interactive coast as interactive installation.

COASTOMIZE! will be fed by databases that represent the movements at the coast, while simultaneously the image that is generated in the installation literally – via a digital environment that registers and processes these movements, data, behaviour and preferences – will be steered, redrawn and distorted by the interactions with the public that comes into contact with the installation. Image and space will become one attractive whole. Within this dynamic of projected movements and accents the visitors will be able to select information about principles and rules that form the background.

Information transfer and sensitising.

In the midst of the experience of mass tourism, the coastal resident or tourist will get the opportunity to pick up two messages:

1. The humane message that the coast is an interactive space, the accumulation of our individual behaviour and as such the subject of collective intelligence;
2. The technological message that states that the digital interactive media are both a quality of our everyday environment and necessary to use in spatial design disciplines in order to gain insight in complex problems and to be able to make propositions for the future.

Cross fertilisation of art, science and technology.

The topic of this project proposal, namely spatial development and spatial design in dialogue with science and technology, activates a broad range of both hard and soft scientific and technological domains. Analytical aspects of data research, statistics, geography, marine sci-

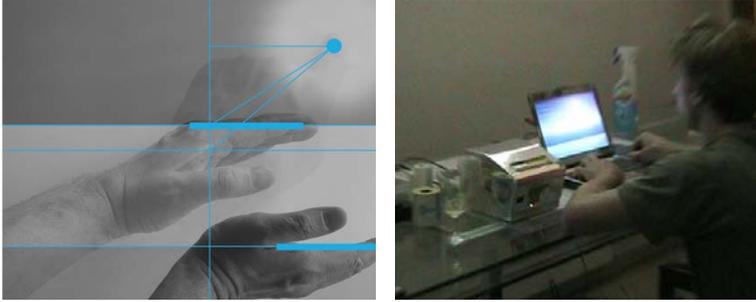
ences, climatology and sociology on the one hand and applied studies and models from IT, media studies, futurology and marketing on the other hand, will be used as scientific domains that support and steer the disciplines of spatial design (urban design, spatial planning, architecture and design) that constitute the point of departure for this installation.

Collectivity and interactivity.

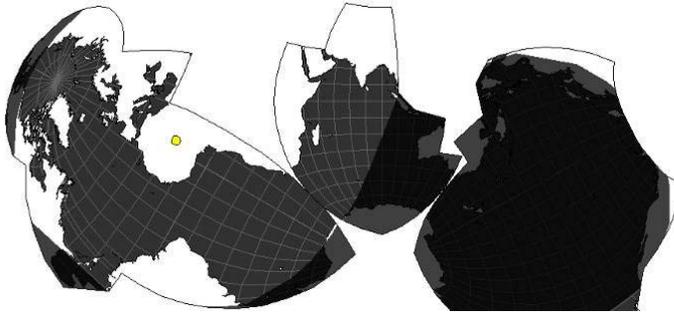
Architecture and urban design define a large part of daily reality: the background against which and the space within which our target audience moves. First, this project will transfer a vision of society and a vision of the future. Support and participation from society are aspects that are essential to spatial design. Moreover, digital techniques are inextricably part of the design practice. The interaction between the omnipresence of technological innovations in society and the use of innovative technology in the design of social space, is highlighted in this project. Second, the perception of technology needs to be broadened. Digitalisation does not just result in an exponential growth of domotica; digital techniques are also used for interaction and participation in spatial design. The interactive installation will make the target audience aware of the fact that not only does the spatial design of their environment (architecture and urban design) influence their behaviour (stimulating or blocking) but they too through their (individual and collective) behaviour influence the spatial design (environment).

Technological message and humane message.

The active participation of people is of utmost importance for the success of the project. The democratic interactivity that the installation intends to induce is the starting point of the project. The visitor will be able to constantly manipulate and influence the overall image of the installation. Moreover, visitors will be encouraged to explore the creative aspects of their unconscious, common daily actions and routines. The breadth of the target group is crucial. Both the engaged professional and the accidental passer-by, are part of the whole and determine the end result. The degree of science information will be two-fold. The content and topic of the project start from the importance of innovative thinking in scientific domains. The installation will put new

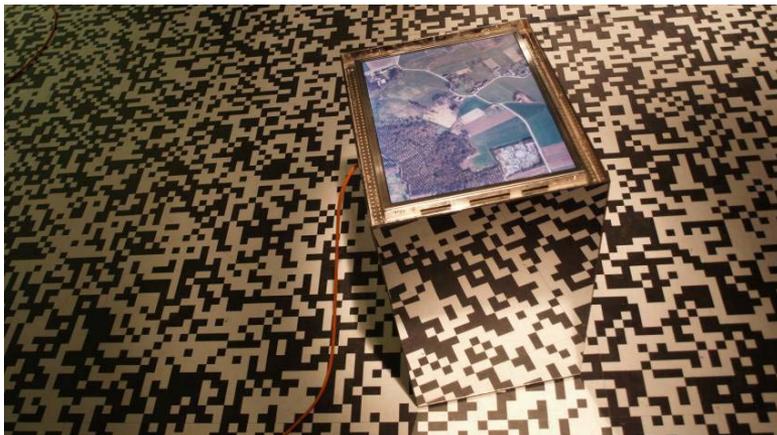


INDIVIDUAL VIEW ON THE SEA - with this interactive component each of us can generate his/her own view on the sea, a form of elementary coast that consists of sun, sand and sea (air, land, water). The view itself is translated in a view with a horizon, a sun and a waterfront as if in a spatial translation of it (footprint). A wished for image of an individual customised coast. - FLCextended2008COASTOMIZE!



COASTOMIZE! World Water Map – FLC extended2008COASTOMIZE!

COASTOMIZE! pseudo noise floor uploaded and updated with high resolution information regarding the top locations or singularities from the dynamic world water community map. With movable trolleys you can scan this apparent noise in search for visual information and inspiration. – FLC extended2008COASTOMIZE!



technologies at stake. The whole will provide insight into the convergence of digitalisation and new and popular media, with the scientific principles of diverse 'soft' disciplines.

This COASTOMIZE! project can be considered a kind of spin-off, or new expression of the M.U.D project. The preceding text describes the content, goals and overall framework of the project that were put forward in the application documents and approved by the funding committee. In that sense, it constitutes the brief and the criteria to be met.

THE RESULTING RESPONSE TO THE BRIEF

The project having been approved by the funding body, the challenge then was to further develop the key elements that were put forward into a concrete design project. This resulted in the development of three main concepts. In a paper written for the CADE conference Marc Godts, Nel Janssens and Carl Bourgeois describe these as follows.

Space of limits [*Adapted from (Godts et al. 2007)*]

The spatial setting of the COASTOMIZE! project is inspired by the Belgian coast. Looked upon from a spatial perspective we define this coastal environment as a 'Space of Limits', the ultimate meeting of land, water and air. At the coastline one stands on the edge of the (European) land that has been cultivated for centuries, staring at what's left of the natural, wild world: the sea. From the users' perspective a coastal setting is also a 'Space of Limits'. Here one is confronted with how the accumulation of individual and collective behaviour shape shared territories. The desire of every tourist to have his own private sea-view results in very particular urban settlements, like the so-called 'Atlantic Wall' at the Belgian coast, Monaco towering on its bay, or Coney Island in New York. At such limit-positions it suddenly becomes obvious that extreme amounts of hyper-individual behaviour driven by 'what I like' and 'what I don't like' define the use of the space and shape the shared territory. Many coastal environments are an

exploded field of experiences, impressions, stories, and references in which the jam-packed beaches make extremely tangible the limit of this hyper-individual consumer behaviour. The coast is a clear-cut example of limits: it is as far as you can walk but it is also the border of society, it marks the line between jam-packed and empty. This limit-position turns a particular perspective on consumer behaviour: collective behaviour and hyper-individual experiences, triggered by an offer of apparently unique experiences, are confronted with climate concerns (rising sea levels), tourist decadences and careless consumption of space. The coastal environment and all the experiences it embodies is in fact a critical space where, in this case, a large collective meets the limits induced by the meeting of land, water and air. COASTOMIZE! evokes this 'Space of Limits', examines how the coastal experience can be made accessible and adjustable for every individual and triggers awareness of the impact of all these simultaneous claims. But how can we make the coastal experience accessible and adjustable for an endless number of people? How can that be done spatially? How can we trigger collective intelligence by interactivity? How can we evoke and intensify the sense of co-creativity?

Silent white

The only way to solve this problem and create a 'Multi-User Domain' for collectiveness is to step into a mixed reality continuum. Places of critical limit can be shared territory for large collectives. At the same time they are subject to individual excess in the merging of the real and the virtual. This mixed reality continuum finds its expression in the 'Silent White'. In this 'Silent White' everything is translated, converted to data: an endless amount of interchangeable, trans-actable data, creating a white noise. The 'Silent White' is essentially a M.U.D environment: a MUD that can dissolve in its different levels of aggregation and re-assemble itself in different combinations; a 'Multi-User Domain' as a shared territory that can be used by many at the same time and in different forms; an environment with a 'Multi-User Dimension', having the capacity to be different things at the same time. Stepping into the 'Silent White' of COASTOMIZE!, one encounters the highly user-oriented !MY COAST. !MY COAST in first instance is an environment, a podium-like, a carrier of multiple limit behaviour in

a collective 'space of limits', and in that sense it is also a 'model of' and 'model for' a form of collectiveness. It is based on multi-dimensional interactivity fuelled by user-generated content. This 'Silent White' shows how science, technology, design and daily life can get us involved in this co-creative world. Here designers, scientists, technologists, users and consumers meet and switch roles. But how can one enter this 'Silent White'? How can one move in this mixed reality continuum? How can one see and materialise things in this endless projection of data on data? How can one create a signal, a pattern in the white noise? What can be the tools to do this?

INTUITIVE EMOTIVE TOOLS with SILENT EMPATHIC FEEDBACK

What is man's current attitude towards science, technology and design? Science and technology today are experiencing difficulties to expressing their own specific, authentic image. A fissure between science and its image has occurred. Science and technology have become extremely complex fields, evolving through far-reaching specialisation. After the era of mechanical systems that one could analyse and comprehend visually, there is now a fundamental 'image-fissure' between science and the image of science, between technology and the image of technology. Things like the nostalgic wooden inserts in dashboards of high-tech high-performance cars show us that we can hardly cope with pure technology, pure science, and pure design. Our daily relationship with science and technology is one of consumer and consumption. We expect user-friendliness from science and technology. We want user-friendly 'tools' that we can understand in an 'intuitive' and 'emotive' way. We expect the tools themselves to scan us and 'understand' us, to know what we like and what we dislike. The new understanding of the relationship between science, technology and Man therefore can be characterised by the desire for what we call 'intuitive emotive tools' (IET) with 'silent empathic feedback' (SEF).

From the description of the different concerns, observations and related concepts above, we can conclude that the COASTOMIZE! project essentially wants to present the public with a new concept of space and use of that space, instantiated by means of the creation of a model for an interactive coast.

PROJECT DEFINITION AND OBJECTIVES

Project definition [*Adapted from (Godts et al. 2007)*]

Initiated as a science information project and growing out of projects like M.U.D, COASTOMIZE! is a practice-based research project that reflects on how science, technology and design can open up other spatial and urban realities. This design project is an example of practice-based research, showing the design of an artefact as well as the design of concepts. It triggers questions and answers to themes such as co-creativity, collective intelligence, mixed reality, and how science, technology and design can get us involved in these issues. It triggers different kinds of knowledge production by mirroring the users' collective intelligence and co-creativity in (re)shaping shared territories. It is about the fight between individual aspirations and the collective behaviour of the users of space. COASTOMIZE! as a practice-based research project elaborates on how interactivity, the (un)predictable chain-reacting of more or less complex individual actions, shapes shared territories. It confronts the public with notions of individual and collective space, intelligence and behaviour. It questions the roles of design and planning in such processes and illustrates how daily life, science, technology and design can get us involved on a co-creative basis. The project's first role is clearly that of a critical design: it triggers people's awareness about co-creativity by mirroring collective intelligent bodies of environment as extreme amounts of hyper-individual behaviour driven by 'what I like' and 'what I don't like'. Its second role is to question man's current attitudes towards science, technology and design and introduce a new understanding of these relationships: the desire for 'intuitive emotive tools' (IET) with 'silent empathic feedback' (SEF). As users we want these tools to show us empathy with the most split-second, pro-active and discrete feedback as they silently, joyfully scan our every wish, enjoyment and dislikes. Finally, the project expresses the way information technology embeds awareness into matter: awareness objects, memory materials, reacting to or anticipating their environment. What Buddhism and animism taught us we discovered anew: things have a life, a drive, a soul. Methodologically it shows how practice (design of the artefact) and theory

(on-going reflection) develop in parallel and how design work can generate concepts that surpass the singular, concrete design project. These concepts act on a more general level and can trigger new design projects.

Objectives of the project

COASTOMIZE! wanted to make a broad public (indiscriminately young and old) acquainted with a new concept of space and spatiality – a form of mixed reality (real-virtual), interactively and co-creatively. A new concept of space that has become possible not only but also necessary now that technology, art and science are no longer merely tools but literally together form the environment in which we all move on a daily base. In fact, we will never be outside of this environment again. COASTOMIZE! establishes this by means of a creation, an original query: a form of interactive coast, a limited collective good but infinitely dividable and simultaneously adaptable according to the needs and wishes of each individual. COASTOMIZE! the coast made to measure each user – an 'impossible' question, only thinkable and possible through the collaboration of science, technology, art and design, through the interweaving of reality and virtuality and in the interaction and co-creation of users and designers. COASTOMIZE! wanted to convey a positive message about this new concept of space – both a humane and a technological message.

WORKING METHOD

What defined the working method most in this project was the fact that it was a multi-disciplinary creation. The multi-disciplinary project team included architects, designers, scientists, new media artists and computer wizzards – eventually from the three platforms of the project applicants: FLCextended, School of Architecture Sint-Lucas and VAi. The total project team included over fifteen people working in dialogue with a scientific committee and external technical advisors. This created a very specific dynamic.²²

THE FUTURE COMMONS 2070

magnificentsurroundings.org

- [2008 – 2011]



THE STORY OF THE BRIEF

Much like the projects *The Unadapted City* and *COASTOMIZE!* there is no external client in the traditional sense, for this project which at first was called '*Atlas of visions of "Magnificent Surroundings": The Belgian coast looked upon and rethought from the tide line and her spatial-energetic potential*'.²³ In 2007 Charlotte Geldof, the initiator and main designer of this project, formulated her ideas and vision in the context of an application to receive funding from the 'Belgische Stichting Roeping' (Belgian Trust 'Vocation'). Every year the Belgische Stichting Roeping awards scholarships to promising young people who prove to have a real vocation by means of a form of project that has already been set up. The vocation must be of societal relevance and should benefit the social, scientific, cultural or artistic development.²⁴ In 2008 Geldof received the 'Gouden Klaver' award of the 'Belgische Stichting Roeping' and could start with the project.

Although defined completely autonomous and funded as such, this project came not out of the blue. It was the (logical) outcome of a working and thinking trajectory that resulted in a search for and creation of beauty by means of an ecologically founded use of space in architecture and urban planning.²⁵ Furthermore, Geldof was also involved in the M.U.D project and with her new project she wanted to further elaborate this project and complement it with a future vision for the Belgian coast and the North Sea regarding energy policy.²⁶ The overall viewpoint Geldof adopted was that the coast and the sea are a 'magnificent surrounding' that needs to be designed spatially in order to anticipate and reflect on changes like climate change, increasing (coastal) migration and the energy issues that are awaiting us. The fundamental concerns are the changing role of public space, coastal tourism and the accompanying pressure on the space, and water- and energy issues.²⁷ The following is a description of the project proposal (context, content and method) as originally formulated by the Geldof. The text is based on the Gouden Klaver 2008 application document.

Geldof's starting point for the project is our constantly evolving society and the impact of these dynamics on the use of space. These societal dynamics are most notable in areas with a specifically high dynamic (cities, urban sprawl, etc.) or low dynamic (nature reserves, protected areas, etc.). According to Geldof the exemplary area where both extremes meet is our Belgian coastal zone, the polders and the Belgian North Sea territory. This meeting between high and low dynamic is conceptually and symbolically most perfectly expressed in the tide line. The tide line intrinsically embodies the dynamic of the area. Rather than the static built up coast line, the carrier and starting point of the coast as 'magnificent surrounding' is the tide line due to its pronounced dynamic characteristics. It is at the tide line that sea and land meet, climate change becomes tangible, various functions and activities fight one another, different territories merge, the natural pounds the artificial, the pressure of numerous users is high and the dike generates energy in the surf. The tide line constitutes the section – the interface between water and land, the two basic entities of our planet. Here both water and land find their beginning and their ending. In an endless interaction, a permanent openness is established and a possibility to extend is offered. The characteristics of the tide line generate a huge social and spatial dynamic that both produces and consumes energy. There is the potential energy production capacity of wind and water and the energy demand of the coming and going tourists. The rapidly rising demand and the production potential must be balanced according to spatially and ecologically sound principles and this needs to be designed consciously according to an overall vision and a vision of energy for the future. In this project the design of the vision of energy (production and demand) for the future is considered the basis of design for the space, the landscape. The way the energy production is designed and organised, from an ecological understanding of beauty, is of utmost importance in attaining and developing a 'magnificent surrounding'. Making the energetic potential of the place visible and usable, seizing on the intrinsic characteristics and the power of the tide line, is what constitutes here the foundation for developing visions for a 'magnificent surrounding'. The proposition is to develop another view of the tide line and its potential, and also to question our vision of energy issues for the future. A method that will be used to do this is

'strollogy' (*promenadologie*). The art of strollogy creates a sphere of collective action in which perception and developing vision meet and question each other in a particular manner. Via strollogy the project will become a kind of 'listening to the tide line'. Strollogy, which is basically a form of wandering, offers a perception through the act of scanning the territory in a group and offers an alternative to the regular planning and design methods. This is only possible when the promenade is based on well developed visions and when it is organised by (a) design. The power of the strollogy resides in the creation of an atmosphere in which perception and developing vision meet each other in the context of a collective of people and is based on the expertise and the personal experiences of each participant. It is about creating an environment in which free associative thinking can evolve to the fullest.

This was the original design proposal that was formulated as a kind of internal brief, and defended for the jury of the 'Gouden Klaver 2008'.

THE RESULTING RESPONSE TO THE BRIEF

After the initial formulation of the brief and the subsequent approval of funding the actual design process started which led to further refinement of the design's objectives and some shifts in the focus of the project. The emphasis on the tide line and coastal zone, for instance, shifted to a much broader focus on the sea and the land-sea area. The project was finalised, printed and exhibited in 2011 under the title '*The Future Commons 2070, Harwich to Hoek van Holland and Dover Strait*'. The project departs from the observation that the sea has a particular and unique value to society: the sea is of common interest. 'Everybody has the right to use the sea, to enjoy its benefits. Just like forests, water and the atmosphere, the sea can be considered as a 'common-pool resource', a natural common resource, free for anybody to enjoy. Because they are exhaustible, natural common-pool resources are sensitive to problems like pollution, wastage and overuse. This is why the sea needs to be properly managed as a common' (Geldof et al. 2011).

From this perspective, Geldof states that the commons and the common-pool resources must be considered as the guiding principle for the future. The characteristic of the sea being a common-pool resource is threatened by the encroaching urge to appropriate marine areas (Geldof & Janssens 2010).

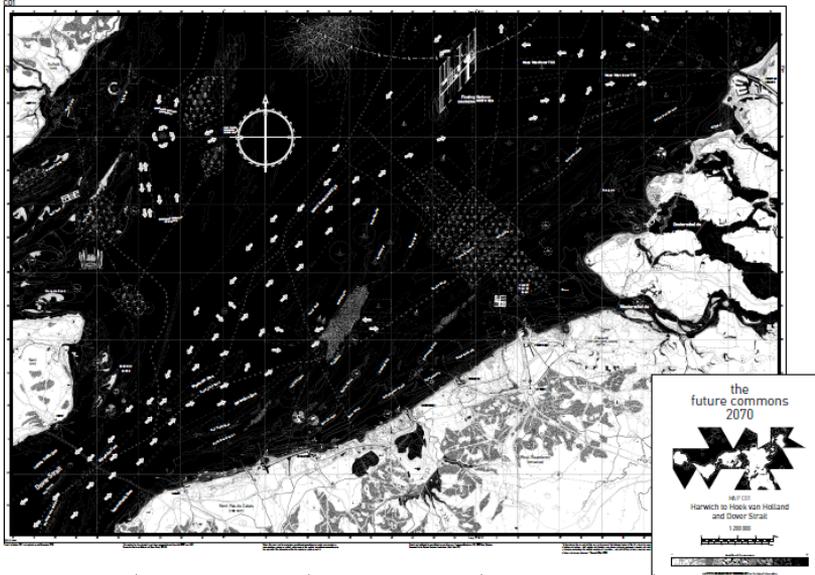
Oceans and seas are an immeasurable space, differing from the land in many respects, yet like all open space on Earth, this immense area is becoming progressively more under pressure. Increasing land wastage is just one of the factors that will cause the demand to make open sea-space available for development ever more urgent. Throughout the centuries, maritime law has kept on connecting ever-larger maritime areas with their adjacent coastal states, and this is an ongoing trend (Geldof et al. 2011).²⁸

At the moment, about 30% of the surface of the oceans and seas on Earth is situated within the EEZ (Economic Exclusive Zone) of a sovereign coastal state, and the impact of this EEZ-status on a global level is strategically important. The remaining 70% is intended, to put it simply, for collective use: this part can be defined as a collective space on a worldwide scale. However, a collective status that has not been allocated or recognised explicitly is all too often demoted to the vulnerable status of 'freely available' (Geldof & Janssens 2010).²⁹ Maritime spatial planning is on the rise worldwide. Policy concerning this matter is evolving steadily. While Europe is outlining its future marine and maritime policy options, project developers are already proposing their first initiatives' (Geldof et al. 2011). Hence, the sea deserves due care and a global vision is needed. The rather underestimated challenge, however, is that planning and designing for marine areas, is in fact a very particular matter. Therefore, and if we are prepared to validate this specificity, it seems more than probable that for maritime spatial planning different planning principles or even radically new principles are required, compared to those for landlocked projects. The actual planning process needs to be backed up by existing fundamental scientific research, but also requires global critical vision-defining research, in which an important role is reserved for design-based research (Geldof et al. 2011).

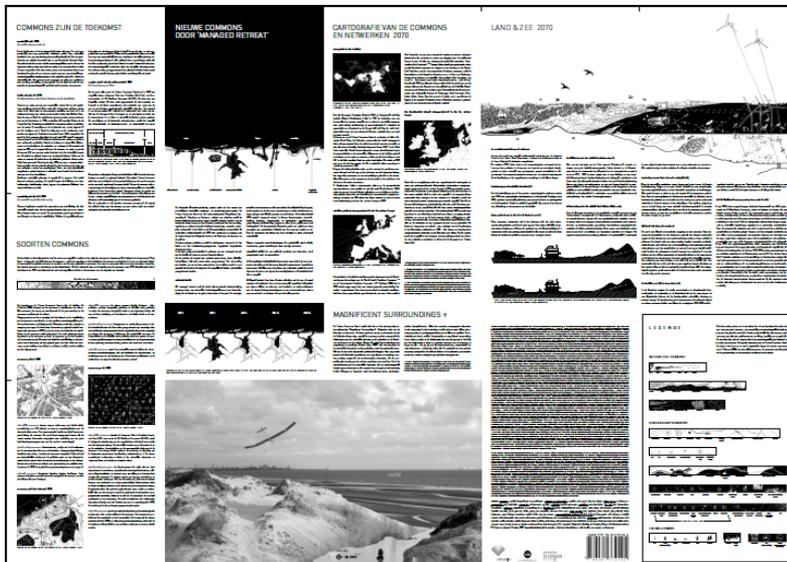
Geldof took up this challenge of global critical vision-defining research and the design process that followed eventually resulted in a vision of the future represented by means of the 'Future Commons' map. The following is a description of the main ideas developed in the project based on excerpts from the explanatory text published on the recto side of the 'Future Commons' map. [*Excerpt from (Geldof et al. 2011)*]

The Future Commons map shows what by 2070 could have become a new EU-zone 'Southern North Sea'. This vision for a new EU-zone was generated by design-based research and as a result this map shows an absolute first: a specific example of simultaneous spatial planning for the marine area off the coast and the adjacent inland area of the coastal zone. It proposes to bring the former EEZ under management of the European Union and consequently to divide it into larger, supra-national natural-jurisdictional parts based on its constituent ecosystems. In this context it is of utmost importance that the existing state structure is transcended because it will allow the implementation of an international, coherent land, water and seas policy (necessary to obtain the ecologically founded development, including energy production issues). The Future Commons project advocates conservation of the sea as a common and recognition of its growing importance, strongly regulated by the European Union. The project argues that securing the sea as a common guarantees consolidation of its social, economic, environmental and spatial significance. Also extra space on land should be reserved to establish additional commons on land – like inland extensions of the sea – which will create favourable conditions for managing the effects of climate change in coastal zones. The Future Commons 2070 project intends to fuel the ethical debate on marine spatial planning, starting from a basic socio-ecologically inspired concern and puts the exploration of an updated concept of commons central. To create and maintain the commons three (spatial) strategies are introduced:

1. On the regions situated at a higher altitude, beyond the limits of the polder areas, new commons are created by means of a vast reforestation programme.



Verso and recto side of the map: 'The Future Commons 2070, Harwich to Hoek van Holland and Dover Strait' - magnificent surroundings.org



2. In order to safeguard marine ecosystems, out at sea only temporary, reusable, floating constructions have been installed. In order to prevent offloading any detrimental functions onto the sea and its ecosystems, it has been ensured that, if at all possible, these functions have been installed on land.

3. In the areas of lower altitudes the main strategy to create new commons in this land-sea area is: establishing a 'managed retreat'³⁰ of the coastline as a new form of coastal defence. The managed retreat is translated into diverse coastal concepts: beach extensions, headlands, estuaries and marshlands, depolderings, extruded winter beds, lagoons and salt lakes and ponds, tidal zones with creek areas. Via this managed retreat strategy a range of new (or lost) watery spaces are introduced into the landscape. Each of them evoking a particular use.

The envisioned evolution of the commons and the related development of the territory is made imaginable by means of a story (see 'Land & Sea in 2070' pp 132-133) that illustrates how the environment has evolved over the years towards the 2070 situation pictured in the map. A last aspect important to mention is that in the light of the role dedicated to the development of the commons and the evolution towards a low-carbon Europe, the project also considers an even broader (European) area than that depicted on the main map. Using the Buckminster Fuller cartography, the importance of the current EEZs worldwide are visualised and the proposition is made to turn these zones by 2070 into Maritime Commons. Buckminster Fuller's project World Games (1969) was used as inspiration to induce a critical reflection on our current and future global networks regarding communication, energy supply, transport, etc. This results in proposals for a maritime freight transport network in a low carbon Europe mainly based on the use of low carbon mega ships and the installation of floating 'Intermediate Hub Terminals', thus removing the pressure for further extension of landlocked harbours. Next to this large-scale pools of production of renewable energy are efficiently positioned and linked to a super grid for distribution. The aim is to share and redistribute both knowledge about renewable energy and (temporary/local) oversupply of energy. This European Low-Carbon-Super-Grid would supplement the numerous small-scale local production units of renewable energy.

LAND & SEA in 2070
[Excerpt from (Geldof et al. 2011)]

what if? ... vision for the future

The following descriptions might constitute a preview of the future for the coastal region Nord-Pas-de-Calais-West Vlaanderen-Zeeland and contiguous marine areas in the French-Belgian-Dutch region in the year 2070. Over the past four decades, pressured by circumstances, policies ruling this region have evolved from isolated, location-driven and purely spatial legislation to integrated, cross-border and time-related guiding principles. This approach has generated new seascapes and coastal landscapes, which have lost none of the characteristics of magnificent surroundings.

reforestation of stable hinterland

In order to be able to fulfil low carbon society's objectives, a programme of large scale reforestation was implemented off the coastal area, starting around 2015. Today, anno 2070, a densely wooded forest area separates all coast and polder areas from the inland regions. As these forests are publicly accessible, they function as inland counterparts of the adjacent marine commons'.

living to the rhythm of the sea on the territorial coast

More commons have been established in the coastal area itself, in the shape of water regulating wetlands in the transition zone between land and sea. These new temporary or permanent pools mitigate the effects of climate change. They are an integral part of the total vision whereby designated spots are preserved for managed retreat between and behind the densely populated coastal fronts.

recalibration of stable coastal building

What was called the 'Atlantic Wall' at the beginning of the 21st century has now undergone significant recalibration. Under pressure from climate change, increasing population growth and energy crises, in the course of the 2010's and 20's the foundations were established for the development of specific climate change resistant coastal front construction, within a novel parcel structure and with greater density and energy efficiency. In-depth remodelling and the integration of a diverse range of public and semi-public functions have generated a more sensible spatiality and functionality. Thus, among the wetlands, low-carbon coastal conglomerates have now emerged.

coastal concept: territorial coast and stable landlocked area complementing one another

Climate change has caused average sunshine time to increase, which has given tourism a boost. A number of residential and recreational infrastructural clusters have developed and as a consequence an optimised public transport structure has been established. In the margins of these regions, adjoining the remaining agricultural and horticultural areas, renewable energy production units have arisen, which guarantee the local supply of both food and energy. Increased sunshine time has led to the introduction of novel methods of agricultural and horticultural practices but also entails more frequent periods of drought. It has become a necessity to provide dedicated water supply areas. This has meant turning the former linear coastal structure into a loose succession of tightly clustered built-up areas alternated with natural areas, which are mutually supporting each other.

cohesion of territorial coast and marine areas

Whereas natural units used to be squeezed between stretches of linear building, they have now been allocated more space. Their usefulness as coastal defence, their water regulating properties and intrinsic value as recreational and landscape areas are earning them a lot of respect from steadily increasing numbers of visitors. Attempts are being made to

encourage the formation of larger-sized coherent units in coastal areas by physically connecting nature reserves in the terrestrial coastal region with marine protected areas. Maritime heritage at sea and on land has thrived as a result of evolving protection policies. Ship wrecks, for instance, have either been transformed into quiet spots in the generally crowded recreational areas on the seashore, or become strict no-go zones, depending on the requirements to maintain a balance in the permanently monitored ecosystems.

time is the sea's 4th dimension

The sea is an exceptionally dynamic environment and a common. Its growing appeal and its increasingly intensive use have prompted us to set out a number of preconditions necessary to preserve its uniqueness. A broad range of novel uses (recreation, production units for marine culture and for generating renewable energy, anchorage for port activities and navigation) has appeared in addition to more traditional uses of the sea such as navigation, fishery, shipping, transport and mining. All of these have to conform to tight restrictions in order to safeguard ecosystems and to preserve the commons. All spatial constructions connected with these activities are by necessity temporary, floating structures, built in such a manner that they have zero negative impact on the marine environment and their ecological footprint remains low. Technological ingenuity has been a crucial factor in meeting these preconditions for preserving the commons.

territorial marine areas, time and ecosystems

In the territorial part of the North Sea, a strong concentration of diverse coastal area functionalities, marine functionalities and vulnerable ecosystems has by necessity led to the replacement of the existing location driven regional planning by time driven spatial management. For the protection of ecosystems, cultural heritage and other commons, a number of restricted evolutive zones were designated during the turnaround years (2010-2020). Continuous, intensive monitoring and adequate empowerment of users of this large scale common have proved to be crucial to the implementation of such time driven spatial management.

EU-Maritime Commons, strict and visionary

Today, anno 2070, the European Maritime Commons Zone (the former -2010-EEZ) is administered by the European Union, in accordance with policy based on 'limits to growth'. Regulations against overfishing, loss of biodiversity, a significant shifting of fishing grounds caused by climate change and strict European standards have ultimately led to a scale down in fishery. Temporal and geographical restrictions were also imposed on ecological fish farms, clean shipping became reality and some oyster banks were established. As sand and gravel became increasingly scarce, exploitation of resources of raw materials has been restricted. Aided by heightening general interest in the environment and successive economic crises in the first decades of the century, this scarcity has led to a strict European mining policy. Today, anno 2070, mining activities are only permitted for those purposes for which no re-use alternatives have been found. The offshore windmill parks from the 2010's-20' have been interconnected and connected via the European Energy Super-Ring to the European Super Grid. Production units for the generation of renewable energy have been maximally concentrated and interconnected and are now combined with sea-farms, work- and monitoring platforms, transformation and connection platforms. In our world of global networks, shipping routes are being adapted constantly and experiments with floating HUB-terminals have been run, which will enable the European port infrastructure to accommodate superships, using renewable energy.

PROJECT DEFINITION AND OBJECTIVES

Project definitions

‘The Future Commons 2070’ is a first attempt to develop a critical vision, introducing the commons as leading principle for maritime spatial planning in the Southern North Sea, the coastal area and the polders. With this project the designer also proposes to enrich and broaden the original interpretation of a Magnificent Surrounding as formulated by Geneviève Dubois-Taine. Geldof states that, within the project region, the coverage of Magnificent Surroundings should no longer remain confined to natural components such as its spectacular seascape and wide stretches of polder landscapes. To these classic ingredients of Magnificent Surroundings, in this day and age some elements of a different kind should be added, which serve to capture, maintain and enhance an overpowering spatial Magnificent Surroundings experience. These elements, all materialisations of human ingenuity that serve to support our socio-economic mechanisms, have only recently started to make their imprint on the landscape. Some of its manifestations, such as seaport infrastructure, wind mill parks and oil drilling platforms may as yet seem like unfamiliar, ill-fitting intruders in the landscape, whereas others, such as dikes and drainage complexes, already seem part of it. These are all part of Magnificent Surroundings, insofar as they have been conceived in such a way that nature and its ecosystems remain unharmed. Introducing this wider interpretation of Magnificent Surroundings is important because it can serve as the leading principle when preparing for the evolution and the mutations the sea and the coastal area will inevitably go through in the long run – as a result of climate change, energy policies and migration streams. Geldof coined the broadened definition she adopts of the original term ‘Magnificent Surroundings+’. The Magnificent Surroundings+ include both the traditional, natural beauty of landscapes and the constructions based on ecologically inspired ingenuity. (Geldof et al. 2011). With this particular view of Magnificent Surroundings the socio-ecological foundation becomes more firmly anchored in an updated concept of commons as guiding principle for planning.

Objectives of the project

The Future Commons 2070 aimed to give a more prominent place to ecological approaches, to link these approaches to the notion of beauty and Magnificent Surroundings and perpetuate the sea, coast and polders as a Magnificent Surrounding. An important factor was to translate changes in climate and energy issues into newly adapted ways of dealing with space and so generate new kinds of spaces (both in use and in physical form). The resulting map shows how a Magnificent Surrounding could be created and offers recommendations for future policy.

WORKING METHOD

This project was initiated and for the most part executed by one designer. The fact that it wasn't developed in the context of an office and the fact of its large scale and scope obviously had implications for the pace of the design process. Although this was largely an individual project, it was not designed in isolation. The designer consciously sought contact and input from a vast range of people (fellow designers-architects, urban planners, different scientists and lay-people). During the conception phase a lot of (scientific) studies and policy documents were consulted. She also participated in the adhoc work group 'Maritime Spatial Planning' which was an initiative of 'C-Scope, Combining Sea and Coastal Planning in Europe', an Interreg IV 2 Seas Programme. This work group consisted of different scientists and urban planners convened to discuss future policy topics. She organised strollogies and workshops, each with a limited number of people to discuss the project. In the execution phase – the drawing of the map – she engaged two architects to help produce the map. In this phase many decisions were taken in this small team. A lot of effort was spent to find trans-boundary information, to carefully analyse existing data and current and future policy on different levels. The challenge while doing this was to strike the proper balance with the artistic approach. This project was not meant to be a scientific study but a well-grounded and informed design-based research. The choice of the resulting artefact, a map with accompanying scale, also guided the working method.

4.2

BRINGING THE PROJECTS INTO A RESEARCH CONTEXT

As stated in the introduction, this research project is project-grounded. I started from my design experience and selected the four design projects discussed above as the breeding ground from which I develop both the research topic and the research approach. The research approach introduces the use of conceptual design projects, the making of visionary, utopian urbanisation models in the research process. I follow Sloterdijk here when he says that such projects develop fundamentally new procedures to experiment and build up a deep understanding of current and future urban society. Sloterdijk also states that they do more justice to the character of the modern city than any existing theory does, which – to my mind – could be a very convincing argument for investing in a kind of research which is based on this kind of projects (Sloterdijk 2009, p.458). The issue of urbanisation and worlding is being studied in many fields. Part I of this thesis has already given a glimpse of the thoughts that are being developed by philosophers and others. The question here is how a design approach, situated in the field of urbanism, can contribute meaningfully to further this investigation. In the following I will present how I worked with the projects as research material in the thesis. I will further elaborate the subject of urbanisation by composing an interplay of different design projects and of design projects with the more theoretical work presented in Part I. This is about disconnecting each design project from its own particular design context and bringing them together in a *research* context. The process of evolving from a design context to a research context was started by extracting from the four design projects the overarching theme of urbanisation and worlding which was further elaborated by theoretical study. Now the projects are brought together to see how they could provide more specific research input on this matter of urbanisation and worlding. For this I set up a process of gradual abstraction, which implies looking for the more general ideas that are embedded in the concreteness and situatedness of the design projects. These are then brought in interaction with each other and with theo-

retical study. The aim is to achieve an evolution from the articulation of issues and questions that belong to the meta-level of the design project (meta-project) to the formulation of principles that belong to the meta-level of urbanisation and worlding (meta-urbanism). In the next three sections this process of abstraction is enacted. The first step was to deduce from each concrete project separately the propositions that are put forward regarding urbanisation – a first abstraction. Then the projects and the theoretical work are brought together to look for evolving ground, themes that are recurrent but that get deepened and enriched – the second abstraction. In a third step, out of the material generated by the design projects and the theoretical work, a set of meta-principles is created that could serve as basis for further investigation of the issue of urbanisation and worlding by setting up a series of new design projects.

PROPOSITIONS ON URBANISATION (first abstraction)

In this first step, I will look at each project separately to identify the urbanisation principles developed in the four projects. I look at each project as a statement on urbanisation (written in the 'should be' form) and as a proposition. What urbanisation principles does the project propose to guide urbanisation in general and urban settlement in particular? This is my own interpretation at this moment and might differ from what the other designers involved in the projects think and what the original intentions were. These statements on urbanisation are very much debatable and do not necessarily represent my own point of view. The more important issue is to distil these statements from the projects and distance them from the actual, concrete design as a first step in looking for clues to create a frame of reference for urbanisation and worlding. So the question was: What do the four design projects say about urbanisation? What guiding urbanisation principle do they propose?

A socio-ecological urbanisation process should necessarily be connected to worlding: Urbanism. Urbanisation should correspond to socio-ecological principles and to the principle of solidarity towards the world as a socio-ecological entity. As such, appropriate attention should be devoted to the link between local urbanisation and global urbanisation. Private living space in this way becomes embedded and integrated in universal living space and shows a feeling for scale and measurement, a feeling of connection with the whole. Starting from these principles a counterweight for market-driven corporate urbanisation should be stimulated. Models of urbanisation that relate local space-consumption to global space-consumption should be concerned with the available space on Earth and how to use it carefully and ethically.

Urban settlements should create qualitative density and thus counter urban sprawl. In the light of the socio-ecological principle and because urbanised areas to an ever larger extent determine our physical environment, urbanisation models should consume as little land as possible. The quality of the density should be realised by the way the urbanisation model gives spatial expression to the material structure and infrastructure that provides sufficient urban amenities for a varying number of inhabitants. What is sought is a beautiful spatial configuration, that appeals to people's sense of harmony. These configurations should have dif-

ferent lay-outs and densities to afford a diversified living environment.

Urban settlements should take public transport infrastructure and public space as their backbone. Urbanisation should express multiplicity by designing the public domain as an unconstrained spatial diversity, provoking or enhancing user diversity and avoiding interventions that may make this impossible such as the functionalising of public space. In order to generate a spatially and socially interesting living environment the focus of design attention should be primarily on the interstitial tissue, the public space and the public transport infrastructure. The combining of the public space and the public transport, linked to the amenities, should create a truly open and unrestricted public space that is dense enough to create an intense and vibrant public sphere. The urban amenities, infrastructures, all private spaces should be spatially connected to each other so that they give the public space maximal surplus value.

Urbanisation should be materialised by means of an architecturally designed mega-structure. In order to actualise the desired urbanisation qualities, an urban-architectonic structure should be designed with a lot of concern for the physical form that is detailed at an architectural level. The designing principle starts from a calculation of the amenities needed, to offer an ensemble of spaces that is as varied as possible. In order to avoid

(over)determination, the basic concept and primordial design operation of the separation between urban structure and infill, between architecture and use, between building and life, between

order and chaos, should be followed. What should be designed is an 'a-functional architecture' that can be used.

M.U.D - FLCextended2005

Urbanisation should be a mixture of the highly controlled and the uncontrolled. The urbanisation model envisions a new, dynamic interaction between natural landscape and urbanised landscape, whereby ambiguity becomes the guiding principle. The built urban fabric retreats into capsules that are conceived as artificial, strictly organised, unambiguous and controlled spheres. In sharp contrast, the outer environment should be developed as an area where territory and ownership are subjected to the dynamics of nature. Possibilities appear and disappear and control is always relative. As such, the area resists rules and traditional management in order to obtain a (nature-like) degree of freedom and evolution.

Urbanism should shift from a controlling, territorial urbanism to a multi-dimensional, dynamic urbanism. The urbanisation model should leave the well established territorial norms behind because they are considered archaic with respect to processes and movements that are global, interchangeable, synchronic, relative, abstract and volatile. In parts of the environment the typical 'zoning' of use and development will be temporarily erased. Any point here can at any time change its nature and function depending on the circumstances. This implies that another kind of planning should be proposed: no functional planning of land but continuous negotiation and consideration for the relativity of space and its function.

COASTOMIZE! - FLCextended2008

Urbanisation should be guided by the accumulation of individual behaviour and collective intelligence. Our spatial environment consists of a tremendous number of small daily actions and interactions and these have a primarily social character. Urbanisation should be the expression of this accumulating of individual and collective behaviour and should mirror the users' collective intelligence and co-creativity in

(re)shaping shared territories. Contemporary urbanisation should question the roles of design and planning in such processes and should illustrate how daily life, science, technology and design can get us involved on a co-creative basis.

Urbanisation should be a mixture of real and virtual space, inducing new spatial experiences. Responding to the

many simultaneous and even controversially needs and claims of a large collective in a limited space demands a new concept of space and use of that space. Urbanisation should embrace a form of mixed reality continuum, a new concept of space and spatiality that has emerged as technology, art and science come together to form the environ-

ment in which we all move on a daily basis. The interaction between the omnipresence of technological innovations in society and the use of innovative technology in the design of social space should become an essential part of urbanisation based on multidimensional interactivity, fuelled by user-generated content.

THE FUTURE COMMONS 2070 – magnificentsurroundings.org

Urbanisation should be about the creation of a Magnificent Surrounding. Urbanisation should be concerned with a search for and creation of beauty, and therefore it should generate Magnificent Surroundings. These need to be designed to cope with increasing pressure on space. Thus urbanisation should give a more prominent place both to ecological approaches (natural elements) and ingenuity approaches (high tech, infrastructural) and link the combining of these approaches to the notion of beauty and Magnificent Surroundings.

Urbanisation should be based on energetically and ecologically sound principles: low carbon society. Under pressure of climate change, increasing population growth and energy crises, the foundations should be established for the development of a specific climate change resistant urbanisation model, within a novel parcel structure and with greater density and energy efficiency. The vision of energy production and energy demand for the future should be considered the basis from which to design the environment as a

Magnificent Surrounding. Urbanisation should be orientated and adapted to the production units and transportation networks for renewable energy, which should be maximally concentrated and transnationally interconnected and thus should be the expression of a low carbon society.

Urbanisation should be sea-inspired and adapt and include concepts of time, dynamics, the ephemeral and the vaporisation of borders. In light of the world wide urbanisation process overtaking all open space on Earth, the sea too is prone to urbanisation. Urban planning for marine areas however, is in fact a very particular, location-time-specific matter and should be based on radically different principles than those used on land. This other take on urbanisation should encourage different approaches on land too. Urbanisation for both areas then should evolve from location driven regional planning to integrated, cross-border and time driven spatial management. Acknowledging time as the fourth dimension of the sea, all constructions should conform to tight restrictions in order to

safeguard ecosystems and to preserve the sea's status as a common good.

The commons should be considered as the guiding principle for the future urbanisation. The sea in itself, as an entity with specific characteristics fundamentally different from those of the land, is an inspiration for developing new urbanisation principles on land.

One of the most important characteristics of the sea is that it is a common-pool resource. Taking the commons character of the sea and its preservation and reinforcement as a starting point, the creation of new commons in general should be the leading principle for urbanisation. These newly created commons should fuel the ethical debate on socio-ecological urbanisation.

EVOLVING THEMES (second abstraction)

To further the process, I examine how some themes run through all or a number of the projects but evolve in character from one project to another, and how they relate to some of the theoretical frameworks, discussed earlier. The aim is to detect a kind of evolving ground in the propositions made. The reflection leads to further design questions regarding the relation between urbanisation and worlding.

*** From Orbanism over Geopoetics to Worlding.** Within the notion of orbanism the world concept is mainly translated in a concern about worldwide space consumption and a stance taken against globalisation and market-driven consumer urbanism. The issue of globalisation as the motor of a political economic worldview is confronted with notions such as planetisation and mondialisation that strive to reattribute (cultural) diversity to the world. In the notion of geopoetics there is no particular emphasis on urbanisation, or on globalisation or on other socio-political issues. However, it presents a clear dimension of world by addressing the geo as a very concrete entity with which we have to rebuild our relation

both physically and metaphysically. Geopoetics, attesting to a planetary concern, also clearly points to the water mass, a rather underestimated or neglected part of the world in urbanism, as the greater part of our world. The areas where land and water meet are then considered the most significant places, again both physically and metaphysically, to think 'geopoetically'. In orbanism the emphasis is on design; in geopoetics the emphasis is on immersion, perception, expression. All these perspectives on world ask how we can take a stance on what we call a world. This is the issue of worlding. This is about relating the social, ecological, cultural, economic and political to spatiality. *What then are the fundamen-*

tal questions to pick up from these different perspectives on worlding? How can they lead to an overall ethos for urbanisation?

*** From capsules and unstable land to spherology.** In the M.U.D project the traditional, existing urbanisation has been radically transformed into extremes: on one hand we have the outer unstable, unsafe, uncontrolled, free space and on the other hand we have urban entities that are hyper-controlled, hyper-stable, hyper-individualised. They are presented as atmospheric bastions. This idea of encapsulating is taken a step further in Sloterdijk's spherology, which presents an ever-increasing move towards encapsulating not only urban settlements but also landscape and nature. *How can we take a stance on the tension between interior and exterior? Extreme dualisation? What kind of spheres are created, and to what purpose? Is the encapsulating possibly also a retreat from the overall urbanisation, releasing again parts of the world to the 'wild'?*

*** From public space to commons.** Throughout the four projects an evolution is noticeable in the opinion or conceptualisation of public space. All projects present it as a guiding principle for the urbanisation model. But in The Unadapted City public space is considered in the more traditional urban sense: the streets and squares and, more general, the interstitial space between private functions. In M.U.D public space is given a more radical character as a free space in which there are no rules and that has a spatio-

temporal character in the sense that at certain moments, depending on the dynamics of flooding, this space can be used as more traditional public space. In COASTOMIZE! public space is enlarged in a virtual reality or a mixed reality. The virtual reality shows how public space becomes a matter of shaping shared territories through collective intelligence and co-creativity. In The Future Commons 2070 the commons are taken as a guiding principle. The public space is only one part of this larger whole of common-pool resources. With the introduction of the commons the socio-ecological concern in a world perspective reaches a higher impact level. It also gets out of the traditional urban configuration of public-private space which now also has to be related to a context of worlding. *So how can the commons get more refined as a socio-spatial structuring principle? What are the spatial consequences for urbanisation? What are the degrees of publicness in the commons - ranging from traditional public space to inaccessible space?*

*** From a-functional over multi user domain to negotiation dynamics.**

The principle of public space is related to notions of functionality and use. This notion also grew over the course of the different projects. In The Unadapted City the aim was to design a-functional space - that is, spaces that have definite spatial qualities but that are not programmed: the dissociation of function and form. The aim of these a-functional spaces is that they can accommodate a lot of uses and that their use may change over time as needed. This

changing of the use over time is made even more prominent in M.U.D where a multi-user domain is created that changes according to the dynamics of the uncontrolled or semi-controlled environment. Here there is no design of specific architectural or urban form, the focus is more on the design of the organisation of the different (natural) dynamics. The flexibility is of a totally different nature, and negotiation processes which are commonly understood to happen between humans are now shifted to negotiation processes between humans and the non-human. In The future Commons 2070 the time-based planning of the use of spaces is explicitly introduced. *What is the impact of installing dynamics that require the permanent negotiation over the use of space? How can it replace - partially - the traditional land-use designation and zoning of spatial planning? What new spatial experiences does it generate?*

*** Evolving form-giving principles: from numbers and measurements to natural dynamics and individual and collective behaviour.** In The Unadapted City the form was clearly defined architecturally, based on amenities and numbers of inhabitants. It was about handling a huge number of small things and composing them into a whole, which in the end is quite a common architectural way of dealing with a form-giving problem. In M.U.D the form-giving principle was the clash between natural dynamics and existing urban fabric and infrastructure. The

main form-giving act was fencing (protecting) and un-fencing (removing walls). In COASTOMIZE! the form-giving principle was the accumulation of individual behaviour and co-creativity, literally and dynamically shaping the territory. In The Future Commons 2070 the form-giving principle is the combination of the ecological characteristics and requirements and the highly infrastructural characteristics and requirements of the ingenium. *So what kind of form-giving vocabulary can we extract from this?*

*** From flexible to volatile and ephemeral.** From The Unadapted City to the other three projects there is a gradual shift of propositions regarding the basic characteristic of urban settlement from flexible to ephemeral. In The Unadapted City there is a lot of attention to the organic and free infill of an otherwise quite determined and static structure. In M.U.D there is the regular, though rhythmically varied, erasing and unsettling of everything that takes place in the space between the capsule-cities, urging every settlement in that area to be volatile, temporary or mobile. This is also the case in The Future Commons 2070 but here it is extended to the sea area. In COASTOMIZE! the ephemeral is quite literally the virtual, ever changing environment. *Does this aspect of ephemeral relates to a rebalanced relationship between urbanisation and the natural environment? Does it offer clues for developing land-ethics?*

META-PRINCIPLES (third abstraction)

From the perspective that urban settlements are a spatial format that reflects the ruling worldview and is guided by the ruling concept of territory, creating reconceptualised urbanisation models can contribute both to the theory development of the current evolving situation and to the investigation of the spatial consequences of a redirected worldview. What spatial format would the redirected worldview require? There is a worldview embedded in each of the four design projects used here, whether implicitly or explicitly. I examined the interaction of the design projects and the theoretical frameworks for themes for which the potential to nourish the investigation on urbanisation and worlding can be further tested by design. This resulted in some possible leitmotifs for creating habitability on different levels. The aim was to gradually generate a set of (embryonic) meta-principles that could form the foundation for defining a new series of design projects, this time embedded in a research process that eventually should lead to a sharpened hypothesis for the relation between urbanisation and worlding.

*** Geo-tolerance: the habitability of the planet.** We look for a concept of urbanisation that expresses the fact that it is necessarily connected to an awareness of the planet on which it is located. Hence, the concept of urbanisation should take into account the characteristics and fragilities of this geo. The geo is this radical 'other' because non-human presence and our relation to it is currently unsettled and needs revision. *So how do we design the inhabitation of the Earth based on geo-tolerance? Can we design in such a way that the presence of the very soil becomes foregrounded, while for centuries the urbanisation process foregrounded the presence of humans? Can we design*

in, as it were, a situation of reversed background and foreground? How would such an earthly interest affect visions of urbanisation and re-ground thoughts and actions?

A geo-tolerance principle is not about losing oneself in a pseudo-unity or harmonic fusion with nature, but it is about a closer, more sensitive relationship of humans with the Earth. As such, this geo-tolerance design principle can lead to an enhanced sense of worlding. 'World' emerges from a contact between the human mind and the things, the lines, the rhythms of the Earth, the person in relation to the planet. *How then can the concept of urbanisation express this such that it produces urban*

settlements that materialise this relation? The urban settlement sought here is inspired by socio-ecological principles. Under pressure of climate change, increasing population growth and energy crises, the foundations should be established for the development of specific climate change resistant settlements. The challenge is to translate changes in climate and energy issues into newly adapted ways of dealing with space and so generate new kinds of spaces, both in use and in physical form. These new kinds of spaces generate a sense of renewed habitability of the environment. And, to inhabit is necessarily to inhabit a world, to have there a totality of places of presences and dispositions for possible events. In this perspective of worlding, the experience of local living space becomes embedded and integrated in universal living space and shows a feeling for scale and measurement, a feeling of connection with the planetary context. From the perspective of this planetary awareness, the concept of urbanisation acknowledges the oceans and seas as the largest spatial entity. The characteristics of oceans and seas are therefore taken as an inspiration to develop new urbanisation principles on land. Hence, the concept of urbanisation adopts and includes concepts of time, dynamics, the ephemeral and the vaporisation of traditional borders. The awareness of acting on an oceanic planet enhances the experience of being part of a larger system. *Can we then take up the question Sloterdijk poses as to how, in large-scale worlds, a viable form of inhabitation can be created as the successful new design of*

liveable immune circumstances for postmodern man?

*** Commonality: the habitability of the world as a social construct.** The commons, a status that the oceans have largely maintained but that is almost completely lost on land, must be considered as the guiding principle for the future concept of urbanisation. The challenge will be to create new types of commons and to make them spatially evident. The redefinition of the commons and the spatial formatting of the commons are important to fuel the ethical debate on socio-ecological urbanisation. The commons can be considered a kind of higher order public space. There are different types of commons to be identified, of which public space is but one, each of them requiring a specific focus of design attention in order to generate a spatially and socially interesting living environment. In line with the commons principle, the concept of urbanisation investigates how the accumulation of individual and collective behaviour in conflict or dialogue with nature's behaviour shapes our shared territories and it involves notions and dynamics of this meeting of the individual, the collective and the geo in the spatial materialisation and physical expression. In this negotiating dynamic with the geo, a type of commons is reintroduced that has the characteristics of being uncontrolled, impossible claim, and that leads to a sense of 'de-discovering'. They serve to create spaces for distance and separation as a counterbalance to the current situation in which every space is conceived a

priori as a space of connection that needs to be made accessible.³¹ Developing the idea of the commons, spatially but also culturally, can only happen within a trans-boundary, world context. Hence the commons principle is crucial for worlding.

*** Spatio-temporality: the habitability of the macrosphere.** We look for a new, dynamic interaction between the natural environment and the urbanised environment. We will investigate the possibility of a partial reversal of a situation in which the growth of urbanisation spreads seemingly without limit and the natural environment becomes increasingly contained into reserves and areas of protection. The natural environment is seen as an area where any point can at any time change its nature and function, depending on the dynamics of nature. This implies that use and function have a certain degree of immateriality or temporal materiality. In these areas it follows that territory and ownership are subjected to the dynamics of nature. In part of the environment the typical zoning of use and development will be temporarily and partially erased. No functional planning of land can be applied here; instead continuous negotiation over space and its function will be introduced according to a sea-inspired spatio-temporality. This creates a specific macro-environment that requires an equally specific creation of spheres to achieve an adapted design of settlements. An essential topic of design attention, in this context, will always be the distinction and relation between interior spaces and spheres and exterior

space and spheres, and this on various scales and scopes. *How can we design the relation between interior (the urban structure), and the exterior (the environment in which the urban structure is placed) based on spatio-temporality and the reversal of foreground and background?* Sloterdijk identified the gesture of becoming loose from the ground and the gesture of encapsulating as the two basic gestures urban settlement follows throughout history. *Are these further enhanced in this situation? And how then does this alter the relation between interior and exterior such that more diverse and complex life worlds are propagated - life worlds that invoke the imaginative, programmatic, and urban dimension, as well as the natural or biological dimension?*

*** Creating immune structures: the habitability of the microsphere.** All spatial constructions in areas where the dynamics of nature rule are by necessity temporary, floating structures built in such a manner that they have zero negative impact on the natural environment and their ecological footprint remains low. *Can we achieve spatio-temporality by lifting up the symmetry between constructing and tearing down again and as such incorporate the quality of regeneration in the concept of urbanisation?* The built environment presents itself from now on as a hypothesis. It expresses the shape of preliminaryness. Even though the shape seems definite, the location is temporal and revisable. *How then can we design the infrastructure needed to support this temporality - 'parking- space'?* Technological ingenuity will be a crucial factor in meeting

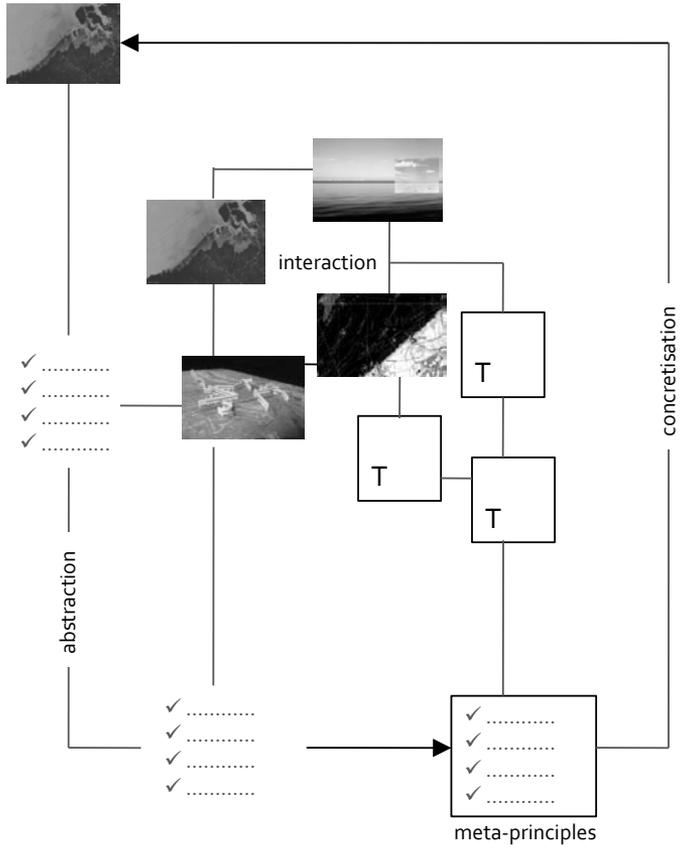
these preconditions. However, besides these specific microspheric environments, there should be a variety of other spatial formats in order to create an adequate overall immune structure - that is, an overall environment that will be resilient due to sufficient diversity . The base line therefore is that urban settlement should have different layouts and densities to afford a diversified living environment. The design

challenge thus is to combine, design and test different spatial scales, dispositions, densities and degrees of 'fixity' of spatial arrangements. Overall the separation between spatial structure and infill, between architecture and use, between building and life, between order and chaos is followed, to allow for a free and organic infill to become possible and evident.

CONCEPTUAL DESIGN PROJECTS EMBEDDED IN RESEARCH

The most typifying characteristic of the conceptual design projects that were used here is the fact that they are projections, in the sense that they 'throw ahead' a possible future. These kinds of projections provide a chance to reflect upon what is there, but mostly they provide a chance to imagine something different, to 'profect', to question and transform rather than describe and affirm. The projections (images and models) themselves never become built reality. They are models of another possible reality that serve as test cases to look for the preconditions for a new reality. Their main role is to advance our thinking on the underlying pattern that structures design and, more specifically in the context of this research, on the frame that structures the human-environment interaction. The aim is to bring this specific quality of projecting into the research process. Therefore I specify the research approach under development here as 'projective research'. Projective research is about exploring structural changes and inducing redirected thinking by means of spatial projections. This then leads to a set of meta-principles like the ones formulated above that are indicators for potential shifts in concepts of territory.

design projects



The four design projects I discussed earlier all propose to some degree a kind of hypothesis on principles guiding urbanisation. We might also call it the presence of an underlying fundamental question or assumption to which the projects answer. This is the level of the general foundation of which the particular design is but one possible instantiation. However, this level remains rather implicit or not extensively articulated compared to the actual, concrete design proposal. This is normal since a design project normally is based on a programme or theme, or problem, and not so much on an explicit hypothesis. Moreover, a design project comes into being by the concreteness of a situation, which tends to hide the more abstract ideas that are embedded in it. In that respect, each of the four projects separately is a design project, not a (projective) research project. The projective research process I propose here takes an interest in precisely this underlying fundamental question, which is further developed through the design projects while at the same time surpassing the particularity of the design projects. Hence, I suggest that it is the assemblage of different design projects and theoretical frameworks, all circling around a same issue but approaching it from different angles and with different emphases, that can induce a process of projective research. The results from each design project, in the form of generated concepts, ideas, insights and statements, feeds the development of the underlying fundamental question into a hypothesis and eventually build up new theory-through-design, as will be explained in Part III.

The role of the theoretical frameworks is just as important as the design projects. The theories described in the first part of the text, are chosen because they relate to themes I distilled from the design projects. Thus they can serve as a contextualisation of the projects, relating them to other frames of thought. To contextualise the design projects in these theoretical frames would require critical evaluation to see to what degree or on what levels the projects can be connected to the theory, where they deviate, etc. The theories could also serve to see to what extent they can underpin some of the design statements and thus demonstrate their validity. However, this is not the main aim of bringing these theoretical frames into the study. The main purpose is to find in the theories yet other issues or perspectives on the matter of con-

cern. The theories too, are therefore brought into interaction with one another and with the design projects. They are not merely useful for underpinning some notions present in the project; they are used to find inspiring questions and challenges that could be taken further by design. In fact, the theories are used here as yet another kind of design perspective or design material with which to work. The set of meta-principles derived from the process of abstraction in a sense is a kind of evaluation of both the design projects and the theories. However, this is not an evaluation of their individual merits, nor an evaluation of the extent to which they relate to each other. What happened is that different aspects from different projects and theories were selected and brought together in a new ensemble. The main aim, however, was to set up a test bed for constructing the mechanism of a projective research process. The preliminary conclusion is that to make design projects operative in a projective research process, I believe they need to be linked to one another and to inspiring theoretical frameworks. The theoretical work in this context needs to be seen as a particular kind of design work rather than as something against which to test or evaluate the design projects. They add possible design perspectives on the issue at stake. Put in a set of new principles that can be tested by design, they evolve from abstract to concrete. The design projects follow an opposite course in which a process of gradual abstraction takes place to distil the ideas and principles embedded in the concrete projects.

4.3

GENRE OF DESIGN AND DESIGN CHARACTERISTICS

As mentioned above, the research approach I try to develop is one that uses conceptual, visionary design projections as a procedure for experimenting and developing a deep understanding of the relation between urbanisation and worlding. This is the kind of projects usually undertaken by what are called 'conceptual design practices'. In the

previous section, a first exploration of the mechanism of projective research was done by setting up a process of abstraction and bringing the projects and the theoretical frameworks into interaction with each other. To further develop the notion of projective research I will again use the projects to distil from them the specific quality of these kinds of conceptual design projects and to see *how* they might be made operative in a search for key-concepts for the problem setting regarding urbanisation.

In the following section, the four projects are analysed to pinpoint more accurately the particularities of the genre of design they represent. More specifically the purpose is to gradually distil from the projects those design qualities that have a potential to evolve into research qualities. I look therefore for design perspectives and design outcomes that surpass the particularity of each project. There are design outcomes that go beyond the response to the brief, such as design operations that are developed throughout the design process and there are more general design characteristics that are given a genre-specific interpretation.

OPERATIONAL LEVEL OF THE DESIGN

I suggested in Part I that the four projects cannot be easily categorised as belonging to the conventional professional urban design practice, nor to the practice of urban planning. From their description in the previous section, it is probably clear that they are operative somewhere in the margins of these professional fields. Or, as is often claimed, they operate at the intersection of art, architecture and urban design. As a consequence, the role of these kinds of projects is often seen as triggering debate, stimulating awareness and exploring different possible scenarios in order to facilitate and in the best case enrich the planning and decision making process. The relevance of the projects in these contexts is generally considered to be their provocative or inspirational character rather than their investigative character.

So at what level can we consider these kinds of projects to be operative? The Unadapted City, for instance, was labelled 'utopian' and

'Belgian Surrealism', and as such its relevance as a conceptual design project was considered to be in the context of brainstorming, because such projects prove to be fruitful for stimulating debate amongst different stakeholders in participation processes. The same goes for the M.U.D project.³² Both projects were also used on several occasions as starting points and inspiration for students to develop design projects around similar topics. When it comes to defining the operational level, Deleu positions The Unadapted City in an 'urban art' practice instead of in an urban design practice (Dutch: '*stedebouwkunst*', rather than, '*stedebouwkunde*'), but nevertheless when it comes to categorising, it balances a bit uneasily between urban design and art. Following Lynch's definition of urban design, for instance, The Unadapted City can be considered an example of urban design. It aspires to the design of large parts of cities – from 9.500 inhabitants to 192.000 inhabitants – and is very much concerned with physical form that is detailed to an architectural level. However, the difference with Lynch's definition is that The Unadapted City is not designed to get built. The COASTOMIZE! project resulted in an art installation that shows the potential but also the limitations of design when dealing with societal phenomena, complex interactions and unpredictable behaviour. Due to the character of the end product and the context in which it was shown, it was perceived as art rather than architecture or urban design. Hence, in contrast with The Unadapted City and M.U.D, it was not labelled as utopian. However, Katrien Vandermarliere, former director of the Flemish Architecture Institute (VAi) did assign an operative level to the project in the field of architecture and urban planning. She said that: 'The Flemish Architecture Institute supported the COASTOMIZE! project because this kind of research by design is important to stimulate innovation within the disciplines of architecture and urban planning. VAI is convinced that this kind of cultural product can also feed and inspire a broader public. The manner in which a cultural manifestation like 'COASTOMIZE! and other mixed realities' introduces new themes and issues in the societal debate has an effect on the opinion of the public and on politicians. As such, COASTOMIZE! contributes to the political agenda-setting and to true creative innovation' (Godts 2008a). Categorising the project as research by design and

as contributing to creative innovation, she also attributes a research quality to the project, without however being very specific about it. The Future Commons 2070 project was started as a further elaboration of the M.U.D project. The operational level of the design, however, is somewhat different. The issue or ambition was not only to add an extra theme to the project (energy policy), but also to arrive at a design that is better informed by research data and that makes the sea more intelligible as a main actor. The M.U.D project was labelled as ‘a visionary image’, ‘the prefiguration of the M.U.D era’, ‘a challenging manifesto’, ‘a visionary pamphlet’ and ‘free and wild thinking’. The Future Commons 2070 project is certainly also a visionary image and a prefiguration of the sea and land-sea area as envisioned in 2070. The story about how the environment evolves in a low carbon society in 2070 might even be read as something like a manifesto or utopia. However, it is much harder to call this project a pamphlet based on free and wild thinking in the same sense as this categorisation was used in the M.U.D project. The thinking behind the project is different precisely in the stance that it took towards the knowledge available at the time. Where the M.U.D project consciously chose to disregard some of the available knowledge in order to be as free as possible to think differently, this project consciously sought to incorporate a lot of knowledge into the design process. The continuous confrontation with hard facts and data moderates the otherwise more easily drawn ‘big gestures’. This can be considered a hindrance for imagination to blossom but it seems more likely that here a different level of imaginativeness is achieved. This has also to do with the level of detail. Where M.U.D remained rather schematic, The Future Commons 2070 is a far more detailed design, taking into account a lot of aspects of current and future reality. One might too easily conclude that this is a more realistic project than M.U.D. It definitely has a different relation with reality than M.U.D’s artistic impression. The inclusion of more and detailed knowledge and study of different field characteristics – the sea, for instance – plays a role herein. But compared to the M.U.D project the more important difference in the relation with reality is the attention that is given to current and future policy on many different levels: local, regional, European and sector specific. There is a certain degree of policy-oriented thinking present in the design process. And although most of

the proposals will be considered too utopian for policy makers the map has a kind of policy character that links it to spatial planning. Where the M.U.D project was rapidly classified as belonging to the art sphere, it will be harder to do so for this project. The project proved to be an incentive for other initiatives and in that sense had an effect beyond the art scene. Through the designer's participation in the C-scope adhoc work group the aspect of critical vision-forming was included in the discussions and the reports. Visions developed through the project and formulated in conference papers and articles, became part of the official discussion paper that was given to the minister in charge, and they were also taken to the intervention EU-hearing about Integrated Coastal Zone Management (ICZM) and Maritime Spatial Planning (MSP). This project then seems to have characteristics that are perceived as more investigative and also slightly more akin to professional planning practice. Nevertheless, in the press release of the exhibition, this project too was situated at the intersection of art, architecture and urban design.

Being located in this intersection area can be interesting, provided that it becomes clear what specific contribution or surplus value this intersectional position can generate for the wider field. However, in my opinion, most often this intersection location is used to dismiss these projects as nice but not really to be taken seriously and certainly not of any scientific relevance. In that sense, the previously mentioned action deficit is further enhanced. There is a deficit in the projects' general agency in the professional field, where they are positioned at the margin of the discipline. There is a deficit in the level of research: 'being at the intersection of art, architecture and urban design' has not yet evolved into a robust contribution to the development of a design-based knowledge paradigm that can complement the scientific knowledge paradigm in research in urbanism.

As suggested in Part I, I position the relevance of the kind of conceptual design projects discussed here, in a research practice, rather than in professional practice because they are not intended to be realised. They intentionally stay at the level of 'projectivity'. From a research perspective then, the aim must be to enable some specific qualities of the projects to be better positioned and better used for systematic in-

quiry into the way we inhabit our environment. This will enhance the relevance of conceptual design practice for the wider field. This further implies that these projects should not be ‘parked’ at the intersection area of art, architecture and urban design but that the specific ‘inter-sectional’ qualities should be distinguished and activated in what I would call a process of hypothesis development on urbanism instead of a series of statements on urbanism.

In order to articulate more clearly the potential research qualities of these kinds of projects, I will look now at some genre-specific design operations and design characteristics.

DESIGN OPERATIONS

One of the characteristics of the projects is that they all developed, during the design process some design operations that are quite particular for the genre of design. These design operations reinforce the envisioned agency of the design project. The development of these strategic operations was prompted by the specific circumstances in which the design process took place, by the brief, by the timing, and more generally by the urge to enforce the projective and imaginative quality of the project. In the following I list the operations as they were generated through the design process. As in any design process a number of design operations were used together, but I have selected here the ones that are not so much traditional working methods that lead to a conventional, commission-driven design. The aim of extracting these somewhat particular design operations from the design process is to gradually identify the qualities that are specific to the genre of design and that could lead to a particular research approach.

The strategic operations identified are the following:

- ✓ *Poetic calculation*
- ✓ *Dissociation of function and form*
- ✓ *Scale and disposition*
- ✓ *Reinterpretation*
- ✓ *Radicalising and magnification*
- ✓ *Reduction*
- ✓ *Subjective cartography*
- ✓ *Strollogy*

Poetic calculation [The Unadapted City]

In *The Unadapted City*, a specific way of handling data called 'poetic calculation' was developed to guide the design process. The base instrument to start designing and composing the spatial structure of the urban model was the calculation of the amount of facilities, both in number and in surface, needed for a certain number of inhabitants – the so-called 'social base'. The point of departure was that planning gives spatial expression to numbers, more specifically, to the extremely complex dimensions of numbers of inhabitants. What is sought for is a kind of urban arrhythmic that expresses the tension between the precision, manageability, cohesion and stability of the geometrical dimensions of a city in a changing mental world and the ambiguity, elusiveness, confusion and changeability of its numbers of inhabitants. (Deleu 1996, pp.13–15)

The aim of *The Unadapted City* was to create general luxury housing³³ by defining a multifunctional planning framework where the desires of urban living are satisfied. The calculation of the amount of facilities, both in number and in surface, needed for a certain number of inhabitants thus became the base instrument to start designing and composing the spatial structure. The calculation instrument became a working atlas of urban facilities consisting of ten plates. The aim of this study was not to have a scientifically correct gathering of data about the city, instead, the utmost care was given to interpreting the data 'by design' and to the development of a designerly tool that offered an understanding of the scale and diversity of urban amenities. The atlas and calculation sheets seem to build up a rational diagram, although full of incomplete, often mistaken, ambiguous, obsolete, casual data, wrongly interpreted and calculated. The aim was to achieve clarity rather than scientific correctness and to provide insight into the scale and complexity of a city. (Deleu 1996, p.16)

Dissociation of function and form [The Unadapted City]

In *The Unadapted City* the design investigation concentrated on creating diverse life worlds and an imaginative approach to the urban programme. In this project, this was achieved largely by investigating programmatic requirements and related architectural form. In this re-

spect, the project seems to be quite modernistic in its approach. However, this form-follows-function feeling was twisted a bit in the design operation that was developed. The designing principle used investigates how, starting from a calculation of the amenities needed, an ensemble of spaces that is as varied as possible can be offered. A key issue in this design process, then, was the separating of function and form. The functions are only used to design a diversity of spaces. The separation of mathematically defined programme and the resulting more or less articulated but functionally indeterminate space is considered fundamental. This principle underpins the separation between urban structure and infill, between architecture and use, between building and life, between order and chaos – what is designed is an ‘a-functional architecture’ that can be used (Deleu 2002, pp.21–37). This is the basic concept and fundamental design operation throughout *The Unadapted City*.

Scale and disposition [The Unadapted City]

Starting with the numbers of inhabitants and correlated amount of urban facilities, a lot of the design exercises were based on a kind of scaling up and scaling down. Growing numbers of inhabitants and nested clusters of amenities became elements we struggled with during the design. After calculating all the different amenities an almost unmanageable amount of small and larger functions lay on the table, waiting to be dispositioned in an order of some kind. The strategic operation we developed was to design from the part to the whole, with a huge number of small things. The issue of scale, in the sense of relating different scales, was always present starting with relating the local and global scale, which is inherent to the urbanist approach. As mentioned above, this was the case, for instance, in *VIP City* and the calculation of the size of a suburban lot. *VIP City* was also an exercise in scaling and disposition in the sense that previous models like *Dinky Town* and *Octopus*, were positioned in a totally different urban arrangement: a flat landscape of low-density suburban allotment. This was done to see the contrast between the high-density infrastructural model and the sprawl model, and how these scales interact – again in order to give a feel for the different spatial scales, disposition and density of urban

arrangements. Older models became part of new designs and changed scale. The models that were designed without context were also at some point placed on an actual urban environment to see the differences and confrontation between existing urban tissue and tabula rasa planned urban settlements. In the latest phase of *The Unadapted City* the scale and disposition exercises became even more apparent when parts of the model were related to a sea mile and positioned on the sea.

Reinterpretation [M.U.D]

As described in the section on the projects, the brief in the M.U.D project was substantially reinterpreted – to such an extent that reinterpreting the problem presented became a strategic operation that remained present throughout the design process. Just as the brief in general was reinterpreted, so too the phenomenon of Flood got another interpretation other than the one established in the brief. The designers stated that the conflict in the Flood does not revolve around the risk of flooding alone, but rather around the interaction of water and land and the effect of this interaction on the border area between the two. What is perceived as risk, a danger, a severe conflict between the natural element of the sea and the humanised area of the urbanised strip is considered by the design team to be an opportunity. If the strict dividing line between water and land is abandoned, the borderline changes into a transitional zone where the sea – depending on the landscape behind – gulps or seeps in.

Radicalisation and magnification [M.U.D]

This reinterpretation resulted in an attitude of embracing and radicalising of the idea of the Flood. This radicalising was a fruitful attitude because it allowed the other phenomena almost automatically to enter into a situation in which they can show their full potential. 'Capsularity' for instance, refers to the tendency to encapsulate as a physical and mental protection against a chaotic and unsafe environment. By radicalising Flood and so creating an unstable environment, a chance is created to also radicalise capsularity by selecting some cities and making them guaranteed waterproof. As utmost stable capsules in

an utmost unstable environment they can further develop their identity unhindered. 'Hyper-economy' refers to the so-called 'vaporisation' of the economy, the shift from fabrication of material products to a less material level, that of ideas, design and experiences. Projecting this onto the flood plane – an area that was once taken from the sea to develop a soil bound economy –, it may result in an invisible network that is grafted onto the dynamic sea flux and that connects nodes of knowledge and communication. This immaterial raster is spread out over land and sea and symbolises a new view on the use of space. In this context, space is not planned but negotiated and made relative again and again (Goossens 2007, p.47). In this context, the design operation of 'radicalisation and magnification' was born – that is, the magnification of phenomena, already present but fragmented and dispersed in daily reality. By condensing (that is, showing the spatial consequences in a more radical scenario) actual phenomena like the flooded fields after heavy rain, the holiday villages, the theme parks and tropical resorts and the reports on sea level rise and making them explicit in the hypothetical context of a controlled flood plane – the mud landscape –, an end-image emerges that provokes a common way of thinking in spatial planning (Goossens 2007).

Reduction [M.U.D]

Another strategic operation was called 'reduction' and was the direct result of the decision to make a whole region subject to design. The reduction lies in the project's specificity and detail. When the area of design is sufficiently enlarged, the specificity diminishes and the detail, or we might say the grain or pixel size is also enlarged. By changing the level of detail, or the size of the pixel, the complexity of a reality that in all its details is impossible to grasp again becomes manageable. It results in a design that is not scientifically underpinned. Therefore, the resolution is too rough. But it facilitates the formulation of a clear statement (Goossens 2007, p.48).

Subjective cartography [The Future Commons 2070]

The Future Commons 2070 project in many respect was also a cartographic project. That is, a lot of attention was given to the visual expression of the map. This is not a scientific map that objectively represents a part of reality, hence the warning not to use it for navigation. When changing from one medium to another – from analogue to digital to photocopy and back – and from one scale to another, the different source material is manipulated, causing some distortion in the data. But there is also conscious manipulation of source material in order to be able to express the message more clearly, for instance, over-scaling of the floating harbour and of the dragging and silt processing. These might be considered simple imperfections that can be corrected if necessary. However, conscious manipulations have an important role in breaking the ‘empty look’ of objective maps. They bring about a mindscape in a landscape. This mindscape is perhaps most strongly expressed here by the sea monster, the cloud and the flock, all expressions of the ephemeral, immaterial qualities of the sea.

Strollogy [The Future Commons 2070]

Strollogy (*German: Spaziergangwissenschaft*) was developed by Lucius Burckhardt to enhance inter- and transdisciplinary knowledge production. The art of strollogy creates a sphere of collective action, in which perception and developing vision meet and question each other in a particular manner. Strollogy, which is basically a form of wandering, offers a perception via the act of scanning the territory in group and offers an alternative to regular planning and design methods. This is only possible when the promenade is based on well developed visions and when it is organised by (a) design. The power of strollogy resides in the creation of an atmosphere in which perception and developing vision meet in the context of a collective of people, and is based on the expertise and the personal experiences of each participant. It is about creating an environment in which free associative thinking can evolve to the fullest (Geldof 2008). Strollogy played an important role in the design process of a large-scale area involving multiple stakeholders. Using this method of strollogy was a resolute choice not to use conventional stakeholders participation and thus breaking open the common

spatial planning procedures and methods and encouraging a climate of independent vision-defining.

I selected the design operations described above because they seem to have the most potential to become part of the projective research approach I want to develop. The design operations were initially largely (and sometimes implicitly) embedded in the projects. Therefore the aim was to extract the relevant operations from each project so that they become more autonomous. All these design operations can be considered design outcomes that go beyond the response to the brief and beyond the particular design project. They can be further applied in other similar genres of design projects. In a sense they are signs of a design attitude that tries to break away from the design constraints of the more common design practice and from the constraints of scientifically correct usage and interpretation of data. This is an attempt to, as John Law says, ‘catch some of the realities we are currently missing’ and ‘to rethink our ideas about clarity and rigour, and find ways of knowing the indistinct and the slippery without trying to grasp and hold them tight. Here knowing would become possible through techniques of deliberate imprecision. [...] This would be knowing as situated inquiry’ (Law 2004, pp.2–3). The care that is taken to achieve again a kind of systematic approach results in design operations that potentially can be further refined and used again. While the operations in the original design were not all there from the start but developed along the way, they could now be used more consciously as a method and with the more articulate intention to investigate certain issues. The search to find design operations in order to break away from given constraints, is a way to enhance the design characteristics of ‘projectivity’ and ‘imagineering’ as will be further explained in the next section.

SOME GENRE-SPECIFIC DESIGN CHARACTERISTICS

The working method and design operations developed show that the different projects discussed here adhere to a certain genre of design. This means that it can be distinguished from other types of design. The most obvious difference is the nature of the design outcome: they are conceptual, visionary design projects rather than proposals for an actual realisation. More important for the study here, however, is that one might assume that a number of the broad range of design characteristics used when designing, are more emphasised than others. Identifying these characteristics gives some first clues as to what particular aspects of this genre of design could be interesting for building a design-based research approach. When we look at the prefigurations that each of these design projects present, two design qualities stand out: *projectivity* and *imagineering*. Reflecting on the projects and the design operations, in retrospect and starting from the original design ideas that arose during the design process, I noticed that a number of design characteristics were emphasised and that they were deployed and set up in such a way that precisely the qualities of projectivity and imagineering were enhanced. In the following I will discuss what design characteristics were foregrounded in the design process and how they were interpreted in a way specific to the genre of design at work here. It concerns six particular design characteristics that I have identified by more closely examining each project:

- ✓ *problem setting*
- ✓ *critical reading*
- ✓ *data handling*
- ✓ *poetic expression*
- ✓ *concept formation*
- ✓ *materialising*

My suggestion is that this ensemble of particular design characteristics, if more intentionally and consciously positioned in the knowledge building process, can be constitutive for the research approach I want to develop and which I call, for the moment, projective research.

Problem setting

The projects described here obviously emerged from a context that is different than what is commonly considered a professional architectural or urban design practice. This is most noticeable in the nature and the formulation of the project briefs. The Unadapted City departed from a completely internally defined brief and no commission; COASTOMIZE! defined its own brief within a given framework of science communication and innovation, M.U.D was a commissioned project with a relatively well-defined brief and was in that sense the closest of the four to a common architectural commission. The Future Commons 2070 was an autonomous project defined by an individual designer. In these projects, most noticeably in M.U.D and COASTOMIZE!, a lot of energy has been invested in exploring the problem as it was stated in the brief – more energy, it seems, than was invested in finding an actual solution. An important part of the design process consists of trying to formulate and refine the problem to the point where the final design becomes the expression of an interesting spatial question. In the M.U.D project this was exemplified by the design operation of ‘reinterpretation’, which occurred on different levels in the design process. ‘Reinterpretation’ is about a critical reading of the situation at hand and reformulating the problem or the brief as presented. It can be considered a typical feature of what Nigel Cross called ‘a designerly way of knowing’. Cross states that ‘it has become clear that designing is not normal “problem solving”. [...], designing involves “finding” appropriate problems, as well as “solving” them, and includes substantial activity in problem structuring and formulating, rather than merely accepting the “problem as given”’ (Cross 2006, p.77). Cross further says that ‘one of the unique aspects of design behaviour is the constant generation of new task goals and redefinition of task constraints’ (Cross 2006, pp.78–79). Cross presents this as a feature of design in general. However, the extent to which this problem finding and redefining of the problem can be emphasised in a design process can vary considerably. Some briefs explicitly ask for a workable solution to a very specific problem (‘engineering’) while some are looking more for ideas and concepts (‘imagineering’). In the case of the M.U.D project, the brief allowed a degree of freedom for the designers to reinterpret. What was expected was not a design to be realised but a scenario and a vi-

sion. In this context, the focus is much more on questioning and consequently restructuring what is commonly perceived as a problem. The problem presented to the FLCextended team was how to defend the Belgian coastline against flooding. A lot of studies are currently being done to predict the consequences of higher sea level and more frequent storms. In this context, the GAUFRE study served here explicitly as a framework on which to base design thinking, and complementarity between scientific analysis and conceptual design was encouraged by the committee that appointed the design teams. Based on studies like GAUFRE, the most probable future situation is put forward as a fact-based prognosis on which to base design assignments. Following the studies, however, should mean that every design scenario will be based on the 'hold-the-line' policy, which is the dominant ideology in the studies. Designers then are asked to give this 'line', redefined and adapted by engineers to the consequences of climate change, a new spatial quality. In the M.U.D project this always implicitly present 'hold-the-line' principle is critically questioned and replaced by a radical alternative principle: 'the rupture of the line' and design for a controlled flood plane. This is a quite substantial redefinition of the problem, one that is only possible in a context of conceptual design. Also the design philosophy of FLCextended, designing future conflicts instead of solutions to 'ready-at-hand' and scientifically analysed problems, enhances a strong focus on problem redefinition. The Future Commons 2070 project addresses the same issue but uses the problem to develop a more overarching vision of how socio-ecological principles could lead to a re-introduction of the commons as a guiding principle for spatial planning. The specific characteristics and political status of the sea was used to develop guiding and inspiring design themes and to turn the problem into an issue of taking a political stance. In the COASTOMIZE! project, the elements of art, science and technology were brought together around the notion of a 'space of limits', in search for an 'impossible problem': how can we make the coastal experience accessible and adjustable for and by a million people simultaneously? How can that be done spatially? The designing and consequent defining of an impossible problem was important because only an impossible problem can challenge the ruling concepts of space and thus enhance the chances of creating a new concept of space which

in this case resulted in the proposal of a mixed reality continuum. So problem restructuring in the cases where a brief is given and problem setting in cases where a brief is absent, is one of the main characteristics of conceptual design thinking like the four studied here.

Critical reading

The projects discussed all show a particular way of looking at reality and a particular way of working with the present situation. For instance, The Unadapted City and M.U.D, being urban and landscape projects, seem to disregard a whole part of reality that normal urban planning projects are required to take into account. In both these projects a fairly limited number of elements is selected from reality and consequently foregrounded as the constituting elements of a new reality. In The Unadapted City the infrastructure becomes the dominant feature; in M.U.D the flooding takes control. Both the flooding and the infrastructure are enlarged to such an extent that they replace many of the existing forms of human settlement. This is what became in M.U.D the design operation of radicalisation and magnification. A first objective of these operations is to reveal hidden potential in current reality. With these design operations current trends are not extrapolated as in scientific prognosis to a probable future scenario. Instead, they are radicalised and magnified – that is, over-articulated. This procedure creates an alternative that is not based on the probable but on the possible and, equally important, on the desirable, since it starts from a selection that is mainly based on preference. This approach transforms perceived reality into another possible reality. These operations depart from a critical reading of the present, of reality as it is normally perceived, and seek to reveal another possible reality that is currently hidden by dominant ideologies or routine ways of conceiving design solutions. That is to say, they seek to consider and make explicit possibilities beyond what is known, possibilities that challenge the ruling principles of daily practice. It is all about the reading and design of the implicit, of possibilities that are latently present but have not yet come to the foreground of reality. Radicalisation and magnification challenges our understanding of reality. It provokes the dominant principle of reality, the dominant way of perceiving things. It is therefore

critical of reality as commonly presented and perceived. COASTOMIZE! explicitly experimented with different types of reality, trying to shed some light on the possibilities of virtual and mixed realities that technology offers us.

Another feature of the operations of radicalisation and magnification is that they have a de-familiarising effect. In the M.U.D and The Unadapted City project they disturb commonly accepted models of urbanism, and do not fit with the reality of, for instance in the case of M.U.D, the 'hold-the-line-principle'. According to Anthony Dunne, one of the proponents of critical design in arts and product design, de-familiarisation is all about poeticising. Dunne's specific interpretation of poeticising is that 'the fit between ideas and things, particularly where an abstract idea dominates practicality, allows design to be a form of discourse, resulting in poetic inventions that, by challenging laws (physical, social, or political) rather than affirming them, take on a critical function' (Dunne 2005, p.42). The important notion here is the idea of dominating practicality, because that is the first step in changing a use, or a function. The strategy used here is a form of functional estrangement. De-familiarising, according to Dunne, is about poeticising the distance between ourselves and the environment, which in his research refers to the environment of electronic objects. This then encourages sceptical sensitivity to the values and ideas this environment embodies. Dunne refers to Viktor Shklovsky, who says, 'the function of poetic art is to counteract the familiarisation encouraged by routine modes of perception. We readily cease to "see" the world we live in, and become anaesthetised to its distinctive features' (Dunne 2005, p.35). In the M.U.D project, the operations of radicalisation and magnification result in this effect of de-familiarising and functional estrangement. It is also clear that the magnifying of phenomena of flood, capsularity and hyper-economy results in abstract ideas dominating practicality and challenging physical, social and political laws rather than affirming them. Another example of challenging physical, social and political laws, but in a different way, is the community or dynamic 'worldwatermap', part of the COASTOMIZE! project, in which the coastline is constantly changing according to people exerting their wishes and fighting over territory with others. The Future Commons

2070 to a certain extent is a further elaboration of the M.U.D project and in that respect it has the same characteristics of challenging physical, social and political laws. However, it takes matters to another level when it comes to the spatial detailing and the creation of a new future policy for dealing with the area and the different stakes. It is in a way about radicalising policy on top of radicalising spatial phenomena. The resulting map is a poetic interpretation of how sea and land policies could be revised and recomposed to create a Magnificent Surrounding, while taking this notion out of its narrow association with 'romantic nature' and bringing it into urbanised and heavily exploited areas.

Data handling

The four projects all have a peculiar way of handling data. The Unadapted City departs from a need for a large amount of data regarding amenities and inhabitants, data that are available from many scientific sources, yet the designers decide to put together their own data-set based on a number of non-scientific calculations. The correctness of the data and the calculations is not considered relevant, the 'correctness' of the poetic images that are produced from the data, such as the atlas and amenities flag, however, is considered of the utmost importance. The designers stated that the tools created to design The Unadapted City need to be poetically sound, not scientifically sound.

Capturing data in a poetic expression is a way of not letting data and information overrule the design thinking. Too much knowledge of facts can have the effect of blocking the mind from seeing new possibilities or to daring to draw the desired or even the unthinkable. This proved to be a constant struggle in The Future Commons 2070 project. A lot of scientific data were consulted, which in itself doesn't have to block imagination, but when also a lot of knowledge on the different existing and planned policies for the region was obtained, it became very hard to go beyond the 'harsh reality', trying to design something that pushes the boundaries of the traditional frames of thought. While doing this the challenge was to strike the proper balance with the designerly approach. The project was not meant to be a scientific study but a well-grounded and informed design-based research project. The thinking behind the project is different from M.U.D precisely in the

stance that was taken towards available knowledge. Where the M.U.D project consciously chose to disregard some of the available knowledge in order to be as free as possible to think different things, this project consciously sought to incorporate a lot of knowledge into the design process. In the M.U.D. project this problem was avoided through the emergence of the design operation of 'reduction' as a strategy for handling data. We might say that by liberating themselves from too much knowledge of facts, the designers wanted to create the best circumstances to use their imagination to the fullest, unimpeded, to enhance the chances of achieving fresh insights and innovative concepts. In this situation, they could only use imagination to fill in the gaps in the explicit known. The design mind-set of imagineering is activated rather than the design mind-set of engineering.

The way the different projects use or disregard available knowledge and the manner in which they try to change the nature of knowledge has a lot to do with establishing a particular relationship between the imaginative and the real. Reduction, for instance, attempts not to let the real overrule the imaginative. The relation between the imaginative and the real is a typical characteristic of poetics. In that respect Georges Amar states that, contrarily to what we might think, in our times a deficient contact with reality usually is not due to an excess of imagination but rather to a lack of imagination. He states that we are rarely aware of the degree to which our sense of desire and reality is programmed. Our society, our culture, our language is telling us, prescribing for us, what is real or not. Seeing, in the poetic sense, is related to imagining – *'Imaginer le réel, c'est le voir'*. Poetics in that sense is about a kind of active, creative perception considered as a dialogue with the unknown. The highest form of imagination then, according to Amar, is the imagination-of-the-real (*imagination-du-réel*) (Amar 1992). Too much data or factual knowledge leaves the mind little or no room for imagination and thus for the poetic. Poetic knowledge is less explicit, less reductive and always leaves room for interpretation. It departs from a different attention to the world. That's why it is able to construct a dialogue with the unknown and thus with the new.

Poetic expression

This relation between imagination and reality is linked to the relation between expression and perception. And this is an issue of poetics. ‘When we are so far into the perception of things as to have grasped their essence, says Edmund Husserl, founder of transcendental phenomenology, our expression will be “poetic”, in all other instance we merely “opine”’ (McManus 2007, pp.77–78). The importance attributed by T.O.P.office, the FLCextended team and Magnificentsurroundings.org to visual communication, the expressive quality of the end product and the exhibition space as a guiding principle clearly emphasises the poetic quality as described above. Here the figurative quality and the instrumentality of the artefact come to the fore. The artefacts that materialised the projects use a poetic language, in the form of drawings, models and installations, to convey their message. However, it is important to notice that it is not only about creating poetic artefacts; there is a poetic mode of thinking at work to develop concepts.

According to White the ‘new science’ of the seventeenth century, and the ‘*raison*’ of the eighteenth century, provoked a crisis in poetics, and this crisis is still going on (White 1994, pp.359–360). Lemaire argues that a disunity occurred between two – now seemingly incompatible – relationships to the world – between two registers, between two languages: the natural scientific register and the poetic, aesthetic register. Since then, for Lemaire, our modern worldview has been dramatically divided (Lemaire 2002). This kind of split also occurred in the M.U.D project, which chose to distance itself completely from the scientific study GAUFRE. The synergy between the two ‘languages’ and the two types of knowledge production was not attained, although creating this synergy was the hope and intent of the committee. As a consequence, M.U.D remains strong on design but scientifically weak and GAUFRE remains scientifically strong but weak on design. The Future Commons 2070 project embraced the two languages and tried to overcome this split between the poetic and the scientific. In the description produced by the designers of M.U.D, the project is labelled as ‘free and wild thinking’. In this respect Lemaire’s notions on the existence of two levels of thought are interesting. Lemaire states that the world can be known by two different levels of thought: the so-called ‘wild thinking’

and the ‘domesticated, scientific thinking’. The former is more or less adapted to the level of perception and imagination; the latter is more distant. So there are two ways of ‘knowing’ or studying, one that remains very close to the sensory intuition and another that distances itself from it (Lemaire 2002, p.132). Claude Lévi-Strauss made a plea to acknowledge the rationality and reasonableness of ‘wild thinking’ to broaden our natural scientific worldview and thus win back the richness that was sacrificed by the development of modern science. Science can then reintegrate the logic of the concrete and the sensory (Lemaire 2002, p.132). The same issue is addressed by neuro-scientific research in which an unbalanced use of the left and right hemisphere – the left one dominating and being physically bigger – has been identified as the main cause for the shaping of the Western world as a science dominated, rational, analytic society (McGilchrist 2009). The concrete logic of ‘wild thinking’ is a way of thinking in which senses and intellect are closely related (Lemaire 2002, p.133). Lévi-Strauss denies that ‘wild thinking’ is like an old and passed phase in human thinking: it still is like the substrate of our thinking. Moreover, this way of thinking is still present in art. Works of art are not only fulfilling for the senses but also for the intellect because they accentuate and reveal structures in reality that are not immediately obvious. Thus art guides us through the surrounding world in a sensory as well as a cognitive respect, because in art perception and cognition are closely related. Contrary to the analytical way science works, art is mainly about synthesis (Lemaire 2002, p.134).

Concept formation

With its main focus on problem setting and problem restructuring, this genre of design does not quite result in a solution or answer to the original brief as is normally expected. Instead the design is characterised by a relative high degree of concept formation. The main outcome is not so much the design proposal itself but more the different concepts that emerge from it and that are embedded in the design. This is most clearly the case in the M.U.D and COASTOMIZE! projects. In these, a number of concepts were developed by design – that is, through instantiation in the design project and its artefacts. For in-

stance, during the COASTOMIZE! project, the concept and image development arose intuitively but the message only became clear to the designers through the project itself. Only at the end of the COASTOMIZE! project, and by means of the final installation could the designers formulate these concepts and images more clearly for the public (Godts 2008b). Generated by the design, the COASTOMIZE! concepts are further developed, clearly formulated and put in evidence primarily by the design itself and vice versa (Godts et al. 2007).

The level of conceptualisation is such that the concepts formulated have a certain independence from the particular design from which they originated. As a further development of the project, it is the concepts, rather than the design project itself that need to be further refined by means of design and/or theoretical elaboration. In each of the cases the current design focus is questioned and new concepts and principles are developed that can be tested and refined by design. The value of these concepts is that they can shift design attention into new frames of thought.

Selection out of COASTOMIZE! concept formation

[adapted from (Godts et al. 2007) and (Godts 2008a)]

[IMAGE FISSURE]

The fissure between science and image.

We have difficulties dealing with pure art, pure science, pure technology. These have become extremely complex. After the mechanical era with the demonstrative Apple of Newton, there now exists a fundamental fissure between science and the image of science, between technology and the image of technology. Science and technology struggle hard creating their own, contemporary, clear image or to make it acceptable. The end-user returns quickly to the last image that he could understand whenever confronted with a question... High technology and advanced science smuggled away behind a nostalgic reference image, but who will still know this referent?

The clearness and intelligibility of an environment is created and hence, artificial. Designers deliver new images again and again: interfaces that facilitate the use and meaning of science and technology, interfaces that no longer elaborate on the transparency or black box but, on the contrary, provide access to memory and programme by means of interactivity.

When we look at the desktop clock of our computer, we don't really want to know how this works. The reference image to a clock with a dial, or to the seventies calendar clock does not at all correspond with the functioning of the computers' bits and the bytes, searching wireless for the nearest atom clock. Things like the nostalgic wooden inserts in dashboards of high-tech super performing cars, show us that we can hardly cope with pure technology, pure science, and pure design.

[IETs + SEF]

INTUITIVE AND EMOTIVE TOOLS with SILENT EMPATHIC FEEDBACK: *Our daily point of view with respect to art, science and technology usually is the viewpoint of a consumer and our relation to art, science and technology is that of consumption – we expect user-friendliness. We want user-friendly things that we can understand intuitively and emotively. We desire ever more that these artefacts scan themselves our wishes and needs swiftly, silently and comfortably. That these things feel what we like and certainly what we don't like – preferably before we have to formulate it explicitly ourselves. We therefore, during the design process, summarized this new understanding of the relation with art, science and technology as the longing of people for IETs with SEF: INTUITIVE EMOTIVE TOOLS [IET] met SILENT EMPATHIC FEEDBACK [SEF]. Also architecture urgently has to become a IETs with SEF, an intelligent form of background...Man's current attitudes towards science, technology and design helped us to introduce a new understanding of these relationships: the desire for [INTUITIVE EMOTIVE TOOLS (IET) with SILENT EMPATHIC FEEDBACK (SEF)]. As users we want these tools to show us empathy in the most split second pro-active and discrete as possible feedback way as they silently, joyfully scan our every wish, enjoyment and dislikes.*



FLCextended2008 COASTOMIZE!

Selection out of FLC GLOSSARY

[adapted from (Godts & Janssens 2012)]

Usage guide:

[**unsyllabicated main entry / term out of the alphabetical list of terms related to the specific field of FLC and generated by their design activity**] (*a reference to the origin of the term*) *DEFINING CROSS-REFERENCE **0.1** the first of its meanings or accompanying definitions **0.2** a second meaning or accompanying definition **0.3** and so on. Definitions are presented with or without (*A CROSS-REFERENCE TO RELATED TERM). A ~ symbol stands for the term in question. Text between () is a specification in relationship to a meaning or definition. Text between ‘ ’ is a referential quote. *Italic illustrates the use of the term.*

A

[**artist impression**] (*term used for designating artists renders of applied projects like aircraft and spacecraft modelling, FLC adaptation 2005 instrument*) *PUBLIC IMPRESSION **0.1** one of many possible images that crystallises a possible perspective on the issue; as such the ~ can stand on its own or function as a new starting point **0.2** a beautiful image playing an instrumental role as a strong visual synthesis, leaving opening for multiple meaning and interpretation **0.3** a moment in time **0.4** an end product reflecting the designers attitude of taking distance from the existing reality in order to create a new, plausible reality, leaving room for interpretation; the ~ has a relationship with reality but is not a (exact) representation of it; *in M.U.D the ~ was a manipulated satellite picture.*

[**artificial flood**] (*FLC2005 concept*) **0.1** desired even provoked flooding to produce an intentional rupture of a coastal or inner coastal membrane **0.2** similar to an arena of artificial live ~ unleashes some behavioural codes in order to provoke new, modified behavior **0.3** ~ (re)defines and moves limits/borders/agreements (*HYPER ECONOMY *CAPSULAR COAST).

H

[**hyper economy**] (*FLC2005 concept*) **0.1** the next step in the evolution of economy. **0.2** economy based less tangible, less material, less soil bounded and ever more volatile kind of productions (*LIQUID EXPLOITATION).

M

[**MARE MEUM**] (*FLC2005 concept*) **0.1** ~refers to the particular way in which our coast is being consumed: as the highly personal possession the many aspects of which are simultaneously and individually claimable and are by no means attached to a collective feeling of responsibility.

[**M.U.D**] (*FLC2005 concept*) **0.1** a display of an interactive coast with its inner loops, catastrophes and singularities. The intentional rupture of the coastal membrane inspired by artificial flood, capsular society and hyper-economy **0.2** Mud, a hybrid, de- and re-composed state between land, water and air **0.3** Multi-User-Domain, a collection of desiring machines, aggregates of subjective desire, architectures of articulated longing **0.4** Multi-User-Dimension, the ability to respond to simultaneous and even controversy needs **0.5** a new Age - ~ standing combined for MUD / Multi-User-Domain / Multi-User-Dimension. In ~ there are no laws, only agreements. ~ is a test-bed for futurity. **0.6** ~ dissolves the coastal urban network into a state of positive emergency: changes surrounding the nodal points in the dynamics of current flows and future conflicts, vast flows of undifferentiated data, patterns of information. ~ is entirely process; infinitely more than the combined sum of its various selves.

Materialising

Architecture (and urban design) is in a way intrinsically about connecting the human being with the environment through its material manifestation. It is a very tangible and material expression of how to actualise relations between people and the world. Even when rather immaterial design is involved some kind of materialisation remains at stake. Corner emphasises that arguments for staging uncertainty, for indeterminacy and open-endedness (like in the M.U.D project), for endless scenario gaming and datascaping (like in COASTOMIZE!) in fact anything to do with the whole notion of free flexibility and adaptation (like in M.U.D and *The Future Commons 2070*) does not make sense in a world without specific *material form and precise design organisations* (Corner 2007, p.93). Materiality is a quintessential aspect of design. Materiality tickles the senses and accordingly starts thought processes. Thus we might say that materiality is inextricably involved in sense-making (Lieken & Janssens 2011). In that respect the making of a material artefact is intrinsically connected to every design process. There are, however, different types of materialisation present in a design process. In the M.U.D project, for instance, the proposed materiality should the design be realised, is a materiality of an ever changing nature: land-mud-water-mud-land. However, being a prefiguration, a so-called utopian project, the ideas proposed in the design are triggered and discussed through what I call a 'projected materiality'. The effects of the projected materiality, however, are consciously enhanced by the actual materiality of the representation of the project by means of a carefully designed and materialised installation. This installation operates as an artefact embodying ideas about spatial settlement. As such, it triggers thoughts and discussion in the public (Lieken & Janssens 2011). However, the artefact made to eventually represent the design feeds also the design process. In M.U.D, the scenography for the exhibition exerted a constant and powerful influence on the design process. That process took place on two levels: the design of a scenario for the Belgian coast and the design of an exhibition, which is the design of the representation of the design. These two levels influenced each other. Catharina Dyrssen argues in this respect that the boundaries between representation, conceptualisation and modelling tools are fluid.

The choice of communicative form early in the (research) process becomes as important as choosing perspectives, since it is an integrated part of the making and since we thereby also choose which actors/actants will contribute, which relationships we construct, which points and links to articulate, and how we can communicate with ourselves and with others. (Dyrssen 2011, p.228)

So apart from COASTOMIZE!, in which, as art, the artefacts do not represent anything other than themselves, each of the design projects holds two genres of materialisation: the projected materiality of the project's proposals and the actual materiality of the project's representation. Both instigate thoughts, questions and negotiation on the issues the design project foregrounds. A question that might be worthwhile to explore further is whether a high degree of projected materiality, in cases where a project is not meant or not likely to actually be materialised, demands an equally high design attention to the representation of the project – that is, more than strictly necessary to convey the information. (Liekens & Janssens 2011) The role of artefacts as shapers of ideas is not to be underestimated. Rick Robinson says that 'Artefacts people interact with have enormous impact on how we think. Artefacts do not merely occupy a slot in that process, they fundamentally shape the dynamic itself' (Robinson 1994). During the design process of *The Unadapted City* a way of working that ruled in the office was that at any moment in the design process we worked towards a very concrete artefact. So every step in the thought process was guided by expressive and design means and always resulted in a product that could be exhibited. The aim was to validate and consolidate all study in an expressive artefact. These artefacts in turn were instruments to guide and develop thought. The products were paintings, models, drawings and books. The COASTOMIZE! project resulted in an installation. Due to the context and the character of the end product – the artefacts – it was perceived as art, rather than architecture or urban design. An operation that was used more consciously in this project and which was mainly induced by participating in conferences was that practice (design of the artefact) and theory (on-going reflection) were developed in parallel to tackle the question: how can an artefact explore and express collective intelligence, collective behaviour, collective space? The

COASTOMIZE! artefacts literally embody knowledge, from users' knowledge to professional knowledge, and generate knowledge through implicit and explicit interactivity and co-creativity (Godts et al. 2007). In The Future Commons 2070 project, the choice of the resulting artefact (a map on scale 1:200 000) also very much guided the working method. A crucial decision for the design process was the choice to make one map instead of a report, an atlas or two maps. With the choice of a map came the choice of the size of the map and the decision to delineate a certain area and scope of design. This came down to defining the scale of the map which was strategically chosen to be 1:200 000. This decision defined to a large extent the design process to follow, especially since a lot was done by hand-drawing which does not allow for the 'scalelessness' of digital drawing. It is important to see that the choice of the scale influences the design outcome. The scale here is not merely the size of representation, it defines the scope of thinking and designing. In other words the design is not only represented at scale 1:200 000, it is also *thought* at scale 1:200 000. The map is conceived as an artefact, in the sense that it is not a scientific map that objectively represents a part of reality (thus the designer called it 'subjective cartography') and in the sense that a lot of attention is given to the visual expression of the map and to bring about a mindscape in a landscape. In that respect, The Future Commons map is akin to the kind of cartography envisioned in geopoetics and differs from the main part of the mappings that currently are being used in urban planning. Baseline is that this kind of subjective cartography looks for an enriched language. The purpose of such cartography is to take another approach to reality and to enable minds to elaborate new thoughts. Therefore, it is essential that the routine, accustomed modes of perception be challenged. This is also what Simon Bowen, design researcher and photographer, envisions with his 'critical artefact methodology', in which he uses provocative critical artefacts that facilitate exploration and evoke critical reflection amongst the people who encounter these artefacts. In this critical artefact methodology, conceptual designs are used as expressions of opportunities for design, not fully resolved solutions. The outputs are then a form of data that can be fed into further design activities. The aim of Bowen's critical artefact methodology is to achieve product innovation in a radical, paradigm-questioning or, potentially

paradigm-breaking sense, to satisfy stakeholders' future and latent needs as well as their existing needs; to provoke stakeholders to be critically reflective of their beliefs and experiences and, in response to the critique often mounted against critical design, not to suggest what's 'better' but to work out what is relevant (Bowen 2009). Bowen's critical, provocative artefacts are similar to what the Dutch artist Constant Nieuwenhuys has called 'project-objects'. Constant makes a distinction between an art-object and, what he calls a project-object. An art-object is to look at, a project-object like his New Babylon model, calls for some sort of action. For him, the New Babylon model, in contrast to traditional architectural models, is distinct from a representation of a design but is a means of designing. The models are conceived to state the problem. Thus the polemical value of a model for Constant, far outstrips its practical value in the construction of a particular project (Wigley 1998). The artefacts produced in the course of the design processes of *The Unadapted City*, *M.U.D*, *COASTOMIZE!* and *The Future Commons 2070* can be considered such provocative critical artefacts or project-objects.

Artefacts The Unadapted City - T.O.P.office

The different sub-projects of The Unadapted City were frequently and on many different occasions exhibited in Flanders and abroad (mainly France and the Netherlands). The material artefacts consisted of drawings, paintings and models.



The Unadapted City, Model Brikabrak – photo T.O.P.office



The Unadapted City, Model VIPcity, Zeemijl – photo T.O.P.office

Artefacts M.U.D – FLCextended2005M.U.D

The M.U.D projected was presented by means of an installation (an ambient) consisting of a vast carpet printed with the artist impression in six pixel colour scheme, combined with television screens showing the communication on the project (including story/voice-over and headphones).



photos FLCextended2005M.U.D



photo Hans Werlemann

Artefacts COASTOMIZE! – FLCextended2008COASTOMIZE!

The COASTOMIZE! final installation presented in PAM Velzeke (second edition of the Contemporary Art Biennale in the Flemish Ardennes) consisted of different sub-installations, pictured here below (the space of synthesis, the pseudo noise floor, the reset rabbit, the dynamic world water map)



photos FLCextended2008COASTOMIZE!

Artefacts The Future Commons 2070 - magnificentsurroundings.org

The Future Commons 2070 consists of a map, size A0, black and white print. The verso side shows the designed area (Harwich to Hoek van Holland and Dover Strait) on a scale 1:200 000. The recto side contains explanatory text, a story-telling of the envisioned future, legend, drawings, schemes, images and references.



The Future Commons 2070 exhibited in VAI-vitrine 15 nov 2011 – photos D. Pelger, E. Goris



Chapter 5.

EPISTEMIC ROLE OF DESIGN

The projects described above develop viewpoints on urbanisation based on what Nigel Cross calls 'a designerly way of knowing'. Cross's designerly way of knowing implies that there are forms of knowledge peculiar to the awareness and ability of a designer (Cross 2006, p.VIII). He also refers in this context to the claim made by the Royal College of Art (UK) that there are things to know, ways of knowing them, and ways of finding out about them that are specific to the field of design (Cross 2006, p.5). Being conceptual, these design projects are much less confined to solving a predefined problem, since there is no brief, no actual client, as would normally be the case in a design commission. In this context, the sense of having the self-confidence to define, re-define and change the problem-as-given, which Cross mentions as one of the typifying aspects of the designerly way of knowing, is even more activated (Cross 2006, p.7). This quality of problem restructuring is needed to cope with ill-defined problems. Design thinking – having the trained expertise to handle ill-defined or so-called 'wicked problems' – has been studied and discussed at length in the field of design research and design cognition. From this perspective, then, it seems rather plausible to assume that a design-based knowledge paradigm can contribute meaningfully in situations of unsettlement as described in the premises, since the characteristic of ill-definedness is paramount here.

As was shown in the analysis of the genre of design in the previous chapter, the conceptual design projects precisely foreground the design characteristic of problem restructuring (see ‘reinterpretation’ and ‘problem setting’). This genre of projects illustrates Cross’ statement that ‘one of the unique aspects of design behaviour is the constant generation of new task goals and redefinition of task constraints’ (Cross 2006, pp.78–79). This quality of redefining the task constraints and restructuring the problem enables designers to break free from the initially given problem and reveal unexpected potential. The genre of design represented by the four projects implements this characteristic to the fullest in the design process. The challenge now is to position this design quality in a design-based knowledge building process that operates in a research context. In order to address this, further specification is needed regarding the nature of the design qualities at stake and regarding the type of research that evolves from these qualities. In this chapter, I will argue that the characteristics distilled from the design thinking at work in the projects relate to critical design and utopian thinking, and that bringing the critical dimension and the utopian dimension into interaction with each other creates the driving force for projective research. The type of rationality operative in critical design and utopian thinking is the so-called ‘encompassing rationality’, which is the counterpart to the currently dominating ‘instrumental rationality’. The overall assumption made in this thesis is that in a context of systemic changes, problem setting cannot only be based on issues raised by an instrumental rationality since, when profound reconceptualisations are required, research on the issues at stake needs to include the encompassing rationality. Douwe Van Houten defines this type of rationality as a rationality focused on the relation between different goals. This rationality necessitates the articulation of goals, which involves a revalidation of the goals that are considered given facts. As I will explain later, instrumental rationality proves to be insufficient when a reevaluation and re-articulation of goals is at stake. What we are looking for is how a more comprehensive problem setting regarding the relation humans-environment can be achieved – a problem setting that not only departs from technical issues of facts but also actively engages with issues of values. Engaging with issues of values is an important aspect of projective research. As indicated in Chapter 4, the purpose of

projective research is to explore structural changes and to induce redirected thinking by means of spatial projections. The mechanism proposed so far was to put a series of conceptual design projects and theoretical frameworks into interaction with one another to generate new leitmotifs. A number of design characteristics were considered to be of importance in this process. Further elaboration on this ensemble of design characteristics via the notion of critical design and utopian thinking will provide more clarity regarding the driving force of projective research.

5.1

CRITICAL DESIGN

When I first started reflecting on the projects, the most characteristic seemed to me to be the focus they put on formulating critical alternatives to the more commonly known and accepted design answers to the issues at stake. At that point, I concluded that the designerly thinking used here stands out well as a form of critical thinking. After all, design aims to change, not to explain, and in that sense it is in itself a critical activity. The projects exemplify the ability to investigate possibilities beyond what is known, to question and reveal other possibilities, based on an enhanced, freed imagination. By doing so they generate knowledge about latent reality – a reality that is implicitly present but not explicitly acknowledged. I characterised this type of design thinking as ‘critical design’. The term critical design in this context was chosen by assumed analogy and complementarity with the term ‘critical theory’. Critical theories, according to Peter Downton, actively attempt to introduce values. They are self-reflexive and they aim to facilitate change (Downton 2003, p.80). Critical theory in the context of research is considered an example of a problem-identifying, questioning research position. As such, critical theory is seen as possibly counteracting the unconscious reinforcement of society’s hold on our thinking,

of existing values and taken-for-granted concepts (Alvesson & Sköldberg 2000, p.129). Without embarking on a study of the vast field of critical theory, we could say, to simplify a bit, that critical theory aims at unmasking the misinterpretations, the ideologies and the power structures behind what is presented as reality, and by doing so to clear the way for change.

The more important point regarding critical design then is that criticising, or unmasking presupposed, alleged 'truths' is a necessary condition for freeing the imagination from fixed ideas and dogmatic thinking. An enhanced, freed imagination, in turn, is required to be able to develop prospective alternatives. The role of criticism in critical design, therefore, is mainly to open up the mind for other possibilities. This will be further elaborated in the following sections.

CRITICALITY, IMAGINEERING AND SYNCRETISM

The genre of design projects discussed here is not so much concerned with or based upon engineering but focuses rather on imagineering. These projects generate models that concern the organisation and arrangement of space. But they explicitly do not present designs that are intended to be implemented as masterplans for developing a site or region. The design proposals developed in the four design projects do not represent a search for variations, in the sense of perfecting the existing or commonly accepted forms of urbanisation. Instead, they question the conventional approaches by developing alternative forms of urbanisation. A search for alternatives involves a criticism of the existing and commonly accepted way of looking at the situation. This critique stems from the feeling that some ways of designing a solution are no longer satisfactory and the problem should therefore be reassessed and reconstructed. The Unadapted City, M.U.D, COASTOMIZE! and The Future Commons 2070 meticulously look for another (formal and conceptual) vocabulary to think about and discuss our socio-spatial environment. This search for a vocabulary is an exercise in reframing thinking rather than technical problem solving. Therefore the emphasis is put on imagination since this is considered a central pillar and driving force to reframe thoughts. This genre of pro-

jects does not resolve any problems in current reality and therefore is often perceived as not useful, unrealistic or only artistically relevant. However, my position is that this judgment is based on the wrong premises. These projects aim to develop alternatives not as a mere critique of the present but to articulate latent potentialities in the existing reality thus changing our perception of the present. Starting from the articulation of latent potentialities, current design focus (e.g. in the M.U.D project: the hold-the-line principle) can be questioned and new concepts and principles (e.g. in the M.U.D project: flood, capsularity and hypereconomy) can be tested and refined by new design explorations. In a way, this type of design concerns the analysis of the imaginative instead of the analysis of reality. The imaginative can here be considered as referring to what Bo Dahlbom, in his description of artificial science, calls 'the space of possibilities'. Dahlbom states that the artificial sciences will make the important role played by fiction in our search for knowledge explicit. According to Dahlbom much design fiction is produced in order to examine what is possible. Design then will introduce fiction as a major product of science. To Dahlbom 'it is imagination, the capacity to see the world not as it is but as it could be, that makes it possible for us to change the world' (Dahlbom et al. 2002, p.31). The conceptual design projects explore this space of possibilities by means of projecting, in the sense of casting ahead, latent possibilities onto an existing situation and crystallising this in a visually communicative prefiguration, an expressive artefact.

As explained in Chapter 4, the data handling and related design operations developed in the projects are all very much focused on enhancing imagination and enabling free and innovative thinking. In order to do so there is a sense of criticality present in the design operations on several different levels. First, there is a critical reading of the problem as presented, and consequently the problem is substantially redefined, which presupposes a critique on the original problem formulation. Then there is a critical reading of the present situation, and consequently currently evolving trends are radicalised and magnified to an almost critical point. In M.U.D, for instance, the ideas of flooding, capsularity and hyper-economy are stretched to the point where they show their most essential characteristics and where they start to insert

a critical interaction on one another. There is the critique of the knowledge base as presented in the brief, which results in design operations as reduction and the manipulation of data. An example is the self-made database of the Atlas of Amenities in *The Unadapted City*. And finally there is the working towards an artefact that prompts reflection and triggers discussion – an artefact that as such can be considered, in Simon Bowen's terms, a critical provocative artefact. As has become clear by now, criticality in the context of conceptual design is needed to free the mind from given constraints. As such, criticality seems a necessary condition to activate imagineering and projectivity and to open up the space of possibilities.

Another closely related mode of thinking is activated alongside imagination: 'syncretism'. Like imagination, syncretism is referred to as a playful state of mind, a non-linear way of thinking. It is the syncretic mind that is able to associate apparently incomparable issues into new concepts and in doing so is able to proceed beyond common patterns of thought (Geldof & Janssens 2007). This could be linked to Christian Girard's idea that architectural design works with 'nomadic concepts'. He explains this use of nomadic concepts as follows:

Any architectural design involves at time intense rationalisation but it also needs to draw such a number of relationships and correspondences between heterogeneous or definitively incongruous elements, that it eludes any attempt at imposing a systematic or structural hold on it. Contrary to what can often be read, the design process cannot be compared to synthesising elements of knowledge called upon by the architect: such an idealistic view is akin to a myth. Nomadic concepts do not produce a synthesis: they only make it possible, in a transient way, punctually, for heterogeneous levels of reality to combine with each other, to conglomerate, into new dimensions or 'plateaux' to use the terminology of Deleuze and Guattari. (Girard 1990, p.80)

This relates to the understanding that syncretism is about creating a new whole without removing the contradictions among the parts. This might be an important feature in urbanism where one has to deal with an extremely heterogeneous field of conflicting issues. One way

of handling this is to separate the different functional and programmatic layers, analyse them and then look for a kind of synthesis of the different aspects. Syncretism offers another way of making sense, focusing on combining issues around questions, establishing unforeseen connections, and allowing contradictions.

The combination of criticality, imagination and syncretism to my mind is crucial for uncovering latent potential and expressing it by means of prefigurations. Especially in urbanism, where the complexity of overlapping frames of time and scale and conflicting rationalities create a problematic that is impossible to grasp by mere analysis and explicit knowing. Criticality, imagination and syncretism, then, help us move beyond the impasses of existing problem formulations and introduce other possibilities that subsequently can steer analyses. Regarding the critical capacity of design, Dyrssen states that 'design and architectural thinking has a double capacity for critical positioning: as the architectural project not only appears in built form but also as models, simulations, series of action and theoretical argumentation, it may use the designerly capacity to both *project an alternative vision* for the future and to *direct this projection* to present repressed conditions from a critical perspective' (Dyrssen 2011, p.233). How syncretism operates in such acts of projection needs to be further explored in order to clarify the difference with synthesis and to strengthen the mediating capacities of the syncretic characteristics of design.

RELATED GENRES OF DESIGN THINKING

Critical Design in Art

The genre of design as exemplified by the four design projects resonates strongly with the critical design movement in art and design. The previously described characteristics of problem setting, critical reading, concept formation, poetic expression and materialising are also present in this critical design practice. Critical design practice today is commonly known in the field of art and product design, often exemplified by the work of Anthony Dunne and Fiona Raby. The term 'critical design' denotes the opposite of 'affirmative design' – design that

reinforces the status quo. As in the projects described earlier, critical design uses designed artefacts as an embodied critique or commentary on existing situations and prevailing perceptions. In the critical design discourse the designed artefact (and subsequent use) is discussed in terms of its capacity to cause reflection on existing values, preconceptions and expectations. The purpose of a critical design is seen as provoking new ways of thinking about the object and the context in which it operates. Critical Design is a way of emphasising that beside problem solving, design has an important role in problem finding or problem setting.

Critical design in art and product design is very much focused on consumer culture, products, technology and their use. However, the general characteristics are closely in line with what *The Unadapted City*, *M.U.D.*, *COASTOMIZE!*, and *The Future Commons 2070* aspire to evoke. We could say that these projects are a type of critical design akin to Dunne's critical design but operating in a different field - that of architecture and urbanism. In that respect, it is probably no coincidence that these projects are more appreciated in the art field, while in the field of architecture and urbanism they are often more acknowledged for the quality of the artefact and less for the quality of the design proposal itself. Although architecture and urbanism are quite different fields than art and product design, there are many parallels to be drawn between critical design as developed in art and the critical design character of the four projects. One such a similarity for instance can be found in the use of concept formation. This capacity to conceptualise is also very present in the work of Dunne. From Dunne's work emerge concepts such as 'post-optimal object', 'user-unfriendliness' and 'para-functionality'. The post-optimal, according to Dunne could provide new poetic dimensions to a world in which practicality and functionality can be taken for granted. He introduces the notion of user-unfriendliness as a kind of gentle provocation that characterises the relationship between the user and the post-optimal product, in the same way as user-friendliness characterises the relation between the user and the optimal product. He compares this notion to the constructive user-unfriendliness that already exists in poetry (Dunne 2005, p.35). And here the idea of para-functionality comes in: 'The prefix

“para”, writes Dunne, ‘suggests that such design is within the realms of utility but attempts to go beyond conventional definitions of functionalism to include the poetic’ (Dunne 2005, p.43). These notions of para-functionality and poetics, in my opinion, are in line with the concepts that were developed in the M.U.D and COASTOMIZE! projects. I refer here, for instance, to the flooded area in M.U.D and the mixed reality continuum in COASTOMIZE!, where the conventional use of space is twisted and becomes para-functional in the way Dunne describes.

Another parallel is the emphasis on critical reading of the present and surfacing latent possibilities. Dunne explores the different, critical use of electronic objects and he tries to reveal the latent potential of hertzian space as a space of possibilities. The design proposals Dunne presents in *Hertzian Tales* are all about questioning our relation to electronic objects. They do not intend to solve a problem; they intend to stimulate awareness and discussion. Some of Dunne’s work very explicitly explores the space of possibilities, looking to uncover the latent potential of hertzian space. I refer here, for instance, to the Tuneable Cities project in which car radios pick up latent signals in urban space. In Tuneable Cities he investigates overlapping electromagnetic, urban and natural environments. Dunne explores how to pick up alternative sources of radio in space. Tuneable Cities reveals that signals from babycoms, domestic soundscapes, tagged birds and atmospheric events are also latently present in physical space. They are all 'latent', because they are not normally picked up by car radio’s. By tuning the radios to pick up the signals, he reveals their presence and acknowledges the electromagnetic spectrum as a social space in which new definitions of public and private are worked out (Dunne 2005). In a similar way, in the M.U.D project for instance, the FLCextended team explores the latent potential of urbanisation principles in relation to flood and the space of possibilities that is opened when taking a radicalised perspective on current trends. The question, however, is in what respect or to what extent these critical design projects go beyond merely critiquing or showing other possibilities – that is, how do these designs go beyond the gadget or the slogan character and actually influence effectively the common perception ? How do they interact with reality? These ques-

tions resonate with the critique Rolf Hughes and Ronald Jones formulated when they said that

Critical designers stand where George Orwell placed Charles Dickens – both are masters of the platitude: If men would behave decently the world would be decent. If designers want to participate in reshaping their political, social, economic and cultural futures they will have to begin to think beyond the exhausted forms of radicalism, beyond the stylistic tradition that limits their practice to a form of critical belligerence. That is nothing more than a blank virtue. Consciousness-raising or mere criticality may take the moral high ground, but it lacks the means or methods to achieve anything more. (Hughes & Jones 2011, pp.53–54)

In response to this critique Hughes and Jones suggest we look at the alternative that has been suggested by a number of architectural theorists: the so-called ‘post-critical’ paradigm described as *projective*.

The debate on critical and post-critical architecture.

When stating that the projects can be considered a form of critical design in architecture and urbanism, one cannot avoid having a look at the critical architecture discourse and the post-critical or projective practice discourse. This discourse is also significant in relation to the idea of projective research. In the field of architecture a term like ‘projective research’ is easily associated with ‘projective practice’, often understood as the opposite of ‘critical practice’. In the following I will outline some elements of this debate and point out how this relates to the notion of projective research and to the critical design character of the conceptual design projects that are operative in this particular research context. Ole Fischer positions the critical and post-critical mode as follows: ‘“Criticality” as the default mode of reflection, interpretation and evaluation of architecture was established in the US after 1968, under the impression of Continental European philosophic, linguistic and Neo-Marxist writings. [...] “Post-Criticality” stems from the Anglo-American academic background and exploits the transatlantic cultural transfer, but this time operating with the work of European

architects as evidence' (Herzog& de Meuron, FOA, OMA)' (Fischer 2007, p.25). He states that this debate is addressing the relationship of architects and society. It is about addressing the question of architecture as a cultural practice with political and social implications. The problem Fischer sees for the established critical discourse is that 'critical theory has been diluted by methodological popularisation and turned into a kind of critical gesture or reflex, instead of opening new perspectives on momentary conditions and challenging the status quo with alternative concepts '(Fischer 2007, p.27). Reinhold Martin characterises post-critical or projective as sharing a commitment to an affect-driven, non-oppositional, non-resistant, non-dissent, and therefore non-utopian form of architectural production (Martin 2007, p.150). He suspects that post-critical might want to convert political critique into aesthetic critique and then slowly drain even that of any dialectical force (Martin 2007, p.153).

Projective is in this debate often used as quasi-synonym for post-critical. The projective in projective research then might be different than the projective related to post-criticality. The projective quality I envision is the act of pro-jecting, while projective in the post-critical or projective practice discourse seems to be more focussed on 'by projects'. Ole Fischer explains that 'the term "projective" provokes an emphasis on design as architectural expertise (projective as in project, that is plan or scheme) and the aspect of engaging and staging alternative scenarios (pro-jective as "looking forward" or "throwing something ahead")' (Fischer 2007, p.26). The latter meaning is in line with how I look at projective. The former might also resonate with projective research being based on a series of projects; however, the question is what the projects are used for and what specific dimensions of the projects are considered. In projective research it is the projective quality of design that is emphasised, not the architectural project as such. It is about conceptual designing, which means that what's important is not the project as such, but the concepts it embodies and the hypotheses it develops. The post-critical or projective movement is basically a reaction against critical architecture being too intellectual and theoretical and therefore having no effect on reality and not helping to achieve any real change.

Martin admits that 'those who lament the relentless negativity of much critique are at least partly right because, bruised by the complicities of what Tafuri called "operative criticism", much critical work does not risk intervening in the future in the systematic manner for which, I think, many architects rightly yearn' (Martin 2007, p.159). This critique of critical architecture ties in with my own critique of the conceptual design projects as suffering from a kind of action-deficit and on the critique of critical design as not having any impact to change society, lacking operativeness and instrumentality. This refers to the previously stated problem of conceptual design projects risking to get stuck in a mere statement or slogan. I believe, however, that the operativeness of these conceptual design projects must be seen in the context of a research approach that differs from the context of the architectural practice in which the post-critical and projective practice is situated.

The critical is associated with the 'autonomy' of the architectural project, while the post-critical or projective is associated with the 'instrumentality' of the project. In this respect, Baird refers to the seminal text of Robert Somol and Sarah Whiting, 'Notes around the Doppler Effect and Other Moods of Modernism'. Here, Somol and Whiting present instrumentality as the definitive opposite to autonomy. And in doing so 'they summarise under this term three of the key features of the new approach they are recommending: projection, performativity, and pragmatics' (Baird 2007, p.5). Somol and Whiting also state that

a projective architecture does not make a claim for expertise outside the field of architecture. [...] So when architects engage topics that are seemingly outside of architecture's historically defined scope – questions of economics or civic politics, for example – they do not engage those topics as experts on economics or civic politics but, rather as experts on design and how design may affect economics or politics. They engage these other fields as experts on design's relationship to those other disciplines, rather than as critics. Design encompasses object qualities (form, proportion, materiality, composition, etc.), but it also includes qualities of sensibility, such as affect, ambience, and atmosphere. (Somol & Whiting 2007, p.28)

However, in urbanism design will go beyond encompassing these object qualities. In using the projective quality of design, projective research is looking for conceptual qualities that are embodied in the objects rather than object qualities as such – that is, the objects or artefacts are considered as concept generative.

Refusing the role of critics, focusing on what is present (socially, economically, politically) and starting designing with that as mere material is in line with the ‘end of critique’ or ‘the end of theory’ discourse. It follows the protagonists of the projective practice and their often reproached pluralistic credo of ‘just do it’ and ‘everything goes’. Departing from the retreat of immediate programme and the impossibility of straightforward goal orientation (as in modernism), the projective practice puts great emphasis on experimenting and mutation, seemingly as quasi-random play. There seems to be a lack of engagement with architecture’s ethical dimensions, a reluctance to take a political stance. C. Greig Crysler et al. note that ‘in the aftermath of Somol and Whiting’s article on “Projective architecture” (2002), many more voices were raised that pleaded for a more modest understanding of architecture’s capacities to critically reflect on the world, given that architecture is, out of necessity, mostly complicit with the flows of capital that increasingly structure that world’ (Crysler et al. 2012, p.5). This points to some extent to the problematic split between architecture as a discipline and architecture as a profession that has led to important ethical tensions and even democratic deficits. ‘Architecture’s criticality has been largely processed in an *interdisciplinary* manner, namely within the realm of the *discipline* of architecture – e.g. critical theory, social theories and ideology, and transcendental utopias – but this critique has not always survived well in the messiness of practice’ (Doucet & Janssens 2011, p.3) .

The post-criticality discourse belongs mainly to the world of *architectural* theory. A reluctance to take a political stance might be defensible to some extent in architecture. However, in *urbanism* the political dimension is essential. Hence, the projective I propose in urbanism research has dimensions other than the architectural qualities mentioned in projective practice. One of the important differences between pro-

jective practice and projective research, therefore, is that the former is situated in architecture and the latter in urbanism. The scope is different. The topic of design and the form-giving principles are different. The M.U.D project in a way also basically works with reality as design material, especially through the operations of radicalising and magnifying, without taking any clear political stance. It departs from a reading of the present situation and shows a possible future scenario as a counter mirror to the existing ideology. As critical design, it suffers from a kind of action-deficit, not clarifying how, as a manifesto or visionary pamphlet, it can actually influence change, and not pointing clearly to a desired direction for change. It is therefore mostly inspirational as a design exercise, revealing a space of different design possibilities rather than actually achieving any programmatic innovation regarding urbanism. The Future Commons 2070 project, in contrast, does depart quite strongly from ethical dimensions – as shows in the view on the commons – and takes a political stance, not avoiding the policy-oriented perspective. It strives to inspire newly adapted planning principles such as location-time specific planning thus introducing programmatic innovation in urbanism. Achieving these programmatic innovations, to my mind, is crucial in reconceptualising urbanism, since urbanism or urban planning in the end comes down to issues of programming the use of the land, which on a meta-level concerns the development of concepts of territory. Kim Dovey says that critical architecture involves the ways in which architecture frames spatial practices, actions and events through its spatial programmes (Dovey 2007, p.253). He states that if critical architecture is merely considered an approach of autonomous formalism, it is then reduced to architectural criticism. The deeper problem that Dovey sees in such narrow versions of a critical architecture lies in the stifling of programmatic innovation and therefore of social engagement (Dovey 2007, p.258). This relation of programmatic innovation and social engagement, in my opinion, is crucial in reconceptualising urbanisation. The function of critical architecture, then, has also to do with the relation between the the unbuilt and the buildable. Dovey states that

In order to be classed as “architecture” there must be some vision for the future of the built environment at stake. This condition is neces-

sary for a debate about critical architecture to begin – a critical architecture must at least plant seeds of desire for a better future. It follows that the image on the screen, the gallery wall or in the magazine is but a means to architecture and not its end; the end is the future that is at stake. The issue here is not whether the project has a real site, client community and budget, nor whether it is necessarily buildable, sustainable or affordable. The first question is whether it is understandable as a possible future that could be inhabited; is a future habitus evident? The second question is whether it catches the imagination and nourishes the desire for change. (Dovey 2007, p.259)

Martin also says that ‘the need to engage directly with messy realities called for by some post-critics is indeed urgent. The question is which realities you choose to engage with and to what end? In other words: what’s your project? This also means avoiding the elementary mistake of assuming that reality is entirely real – that it is pre-existent, fixed and therefore exempt from critical re-imagination’ (Martin 2007, p.159). Arguably, addressing the messy reality by means of a project requires approaches that no longer *choose* between theory and practice as the ideal locus for critique, but, instead, allow critique to be processed in ways that are more complex and more entangled; approaches that advocate hybrid modes of inquiry. ‘One can think of the hybridisation of nature and technology, engineering and the social, facts and values, human and non-human, and the explicit attention to agency in Science and Technology Studies (STS) and Actor-Network-Theory (ANT)’ (Doucet & Janssens 2011, p.10).

To Fischer, critique is the mode for focusing on the cultural surplus of architecture beyond mere ‘production’, to relate architecture to other cultural practices and society itself (Fischer 2007, p.41). Programmatic innovation, social engagement, the desire for change, the relation between architecture, critique and society – all these aspects that Dovey, Martin and Fischer bring forward, in my opinion, point at something that in a way goes beyond the discourse of critical design and projective practice. It seems they call in yet another way of thinking, and that way of thinking, I argue, has something to do with utopian thinking.

5.2

UTOPIAN THINKING

As I demonstrated above, criticality as it appears in critical design and the post-critical discourse is very much seen from within the field of art, design and architecture. The field of urbanism, however, is different in many respects. There is of course the difference in scale, but more importantly the difference in scope. In urbanism, unlike in most art, design and architectural projects, the designer is just one of the many different professionals involved in the project. This is due to the fact that the societal and political dimensions reach a whole different level in urbanism. When looking then at criticality and imagineering in the context of urbanism, the notion of utopia comes to the fore as something that incorporates these socio-political characteristics and that is also strongly related to the urban. Both social criticism and imagining spatial alternatives reach their most optimised form in utopia as the representation of an ideal society or ideal settlement.³⁴ Utopian thinking has intrinsic qualities that show some overlappings with critical theory but there is also a strong design aspect in utopian thinking, in which spatial models are developed as ideal settlements.

To investigate this one could look at the qualities of utopia as a more artistic expression and study the wide range of spatial and architectural experiments that were and are being made under the umbrella of utopia. Another perspective would be to look at the array of utopian studies, situated in social sciences, political science and future studies. In the context of this thesis, however, my interest is mainly to investigate the *mode of thinking* that operates in utopia. The epistemological characteristics of utopian thinking seem to me to be especially relevant when looking for the intrinsic qualities of conceptual design projects and more importantly, for the potential role of conceptual design practice as a mode of inquiry in urbanism. The design operations and design characteristics discussed in Chapter 4 all seemed to be orientated to the enhancement of prefiguration, projectivity and imagineering. The as-

sumption is that these three aspects are all related to a utopian mode of thinking. This will be explained in the following sections.

THE UTOPIAN PROPENSITY

Projects such as *The Unadapted City*, *M.U.D*, *COASTOMIZE!* and *The Future Commons 2070* are often labelled as utopian. This seems like a common denominator when people try to categorise this kind of design work. Therefore it seemed useful to have a closer look at this utopian characteristic that apparently is so obvious in these design projects. The label 'utopian' is mostly used superficially, suggesting an unattainable dream as the opposite of reality. However, the point here is to get a better view of what utopian thinking essentially is about in order to be able to pinpoint more accurately which design characteristics accord with utopian thinking. Ruth Levitas, in her book *The Concept of Utopia*, states that Utopia lacks a clear definition. According to Levitas, this is partly due to the fact that the field of utopian studies is interdisciplinary in character, drawing on literature, history, philosophy, architecture, sociology, politics and religion. In consequence there is a great diversity of both subject matter and approach when it comes to discussing the concept of utopia (Levitas 1990, p.156). She affirms my own experience with the term, saying that 'outside academic circles the term utopia is used frequently, but with very little rigour. Colloquial usage reiterates More's pun: the good place is no place; utopia is a nice idea but totally unrealistic. Sometimes utopia is viewed even more negatively and equated with totalitarianism' (Levitas 1990, p.156). There is therefore a need for greater reflection on the use of the term in order to position it more clearly in the context of this study.

Utopia has always been somewhat denied, somewhat intriguing within the design disciplines. Utopian thinking and designing, ranging from the literary work of Thomas More to spatial models such as Archigram's *Plug-in City*, deliver strong social and spatial concepts for a transformed urban structure fitting another view on the organisation of society. Françoise Choay states that the *raison d' être* of utopias is not

A Brief History of Utopia

In his book *Utopie en kritisch denken*, Martin Plattel devotes a chapter to the history or rather the main lines of development of utopian thinking (Plattel, 1970, pp. 27-42). In the following, I summarise the main steps in the evolution of utopia, as described by Plattel.

Plattel places the origin of the 'utopian impulse' in the ancient Greek culture as an attempt of bymaen to take full understanding and control of his own future. Slowly the philosophical worldview begins to replace the mythical. Exemplary is the 'Politeia' designed by Plato as a utopian model of an ideal state/polis/society. Myth (magic and fate) and utopia are still in close contact here. The static-cosmic world order (the idea of justice) is the divine example of a utopian, designed, static and autarkic state.

The Christian Middle Ages (spirit of brotherhood and community of property) do not know any direct utopian images of the future. When thinking about the future occurs in the Middle Ages, it is a mix of transcendental eschatology and humanitarian utopia.

The era of the Renaissance (around the sixteenth century) can best be typified as the classic era of utopia. Thomas More is the one who, with his *Utopia* (1516), invents the literary utopian genre. Man starts to believe in his own capacities and considers the construction of the world to be his own responsibility.

The discovery of the New World by Columbus and the doctrine of Copernicus on the planetary system, together with the influence of the natural sciences and of technology, offers new utopian panoramas. Novels written in this period are a mix of irony and science and want to point out possibilities previously unknown. This kind of fictitious and visionary vision of ultimate states of happiness represents the classic utopian way of thinking.

The enlightenment (belief in the ratio and in nature) in the eighteenth century announces a new prime of utopia. All kinds of genres are present: miraculous travels, robinsonades, arcadias, planetary novels, predictions of the future, counter-mirrors, structures of ideal societies, etc. This era is characterised by utopia and ratio. The utopian genre prefigures the systematic and progressive development of reality. Utopia becomes teleological instead of theological. The enlightened explaining and discovering breaks through the boundaries of the known but not through the boundaries of the existing. Utopia too bears this focus on discovering and explaining. The utopian possibilities are discovered, not made. This utopian rationalism keeps its influence until well into the nineteenth century.

The rational progress-optimism disappears around the turn of the nineteenth century. Society attains the power to take the future in its own hands. Economic and technical powers replace economic and technical laws (order). This brings about a feeling of relativity and with it a feeling of fear for eventual chaotic developments. The utopian interest is no longer focused on discovery but on making and creating new possibilities. Social-political and technical-scientific utopias influence one another. They give an imaginative anticipation of the future, a future that

has to be designed by man himself (inventions). The main themes that are considered here are: exploring and conquering the world space, the invasion of intelligent creatures from other planets, the robot, the city and the future, mutations of the human race, third world war, etc. Around 1900, society in a way becomes 'freed' thanks to technical-scientific developments, and this also generates the genre of the anti-utopia. In a reaction against mechanisation and rationalisation, the 'good old times' are heralded as times when love, poetry, romance and Christian faith were omnipresent.

After 1914 one no longer opposes technology and science as such but one opposes the threats that can be the result of wrongly implemented forces.

After 1945 a new phase begins which can be characterised by the decline of utopian thinking. Society is thought of in terms of models, systems and organisation. The unexpected and the new have to be brought under control by planning. The ideal of planning and rationality leads in fact to the glorification of the status quo. Regarding changes one thinks only in terms of quantitative growth. Such system-analytical thinking regards utopia as a romantic and non-scientific occupation. Since the ratio distances itself from the utopian imagination, this latter loses itself in science fiction and super-worldly fantasy. The tension between reality and utopia becomes greater again.

The sixties then show some renewed interest in the social utopia, a desire for a qualitatively other future. The utopia is born here out of necessity. But the structure of modern science, speeded up ever more and steered by nothing (running blind), which offers mankind ever more power to rule over their own existence, demands a societal orientation of values. Without an orientation that stems from a global vision, the irrationality of the whole only increases. In such a situation, models of the future (utopian visions) that synthesise and exemplify things help society to define responsibly and critically the problem of choice between different, alternative possibilities of development. The experimental-empirical character of the utopian image of the future is emphasised. The scientific rationality that once lay at the base of future study now becomes broadened.

In this more recent utopian (critical-dynamic) thinking, the neo-Marxist movement takes a particular stance and points out that in contemporary society many wishes, desires and potentialities are suppressed. The concrete utopia thereby fulfils a psycho-analytic function or uncovers suppressed potentialities.

Plattel then states that there are three types/variants of definitions of utopia:

1. utopia is considered as a specific literary genre, the characterising elements of utopia are to be found in certain literary properties.
2. utopia is called a utopian, meaning naïve, pre-scientific way of thinking about society
3. the critical vision of the 'design' of society is considered as utopia.

the edification of the built world, instead they propose by means of critical reflection on society the imaginary elaboration of a counter-society. She also refers to utopia as a genre of urbanistic writings that organically connected to the urban theories they preceded and refers to it as pre-urbanism (Choay 1997, p.7). With respect to the role of utopia in urbanism, Baird mentions that

Tafuri had been the most assertive contemporary advocate of an architecture that would not accept the terms of reality as they were presented. Indeed, in an extended series of essays over the span of 1970's, he formulated an utterly distinctive conception of the architectural 'project', one which would at one and the same time propose a new architectural form, would do so on the plane of the entire urban entity in which it was to be located, and would, by inference, transform that entire urban entity itself into something new. Needless to say, there were not too many successful historical examples of this bold and ambitious method that he could point to (Le Corbusier's *Plan Obus* for Algiers being one of the few). (Baird 2007, p.3)

Utopias have almost always shown a concern for the shape of the settlements and more particularly for the design of a new form or shape of settlement that provided ideas and techniques for the transformation of the ruling social, economic and political system (Tod & Wheeler 1978, p.127). Thereby most utopias throughout history have the relationship with nature as a theme: they stress the importance of working with nature and pay a particular attention to the soil. Tod and Wheeler refer to Buckminster Fuller who with his 'Spaceship Earth' and geodesic dome contributed much to the cult of high technology while at the same time being instrumental in proposing the conservation of natural resources. The most important driving forces for utopia were social and political matters and later science and technology. Buckminster Fuller then added design to that list, stating that 'There is only one revolution tolerable to all men, all societies and all systems: Revolution by Design and Invention' (Tod & Wheeler 1978, pp.145–146). The high quality level of conceptualising and imagining that is present in much utopian work is of great importance for architecture and urbanism. Moreover, utopia being concerned with people's relationship

with each other and with nature, is a very critical and authentic form of urbanism that in many respects is an exploration of alternative concepts of territory. However, as stated previously, utopia is not one clearly defined and invariable thing. Michel Foucault, for instance, relates the notion of utopia to the notion of heterotopia in his idea of the 'mirror'. To Foucault, both utopia and heterotopia provide urban actors the chance to identify themselves and their needs in a changing and flowing situation. To Foucault then utopias are mirror-sites with 'no real space' that present society in its 'perfect form' (or perfectly upside-down form) and remain fundamentally unreal. Heterotopias, on the other hand, are real, built spaces. Both the heterotopia and the utopia can 'mirror' the larger society around them providing as such feedback and self-observation (Shane 2005, p.234). Michiel Dehaene and Lieven De Caeter mention that heterotopias belong to the inclusive character of the *polis*. 'The *polis* – the ideal of the city-state – tries to realise the good life via equilibrium between *oikos* (private sphere, household, hence economy) and *agora* (public sphere, the place of politics). [...] In the "postcivil society", the heterotopia resurfaces as a strategy to reclaim places of otherness on the inside of an economised "public" life' (Dehaene & De Caeter 2008, p.4). The discussion of the content and form of heterotopias is broad. What links the notion to utopia, however, is that it is an instantiation of otherness and in that heterotopias play an important role in facilitating and monitoring change. Furthermore, analyses of heterotopian entities which are, as mentioned earlier, *built* entities, often refer to the utopic design element that is present there.

The utopian vision of a people exists in every form of human expression. It has changed a lot throughout history and still continues to change in both its content and form. Martin Plattel states that utopia is a historical phenomenon that varies in form and content depending on the existing situation in which it is embedded and which it wants to surpass. This means that utopia takes a different shape in times when man feels he has to take the future into his own hands than in times when life is very much dominated by traditions and the past (Plattel 1970). The 'utopian consciousness', or perhaps we should say the interest society takes in utopia, is much higher in periods when the over-

all feeling is one of great uncertainty, when the world is rapidly changing, than in periods of overall stability. In periods of uncertainty there is a need to revise our overall goals and this is where utopian thinking comes in. Immanuel Wallerstein talks in this respect of 'Utopistics'. He states that

Utopistics is about 'reconciling what we learn from science, morality, and politics about what our goals should be – our overall goals, not those secondary subordinate ends we call means. The latter are also no doubt important, but they constitute the ongoing problems of the normal life of a historical system. Establishing our overall goals is something we usually have difficulty doing effectively. It is only in moments of systemic bifurcation, of historical transition, that the possibility becomes real. It is at these moments, in what I call transformational TimeSpace, that utopistics becomes not merely relevant but our prime concern. We are at that moment now. (Wallerstein 1998, pp.2–3)

This explains that due to the unsettling systemic changes the world is experiencing now, we are witnessing a cautious rise of interest in utopia, as a way of making sense of our world. It also means that to a certain extent we have to reinvent utopia since for a long time now it has had a bad press caused by a persistent connotation of utopia with the totalitarian and with seeking a dream or perfected world.

UTOPIA'S ASPIRATION TO TRANSFORM

The critical function of utopia is the desire for change and the function of transformation. Levitas points out that to call something utopian it must at least be perceived as radically different from the status quo. In this respect she refers to Zygmunt Bauman's four functions of utopia:(Levitas 1990, pp.169–171)

1. Utopias relates the present, that is they undermine the sense that the way things are is inevitable and immutable by presenting alternative versions of human society.

2. Utopias are those aspects of culture in which the possible extrapolations of the present are explored: what may I hope?
3. Utopias relatives not only the present but the future, by dividing it into a set of competing and class-committed projects.
4. Utopia does influence action.

When looking at the conceptual design projects M.U.D and COASTOMIZE!, for instance, they seem to correspond at least in part to these four functions. But they also lack some of the specific characteristics like the emphasis on changing human society and the influencing of action. Although one of the aims put forward by the design team was to trigger debate and reflection on the matter, it is not at all clear how the projects actually might inflict that. When the designers declare that M.U.D is a challenging manifesto, there seems to be some hope for action. But how do we go from the manifesto to action?

As Levitas remarks, the issue of how dissatisfaction and even articulate criticism are converted into oppositional and transformative action is far from simple: 'The emphasis on utopia as a consciousness-raising device resembles the theme that runs through Bloch, Abensour, Thompson and Marcuse, of the function of utopia as the education of desire. But even if the text operates effectively in terms of the education of desire, this will not automatically be read off into political action. Desire must be transformed into hope, the wish for change into the will for change and the belief that there is agency available to execute it' (Levitas 1990, p.174).

Levitas points out that 'When the function of utopia is to catalyse change, then of course the issue of practical possibility becomes salient. But even here, utopia does not need to be practically possible; it merely needs to be believed to be so, to mobilise people to political action' (Levitas 1990, p.191). Furthermore she draws our attention to the fact that utopia is not constrained by the need to appear immediately possible, which allows a freer exploration of desire. Utopia can be a much deeper exploration of the implications of alternative values than when it must be seen as realistically attainable from the here and now' (Levitas 1990, p.197). The design strategies put in place by both T.O.P.office, FLCextended and magnificentsurroundings.org are ori-

entated to this freer exploration of desire and much deeper exploration of alternative values by distancing from the immediate problems and reality. But the question is whether it is really alternative societal values that are explored, as is meant in utopia, or rather alternative design opportunities.

The aspiration to transform is clearly present in the four conceptual design projects. One might say, following Herbert Simon's saying, that design is about changing existing situations into preferred ones. This transformative capacity is inherent in every form of design thinking. The aspiration here, however, is to transform the overall goals regarding urbanisation rather than transforming the means to achieve established goals. In that sense, the transformative characteristic of the conceptual design projects has a utopian dimension.

IMAGINEERING AND THE UTOPIAN RATIONALITY

In discussing utopian thinking, Martin Plattel asks an important question: How can mankind know what is not yet and what only could be? He states that the rational mind that relies on observation of facts cannot know the new. The analytical mind has to be supported by imagination. Without imagination there only exists a world of facts. It is imagination that enables man to see, to 'know' beyond current reality, and renders thinkable the possible (Plattel 1970, p.101). This is in fact what the *The Unadapted City*, *M.U.D*, *COASTOMIZE!* and *The Future Commons 2070* try to do: develop strategies to enhance imagineering and to render thinkable the unthinkable. In that sense, these projects use a kind of utopian thinking. Levitas says that the imagination of alternative worlds is crucial to utopia and therefore 'we should be encouraging the pursuit of more and different questions relating to this process of imagining, not attempting to impose orthodoxy' (Levitas 1990, p.180). Choay points out that, on the level of imaginary, utopia is a device for the a priori conception of built space: the model. It is about the modelling in space of a future reality (Choay 1997, p.8). The imaginative inventiveness that is attributed to utopia also has a critical function, because utopia places the present in the

light of the future. 'The future then acts as a counter mirror that renders the actual world less evident, less acceptable or less satisfactory' (Plattel 1970, p.101). In a way, utopia makes the present as status quo problematic. According to Plattel, the utopian imagination wants to surface certain tendencies that already live underneath reality. Utopian thinking foregrounds possibilities that are hidden. In the words of Plattel, 'imagination fills in the empty spots in the explicit known' (Plattel 1970, p.101).

The importance of imagination as a necessary complement to the rational, analytical mind does tie in with the search for a comprehensive problem setting that not only engages with issues of facts but also with issues of values. Here the possible role of utopian thinking as encompassing rationality comes to the scene. Van Houten explains the following mechanism. Commonly accepted reality is constructed by the currently dominant ideology. In this 'ideological reality' an instrumental rationality reigns that is focused on rational implementation of means to achieve the ideological goal (Van Houten 1974). Plattel defines the difference between the two rationalities as the scientific rationality or functional rationality and empiric reality in the more narrow sense, which stands in contrast with the hermeneutic rationality and 'reality of life' in the broader sense.³⁵ The latter one he calls 'context-dependent' rationality and he observes that it is only this '*raison élargie*' that constitutes the frame of reference wherein facts receive their reality character (Plattel 1970). Hence, this '*raison élargie*' is necessary to provide the frame in which we can make sense of facts. In a situation of unsettlement and consequent search for redirection a re-evaluation and re-articulation of goals is at stake. At that point this extended, hermeneutic rationality – also called encompassing rationality – is needed. Instrumental rationality, as described by Plattel, is orientated toward the effective use of means to achieve a predefined, unquestioned goal and confines itself to the boundaries of a prevalent paradigm (Plattel 1970). The problem is exactly here: it confines itself to the boundaries of a prevalent system. So if the boundaries of that system are challenged and the system gets unsettled, the instrumental rationality is no longer able to provide the answers needed. Instrumental rationality also implies a universal legitimacy. Encompass-

ing rationality is more context dependent and therefore forces us to take (political) stance (Van Houten 1974). Using this way of thinking allows us to look beyond currently known problems and enables the projection of a different set of goals, which in turn could lead to new analyses and problem solving. This kind of extended rationality is very typical for utopia. It makes that utopia operates in a reality that does not seem to fit 'daily' reality (Plattel 1970).

It seems that the design operations of M.U.D and COASTOMIZE! in some ways clearly depart from this encompassing rationality. For instance, the revalidation of goals seems very central in the projects given the way they invest in problem setting instead of problem solving. However, this does not seem to result in a political statement. The projects seem more like critical design in Dunne's sense, revealing hidden potentialities, radicalising present potentialities and so making people aware of a wider space of possibilities and the values attached to current uses. Evaluation of the possibilities seems not to be part of the project, nor actually explicitly proposing a new sets of values and articulating why they are preferable. The Unadapted City, however, does claim some political statements, through the guiding concept of urbanism. There seem to be more elements of a utopia here. But then again the design lacks the openness and the strong concepts that characterise M.U.D and COASTOMIZE! and risks becoming the kind of closed, inflexible and overpowering spatial settlement that is often negatively associated with utopian projects. The Future Commons 2070 does a better job of relating different goals and taking a political, ethical stance, while at the same time maintaining enough openness in the design through the introduction of time and process, using both the social and ecological dynamics to guide the design. The Future Commons 2070 has a utopian character in its attempt to formulate a view of society as it could be (e.g. commons as regulative principle, low-carbon society, etc.) and how the functioning of that society would then materialise in space. In stating and motivating the direction society should evolve it is more utopian than M.U.D, which is more a critical design. In searching to connect with the current policy and its related worldview, and from there try to evolve towards another basis for policy, the Future Commons 2070 tries to remain related to cur-

rent reality, so there is a greater chance that policy-makers, stakeholders and people in general can relate to the proposal. If so, the project and the ideas embedded in it are more likely to influence action and to trigger initiatives taken by different people in different areas.

PROJECTIVITY AS A UTOPIAN WAY OF FUTURING

In essence the four design projects look for an alternative, possible future reality. The issue of outlining a future reality can be approached in different ways. One can try to design a future by prognosis. The procedure then is to analyse current trends and extrapolate them into the future. The space of possibilities is thus reduced to the space of probabilities. The search for a possible future here is very much steered by the factual. Plattel calls this a 'retrospective image of the future'. We might also call this procedure affirmative design, being the opposite of critical design. It affirms reality as it is commonly perceived, staying largely within existing paradigms and it is mainly based on analyses. Another approach is to design a future through critical, utopian thinking. Here a vision for the future is projected that is much more detached from the actual or the factual. It is mainly based on imagination. Current trends are not extrapolated but criticised and/or radicalised. This procedure creates an alternative that is not based on the probable but on the possible and desirable. Here projectivity is used to think beyond perceived reality. As an example for these two ways of designing a future, we might look at the question underlying the M.U.D project. This project originated from the problem of rising sea levels: how to *defend* the Belgian coastline against flooding. A lot of studies are currently being done in order to predict the consequences of higher sea level and more frequent storms. Based on these studies, the most probable future situation is put forward as an almost factual prognosis on which design assignments can be based. Every design scenario here is based on the hold-the-line policy. In the M.U.D project this always implicitly present hold-the-line principle is critically questioned and replaced by a radical other principle: the rupture-of-the-line and designing a controlled flooding plane.

The two perspectives on future and design outlined here reflect in a way my experience in the field of urbanism. The former is the dominant design attitude I experienced in Flemish urban planning. The latter is prominently present in the conceptual design practices of which I was part. I experienced that these two design worlds were considered almost oppositional and barely relatable, the latter being labelled ‘artistic urbanism’, the former considered the ‘real thing’. Yet it seems to me that both are needed for gaining understanding and developing new conditions for the futurity of our living environment. Combining the two design worlds would allow us to work simultaneously on the latent level and the manifest level of urbanisation. The latent level represents the underlying and often unacknowledged guiding principles for organising space. It is part of the overall concept of territory. For instance, we can consider the hold-the-line-principle as the current latent level that defines what we consider the problem and what we see as possible solutions on the manifest level: safeguarding the coastal zone from flooding, hence redesigning the dike. If we change the latent frame into flooding the nature of the problems and possibilities on the manifest level changes completely and it requires another concept of territory, one in which ownership becomes relative instead of absolute. Characteristic for the latent level is that it tends to escape our attention and that we are largely unaware of how it structures our design attitude.

Another aspect of combining the two design worlds is that normally the direction of thinking is from present to future. The utopian mode of thinking offers a way to think from future to present. Here the design quality of projectivity plays a major role. In order to attain this kind of ‘futuraing’ one has to get loose from the present to a certain degree. Barbara Goodwin sees the primary function of utopia as ‘the constructive criticism of the present by reference to a hypothetical future’ (Levitas 1990, p.193). This is the kind of function I attribute to the conceptual design projects. It is about creating a hypothetical future in the materialised form of an urbanisation model and thereby showing possible worlds. This resonates with the primary function of utopia, which is to distance us from the present, as Levitas points out. The projects also relate to the characteristic of utopia entailing criti-

cism through the construction of an alternative and pointing toward change. In this respect, Goodwin suggests that we may find it relatively easy to agree on the criticism of the present (although this depends on who 'we' are), but we are almost certain to disagree on the appropriate remedies (Levitas 1990, p.176). The function of the projects, then, is to catalyse change by enabling a process of collective sense-making.

PREFIGURATION OF POSSIBLE WORLDS

Utopian thinking, – contrary to common belief – is concerned with the interaction between everyday reality (perception) and an alternative reality (projection). It seems to me that based on the understandings of rationality and reality offered by Van Houten and Plattel, utopian thinking must not be interpreted as estranged from reality. Utopian thinking is instead a reality-transforming thinking. Utopian thinking tries to reveal latently present possibilities in order to make them visible, imaginable and debatable. Using the encompassing rationality utopian thinking surpasses the closed, ideological reality and frees the imagination from the limiting conditions of the present. I would like to argue that utopian thinking essentially is critical and anticipatory thinking that gives a necessary fresh input to reality. The utopian consciousness is a critical consciousness – one that begins with dissatisfaction with the existing, accepted reality, and is focused on real change. But focus on change means that one has to have a global image of directions for change. That alternative image is produced in the utopian prefiguration.

The design process, resulting in a utopian prefiguration, must be based on a critical reading of the present. As such, a possible reality is prefigured by bringing to the foreground the latent aspects of reality. This capacity of utopian thinking, to my mind, gives conceptual design the potential to work as a vehicle of knowledge building instead of being categorised as an artistic matter, as is often the case now. Therefore I consider the characteristics of utopian thinking to be of particular importance for developing the epistemic role of this genre of design in a projective research practice. Utopian thinking is in fact a kind of intensified designerly thinking, using the genre-specific design characteris-

tics of imagineering, projectivity and prefiguration to their full extent, enabling a high level of conceptualising but also pushing the limits of what is thinkable. This gave utopian thinking a bad image as unrealistic and mere fantasy. As I explained previously, this is a misreading of the utopian mode of thinking. However it is important that utopian thinking does not get bogged down to something purely futuristic or imagistic. In order to be useful as critical sensor a utopian alternative must not be completely estranged from the present reality – what Plattel calls ‘escapist-utopia’. In this context it is worthwhile to also mention the emergence of the plethora of so-called ‘pragmatopic’ approaches (Ruby, quoted in Gausa et al. 2003, p. 488) that balance pragmatism and realism, criticism and utopia. ‘Pragmatopia’ is seen as an alternative territory of architectural operation; it resists the escapism of utopia and the automatism of the pragmatic, and rolls out a new plane of events in order to enable action (*pragma*) to take place (*topos*) (Doucet & Janssens 2011, p.10). The point is thus to conceive utopias as possible worlds, and, as Levitas stresses, ‘any proposal must be subject to reasoned justification which draws on our experience of man and society’ (Levitas 1990, p.177). Reinhold Martin summarises the issue as follows:

the question of utopia must be put back on the architectural table. But it must not be misread as a call for a perfect world, a world apart, an impossible totality that inevitably fades into totalitarianism. Instead, utopia must be read literally, as the ‘non-place’ written into its etymological origins that is ‘nowhere’ not because it is ideal and inaccessible, but because, in perfect mirrored symmetry, it is also ‘everywhere’.
(Martin 2007, p.159)

He pleads for a ‘utopian realism’ and he believes it has a clearly defined function. ‘Utopian realism is critical. It is real. It is enchantingly secular. It thinks differently. It is a style with no form. [...] It is (other) worldly’ (Martin 2007, p.160).

BRINGING THE POETIC WAY OF KNOWING INTO RESEARCH

In order to elaborate the potential epistemic role of the conceptual design projects in projective research, I have by now identified the nature of the projects as belonging to critical design and utopian thinking. As discussed above, both critical design and utopian thinking involve to a large extent the design characteristics of projectivity, imagineering and prefiguration. These characteristics were distilled from the projects for their potential research qualities. When looking at the characteristics of critical design and utopian thinking I suggest that projectivity, imagineering and prefiguration belong to the poetic mode of knowledge building, as discussed in Part I. This poetic knowledge building is gaining increasing importance in research.

The poetic mode of understanding reality.

Quite a few researchers in urban theory point out the need for another language and more imagination in urbanism. David Harvey, for instance, says that ‘the discussion on urbanisation has to construct its own language – its own poetry – with which to discuss possible futures in a rapidly urbanising world’ (Harvey 2000a, p.52). What they are asking for is, of course, not another language in the sense of a kind of variation on the spoken or written word. What is sought, is instead another conceptual basis for thinking about urbanism and a means of expressing it. In that sense, I consider this search for another language to be a search for another knowledge base, another way of learning. Utopia can be considered as providing such a conceptual basis and a means of expressing it in urbanism. Its true value is then offering a strong proflective tool to rethink and re-express urbanism. However, according to Guy Baeten, many researchers today provide sophisticated analyses but don’t give alternatives to the many problems they describe. As a result we get what Baeten calls ‘impoverished utopias’ –

like city branding concepts. Baeten's diagnosis then is that urban theory urgently needs imagination (Baeten 2009). To achieve this, the earlier discussed emphasis on imagineering is needed to enable a shift of language to think urbanism. It concerns a language with characteristics other than the problem solving language. In this respect, I believe, the notion of poetic knowledge building might be a promising one. Poetics and poeticising in a way are central to the issue of projective research in general and critical design and utopian thinking in urbanism in particular. Let me first state that poetics and poeticising is not to be confused with poetry or any specific literary endeavour. I will try to clarify what poetics is about.

Poetics refers to the notion of a making (*poesis*), acting, bringing into being, and it refers also to a making up, making in mind, referring to Aristotle's '*nous poetikos*' or the 'active mind'. In light of critical design and utopia it is worth noting that White states that Aristotle's notion of *nous poetikos* attributes to the notion of poetics a transformative power. Furthermore, when looking for another knowledge base, another way of building knowledge, it is interesting to learn from him that before Plato the notion '*sophia*' didn't mean wisdom but 'poetic intelligence' and that originally the word *epistamēnos* didn't have anything to do with epistemology, but rather with a mode of *composing*. In being linked to a transformative power and a mode of composing, poetics or poetic intelligence seems to be closely related to design or design intelligence. The transformative power that is attributed to poetic intelligence is also present in the definition of design intelligence Michael Speaks proposes. He relates design intelligence to innovation and puts it in contrast to problem solving. Design intelligence is orientated to discover opportunities unimaginable under the conditions of the given problem, and as such, produce 'added value' using an 'unseen' array of techniques, relationships, dispositions, and other intangibles that enable practices to discover opportunities and exploit them (Speaks 2003, pp.419–421). Design intelligence is related to non-linear learning and to practices which links it to the 'making' aspect of poetics.

The conceptual design projects clearly have a poetic dimension in the sense that they are a making, a bringing into being, and in that they make use of a poetic language – in the form of drawings and models – to convey their message. Apart from that they also make use of a *poetic mode of thinking* to develop concepts. By disturbing commonly accepted models of urbanism, by not fitting reality, they carry this typical de-familiarising aspect, which, according to Dunne, is all about poeticising. It is about the fit between ideas and things, when an abstract idea dominates practicality (Dunne 2005, p.42). Dunne finds a clear example of this notion of the ‘poetic fit between idea and thing’ in the following quotation of Sturrock:

The poetic function of language has as its effect that when we read literature we become more aware of language than we are when we are confronted by language in its other functions. To introduce another term dear to formalists, in literature language is 'foregrounded'. This, as Jakobson stresses, is the tendency of literature, much more fully recognised in poetry than it is in prose. In the everyday use of language it will seldom be practical and may even be found impolite to 'foreground' language. Everyday language is usually informative and instrumental; there is no call for either the speaker/writer or hearer/reader to dwell on the form of what is said/written since if a piece of information has been successfully passed or some action successfully instigated, the words by which this has been managed can count as 'transparent'. With the poetic function comes a certain opacity, for the writer is no longer passing information nor seeking to instigate action. There may also be an intentional ambiguity. (Sturrock 1986, pp.109–110)

We might say that in critical design projects, design is foregrounded in a similar way as language is foregrounded in poetry. Another characterising aspect of poetics is the particular relation between the imaginative and the real. The imaginative or fiction, according to Goodman, applies truly to actual worlds (reality). To Goodman, ‘Fiction operates in actual worlds in much the same way as nonfiction. Cervantes and Bosch and Goya, no less than Boswell and Newton and Darwin, take and unmake and remake and retake familiar worlds, recasting them in

remarkable and sometimes recondite but eventually recognizable – that is re-cognizable – ways’ (Goodman 1978, pp.104–105). John Law then, referring to Donna Haraway’s concept of the Cyborg, notes that reality and fiction relate to one another. They are included in one another but they cannot be reduced to one another (Law 2004, pp.68–69).

This relation between imagination and reality is also linked to the relation between perception and expression. Amar suggests that seeing has to be considered again as a creative act, instead of merely a matter of registration. Seeing is also related to naming because that which has no name remains invisible. Seeing, in the poetic sense, is related to imagining. Poetics in that sense is about a kind of active, creative perception considered as a dialogue with the unknown (Amar 1992). It seems to me that this understanding of poetics, as establishing a particular relation between the real and the imaginative and referring also to the aspect of interaction through 'making' (the creative act), corresponds significantly with critical design and utopian thinking.

What I am trying to delineate is a mode of knowledge production that has poetic characteristics, but which doesn't necessarily have anything in common with what is habitually known as poetry. White states in this respect that poetics is at the same time a method, a way of acting, of feeling, of thinking, of producing. This in fact refers to poetics as a mode of irreducible knowledge building different from the scientific ways of knowledge building which often have been considered to be reductive, in the sense that scientific knowledge building – notably in the natural and social science – departs from the assumption that there is one single reality out there to be discovered. This has led to the normal scientific method in which the literal, direct and straightforward representations and descriptions rule. In a scientific treatise, literal truth counts most (Goodman 1978, p.18). However, when we depart from the assumption that there are multiple realities, multiple worlds and that realities and worlds are made and re-made through creative action, other methods have to be taken into account. Goodman refers to the importance of metaphorical or allegorical truth, which to him may matter more and may mark or make new associations and discriminations, change emphases, effect exclusions and addi-

tions (Goodman 1978, p.18). To Law then allegory is about enacting and knowing multiple realities and about the movement between realities (Law 2004, p.108). Even more important, allegory is *the* mode of discovery for Law. It is generative and provides a set of tools for making and knowing new realities (Law 2004, p.98). Allegory is very important to poetic knowledge building because it makes manifest what is otherwise invisible, it crafts new realities and it makes space for ambivalence and ambiguity. Furthermore, in allegory the realities made manifest do not necessarily have to fit together (Law 2004, p.90). In science there seems to be no place for this kind of view of knowledge building. The relation between science and poetics is problematic in Western culture at least since Plato, according to White, and the split or schism between the two began to occur clearly since Aristotle (White 1994, pp.229–230). Tony McManus remarks that ‘the result is that philosophical speculation and poetic perception which transcend and deepen scientific knowledge are marginalised in, if not expelled from, the worldview’ (McManus 2007, p.138). Euro-American metaphysics, in so far as they are carried in natural and social science, propose a division of labour between science and art – or between external realities and personal experiences (Law 2004, p.98). On one side there is the reality, on the other the imaginative. Bringing science and poetics back together, then, is basically about reuniting the field of knowledge and the field of experience. This involves a search for a renewed sense of ‘*logos*’ which implies the emergence or creation of another epistemology, another way of knowledge building. For White, this might include a conviction that the most fertile epistemological source is situated on a deeper level, a more complex region than the method of normal science. In recent times, White argues, we became more conscious of certain ‘*anarcho-poétic*’ aspects, rather than the ‘*techno-methodological*’ approach of scientific research (White 1994, p.230).³⁶ The call made by Law is that ‘we keep the metaphors of reality-making open, that we refuse the distinction between the literal and the metaphorical, that we refuse the dualism between the real and the unreal, between realities and fictions, thinking instead of degrees of enacted reality and that we seek practices which might re-work imaginaries’ (Law 2004, p.139).

So it seems that the notion of poetics is emerging in the knowledge landscape, which means that besides the dominant analytical, instrumental and technological perspective on the world, there is another perspective that we might call a 'poetic perspective'. The poetic perspective is about the confluence of concrete experience (sensation) and abstract knowledge. 'Science and politics and aesthetics, these do not inhabit different domains. Instead they interweave. Their relations intersect and resonate together in unexpected ways. There are sets of partial connections and interferences' (Law 2004, p.156). Moreover, as Goodman noted, even if the ultimate product of science, unlike that of art, is a literal, verbal or mathematical, denotational theory, science and art proceed in much the same way with their searching and building (Goodman 1978, p.107). In the social sciences understanding methods such as poetics or interventionary narrative has already become important (Law 2004, p.3). This is due to an increasing acknowledgment that there are circumstances in which reality is both unknowable and generative, which implies that realities are to be made and remade rather than to be discovered (as most scientific methods assume). This necessitates the making of methods that escape from the postulate of singularity and universality and respond creatively to a world that is taken to be composed of an excess of generative forces and relations (Law 2004, pp.7–9).

In the context of architectural and urban design then, the 'making' aspect of poetics gets an extra emphasis. When suggesting that projectivity, imagineering and prefiguration belong to the poetic mode of knowledge building, it is important to notice that the reality that is projected and imagined comes into being through the act of *making* an artefact. The act of prefiguring holds what is essential to poetics: the aspect of making, of bringing into 'artefactual' reality. The design project offers a very concrete and materialised medium for the abstract idea to come into being and to become knowledgeable through the act of form-giving. The projected, imagined, prefigured reality is a 'made', 'artefactual reality' that mediates between the abstract and the concrete, between the real and the virtual, between present and future.

Research by design

The emergence in the knowledge building landscape of what is here called the poetic perspective is further actualised through the rapidly growing field of 'research by design'. There are a number of terms in this research community that in spite of persistent efforts to formulate more precise definitions are still often used interchangeably: research by design, design research, artistic research, art based research, practice-led research, research through design, project-grounded research and the like. Important for the discussion here is that they all take the designerly or artistic ways of knowing as a central element in the research process and thus relate to the poetic knowledge building. David Wang notes that art and architecture in the generative sense, emerge out of the process of the 'poetic drive'. He refers to Kant who 'holds that during aesthetic pleasure, the mental faculties sense a heightened "membership with nature" and this leads to all the mental faculties being engaged "in play". This play produces a "purposive momentum" that in turn generates "aesthetic ideas." It is these aesthetic ideas that strive for expression in empirical forms.[...] Kant calls this process a "poetic drive"' (Wang 2002, p.105). The incorporation of this poetic drive or designerly way of knowing in research signifies increasingly that the dichotomous relation between science and design or art no longer holds. 'A scientific explanation is typically portrayed as a mathematical description made up of linked fragments; it is thereby atomistic, reductionist and convergent. On the other hand, mythic or poetic description is seen as continuous, holistic, divergent and generative' (Groat 2002, p.25).³⁷ The scientific community used to consider the value-laden and allegedly subjective character of design and art as being incompatible with research. However, Alain Findeli notes that

recent developments in human and social sciences have dealt extensively with the issue of objectivity as a possible and desirable horizon in research. The interpretive or hermeneutic turn has shown that objectivity is not a relevant and fruitful criterion for research in those disciplines, and that rigorous inquiry is nevertheless possible without diving into extreme relativism or scepticism. (Findeli 2010, p.294)

In her discussion on architectural thinking and art-based research, Dyrssen also mentions the growing interest 'from both technical research and the humanities to incorporate strategies such as innovation, elements of fiction, or associative rethinking of problems, using several tools for representation and communication apart from verbal text. Recognizing this sometimes contradictory diversity as a fundamental condition for most research today opens new possibilities for art-based research' (Dyrssen 2011, p.223). It is clear that types of research based on a designerly way of knowing do not provide 'proof' in a traditional sense. They also methodologically do not proceed in the same way as a scientific research process. Dyrssen notes that the art-based research process 'breaks up the traditional linear narrative of the research process, as starting with a problem, moving through analysis and theory, applying theory back to empirical studies, and finally arriving at concluding solutions. Instead, it promotes constant, quick shifts between innovation and analysis. Associative, lateral thinking is combined with logic/deductive reasoning and theoretical reflection' (Dyrssen 2011, p.226). Wolfgang Jonas addresses similar issues of the different meaning, status and use that is attributed to knowledge by science on the one hand and design on the other. He states that

science is aiming at predictability, thus needs stable models, which deliver 'the same'. Science has to purify its models in order to transfer them from vague hypotheses into prediction machines. [...] Design is aiming at single new phenomena that have to fit various unforeseeable conditions. Design has to intentionally create variations, differences, because the 'fits' dissolve, fade away, get old-fashioned.(Jonas 2012)

In this context he describes design expertise as 'the art of dealing with scientific and non-scientific knowledge, with fuzzy and out-dated knowledge and with no knowledge at all in order to achieve these value-laden fits (Jonas 2012). It is clear from what has been discussed that the designerly way of knowing is considered able to generate relevant and trustful knowledge in research processes and thus can add to our understanding of the world. The kind of knowledge generated has some specifics. The key characteristics of this designerly way of know-

ing are often said to be: the wicked, the situated, the experiential, the tacit, the actionable, know-how, the future-oriented, the artefactual, the interdisciplinary, and the integrative (Chow 2010). In the context of this thesis design thinking might be specified to architectural thinking and how this can be involved in research. Fredrik Nilsson draws an interesting relation between architectural thinking, knowledge (research) and form. He refers to Michel Foucault and Gilles Deleuze who stated that all knowledge is about form: anything we can have knowledge about has a form – or is given a form in the production of knowledge. Architectural design then, says Nilsson, gives form; it is about conceiving a unity from a set of contradictory requirements, factors or demands. Nilsson discusses architectural practices that, as a form of research, use architectural tools and imagination to analyse the complexity of contemporary society. In this context 'form and images are not only the result of analyses; they are a way of approaching complex situations, making them manageable and meaningful. They are tools that give stability and meaning to the elusive. The rational, systematically analytical thinking has been expanded with an architecturally spatial and constructive way of thinking, which often seems irrational, subjective, vague and nomadic' (Nilsson 2005, pp.241, 246) With the going together of imagination and the form-giving capacity architectural thinking relates to the 'making up' and 'making' of poetic knowledge building. An especially relevant issue is then how fictions and models can play a role in research, since this refers to the characteristics of projectivity, imagineering and prefiguration. Dyrssen recognizes modelling and fiction as strategic tools for knowledge production:

fiction in art-based research – or artistic activity more generally – is not primarily a story about something, but rather a design tool for modelling. Fiction does not have to be literary or narrative, but can create an imagery that transgresses borders between different media, and goes in and models space, including the various agent's propositions, place-specific narratives, etc. By being aware of the fictions one creates, one can also recognise facts and conditions more critically. Fiction allows for complexity which, in turn, promotes surprise as total overview or control is impossible to maintain. Modelling is spatial and material fiction. (Dyrssen 2011, p.232).

Regarding the possible subject matter of research by design, Findeli suggests that a designerly way of looking at human-environment interactions is not only a valid but also a valuable epistemological stance. In such conditions, design research has the potential of delivering original and relevant knowledge about the world (Findeli 2010, p.294). Findeli bases this argument on the fact that ‘it is generally accepted that the end or purpose of design is to improve or at least maintain the habitability of the world in all its dimensions: physical/material, psychological/emotional, spiritual/cultural/symbolic. [...] Habitability is best defined in systemic terms: it refers to the interface and interactions between individual or collective “inhabitants” of the world (i.e. all of us human beings) and the world in which we live’ (Findeli 2010, p.292). The discipline that studies this is human ecology. However, when studied from a design perspective Findeli suggests that the study of habitability is enriched – first, because for the purpose of design, the field of human ecology should be extended to the cultural and spiritual dimensions of human experience, consequently of the human-environment interactions; and second, because conversely to human ecologists, whose stance is descriptive and analytical, the aim of designers is to modify human-environment interactions, to transform them into preferred ones. Their stance is prescriptive and diagnostic. Findeli thus speaks of a general or extended human ecology and proposes this as central subject matter for research by design (Findeli 2010, pp.292–293). He calls his approach project-grounded research.

As stated previously, the definitions of all the different strands of research by design are still very unstable.³⁸ In that respect, it is hard to position the research approach I try to develop here in this constantly shifting landscape of research by design. The emphasis on projectivity requires to understand design practice as a projective activity. David Leatherbarrow argues that ‘like probability in science, projection in architecture remains within the limits of the likely. It is always and only an incomplete prefiguration of a final product, foreshadowing an outcome that has formed itself in the space between discovery and recollection’ (Leatherbarrow 2012, p.12). Leatherbarrow further states that ‘knowledge is advanced in design research through creative practices not technical procedures, no matter how up-to-date the

technique may be, for the real distinction is between projective and product-oriented thinking' (Leatherbarrow 2012, p.12). The main aim regarding the development of projective research, therefore, is to elaborate more specifically the subject matter, the specific genre of design used and its role in the research process and the field in which it is to be operative. This will be further developed in the next part.

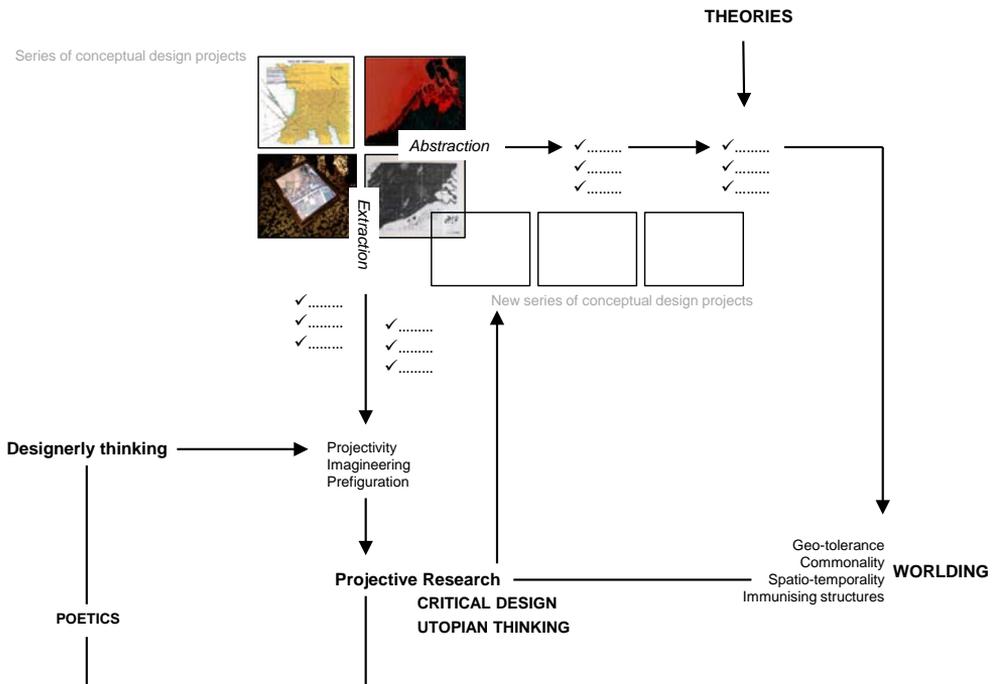


DIAGRAM – PART II

The diagram maps the key concepts discussed in the previous chapter. In the legend to the diagram the concepts are organised alphabetically and described as they are understood in the context of this thesis. The description is constructed from the discussion in the text and represents how I developed an understanding of the concept.

Conceptual design practice: Develops projects from a critical design attitude, conceptualising the way to inhabit the environment through visionary spatial models that challenge values and problem settings. The main outcome of conceptual design projects is not the design as such but the re-signing of concepts and values about inhabiting the environment. In a conceptual design practice concepts are generated that surpass the singular concrete design project. The design operations developed in a conceptual design practice are oriented to the enforcement of the capacity to imagine and conceptualise, which is intrinsically different from the ability to analyse and synthesise. Conceptual design qualities such as projectivity, imagineering and prefiguration can be composed into a mode of inquiry intentionally directed to reconceptualisation. In a research context conceptual design projects are intentionally and consciously positioned in the knowledge building process to induce a process of hypothesis development.

Criticality: Unmasks presupposed, alleged 'truths' as necessary condition for freeing imagination from fixed ideas and given constraints. As such, criticality is a necessary condition for activating 'imagineering' and 'projectivity' (as casting ahead) and to open up the space of possibilities.

Critical design: Reveals hidden potentialities in current reality. Thus critical design generates knowledge about the latent reality, a reality that is implicitly present, but not explicitly acknowl-

edged. It is about causing reflection on existing values, mores, and practices and challenging preconceptions and expectations thereby provoking new ways of thinking. Critical design is the counterpart of affirmative design and is a way of emphasising that design has other possibilities beyond solving problems. It is a mode of inquiry orientated towards widening the space of possibilities. Critical design is a type of conceptual design that aims to make 'statements'. In projective research it is used as a tool next to utopian thinking.

Designerly thinking: An inclusive, irreductive way of thinking, trained in combining issues of facts with issues of values. Designerly thinking is used to change existing situations into preferred ones and is intrinsically a normative activity. It is a type of thinking that proceeds syncretically, handling the whole range of by nature incoherent, apparently incomparable and even contradictory elements of the problem. It includes substantial activity in problem structuring and problem settings. It is about working within the unknown, the not-yet-existing. A particularity of designerly thinking is that it is inextricably connected to materiality since it proceeds through the particular communication that is set up during the design process with the imaging (projecting into materiality) of the imagination.

Extended rationality: Also called context-dependent rationality or encompassing rationality. This type of rationality is orientated to the re-evaluation of values and goals, which

are never based on neutral facts but on preferences and therefore forces us to take a political stance. Extended rationality is the counterpart of instrumental rationality and provides the frame in which we can make sense of facts. It is the type of rationality operative in critical design and utopian thinking.

Imagineering: Fills in the empty spots in the explicitly known. The analytical mind has to be supported by imagination. Without imagination there only exists a world of facts. It is imagination that enables man to see ('know') beyond current reality and renders thinkable the possible. Imagination together with criticality and syncretism helps us move beyond the impasses of existing problem formulations and introduce other possibilities and express them by means of prefigurations. Imagineering is looking for another (formal and conceptual) vocabulary for thinking about and discussing our socio-spatial environment. This search for a vocabulary is an exercise in reframing thinking rather than technical problem solving.

Poetics: Refers to the notion of making (*poesis*), to bring into being, to making in mind, to the active mind. Poetics is at the same time a method, a way of acting, of feeling, of thinking, of producing. It is linked to a transformative power and a mode of composing and as such closely related to design or design intelligence. A designerly way of knowing, in that respect, might be considered a poetic way of knowing. Poetics is a kind of active, creative perception that is considered a dia-

logue with the unknown thus establishing the relation between the imaginative and the real. Seeing becomes a creative act. Poetics involves an epistemology that departs from a kind of integrated knowledge, expresses wholeness by combining both abstraction and sensation. It is a mode of irreducible knowledge building different from the normal scientific way of building knowledge which has often been considered reductive in the sense that scientific knowledge building (notably in the natural and social sciences) departs from the assumption that there is one single reality. Via allegory, for instance, poetic knowledge building makes manifest what is otherwise invisible. It crafts new realities and it makes space for ambivalence and ambiguity. The poetic perspective is about the confluence of concrete experience and abstract knowledge. The epistemology of poetics, long marginalised in the (modern) worldview, transcends and deepens scientific knowledge. Projectivity, imagineering and prefiguration belong to the poetic mode of knowledge building. In the design project, the act of prefiguring holds what is essential to poetics: the aspect of making, of bringing into 'artefactual' reality.

Poeticising: Not allowing the practical, the real to overrule the imaginative by inducing functional estrangement. It is about the fit between ideas and things, when an abstract idea dominates practicality. Poeticising is counteracting the familiarisation encouraged by the routine, accustomed mode of perception. It is defamiliarising. Poeticising

also involves developing concepts using the poetic mode of thinking.

Prefiguration (Artefact): Fundamentally shapes the dynamic of the design process as an instrument for guiding and developing thought. The prefiguration is the projected materiality of a projects' proposal together with the actual materiality of the project's representation. It is a quintessential aspect of design. The materiality of the prefiguration tickles the senses and accordingly starts a thought process. By providing a global image of directions for change the prefiguration is essentially involved in sense-making. It is concept generative.

Projectivity: A design quality typical of conceptual design projects. Projectivity is the quality of throwing ahead a possible future. A vision for the future is projected that is much more detached from the actual or the factual. It is mainly based on imagination. This kind of projection provides a chance to reflect upon what is there, but mostly it provides a chance to imagine something different, to project, to question and transform rather than describe and affirm. In that sense, projectivity enables re-signing. Projectivity belongs to the utopian mode of thinking and offers a way of thinking from future to present.

Projective research: About exploring structural changes and inducing redirected thinking by means of spatial 'projections'. This specific type of research stimulates patterns of thought that leads to innovative, redirected

thinking. The 'projections' (images, models) themselves never become (built) reality. They can produce hypotheses and suggest lines of research. Imagineering and projectivity are two design characteristics constitutive of projective research. Imagination is here framed within a process of methodical exploration and the prefiguration leads to meta-observation of the not-yet-existing allowing profection, looking forward to things still to happen. Profection enables reflecting on possibilities and desirability, while prediction is rather reflecting on probabilities. Projective research takes an interest in the fundamental question that underlies design projects as an abstract foundation, which is further developed through the design projects while at the same time surpassing their particularity.

Syncretism: A mode of thinking closely related to imagination, a playful state of mind, a non-linear way of thinking. Syncretism is able to associate apparently incomparable issues into new concepts. Typical for syncretism is working with nomadic concepts that do not produce a synthesis: they only make it possible, in a transient way, punctually, for heterogeneous levels of reality to combine with each other, to conglomerate, into new dimensions. It is about the handling of relationships and correspondences between heterogeneous or definitively incongruous elements to create a new whole without removing the contradictions between parts.

Utopian thinking: The development of strong spatial and social concepts , often concerned with people's relationship with one another and with nature. As such, it is a critical and authentic form of urbanism. Utopian thinking is interacting between everyday reality (perception) and an alternative reality (projection). It is a reality transforming thinking, its function being feeding the desire for change and the power of transformation by delivering a global image of a direction for change. It is about creating a hypothetical future (in the materialised form of an urbanisation model) and showing possible worlds, thus making the present as 'status quo' problematic. The power of utopian thinking resides in it not being constrained by the need to appear immediately possible allowing a freer exploration of desire and a

much deeper exploration of the implications of alternative values than when it must be seen as realistically attainable from the here and now. Utopian thinking tests its principles by practice, showing how the theory works in the imagined practice. It is a kind of intensified designerly thinking, enabling a very high level of conceptualising. Utopian design projects, understood as catalysts for change, instead of masterplans for future development, are operative on a re-signing level. Utopian thinking is orientated towards a re-articulation of goals in the space of possibilities and due to its proleptic and figurative qualities it is the driving force of projective research. Utopian thinking gets intensified and foregrounded in periods when the overall feeling in society is one of great uncertainty and rapid change.

PART III

UTOPIA-DRIVEN PROJECTIVE RESEARCH & META-URBANISM

In this part I present a research approach and a research field as the result of interacting with the design projects and the theoretical frameworks discussed in the first two parts. The research approach proposed is based on the quality of utopian thinking to generate a kind of designerly hypothesis regarding the envisioned human-environment relation (habitability), using the design characteristics of projectivity and imagineering. This is explained in *Chapter 6* on utopia-driven projective research. I propose that the outcome of this kind of research is a form of theorising that more generally can be understood as sense-making. Reconceptualisation is primarily a matter of re-signing. This requires an extra effort in sense-making, in finding a renewed sense, which is a necessary precondition for de-signing urbanisation as a spatial formatting of the habitability of the world. In essence, the activity of resigning, of sense-making, is a form of transdisciplinary theory development that envisions the formulation of a different set of goals, which in turn could steer new analyses and problem solving. The particular kind of theory that is proposed here is developed through utopian design projects and searches for a base to reframe urbanisation in a context of worlding. In *Chapter 7* I therefore discuss the relation between sense-making, theory development and design. *Chapter 8*, then, proposes Meta-Urbanism as the field in which utopia-driven projective research is active. Here the concept of the latent is explored as a level of thinking and designing that concerns the creation of a frame of reference, a guiding set of values that is generated through a continuous sense-making process.

Chapter 6.

UTOPIA-DRIVEN PROJECTIVE RESEARCH

As stated in the beginning, the point of departure of this study was the assumption that designerly thinking, properly embedded in research, can offer an original – that is, different from other forms of knowledge production – contribution to the already vast body of research on urbanism. The issue then became to define more precisely the *kind of knowledge* to contribute to the prevailing research. I stated that there is a need for more knowledge generated through encompassing rationality which places an emphasis on the re-evaluation of values. I further argued that when it concerns learning from the future as it emerges, projectivity and imagineering are of utmost importance. This implies that also the *kind of design* that most effectively uses these qualities needs to be specified. In order to start answering this, I extracted from the four conceptual design projects in which I have participated a number of design characteristics and design operations (Part II). The aim was to pinpoint the potential added value of the characteristics of this genre of projects for research in urbanism. The challenge then is to bring the relevant design qualities together and to make them operational in a research context. This involves the development of a project-grounded research approach as a further specification of the broad category of research by design. In Flemish urban planning today, it is to a certain degree acknowledged that research by design has a role to play. Even policy-makers ask that research by design be included in

larger architectural and urban design projects. However, it became clear that urban planners have restricted the role of design to its communicative, decision-facilitating, scenario-developing and program-tuning capacities. It goes without saying that design has an important role in participation and communication processes. But that certainly isn't the only role design has to play, and in research it's not even the most essential. Research by design, in this context, is more a matter of 'investigation' than of research. In the context of professional practice of urban planning Jan Schreurs states that research by design is a tool for attaining quality in urban design projects. It serves to explore the site, the programme and the problem definition in order to refine the project definition. The spatial synthesis of wishes, questions, contexts and constraints that is offered by research by design helps to trigger discussions, to mediate conflictual visions and to integrate different involved disciplines and policy domains (Schreurs 2006, p.130). In these descriptions of research by design we see that in urban planning processes the designerly way of knowing is mostly used for its *synthesising* qualities. Design proposals are made to provide intermediate syntheses of all the different stakes which then are used to evaluate the pros and cons, a matter of validating certain values over others. The aim is to come to a decision for the future development of a certain area, to generate the widest possible support for the decisions and to start planning the realisation of the design proposal. The research approach I propose entails a shift of focus from synthesising qualities to *projective* qualities. The aim is redirected from *decision* making to *sense-making*, which implies seeking not for a synthesis of existing values but rather the creation of a set of new values. In the following section I therefore address first the specific instrumentality of conceptual design projects and the emphasis that is put on engaging values in research. These elements lead to utopia and critical design being constitutive for the research approach envisioned here, which I call *utopia-driven projective research*.

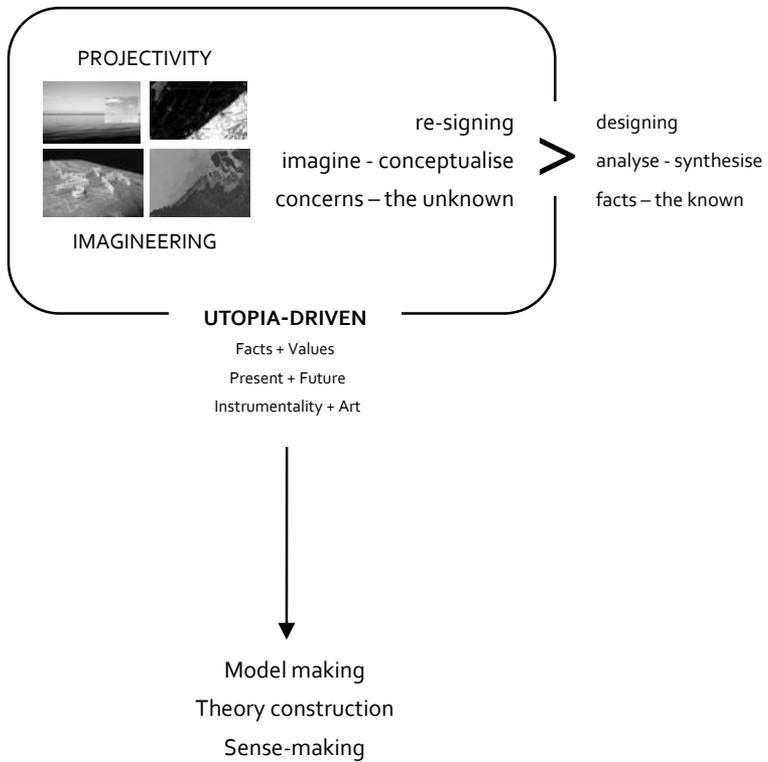
6.1

RESEARCH ENGAGING PROJECTIVITY TO EXPLORE VALUES

The study of the projects presented in Part II frames within the question: how can designerly ways of knowing be used to address the split between instrumental and encompassing rationality and to attain a more comprehensive problem setting regarding the relation between people and the environment? Involving encompassing rationality in comprehensive problem setting implies that issues of values are more explicitly addressed. Encompassing rationality is orientated to the re-validation of goals, which is never based on neutral facts but on preferences.

The projects *The Unadapted City*, *M.U.D.*, *COASTOMIZE!* and *The Future Commons 2070* are, in a way, an exercise in bringing together various values, preferences and objectives. They are an exercise in finding preferences, translated into spatial concepts, regarding urbanisation. In fact, the main outcome of these kinds of projects is not the design as such but the re-signing of concepts and values regarding inhabiting the environment that happens through the conceptual design process. 'Re-signing' is here to be understood as 'giving a renewed significance', 'another meaning', 'a new sense'. In my opinion, re-signing is akin to what we understand as designing (especially conceptual design). However, the notion of 're' adds another emphasis and function. In the context of projective research in urbanism, the re-signing is done by conceptual design. At the same time, re-signing, in a way, precedes de-signing. De-signing is deciding, fixing, giving a (spatial or non-spatial) form to a concept, a value. Therefore, the notion of re-signing will become quite central in utopia-driven projective research. I consider *re-signing* to be the core-activity in the field of *Meta-Urbanism* while *designing* in the traditional sense is the main activity in the field of *urbanism*.

The design operations extracted from the four conceptual design projects are orientated to the enforcement of our capacity to imagine and



conceptualise, which is different from the ability to analyse and synthesise. We might say that imagination and conceptualisation predominantly depart from concerns (related to the unknown), while analysis and synthesis predominantly depart from facts (related to the known). In that sense this genre of design displays an attention to the world that departs more from a problem setting perspective (encompassing rationality) than from a problem solving perspective (instrumental rationality). The problem setting character of *The Unadapted City*, *M.U.D* and *The Future Commons 2070* lies in the fact that although in their general design and expression still referring to architecture and urban planning practice, they are not intended to become reality. Their role is to inspire and stimulate patterns for renewal and change. As models they can produce hypotheses by means of projections and suggest lines of research. Therefore, projective research, by means of spatial projections, helps us explore strategic possibilities for structural changes. This specific type of research stimulates patterns of thought that lead to innovative, redirected thinking. The projections (images and models) themselves never become built reality. They are the vehicles that make the thinking on the issues, change and lead to new insights. The models of another reality are the testing cases to look for the preconditions for a new reality. Their main role is to advance our thinking on the underlying pattern that structures design. It is this underlying pattern that the field of Meta-Urbanism is concerned with. As became clear through the discussion in Part II, this specific genre of design, as exemplified by the four conceptual design projects, does not belong to architecture or to urban planning in the narrowly defined sense of professional practices. As conceptual design projects they are considered barely relatable to common architectural or urban planning practice. I believe that this is due to the fact that their instrumentality is not situated on the level of urbanism but rather on the level of Meta-Urbanism. This level of Meta-Urbanism is more orientated to model making³⁹ and, similarly, to theory construction. This is inherent in the re-signing activity that happens in this field. Re-signing can be considered an act of reframing and of sense-making, and both these activities are a form of theory construction in the sense of constructing an explanatory frame. Re-signing is also an act of exploring and creating renewed values. The tool I propose to induce this process is projectiv-

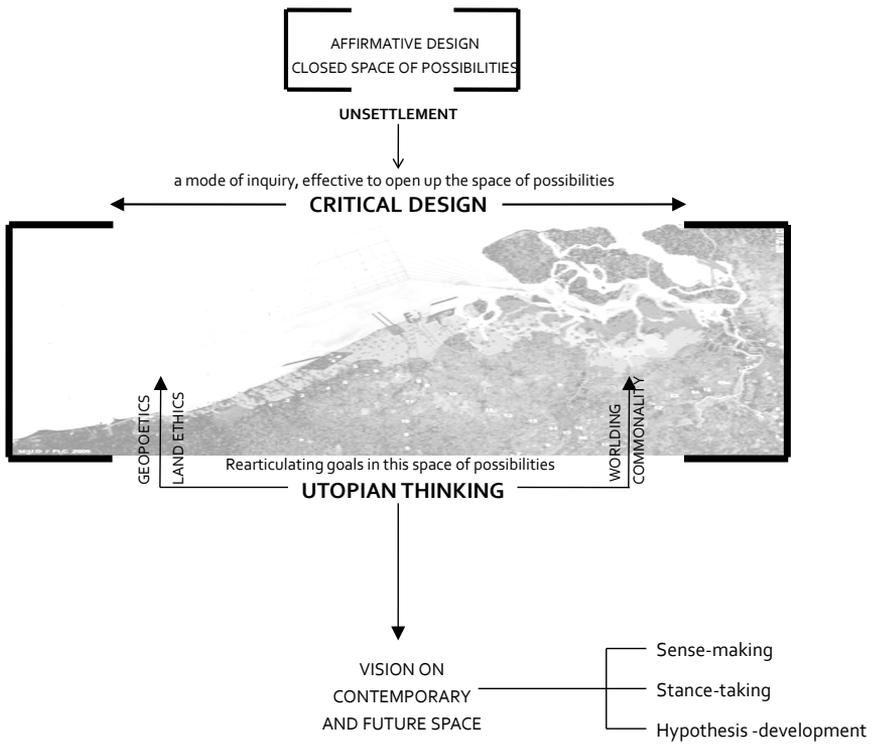
ity, a design quality typical to the genre of conceptual design projects I described in Part II. Hence, the research approach I develop engages actively with projectivity to explore values and concerns. As such, it belongs to a field of research that Gerard De Zeeuw labels non-observational research. He explains that ‘the main difference is the inclusion of values (as opposed to observational research, which excludes values as much as possible, i.e. minimises their internal role). The aim is to identify what values may be improved, without recourse to some form of agreement – as the basis of most practical solutions to the “problem of values”.’ De Zeeuw specifically relates this kind of (non-observational) research to the world of social support (which aims at improving values without harming others) but also to areas such as architectural and artistic research (De Zeeuw 2011).

6.2

UTOPIA AS A DRIVING FORCE FOR PROJECTIVE RESEARCH IN URBANISM

Given the context of re-signing, I argue that the projectivity used has a utopian character. Utopia offers a tool or mode of inquiry based on designerly ways of knowing and thinking, a design tool of proven inner coherence and quality, to achieve a deep exploration of desire and of the implications of alternative values. In utopian thinking a revalidation of goals is at stake, and this implies that an ethical stance is linked to the critique and the alternative that is formulated. The connection with ethics produces knowledge of values, in addition to and complementary to the more common knowledge of facts.⁴⁰ Designers are trained in combining issues of facts with issues of values. So via design, and more specifically, via the design qualities of projectivity and imagining, models for a reconceptualised way of inhabiting the environment can be created. These models might perhaps be something like Lynch’s models that ‘did not pretend to be neutral or scientific; they were

“imaginary”, imbued with actors’ values and normative preferences, they are notions of how things should be’ (Shane 2005, p.39). Lynch says about this that to distinguish a working normative theory one must see form, use, and motive together (Lynch 1981, p.290). Utopian thinking is a way to investigate and develop a constellation of concepts, values and practices, leading to a new vision of reality. Utopian design projects, understood as catalysts for change rather than as masterplans for future development, are operative on a re-signing level – that is, they reconceptualise and reattribute meaning and value. Thus a problem setting can be achieved that not only departs from technical issues of facts but that also actively engages with issues of values, which is very important in a context of unsettlement. Thus utopia can add to comprehensive problem setting. The search for reconceptualised urbanisation models in relation to a redirected worldview, entails a criticism of the present. In such a context, utopia proved to be a very effective tool, its primary function being ‘the constructive criticism of the present by reference to a hypothetical future’(Levitas 1990, p.193). In this perspective it is important that utopian thinking does not get bogged down into something purely futuristic or imagistic. As previously discussed, in order to be useful as a critical sensor, a utopian alternative might not be completely estranged from the present reality. So besides combining facts and values, utopian thinking is also based on combining present and future. Because of its comprehensiveness, the challenge of redefining urbanisation in a context of redirected worlding needs utopian thinking, as an adequate design attitude, thinking device or ‘state of mind’. Utopian thinking seems theoretically and practically capable of collapsing the divide between facts and values, between instrumentality and art, between future and present. It allows for a kind of meta-observation, observation of facts that have not yet attained the character of reality. I believe we should stimulate and enhance these qualities of designerly thinking in research on urbanisation and worlding because they contribute to a process of sense-making. In the first part of this text I described a context of systemic changes, which is linked to climate change and its multiple spatial implications but also to geopolitical and socio-economic changes. In this situation of increasing unsettlement there is an immediate urgency to solve problems but on a deeper level there is a growing urge to *make sense* of the



evolutions. Sense-making, as explained earlier, requires a different approach, a different rationality, so to speak, than problem solving. In the instrumental rationality that currently dominates research on urbanism, the designerly way of knowing in its quality of synthesis-after-analysis reigns. I argue that foregrounding the specific design qualities of imagineering and projectivity embedded in a utopia-driven perspective can add the encompassing rationality more prominently to research. This involves the combination of proflective and figurative qualities as expressed in many utopian projects. Therefore I suggest taking utopian thinking as a driving force for the development of projective research. In the chapter on the epistemic role of design, I argued that the characteristics distilled from the design thinking at work in the four conceptual design projects relate to critical design and utopian thinking. So what is the relation then between them? In utopia-driven projective research the utopian thinking is accompanied by critical design. The relation between critical design and utopian thinking might be seen as follows:

** Critical design is a mode of inquiry, effective for revealing hidden potential*

The particular capacity of critical design is to reveal and foreground by means of prefiguration, latent possibilities and consequently open up the space of possibilities (projective quality). Critical design is a mode of inquiry (research quality) to investigate what is behind or *beyond* the things. However, critical design in its capacity of revealing potentialities, does not give enough indication of the direction that is envisioned for urbanism. In that respect critical design does not seem to help conceptual design practice evolve from statements to effectively reframing actions. So something is missing that can evaluate the different possibilities in the light of a broader and engaged framework that needs to be established.

**Utopia is a hypothetical framework, based on revising goal setting, evaluating values in a broader societal context*

Essentially utopia is about the development of strong spatial and social concepts, and as such it is a critical and authentic form of urbanism. While critical design is orientated towards widening the space of possibilities, utopia is orientated towards a rearticulation of goals in that

space of possibilities. In other words, utopia tries to establish the direction for change envisioned in urbanism. In doing so, utopia comes to a redesign of the problem space, and thus utopia works for design like the hypothesis in science: it searches for an outline of a framework, for a reframed underlying pattern of thoughts and practices. It is a tool to prolect.

So in the context of projective research, I suggest we establish the following relation between critical design and utopia. Critical design is used as a mode of inquiry to foreground the latent possibilities and thus renew or reset the space of possibilities. Utopia then rearticulates goals in this space of possibilities and from this creates a kind of designerly hypothesis regarding the envisioned habitability, the envisioned human-environment interaction.

If conceptual design practice is consciously positioned in these two loci of investigative action, critical design and utopia, both having strong projective qualities, it can be more effectively used in projective research. In this research context, the knowledge production through conceptual design projects can progress from mere statements (critical design) to a more operational and encompassing framework for evaluating other kinds of urbanism (utopia), and thus the field of Meta-Urbanism can be built up. The aim of emphasising utopian design characteristics is to reintroduce and revalidate the research quality of utopian urbanisation models. Regarding the role or usefulness of theoretical, conceptual and visionary organisational models of space, otherwise called utopian projects, Sloterdijk, referring to work of Constant, Peter Cook and Yona Friedman, suggests that they often serve a concrete yet indirect interpretation of the contemporary and that they constitute fundamentally new procedures for better understanding the synthesis of our societies (Sloterdijk 2009, p.458). Moreover, as Peter Stillman says, utopia tests its principles by practice, by showing how the theory works in the imagined practices of the utopia (Stillman 2001, p.14). It is a kind of comprehensive search effective in a field like urbanism as a necessary complement to the more analytical search. The aim of using utopia here is not to achieve the ultimate design project. Utopian thinking is seen here as a driving force, so utopia is not the destination.

Utopia-driven projective research is thus about creating a new vision of the contemporary and future space by means of developing urbanisation models that have a model-theoretical character and are useful to further sense-making, stance-taking and hypothesis development.

Chapter 7.

SENSE-MAKING

In the course of this thesis I have argued that, in a context of unsettlement like we are currently experiencing more comprehensive problem setting is needed. This entails intensifying the use of encompassing rationality to balance the dominance of instrumental rationality. Comprehensiveness, then, is understood here as adding the capacity of sense-making to the capacity of problem solving. Sense-making acts both on the level of goal setting and on the level of creating a navigational frame in which facts are given a renewed sense. The continuous reconstruction of such a frame needs due care since in a condition of unsettlement the problem is not so much that we are 'unable to know' because of a lack of knowledge or data; the problem is rather that we are 'unable to know' because the frame needed to make sense of the data, the paradigm, is distorted and hence, it becomes difficult to see the future that is emerging. Therefore the challenge is to articulate a level of thinking in the design disciplines that does not depart from designing solutions for application problems of the current urbanisation principles. Instead, an approach is suggested that seeks to extend the research practice of urbanism by actively engaging with sense-making thus contributing to the collective sense-making process of unsettling conditions and systemic shifts in the way we inhabit our environment. This extra effort in sense-making is therefore primarily a matter of resigning, of attributing a renewed meaning to the habitability of the

world and consequently de-signing spatial formats that actualise this habitability in all its richness. This continuous reconstruction of the sense-making frame needs *re*-search in the sense of searching over and over again. In the following I will argue that, in essence, the activity of re-signing or sense-making is a form of transdisciplinary theory development, that envisions the formulation of a different set of goals and values, which in turn could provide guidance for new analyses and problem solving. This set of goals can be considered a frame of thoughts, a 'theory'.

I propose then to use utopia-driven projective research to elaborate this kind of theory development on urbanisation. Because against the background of unsettlement, the problem of revised goal setting and reframing our patterns of thought is a question of learning from the future, learning from what we are unable to know, and this is necessarily based upon imagineering and projecting, two design characteristics constitutive of utopia-driven projective research. The question then is: how should we understand the relation between sense-making, theory and design?

7.1

SENSE-MAKING AS A TYPE OF THEORY

Sense-making in the general sense is a process of giving meaning to experience. Often this is considered on the individual level – how an individual frames his or her experiences into what might be considered a personal theory on matters. Gary Klein et al. have presented a theory of sense-making as a set of processes that are initiated when an individual or organization recognizes the inadequacy of their current understanding of events. Sense-making is an active two-way process of fitting data into a frame and fitting a frame around the data. Neither data nor frame comes first; data evoke frames and frames select and connect data. When there is no adequate fit, the data may be reconsidered or

an existing frame may be revised (Klein et al. 2006a). In a situation of unsettlement, this is what happens: there is no adequate fit anymore and the existing frame needs to be revised in a continuous process of sense-making. This is the level to which utopia-driven projective research wants to contribute. Sense-making is on-going, so individuals simultaneously shape and react to the environments they face. As they project themselves onto this environment and observe the consequences they learn about their identities and the accuracy of their accounts of the world (Thurlow & Mills 2009). More exactly, sense-making is the process of creating situational awareness and understanding in situations of high complexity or uncertainty in order to make decisions. It is 'a motivated, continuous effort to understand connections (which can be among people, places, and events) in order to anticipate their trajectories and act effectively' (Klein et al. 2006b, p.71). Dana Cuff notes that in the context of design there is 'a concomitant emphasis on *decision making* as the primary skill an *individual* needs in order to successfully give form to a project'. In her opinion, however, the necessary skill is not decision making but sense-making because the notion of sense-making implies a collective context in which we must make sense of a situation that is inherently social, interpret it, and make sense with others through conversation and action in order to reach agreements (Cuff 1991, p.254). John Forester refers to design activity as a social process of making sense together in practical conversation. To him the metaphor of design as sense-making captures the element of design as world-making. Thus 'the sense-making of design, the designer's work, is not simply a matter of instrumental problem solving, it is a matter of altering, respecting, acknowledging and shaping people's life worlds as well' (Forester 1985, p.17). In design as sense-making the communicative character is fundamental, and with it the embodied and situated character of the design process. What is at stake in these practical conversations, according to Forester, is 'a process in which the giving of form and the making of sense are profoundly coterminous' (Forester 1985, p.19).

Since sense-making about the way we inhabit the environment is at stake here, this concerns sense-making on the collective level rather than on the individual level. In a process of sense-making on the collec-

tive level, plausibility is favoured over accuracy. Karl E. Weick states that 'in an equivocal, postmodern world, infused with the politics of interpretation and conflicting interests and inhabited by people with multiple shifting identities, an obsession with accuracy seems fruitless, and not of much practical help, either' (Weick 1979).

This favouring of plausibility over accuracy ties in with the way data are handled in the genre of design active in projective research (see Part II). It can be compared with the favouring of imagineering over engineering and it also relates to the fact that values cannot be deduced from scientific analyses and explicit knowing. This particular characteristic of sense-making makes that it is considered a type of theory that cannot and does not need to be tested in the scientific sense. The test is instead whether it is appealing or not, inspiring or not. Sense-making is put in evidence through narratives and prefigurations that convey the sense that is made of a situation. In that respect, sense-making as a type of theory resembles architectural theory. Linn Mo states that 'good theory in science is a description of reality that can be tested empirically, and has a matter-of-fact form. Architectural theory is not to describe, and is not to be tested. There is no limit to the forms it can take' (Mo 2001, p.174). This has to do with the experiential content of architectural theory, which concerns symbols, myths, values and experiences – aspects that do not typically belong to scientific theory. 'It is "atmosphere" that is interesting for architects, something even more difficult than the "meaning" that humanists try to study. Atmosphere is understood intuitively rather than empirically' (Mo 2001, p.163). Mo then states that the practical aim of architectural theory is to inspire rather than inform (Mo 2001, p.170). Michael Hays asserts that architecture theory has been, 'in part, a displacement of traditional problems of philosophy ("truth," "quality," and the like) in favour of attention to distinctly and irreducibly *architectural* ideas, and an attempt to dismantle the whole machinery of master texts, methods, and applications, putting in its place concepts and codes that interpret, disrupt, and transform one another' (Hays 1998, p.XI).⁴¹ Architectural theory can be in many respects a viable point of departure for specifying the type of theory utopia-driven projective research is developing. It has a possibly strong relation to worlding in the sense that, according to Hays, 'the essential and essentially *practical* problem of theory is to

rearticulate the totality the world is, to produce the concepts that relate the architectural fact with the social, historical, and ideological subtexts from which it was never really separate to begin with' (Hays 1998, p.XII). Hays also relates architectural theory to the production of concepts of inhabitation in this typically embedded or embodied way. He states that architecture can be understood as 'the construction of new concepts of space and inhabitation; which is to say that buildings and drawings can be theoretical, seeking a congruence between object and analysis, producing concepts as fully objective and material as built form itself' (Hays 1998, p.XII). Furthermore, the two constitutive design characteristics of utopia-driven projective research, imagining and projectivity, are in fact rooted in architectural design and the resultant refigurations are often manifesto-like, a typical characteristic of architectural theory, according to Mo. Projective research develops theory from the perspective of design, that is 'through' design. This means that although projective research is orientated to urbanism, the theory envisioned here is not the urban planning theory nor urban design theory which are not really theories developed through design. From this design perspective then architectural theory seems the most relevant in relation to urbanism. Like urbanism, architecture draws on a wide range of areas of knowledge or disciplines (applied physics, economics, project development, psychology, sociology, culture, history, art) and this has implications for the kind of theory that is developed. The more important implication is that the theory necessarily has to be developed transdisciplinarily because sense-making is a collaborative process of creating shared awareness and understanding out of different individuals' perspectives and varied interests and insights drawn from a range of disciplines and of experiences.

Above I stated that what is at stake is sense-making on the collective level. In the research approach proposed here, the collective level can be further specified as a transdisciplinary level. It concerns sense-making as in poetics, converging all kinds of specific disciplines and professions, and as White states, it is about leaving over-restricted frameworks and entering into global, cosmological, cosmopoetic space (White 1989). This refers to geopoetics where poetics is linked to a theory-practice 'which, via a synthesising of elements from many disci-

plines, sciences and arts, offers an orientation for future study, research and creation' (White 2006, p.81). White indicates here the transdisciplinary and theoretical characteristic of geopoetics. He describes a close and particular, poetic relation between theory and practice (*'La géopoétique est en effet une théorie-pratique'*). This theory-practice is the only way to establish a foundation and give perspective to all sorts of practices that tend to escape today from disciplines that are too narrow and to find a more lasting dynamic. The development of geopoetics into a field where something is put at stake (*un 'enjeu'*) requires, according to Amar, a double effort. It requires that people hold this double capacity: the ability to formulate a theory (in a comparison with Surrealism, Amar refers to 'Manifestos'), and the parallel ability to produce projects (*oeuvre*) that in themselves prove the fertility of the new foundations (Amar 1992). White states further that without theory one is going in circles, piling up comments and opinions; one gets locked up in fantasy, one loses oneself in the spectacular and drowns in details. But he states further that every valid theory has to be based on fundamental thoughts, has to be linked to a solid practice and has to remain open (White n.d.).

I believe that the kind of theory-practice relation that is described here in the context of geopoetics resembles the theory-practice relationship, I propose in the context of utopia-driven projective research in urbanism. I suggested earlier that a process of projective research is induced by a constellation of different design projects and theoretical frameworks, all circling around the same issues. More specifically, the interaction created between the design projects and the theoretical frameworks is considered constitutive to the research. A key-feature of projective research is therefore the particular relation between theory and practice. The question here is what kind of relation between theory and practice is envisioned in utopia-driven projective research?

7.2

THEORY-THROUGH-PRACTICE

One of the aims of developing utopia-driven projective research in urbanism as a potential research practice is shifting design attention into new frameworks for reconceptualising the way we inhabit our environment. This requires another perspective on the theory-practice relation than the approach, quite often used in urbanism, in which design principles are derived from theories developed in other disciplines (planning, sociology, environmental studies, economics). Design here is a kind of translation in order to test and implement theoretical insights. Instantiating, as it were, theory into practice, design often comes after some scientific theoretical models on different urban issues have been established – traffic models, ecological models, housing models. Since these theories are all developed largely within their own logic, design then comes in to bring the different logics together and to synthesise, to lubricate the frictions between different theoretical perspectives. In that sense, the relation between theory and practice in urbanism is somewhat problematic. Urbanism is a multidisciplinary field, and its different theories, each valid within their own discipline, cannot simply be brought together in urbanism practice. In practice the conflicts between theories come to the fore and then the question is how we will decide which theory will prevail, which then is often decided by the dominant group of stakeholders, the dominant ideology. Design is then expected to synthesise the different demands. Another problem is that theory exerts pressure on practice in the sense that a theoretical foundation or the lack thereof is often used to prove a design proposal deficient.

In my experience working in a conceptual design practice, another theory-practice relation is possible. I experienced that theory can gradually be developed out of design work – and it can be done best *if* this design work is *intentionally* directed to that aim. Design work here is done to explore possible new directions for theory construction. Starting from design instead of from a conglomerate of different theo-

ries, has the advantage that the focus is more on conceptualising the problem than analysing the problem. The outcome is a different type of theory – a theory that is, as said before, related more to sense-making than to problem solving. To explain this further, let's first clarify what is understood as theory. In the *Sage Handbook of Architectural Theory* the editors refer to the Greek origins of the term, *theoros* and *theoria*, which embody ideas of viewing and of sacred duty. They refer to Wlad Godzich who puts that the function of *theoroi* was to 'see-and-tell' in a way that offered an 'official and more ascertainable form of knowledge' (Crysler et al. 2012, p.12). Needless to say that the etymology gave rise to different understandings of theory whereby the conventional, scientific use of the term tends to emphasize the authorising aspect, aspiring a globally applicable system of concepts (Crysler et al. 2012, p.12). Less authoritative understandings of theory can be found in design-related contexts where theory is seen more as a tactic of reading and thinking. Hanna Landin refers to theory as 'models or conceptual frameworks for understanding and explanation' (Landin 2005, p.1). Katja Gretzinger explains theory as 'a system we create and use, that works like a field of vision, which allows us to perceive phenomena' (Gretzinger 2008, p.1). In the light of projective research, I would say that theory should not only be understood as models and conceptual frameworks for understanding and explaining but also for sense-making in the active, creating sense and hence, for design action. The more active, empowering role of theory can also be found in Hays's description of architectural theory as a practice of mediation which in its strongest form is 'the production of relationships between formal analyses of a work of architecture and its social ground or context, but in such a way as to show the work of architecture as having some autonomous force with which it could be seen as negating, distorting, repressing, compensating for, and even producing, as well as reproducing, that context' (Hays 1998, p.X).

According to Gui Bonsiepe, theory 'emerges in the duality of contemplation and action and that it presumes the materiality of what it is theorising about. Practice therefore initially has priority over theory' (Bonsiepe 1997, p.3). From the envisioned perspective of developing theory out of design or theory-through-practice Bonsiepe's notion

offers a good starting point. Stating that practice in a way comes before theory however does not define just yet what kind of interaction is at play between the two. For instance, there is a lot of architectural theory that originates out of an analysis of a body of design work retrospectively, like a kind of recent history. This kind of theory often describes the characteristics of a certain genre of design, explaining how and why it was done a certain way and relating it to a broader context. It relates to what Stan Allen describes as today's conventional view that 'understands theory as an abstraction: a set of ideas and concepts independent of any particular material instance. Practice, in turn, is understood as the *object* of theory' (Allen 2000, p.XV). This, however, is not the kind of theory I imagine emerging from utopia-driven projective research in urbanism. Neither does utopia-driven projective research depart from this kind of distinction between theory and practice. Instead of distinguishing between theory and practice, Allen proposes that

it might be more useful to distinguish broadly between practices that are primarily *hermeneutic* – that is, devoted to the interpretation and the analysis of representations (law, history, criticism, psychoanalysis, etc.), and *material* practices – activities that transform reality by producing new objects or new organisations of matter: engineering, urbanism, ecology, fashion, gardening or architecture. The vector of analysis in hermeneutic practices always points towards the past, whereas material practices analyse the present in order to project transformations into the future. (Allen 2000, p.XVII–XVIII)

In this respect, it is clearly the material practice that is involved in the notion of utopia-driven projective research. Bonsiepe says that theory is as differentiated as the practice on which it reflects (Bonsiepe 1997, p.4). I would add that the differentiation is also in the specific relation that is established between theory and practice. In other words: how is the duality between contemplation and action set in place? When aiming at something like theory-through-practice, the assumption is that something will emerge from the design process, and more precisely during the design process. This implies a very close interaction between theorising and designing and it implies that theory building is

part of the design process. This process refers also to the model-making and theory development relation, discussed in Part I. Landin states that work that is done in symbiosis with theory can be seen as experimental design. She states that the key element of being emergent is what is important with respect to experimental design (Landin 2005, p.3). I would say that this element of being emergent goes as well for the theory as for the design and that the aspect of being experimental applies not only to the design but also to the theory. The projective quality of the design is transferred to the theory. When discussing experimental design Landin refers to the critical design work done by Anthony Dunne. The design proposals Dunne presents in *Hertzian Tales* are all about questioning our relation to electronic objects. They do not intend to solve a problem; they intend to stimulate awareness and discussion. In that sense they are critical design. Dunne constructs a kind of theory in his thesis, although he himself says about his projects that they do not share a coherent theory. He describes his conceptual design proposals as ‘by-products of an investigation into a synthesis between practice and theory, where neither practice nor theory leads’ (Dunne 2005, p.XVII). He says that in his design ideas ‘theory and practice evolved simultaneously and are part of the same design process’ (Dunne 2005, p.XVIII). Dunne does not clearly explain how this process works. Therefore I wonder whether it is really theory that is developed out of the design proposals. Perhaps what emerges are instead ‘seeds’ for theory in the form of – as Dunne says – ‘stories and concepts’ like the concepts generated in M.U.D and COASTOMIZE!. These stories and concepts are, however, very important for providing the materiality Bonsiepe refers to as necessary for theorising. A question is also whether in the mentioned synthesis between practice and theory, theory here is existing theory (on electronics, ergonomics, sociology, user-centeredness) that he uses critically to develop unusual design objects. The critique seems more directed towards the value system that is embodied in design objects rather than towards the value system that the underlying theories embody. What is achieved is a transformed design approach. If and how the underlying theory is transformed is less clear to me. The discussion of design work and the theoretical perspectives Dunne offers are however not only thought provoking but also ‘theory provoking’ and in that sense quite effective

as a type of inspirational theory. Utopia-driven projective research aims at theory and practice evolving and developing side by side, as part of one and the same design process. Starting from critical, conceptual design and emphasising conceptualising instead of contextualising when relating to theory, seems to offer a possible way to get around the more common routine of problem solving and to broaden up the research field of urbanism with theory developed through design. Developing theory-through-design, establishing a close interaction between theory and practice, to my mind, is a challenge the field of practice-based research should take on. Jane Rendell points out that practice-based research is currently being further developed in discussions around the relation between theory and practice (Rendell 2004, p.143). In my experience, much of the debate on the position of theory in relation to practice-based research is focused on how much theory should be developed 'around' or next to the practice. There is much less attention to theory that emerges from practice in the way Dunne's does, though not explicitly, in his *Hertzian Tales*. Theory is often restricted to contextualising in the context of practice-based research. In utopia-driven projective research, however, theory is seen as an outcome of the research and design process.

7.3

SENSE-MAKING AND UTOPIAN DESIGN

The theory-practice relationship described above can be considered in many possible ways. A first specification of this relationship in the context of utopia-driven projective research I have argued, is that it concerns an area of research in which theory and practice are developed side by side. The success of this interaction largely depends on the way knowledge is transferred from one to the other and how they exert critical pressure on each other. This relationship is a complex one and cannot be reduced to mutual instrumentalisation in the way practice is

an application of theory, or theory a reflection on practice. What is at stake here is a complex, empathic relation between theory and practice to establish a *certain type of theory* together with a *certain type of practice*.

This brings us to the second specification, which concerns the characteristics of the theory and the practice involved in this constellation of theory-through-practice. In the above description of the relationship between theory and practice, practice is mainly considered to be the general design practice. However, in the context of utopia-driven projective research this is too broad a notion of practice. The practice that is brought into the equation here is the conceptual design practice the four design projects attest to. More specifically, the design characteristics of projectivity, imagineering and prefiguration are singled out as the key elements of a practice that is driven by utopian thinking and critical design. As already explained in Part II, reactivating utopian thinking in urbanism, to me, is a means to enhance a mode of intellectual and creative production that is focused on developing models and a conceptual frameworks rather than solving explicitly described problems. Connecting to the utopian mode means involving the strength of what Lynch calls normative metaphors that combine motive, form, and a view of the nature of human settlements in one connected statement, while remaining wary of the danger of introducing this as a universal model, valid for all people, time and places (Lynch 1981, p.285). A model seen in the utopian mode suggests that there is a connection between model making and theory development that involves knowledge of values. The production of models, then, always involves design work as well as theorising work, since it concerns not one particular design but a meta-frame upon which further design action can be based or related to. Utopian thinking here is a driving force because of its focus on generating ideas and motives that can be problematised or theorised into the construction of a frame that belongs to the field of Meta-Urbanism. To me, this provides some explanation for the particular kind of instrumentality of conceptual design projects and more particularly of utopian thinking in the construction of theory. Critical design is introduced in projective research, then, as a means to open up the space of possibilities and plays an important role as a form of criticality. In terms of theory and practice, critical design now seems to

present a contradiction in terms. At least that is how it is often perceived in design milieus. Rendell explains that criticism and design are generally considered separate issues. She notices that in architecture, since criticism does not usually produce 'buildings', it can't be thought of as design, and design, since it does not operate through 'writing', can't be thought of as criticism. Thinking the two together then seems very difficult. In her opinion however 'to think design and criticism together is productive, and demands that we call into question the definitions and assumptions that underpin both modes of activity'(Rendell 2007, p.4). Her proposal to bridge the split between design as material, subjective and embodied process, and criticism as an abstract, objective and distanced one, seems to me very relevant when rethinking the relation between theory and practice in practice-based research.

Cryslar et al. also questioned the theory-practice divide, with those engaged in critical, theoretical and interpretive work on one side and those involved in the creative and manual work on the other. They state that 'architectural theory can be characterised as a style of thinking that is constitutionally, if not always avowedly, open to the material and pragmatic dimensions of the built environment. And, because architectural modes of building are self-conscious, considered and inherently theoretical, this can be said to be a reciprocal principle' (Cryslar et al. 2012, p.16). Irit Rogoff expresses a similar viewpoint:

In the context of a question regarding what an artist might be, I would want to raise the question of what a theorist might be, to signal how inextricably linked these existences and practices might be. The old boundaries between making and theorising, historicising and displaying, criticising and affirming have long been eroded. [...] Now we think of all of these practices as linked in a complex process of knowledge production instead of the earlier separation into creativity and criticism, production and application. If one shares this set of perspectives than one cannot ask the question of 'what is an artist?' without asking 'what is a theorist?' (Rogoff 2003)

Having described the kind of practice that is at play in the theory-practice relation, the question now is to articulate more precisely the

type of theory that is envisioned. The theory that is developed through this utopia-driven projective research should have similar characteristics as the design practice upon which it is based. It will therefore differ from other theories that are commonly building the field of urbanism, including the sciences, social sciences and the humanities. From a (especially natural) science perspective, theory is mostly understood as based on observations of phenomena, a description of reality, empirically testable and verifiable or falsifiable. Mo shows that in the social sciences theories have a greater range than in natural science – there are multiple theories and theory is under-determined by observation (Mo 2001, p.88). Humanities then, according to Mo, have yet another relation to theory. ‘Research is not done to build cumulative theory, but a conclusion is often justified by showing that it is consistent with “established knowledge”, or theory comes in as a surprising part of a new interpretation’ (Mo 2001, p.113). The humanities, she says, are not looking for the abstract and timeless knowledge other sciences are looking for. The difficulty for architecture, and to an even greater degree for urbanism, is that these multidisciplinary fields involve a great deal of these sciences and their respective theories. So what concept of theory is then valid here?

As stated previously, the theory that is generated is a form of sense-making. Critical design and utopian thinking deal with reality in such a way that clues from another, latent reality are selected and foregrounded such that they can provide points of reference for linking ideas to a broader context of meaning. Embedded in a process of utopia-driven projective research, this serves to develop a larger sense of what may be occurring or what people might want to occur. In this context of collective, transdisciplinary sense-making, the theory I envision is mainly about conceptualising different realities and by doing so, developing a framework from which design action can take place. This is not to say that this kind of theory will be like a procedure on how to design that leads to a kind of design method, nor is it about merely formulating and revealing the hidden assumptions in current design focus. The focus is instead on what to consider a design assignment, the development of the problem space. In that sense it is a theory that holds something of a pre-design characteristic. It is a theory that is

orientated to the future, that anticipates. Instead of analysing the existing or the past, this type of theory enables us to analyse or rather to validate, to attribute meaning to the not-yet-existent, the possible future, based on conceptual design projects. And this is different from studying the future based on trends and prognoses. In that sense this notion of theory corresponds to a description of critical theory Rendell gives when she says that ‘this kind of theoretical work provides a chance to reflect upon what is there, but also to imagine something different, to question and transform rather than describe and affirm’ (Rendell 2004, p.145). The theory developed through utopia-driven projective research is also in line with Crysler et al. when they propose ‘theory as a social practice, thus expanding the architectural meaning of the term “practice” beyond its typically professional connotations, to one that refers to routines, habits of thinking, social and intellectual relationships that shape theory’ (Crysler et al. 2012, p.17). They propose that ‘theory must be open to continuous revision and change if it is to represent and intervene in the relationship between the built environment and the changing conditions of the world at large’ (Crysler et al. 2012, p.17). Hays then states that ‘like architecture itself, theory is an appetite for modifying and expanding reality, a desire to organise a new vision of a world perceived as unsatisfactory or incomplete – such will always be architecture theory’s proper utopia’ (Hays 1998, p.XIV).

One aim of this specific connection between theory and practice is to free theoretical understanding as well as design imagination, as modes of intellectual and creative understanding and production, from limiting conditions and preconceived assumptions. As stated earlier, the success of theory-through-practice relies on how knowledge is transferred from theory to practice and vice versa. In a way, we could say that an interaction is established here between discursive intelligence and design intelligence. And this is reflected in the type of hypothesis development that is operating in utopia-driven projective research. One specific characteristic, for instance, is that the hypothesis is embodied, situated and material in the sense that it is embedded in an artefact, which is a different situation than the abstract, purely theoretically developed hypothesis. As explained earlier, using critical de-

sign and utopian thinking is about hypothesis development by design and more particularly by *projectivity*. This type of hypothesis development I consider an essential step in a sense-making process. Because the specificity of the effort is that it is *collective and transdisciplinary* and the accomplishment *on-going* and never-ending, I attribute to this kind of hypothesis the role of motor of a continuous process. Therefore, I would like to further specify this hypothesis as *mediative hypothesis*. The aim is to induce the dynamics of mediating different possibilities, visions and desirabilities. I chose the term mediating rather than negotiating because negotiating is more connoted to power struggle while mediating is more orientated to connecting and enabling transition. Furthermore, mediating supposes the agency of a medium, which means that in the context of projective research the design project, the artefact serves as a medium for transition. The notion of what I call mediative hypothesis somewhat resembles what Thomas Fisher calls the 'fiction' in architectural design. He refers to Hans Vaihinger, who 'thought that all creativity involves the making of fictions, which he called "hybrid and ambiguous thought structures used to attain a purpose indirectly"' (Fisher 2000, p.53). Fisher then points to the difference between a hypothesis and a fiction: 'In a hypothesis we posit an idea capable of being shown to be true, while with a fiction we create ideas that may or may not be true, but which are useful in provoking thought, eliciting comment, clarifying an idea' (Fisher 2000, p.62). These descriptions of a fiction resonate with the role of a mediative hypothesis in the context of poetic knowledge building where the issue is not to prove a hypothesis to be true. The mediative hypothesis serves to move through a process of sense-making by making the most abstract ideas concrete. The mediative hypothesis is therefore a powerful tool in the theory-practice relation envisioned in utopia-driven projective research, since this type of hypothesis, being materialised as a projection and an artefact also mediates between theory and practice, between abstract and concrete, between discursive intelligence and design intelligence. Mediative hypotheses by means of utopia-driven projections also have this sense of being irreducible, attesting to the poetic mode of knowledge building. The prefigurations always seek to project the wholeness of a situation over and over again from ever-shifting perspectives in a re(peated)-search. A designerly hypothesis is used

here as an angle from which to construct the whole, not as a partial problem to address, it is rather an instance to think the whole again. Every projection in a series of mediative hypotheses is manifesto-a-like and does not serve to be tested, but to reset our view of the whole. Thus the hypothesis is each time reset, relocated and pushed forward. As a whole they continue to indicate direction, though they are not final or definite in themselves. The issue here is not problem solving but sense-making, an *open-ended* process. This is an essential characteristic of utopia-driven projective research.

Chapter 8.

THE FIELD OF META-URBANISM

Sense-making, as discussed in the previous chapter, can be considered a type of theory construction. Sense-making through utopia-driven projective research then addresses Scharmer's question: How can we learn to better sense and connect with a future possibility that is seeking to emerge? Sense-making through design here is orientated to reframing, in Scharmer's terms: changing the underlying pattern of thought. The underlying assumption in this thesis is that, in a situation of systemic unsettlement, this kind of reframing is necessary and hence, we should invest in developing approaches and modes of thought that are orientated to it. Linked to this I also propose to establish a field⁴² in which this kind of reframing actions can be positioned.

In Part I it was stated that urbanisation is an instantiation of the ruling worldview whereby macro and meta-systems act as often unnoticed form-giving factors. In a general sense this worldview can be understood as the undercurrent, the latent concept of territory. From this perspective, creating reconceptualised urbanisation models via utopia-driven projective research can contribute both to the theory development of the currently evolving situation and to the investigation of the spatial consequences of a redirected worldview. My proposition is that this kind of questions and study has to be positioned in a proper field, which I call Meta-Urbanism. The field of Meta-Urbanism is one in which the underlying patterns of thoughts and concepts of territory are explored.

In the context of unsettled urbanisation the need to reframe is translated into the need to transform the constellation of concepts, values, and practices that structure the human-environment interaction. The research approach developed here aims to answer the question: how can design help to make such a constellation that is already emerging (see, for instance, the renewed interest in landscape, movements as geopoetics and urbanism), more complete and more mature as a framework for thoughts and actions? A framework that structures the interaction between people and environment is culture-shaping and culturally shaped, and therefore based on values and preferences of a community. Since design, being concerned with what could be, is intrinsically a normative activity, I think a designerly way of knowing can contribute to the elaboration of such a framework. Hence, I propose utopia-driven projective research as a tool for exploring the field of Meta-Urbanism. In the following section I will explain the relation between conceptual design, the latent level of urbanism and Meta-Urbanism.

8.1

OPERATING ON THE LATENT LEVEL

In the light of elaborating frameworks that structure the interaction between people and environment, the challenge is to clearly identify what values are to be chosen and to make sure they are coherent and represent long-term expectations. Furthermore, the frameworks searched for here in the field of urbanism must be part of a greater, over-arching frame that is built up transdisciplinarily and that is embedded in on-going societal and cultural changes. Essential is that there is a multiplicity of possible frameworks that can co-exist and that these frameworks are never fixed or closed. This is important to the creation of diversity in human settlements that actualise different worldviews,

thereby enhancing the resilience of the overall habitability of the world. It requires the acknowledgment of the simultaneous existence of different realities that overlap and interfere but cannot and must not be reduced to one single reality as is the tendency in a globalised, urbanised world. The coherence or dynamic interaction we seek is always in motion and creates an undercurrent, the direction of which influences what is actualised in manifest reality. In urbanisation the generative power of the undercurrent can be seen as the continuous tension and dynamic interaction between spatial materialisation (static) and social processes (evolving). Lynch points in this respect to what has often been considered the problem of utopia: 'Most utopian proposals lose track either of space or of society. There are brilliant spatial fantasies which accept society as it is, and social utopias which sketch a few disconnected spatial features, in order to add colour and a semblance of reality. Their spatial proposals are as banal and conventional as are the architects' thoughts of society' (Lynch 1981, p.293). David Harvey argues that this problem of the relationship between space and society, between form and process, has to do with the fact that to materialise a space is to engage with closure (however temporary), which is an authoritarian act. That is why realised utopias often are a disillusionment and often run afoul with the social processes. However, a utopia of social process, an ideal emancipatory process, left without actual space, according to Harvey, remains frustratingly undefined (Harvey 2000b, pp.182–183).⁴³ The main challenge here, in my opinion, is not to jump from a projection to a realisation. It requires a thoughtful process of extracting from the projections those elements that, via appropriate translation, can become materialised so that this materialisation can happen. As a driving force of this on-going exploration I propose utopian thinking, producing mediative hypotheses that serve to mediate between materialisation (space) and social processes (time). Actively engaging with this continuous movement is the purpose of utopia-driven projective research. It engages with the undercurrent in which the main form-giving principles are being created and which I propose to position in the field of Meta-Urbanism.

The field of Meta-Urbanism is currently not established in a systematic way, or as a field as such. Each of the many different disciplines involved in urbanism delivers aspects of this undercurrent or founda-

tional level. The genre of information they provide has mainly an analytic character, describing tendencies in society, economic and political evolutions, technological possibilities, etc. The utopian design I propose to use has the potential to capture both the processes and the material form in one connected statement. The genre of information this provides is statement-like or manifesto-like, which includes values and preferences. This genre of information I consider indispensable in the on-going process of sense-making and a *conditio sine qua non* in situations of unsettlement when explicit knowing offered by analysis does not suffice anymore. In this respect, I believe conceptual design projects like the ones discussed here, when made operative in a utopia-driven projective research context, can actively establish Meta-Urbanism as a field of study and a field of operation.

So the issue here is to clearly establish this specific level where these kinds of projects can be instrumental and effectively operational. From Part II it is already clear that conceptual design projects do not act on the level of professional practice – understood here as the ‘daily’, commission-driven, building practice. It was suggested that they are more effective and active on the level of model-making and theory construction. Both model and theory understood here in the normative sense (model for and theory for), thus indicating a concern with resigning and reconceptualising. This theorising is not only different from other forms of urban planning theories in the way it is constructed (through design); it is also different because it is orientated to what I call the latent level of urbanism whereas most urban theories are studying the manifest level. In other words, it is about theorising on the meta-level of urbanism. Conceptual designs here are used to explore the latent in a process of utopia-driven projective research. As said before, the conceptual design projects are mostly considered not to be part of reality. They are at best appreciated as being inspirational, but are generally considered not useful or relevant to the field, causing the previously mentioned feeling of an action-deficit.

I would argue this is due to a mis-location of their place in the knowledge building process. They are supposed to operate on this latent level, creating the underlying set of (p)references from which actualisations in the form of concrete design projects can take place. So one

must be aware of these different loci of reality and operative levels because the criteria for evaluating the relevance or feasibility of projects become incommensurable if these different levels are mixed up. Focussing on the latent seems particularly relevant when investigating issues that cannot be handled by mere problem solving or by 'curing symptoms'. At that point, the constellation of concepts, values and practices that structures the interaction between people and environment needs to change, to be diversified and to be opened up to other possibilities. For instance, the current issues that affect our physical environment demand solutions that do not seem to be possible in the existing situation or reality. In other words, there is a need for transforming the interaction between man and the environment. The problems of society are so fundamental that reconsideration of the entire society seems more necessary than ever. That is why we cannot speak of a management problem as we so commonly do today; instead we must speak of a civilisation impasse. There is a growing conviction that many issues (to name just one: water management due to climate change) can no longer be solved merely by 'curing symptoms' (as in 'raising the dikes'). The spatio-temporal scale, interdependency and the enormosity of the problems are such that curing symptoms becomes just as never-ending as are the analysis and collection of data about the problems. This means that we have to change our view, to change the mono-perspective of reality and of the world. In the context of urbanisation, the latent can be considered to be our vision of the way we inhabit our environment, in a broader sense a worldview, and this has a clearly ethical dimension. The idea is that designers should contribute to the development and formulation of the (p)referential latent, which in a way translates the common interest into spatial consequences instead of exclusively concentrating on the manifest program as it is defined by the client. A manifest program never has real meaning if it is not framed within a wider interest, a broader sense-making that surpasses the pure individual or local interest.

8.2

CONCEPTUAL DESIGN'S POTENTIAL TO ACT ON THE LATENT

Any systematic approach to try and delineate this meta-level of the 'reconceptualising action' must start from the basic conceptual distinction between events and changes that can be predicted to some extent (scientific analysis e.g. the rising level of the sea due to climate change) and their evaluation (design e.g. the values that people assign to events or things). The difference between the two is that while many may agree on what is visible, usually few agree on the actions to be taken. It is on this level that conceptual design projects operate as an effective mirror. To take an example from the projects, there is agreement on the need to revise the coastal defence system but few agree on the way this should be done. The M.U.D project, for instance, doesn't offer a choice as something to endorse or condemn, something with which to agree or disagree, since it is no masterplan and not intended as such. What it does is to raise awareness concerning access to public resources and to question the defensive attitude that is presently dominating the design of coastal areas and generally dominates quite a large part of the ecological movement that advocates conservation. The partial removal of the dike and the flooding of the hinterland represents no return to nature, since it will damage existing ecological conservation areas. Through this inverting of defensive attitudes and the introduction of ambivalence over the status of the coastal zone, the project induces critical debate on concepts of territory and concepts of ownership and use.

Typical for this type of project is that a number of potentially interesting conceptual principles and design operations have emerged from the manifest-like proposals but these remain largely embedded in the particular project and there is little progress to a next level. What is lacking is further exploration not of the designs themselves but of the underlying principles and concepts, and trying to establish a frame of reference

– a model or theory – for urbanisation instead of remaining in the statement on urbanisation. However, this does not imply that the statement or manifesto character must be abandoned, because this is precisely what is fundamental and therefore essential to preserve in conceptual design. It is precisely in the power of the statement that the critical and questioning approach of conceptual design is fully effective and helpful – like a catalyst – in the creation of an underlying framework for diverse, concrete design projects. To go from critical to utopian, then, is to grasp the re-signing qualities of the statement and use them in a series of mediative hypotheses as constitutive elements for a framework that effectively reconceptualises matters. Hence the proposal to embed the projects in a utopia-driven projective research process. The set of guiding principles that is developed thus is meant to be further elaborated into a tentative framework of (p)references that is present in the background. Because it is operative in the background, causes me to adhere the adjective ‘latent’ to this framework. In etymological dictionaries ‘latent’ is explained as ‘to lie hidden’, ‘to be hidden’, ‘to lie in wait for’, ‘dormant’. Thus latency – what is concealed – is in a way the demonstrable presence of a possible future. Conceptual design projects focus on the critical questioning of what is presented as the problem. Instead of looking for a solution, they push the limits of the problem space, and in so doing, open up the space of possibilities. In his research on design cognition, Ömer Akin specifically addressed the way (architect) designers focus on restructuring problems. He states that architects stubbornly keep looking for alternative solutions for a design problem, even if perfectly satisfying solutions are already found. In one of his test-cases, Akin presented architects with a rectangular space with a lay-out that permitted only one good, functional solution to the design problem. Nevertheless, the architect-participants produced on average four different proposals. This indicates that the designers, rather than looking for the solution already inherent in the problem as it was formulated, tried to restructure the problem such that alternatives – which are different from variations on the expected solution – could be designed. In this example, we can assume that the architects couldn’t design alternative solutions, if they didn’t redefine or in fact, re-sign, the notion of ‘functionality’. Akin calls this ‘redefining the constraints of the problem space’ (Akin 2001). In conceptual

design, the focus is very much on this redefining of the constraints of the problem space, and hence on redefining or re-signing the problem. So the latent frame is not some neutral thing, waiting to be discovered, but needs to be actively constructed as a frame of preferences by pushing the constraints of the problem space. In this respect, again the issue of distinguishing between what can be seen (perceived reality, as 'facts') and what we want to do (possible reality) is important. Certain facts only receive their reality character within a frame of (p)reference. For instance, the data gathering that constitutes the 'facts' will change if the latent frame, the frame of preferences is changed. As Lemaire formulates it: 'Facts do not exist beforehand, to be collected. They only become visible as facts within the perspective of a paradigm' (Lemaire 2002, p.300).

8.3

THE ASPECT OF CREATION IN THE LATENT

As is already beginning to show in the previous section, the latent has to do with the relation between the possible and the real and with the relation between present and future. Regarding the possible the French philosopher Henri Bergson observes that 'there is especially the idea that the possible is less than the real, and that, for this reason, the possibility of things precedes their existence. They would thus be capable of representation beforehand; they could be thought of before being realised' (Bergson 1974, p.100). This implies the idea that the possible is simply there, waiting to be revealed. This is close to the definition of the latent as something that 'lies in wait for' and Bergson critically questions this viewpoint. According to him, the idea immanent in most philosophies, and natural to the human mind, of possibles that would be realised by an acquisition of existence, is a pure illusion. He illustrates this by saying that

one might as well claim that the man in flesh and blood comes from the materialisation of his image seen in the mirror, because in that real man is everything found in this virtual image with, in addition, something which makes it possible to touch it. But the truth is that more is needed here to obtain the virtual than is necessary for the real, more for the image of the man than for the man himself, for the image of the man will not be portrayed if the man is not first produced, and in addition one has to have the mirror. (Bergson 1974, pp.101–102)

The interesting thing here is the remark that more is needed for the virtual than is necessary for the real. What he is saying is that the virtual (to be compared with the possible or the latent) has to be created – by adding the mirror and putting the man in front of it. Thinking this through regarding the issue of the latent discussed above, this would mean that the challenge is not *revealing* the latent but rather *creating* the latent. In their critical quality conceptual design projects are often very good at precisely providing this mirror and reflecting the potential of the real. Seen within the field of urbanism and starting from the desire to reframe the human-environment interaction, settling for revealing hidden potential is not enough. As I've said, this leads to a kind of action-deficit in design. Design action is indeed needed to create this frame, which is latent not in the sense of lying in wait to be discovered but in the sense of continuously working in 'the back of the mind' and resulting in increasingly diversified forms, which together actualise a certain goal or objective.

The main concept that Bergson wants to contest in the discussion of the relation between possible and real, is that the image of tomorrow, one way or another, would already be contained in our actual present. According to Sanford Kwinter 'this static view of things has dominated nearly all aspects of Western culture, ... most significantly throughout its modern scientific culture' (Kwinter 2001, p.7). For Bergson this conception of possible and real, present and future, is an illusion and also a kind of 'nightmare' because that would mean that the future is outlined in advance. By affirming an ideal pre-existence of the possible to the real, he states, the new is reduced to a mere rearrangement of former elements, and this rearrangement risks then to be regarded as

calculable and foreseeable (Bergson 1974, p.104). This is what often happens in urban research: current trends are analysed and extrapolated into the future. The space of possibilities is then reduced to the space of probabilities. This is thinking about the future in terms of prognosis rather than inventing or creating the future. The kind of design operative here is one I have already referred to as 'affirmative design'. It affirms reality as it is commonly perceived, stays largely within existing paradigms and is mainly based on analyses. In conceptual design however, the question is in no way about prophesying or controlling the future. It is more about creating something that opens up new and unexpected perspectives.

The latent drives, guides, generates form in actual and physical reality. The problem of form lies of course at the heart of every design practice. However, and especially in the case of urbanisation, form must not be interpreted too narrowly. Kwinter says that 'the use of the term "form" must not be interpreted in the poor sense as in "formalistic", but in reference to the largely unthought-of dimension of all active patterning processes in the universe, comprising linguistic, social, political, and biological behaviours and forms, in addition to aesthetic ones' (Kwinter 2001, p.6). Kwinter discusses the emergence of form in relation to the notion of 'virtuality', which is based on Bergson's concept of the virtual. Kwinter's understanding of 'virtual'⁴⁴ may be an interesting complement to the idea of the latent frame. The term 'virtual', although it has also an aspect of being hidden and invisible, has a more active or activating aspect than the term 'latent', which bears a more passive connotation. Kwinter says about the virtual that it does not have to be realised, but only actualised – activated and integrated – and that the actual does not resemble the virtual as something pre-formed or pre-existing itself. The relation of the virtual to the actual is therefore one not of resemblance but rather of difference, innovation or creation (Kwinter 2001, pp.9–10). Kwinter then refers to an artwork of Hans Jenny to illustrate his point about the virtual. Jenny's work is titled 'Kinematic Images' and dates from 1967.

In these kinematic images standing waves are generated by sinus tones emitted across steel plates by crystal oscillators. A mixture of sand and superfine lycopodium powder forms the outline of the resultant shapes as it is transported across the plate surface into virtual troughs between the more highly activated areas of the field. One can discern a specific and uniform underlying pattern or texture 'beneath' the resultant figure that is a joint property of the metallurgy of the sounding plate and of the tone that moves through it. This underlying pattern is itself never reproduced, but remains virtual. The actual pattern (the sand-lycopodium figure) always expresses a variation or development of its virtual form – built on the template but continuously variable and varying. Both the actual and the virtual structure are legible in the same image, though their ontological status remains perfectly distinct. (Kwinter 2001, p.9)

The kind of underlying pattern that is created in this art work is somewhat analogous to what I call the latent frame. This example also shows that this pattern is not just present but needs to be created. Even more, this underlying pattern is the core generative force of the resultant design.

8.4

UTOPIA-DRIVEN PROJECTIVE RESEARCH AND META-URBANISM

A conscious (critical) relation between the latent and the manifest reality is necessary to give meaning and fresh input to the way we inhabit our environment. While design focus is mostly on the latter, the actual, manifest reality, the point I want to make is that the latent also needs design attention. Conceptual design projects, in creating the latent frame, are working in the dynamic relation between the manifest and the latent, between the concrete and the abstract. They act like a

hinge between the two planes, being on the one hand concrete design projects and as such related in some way to manifest reality but on the other hand not intended to become realised and instead looking for concepts and values to create the (p)referential latent, wherein the projects that have to be actually realised will be embedded. In urbanism, the latent field is usually considered to be developed purely ‘theoretically’, by other disciplines. Design then is mainly orientated to translating these theoretical understandings into spatial arrangements on the level of manifest, actual reality. Without denying the necessity of these theoretical understandings developed by other disciplines, the point I would like to make is that design also has a role to play at this latent, theoretical level. The purpose of utopia-driven projective research is to bring design in its qualities of projectivity and imagineering into a research process that is directed to explore this latent field and to constitute the field of Meta-Urbanism. In concrete terms this means that conceptual design projects such as the ones discussed in Part II are brought from a purely design practice into a research context. The act of designing then takes on another meaning and finality, since working on this meta-level of the latent requires the adoption of a different attention and intention towards the world. It requires a utopian state of mind that uses projectivity and imagineering to deliver prefigurations, not as models of a possible future but as probing instruments to explore the deep layers of our collective will, the substrate of a worldview that is always in motion.

In Meta-Urbanism the design qualities of projectivity and imagineering are used as a *complexified form of testing*. Meta-Urbanism has to be understood as a space of sense-making, a space of signification. It offers urbanism a laboratory of permanent value-testing before the future, a space for collective, inclusive sense-making – that is, exploring the desirability and relevance (rather than feasibility) of ways to inhabit the environment. In spite of all the sophisticated analytic and prognostic tools that have been developed, the only certainty we have is that the future still remains unpredictable because the future is not something to reveal or predict but to create. And this brings the ethical dimension again to fore. Today everything is tested before production. An industrial product can be tested by dummies; on a bigger scale we can evalu-

ate concept cars or crash tests; and even in some cases the relatively small architectural scale can be verified through experiments. What we see in urbanism is that the scale and scope of the design activity has become so big that the difference between the 'testing instrument', which is the scale model and the reality has become too large to be reliable. The urban scale, with its immense cost and impact, cannot use any similar intermediate tool to be tested in advance in the same sense. Hence the model is reduced to a very abstract level and the 'test' is substituted by large numbers of studies and reports of possible effects (social, economic, traffic, environmental impact studies). The outcomes of the studies are then compared in order to come to a decision using a range of different evaluation methods. Nevertheless, the impact of urbanisation is almost immeasurable and extremely unpredictable for society. In this extreme out-zooming and complexified form of design, where the ethical reaches a whole other dimension, the testing tools described above do no longer suffice. They have to be expanded or enriched with sense-making tools. Utopia-driven projective research positioned in the field of Meta-Urbanism aims to offer this space of collective sense-making as a fundamentally different approach to 'testing'. This does not imply that the testing is removed but rather that there is a kind of complexification of the testing. Complexification means in this context aiming at a richer, less reductive concept of testing. The main element to achieve this refers back to the notion of comprehensive problem setting and encompassing rationality, discussed earlier, and more particularly the integration of scientific modes of knowledge production and design-based, poetic modes of knowledge building that is envisioned. As previously argued, I consider the genre of design that uses projectivity and imagineering, both belonging to the poetic knowledge paradigm, to be essential for achieving this comprehensiveness, or this complexification.

This kind of complexification is needed because in the field of Meta-Urbanism the emphasis is mainly on conceptualising and reframing, while in the field of urbanism the emphasis is rather on analysing and correcting. Both reframing and correcting contribute to the overall transition to other ways of thinking and acting. However, they use different strategies to achieve this. Correcting uses the operation of

‘downloading’ – thinking from present to future. Reframing is based on ‘sensing’ – thinking from future to present. Each is the other’s necessary complement to achieve change. If we return to Scharmer’s three levels of response to problems, we see that although the levels of reacting, redesigning and reframing are all more or less present in urban theory and practice, the immediacy of the present and its problems causes the level of reframing to be somehow marginalised and considered of no clear operative or instrumental value. Hence, the proposition to establish Meta-Urbanism as a field of study where the focus is more distinctly on this level of thinking from future to present. Taking the perspective of ‘thinking anew’, then, is intended to address the level of reframing, changing the underlying pattern of thought. Designing in this context is orientated to exploring the concepts of territory, which is inherently about exploring evolving worldviews.

Meta-Urbanism then studies how the worldview of a people generates deep-rooted form-giving principles of urbanisation. Concerning the topic of urbanism the links that were made to worldview, worlding and the general concept of territory might be perceived as a movement of extreme out-zooming. In fact, the study zooms in on a level that, in my opinion, is only marginally investigated in urban research: the macro or meta-level where some of the main form-giving principles of human settlement’s spatial format are rooted. In the context of unsettlement I consider it especially relevant to connect, sense and probe this foundational level more consciously and actively. The currently dominant concept of territory is one of eternal growth and consumption of space, challenging the limits of the planet. But another concept is growing, one that is concerned with worlding. Motives of worlding are inherently concerned with a repositioned anthropology and cosmology. Findeli states that

any design project evolves between the two poles of anthropology and cosmology. The underlying anthropology of design usually is reduced to anthropometrics, ergonomics, and consumer psychology and sociology. [...] A contemporary anthropology will have to take into account the complex interplay and relationships of the various layers and subsystems which build up the inner world of the thinking, feeling,

and willing human being. Conversely, the outer world is much more than what even environmentalists and ecodesigners call the environment, usually reduced to its biophysical aspects. Here, we also are dealing with various interrelating subsystems, which function and evolve according to very different logics: the technical or man-made world, the biophysical world, the social world, and the symbolic world or 'semiocosm'. These inner and outer worlds interact with each other. (Findeli 2001, pp.5–6)

Human-environment interactions are understood here not in the narrow biological dimension but extended with cultural and spiritual dimensions – what Findeli calls 'general human ecology'. To Findeli design research, and more particularly project-grounded research, is precisely about the systematic search for and acquisition of knowledge related to general human ecology (Findeli 2010, p.293). In Meta-Urbanism the design attention is orientated to explore how shifts in this anthropology-cosmology relation might inspire new spatial concepts and vice versa. The aim is to study the deeper layers of the concepts of territory, ranging from how our worldview and world-systems (like capitalism) influence the spatial format of urbanisation to how other notions of ownership and commonality (like prevailing on the sea) generate different planning principles (like spatio-temporal).

The movements of orbanism and geopoetics can then be considered as belonging to this field of Meta-Urbanism. They already delineate certain areas of study regarding such deeper layer of concepts of territory in the way they foreground the aspect of worlding and a more balanced human-environment interaction (as expressed in notions such as land ethics), as guiding principles. As to how to conduct the study both in orbanism and geopoetics poetic knowledge building is foregrounded as an essential element of the transdisciplinary sense-making that is envisioned in Meta-Urbanism.

By now I have further specified the type of poetic knowledge building operative in Meta-Urbanism as utopia-driven projective research. Utopia-driven projective research is used here to open up the space of possibilities, rearticulate goals (what do we want?), look for values and

preferences, establish the desired direction for change and actively construct a frame of meta-principles that can generate shifts in concepts of territory and consequently reconceptualised urbanisation models. The conceptual design projects that are operative in utopia-driven projective research are the medium through which this is achieved. They create the material that in interaction with theoretical studies results in a landscape of thoughts and design questions. This brings us back now to the point of departure of this study, the four conceptual design projects. What material did they provide to the field of Meta-Urbanism? Did they articulate values and preferences, directions for change and a frame of meta-principles? As elaborated in Part II, each of the projects individually presents statements on urbanism. However, it was bringing them into interaction with one another and with theoretical frameworks that made the underlying, more fundamental issues emerge and that eventually resulted in a set of meta-principles regarding habitability⁴⁵ on different levels. The principles of geo-tolerance, commonality, spatio-temporality and immune structures presented here stand somewhere between the very general and abstract movements of urbanism, geopoetics and worlding and the very particular and concrete design projects *The Unadapted City*, *M.U.D*, *COASTOMIZE!* and *The Future Commons 2070*. They are on the one hand an abstraction of some of the values and preferences expressed in the projects' urbanisation models and on the other hand a concretisation towards urbanisation of some of the values expressed in the general frameworks of worlding, urbanism and geopoetics. The next step would then be to bring the abstract motives that are expressed by these meta-principles again to concreteness by a successive series of conceptual design projects (projections) based on design assignments that can be deduced from the description of the meta-principles.

By bringing together design, research and theory construction, or more specifically projectivity and imagineering, utopia-driven projective research and sense-making, the field of Meta-Urbanism aims to construct a horizon, not as an ideal goal to be reached in the near future, but rather as something that gives a direction and a set of navigational principles. As such, Meta-Urbanism concerns the quest for continuous shifts, adaptations and creations of paradigms for urbanism. It

explores the vision of the way we inhabit our environment and studies to what extent the elements constituting the paradigm or latent framework can be selected and developed by adding new values and making the framework more coherent. The study so far mainly created the awareness of this level of Meta-Urbanism and the approach fitting it, utopia-driven projective research. The further development of Meta-Urbanism will be part of future research.

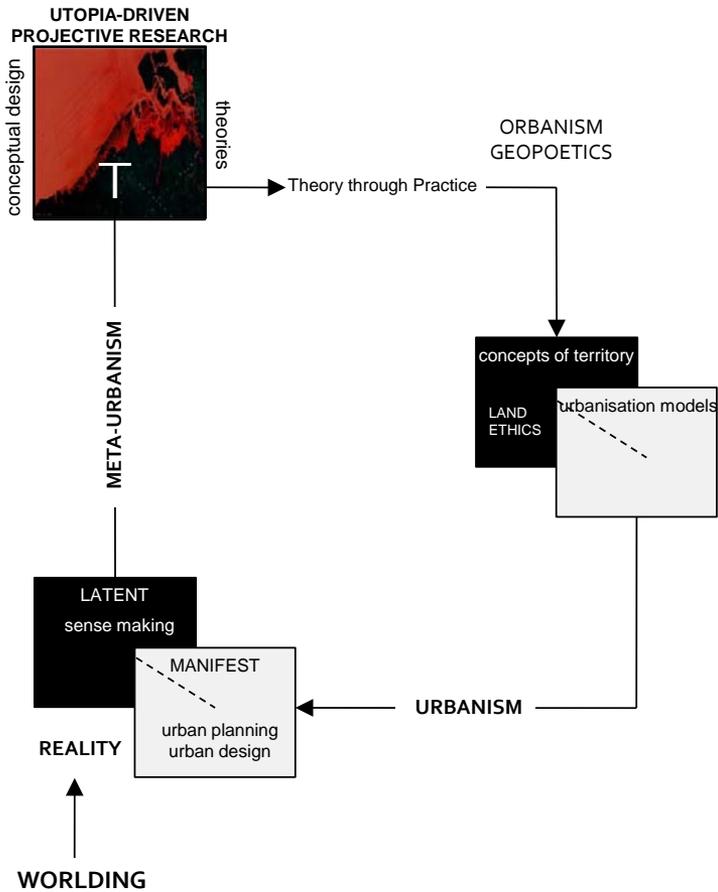


DIAGRAM - PART III

The diagram maps the key concepts discussed in the previous chapter. In the legend to the diagram the concepts are organised alphabetically and described as they are understood in the context of this thesis. The description is constructed from the discussion in the text and represents how I developed an understanding of the concept.

Meta-urbanism: Provides a space of collective, inclusive sense-making, with a broad spatio-temporal vision. The aim is to create a medium in which the desirability and relevance of ways to inhabit the environment can continuously be reframed and reconceptualised, a medium in which concepts of territory are explored in the context of worlding. Designerly thinking assumes an investigative role and produces visionary theoretical models that create a (p)referential latent by projecting a possible (desirable) future. Projectivity is used to focus more distinctly on thinking from future to present. The models serve as probing instruments to explore the deep layers of our collective will, the substrate of the worldview which is always in motion. Meta-Urbanism is a transdiscipline that is characterised by the integration of scientific modes of knowledge production and design-based, poetic modes of knowledge building. Meta-Urbanism concerns the quest for continuous shifts, adaptations and creations of paradigms for urbanism. Therefore, it studies how the worldview of a people generates deep rooted form-giving principles of urbanisation. The design attention is orientated to explore how shifts in this anthropology-cosmology relation might inspire new spatial concepts and vice versa. The aim is to study the deeper layers of our concept of territory, ranging from how our worldview and world-systems (like capitalism) influence the spatial format of urbanisation to how other notions of ownership and commonality generate different settlement principles. Meta-Urbanism is a field of exploring refram-

ing actions, a context for comprehensive problem setting in urbanism and as such aims to construct a horizon, not as an ideal goal to be reached in the near future, but rather as something that provides a direction and a set of navigational principles.

Mediative hypothesis: Hypothesis development by design and more particularly by *projectivity* in a context of poetic knowledge building. This type of hypothesis development serves as the motor of a continuous process of sense-making. The aim is to induce the dynamics of mediating different possibilities, visions and desirabilities. The mediative hypothesis serves to move through a process of sense-making by making the most abstract ideas concrete. Being materialised as a projection (artefact) it also mediates between theory and practice, between abstract and concrete, between discursive intelligence and design intelligence. It is a type of designerly hypothesis that provides an angle from which to construct the whole. It does not serve to provide a partial problem to address, but rather as an opportunity to reconceive the whole again. Every projection in a series of mediative hypotheses is manifesto-a-like and does not serve to be tested but to reset our view of the whole.

Re-signing: Here understood as 'giving a renewed significance', 'another meaning', 'a new sense', 'to sign again'. Re-signing can be considered an act of reframing and of sense-making and both these activities are a form of theory construction. It operates on the

latent level. Re-signing can be seen as the core activity in the field of Meta-Urbanism while designing (in the traditional sense) is the main activity in the field of urbanism.

Sense-making: Creating situational awareness and understanding in situations with high complexity or uncertainty. Sense-making is an active two-way process of fitting data into a frame and fitting a frame around the data. When there is no adequate fit, the data may be reconsidered or an existing frame may be revised. It acts both on the level of goal setting and on the level of creating a navigational frame in which facts take on a renewed sense. Sense-making is a form of transdisciplinary theory development, that envisions the formulation of a different set of goals. The transdisciplinary character is situated in the collective process of creating shared awareness and understanding from different individuals' perspectives and varied interests and insights drawn from a range of disciplines. In a process of sense-making on the collective level, plausibility is favoured over accuracy. The test is whether it is appealing or not, inspiring or not. Sense-making is put in evidence through narratives and (pre)figurations that convey the sense that is made of a situation. Sense-making through design here is orientated to reframing, changing the underlying pattern of thought. It is an on-going, open-ended process and an essential characteristic of utopia-driven projective research.

The latent: A constellation of concepts and values that is operative in the

background, like an undercurrent, the direction of which influences what is actualised in manifest reality. In the context of urbanisation here, the latent can be considered to be the vision of the way we inhabit our environment - in a broader sense a worldview, and this has a clear ethical dimension. It therefore constitutes a frame of preferences that needs to be actively created. Characteristic for the latent level is that it tends to escape from our (design) attention and that we are largely unaware of how it structures our design attitude. The latent, in a way, can be considered the other part of reality that complements the actual perceived part of reality. The latent has to do with the relation between the possible and the real and with the relation between present and future. It is a meta-level that does not need to be realised, but only actualised.

Theory: Emerges in the duality of contemplation and action and presumes the materiality of that about which it is theorising. Theory is not only for knowing and understanding but also for sense-making. In this context of collective, transdisciplinary sense-making, theory building is mainly about conceptualising (another) reality, and in so doing, developing a framework from which design action can take place. This kind of theoretical work provides a chance to reflect upon what is there, but also to imagine something different, to question and transform rather than describe and affirm. It is orientated to the latent level of urbanism and hence, belongs to the field of Meta-Urbanism. In utopia-driven pro-

jective research theory is seen as an outcome of the research and design process.

Theory-through-practice: About how knowledge mutually transfers between theory and practice, bridging the split between design as material, subjective and embodied process, and criticism as an abstract, objective and distanced one. An interaction is established here between discursive intelligence and design intelligence. Theory can gradually be developed out of conceptual design work, and it can be done best if this design work is intentionally directed to that aim. Design work here is done to explore possible new directions for theory construction. The assumption is that something will emerge from the design process and more precisely, during the design process. This implies a very close interaction between theorising and designing and that theory building is part of the design process. The result is a different type of theory, a theory that is related more to sense-making than to problem solving.

Utopia-driven projective research: About creating a new vision on the contemporary and future human settlement by means of developing urbanisation models that have a model-theoretical character, useful to further

sense-making, stance-taking and hypothesis development. It is a project-based research especially relevant to connect, sense and probe more consciously and actively the macro or meta-level where some of the main form-giving principles of human settlement are rooted. Utopia-driven projective research uses projects as vehicles for problem design, value creation and comprehensive problem setting, combining projective and figurative qualities. It is a poetic mode of knowledge building. The visionary design projections are used here as a procedure to experiment and develop a deep understanding of the relation between urbanisation and worlding. They enable projection through a kind of meta-observation of facts that have not yet attained a reality character. Critical design and utopian thinking are the main constituting elements. This approach is orientated to learning from the future, from what we are unable to know. Utopia-driven projective research serves a continuous process of sense-making. In the relation that is established between theory and practice, a procedure is developed to better understand the synthesis of our societies. Utopia-driven projective research is operative in the field of Meta-Urbanism to investigate shifts in concepts of territory and worldview.

OUTCOME

In this thesis I have investigated how designerly thinking could contribute to a process of collective sense-making when profound, systemic shifts unsettle our accustomed way of inhabiting the environment. Interpreted within the field of urbanism, this problematic involves the matter of reconceptualising urbanisation since urbanisation is a major constituent factor of the habitability of the world. The emphasis was put on *how* to reconceptualise – that is, what kind of approach could be developed from within design to enhance reconceptualisation? And the question that had to be addressed in parallel was *in what direction* should this reconceptualisation be heading?

Regarding the direction of reconceptualisation, I argued that we should reposition urbanisation in a context of worlding. This implies addressing the foundational level of worldview and concepts of territory as underlying form-giving principles of urbanisation. From this followed that the act of reconceptualisation is directed to the meta-level of urbanism, also referred to here as the latent, the frame of values and principles that guides urbanisation. In that respect, reconceptualisation has to be understood as reframing, as changing the underlying pattern of thought. Basically, what is established is a type of sense-making that acts both on the level of goal setting and on the level of creating a navigational frame in which facts take on a renewed sense. Given the particularity of this kind of sense-making in urbanism an area of operation was delineated as a field in its own right : *Meta-Urbanism*.

The research approach I developed to act in this field of Meta-Urbanism is *utopia-driven projective research*. This approach taps into the rich tradition of utopia in architectural design and starts from a reevaluation of utopian thinking, which had fallen into disuse but is regaining significance in situations of profound unsettlement. The utopia-driven projective research indicates how to reconceptualise urbanisation in this field of Meta-Urbanism. It is a specific type of project-grounded research that foregrounds the design characteristics of projectivity, imagineering and prefiguration since these are considered particularly apt to address both the foundational level and the futurity of urbanism.

The lines of inquiry set up in the thesis resulted in the development of a specific project-grounded research approach – utopia-driven projective research – and the delineation of a field that takes the on-going sense-making and reframing in urbanism as its core activity – Meta-Urbanism. As such, I wanted to contribute both to the field of urbanism and to the field of design research.

Reflections on the contributions made.

I started this study from the observation that the potential role of conceptual design projects to contribute to knowledge building in urbanism remained largely unarticulated and therefore unclear. Furthermore, the visionary urbanisation models the projects presented were perceived as singular, punctual design projects, not really embedded in the context of professional practice, nor in the context of research in urbanism. Lacking a broader area of operation, the conceptual design projects remained situated at the margins of urban design and urban planning and the field of urbanism misses out on a powerful reconceptualising tool. With the propositions made in the thesis, I have addressed this deficit in the following way:

1. Positioning and validating the conceptual design projects in research through the development of utopia-driven projective research.

I intended to give a fully developed investigative role to conceptual design and make it evolve from statement producer to knowledge producer in a research practice. To improve the operativity of conceptual design on the level of research, I enabled a number of specific qualities of the projects to be better positioned and better used for systematic inquiry into the way we inhabit our environment. With this I wanted to contribute to the development of a design-based knowledge paradigm in urbanism. The current interest in design-based knowledge building gives the opportunity to reposition this conceptual genre of design in a research context. In the still over-generalised and confused discourse on research by design, I searched for specificities. The search concerned the fitting of a specific design approach (conceptual utopia-driven) to a specific research field (Meta-Urbanism), which involved singling out specific design qualities and using projects in a particular manner.

2. Foregrounding the poetic knowledge building in the field of urbanism.

Poetic knowledge building is an approach that is orientated towards the integration of facts and values, of future and present, into one connected and prefigured statement. The act of prefiguring incorporates what is essential to poetics: the aspect of making, of bringing into 'artefactual' reality. As such, another type of rationality or other sense of reality can be contributed to research into what could become a new understanding of urbanisation. This kind of knowledge building addresses the issue of comprehensive problem setting and future orientated sense-making, and supplements the scientific knowledge building in urbanism. Bringing poetic knowledge building more prominently and more effectively into research in urbanism is in line with the general movement in research to break open the traditional scientific approaches and methodologies.

3. Adding the perspective of worlding, demarcating a meta-level in urbanism.

Positioning urbanisation in a context of worlding is a way to question and rethink the e-normousness and predominance of urbanisation against the background of unsettlement. The challenge is to enhance the

resilience of the habitability of the world through the creation of diversified inhabitation models, by shifting and multiplying the concepts of territory on which they are based. The focus is not on the creation of *the* new urbanisation model; the aim is instead to create a fertile substratum and effective test bed for the continuous exploration of future ways of inhabiting the environment, corresponding to the ever evolving and diversifying worldviews and concepts of territory. This is the area of operation of Meta-Urbanism.

Reflections on the way the research was conducted.

Delineating the field of Meta-Urbanism and utopia-driven projective research is the result of elaborating on the tendencies that I felt were present but not knowingly articulated in the four selected design projects. The projects connected to this meta-level of urbanisation and, each via a specific theme, probed this foundational level – for instance concepts of territory: free space, mixed reality continuum, commonality. This probing happened through the use of design operations that were based on the design characteristics of projectivity and imagineering. Conceptual design practice in a way is a kind of meta-practice with an interesting particularity: while the meta-level is often an abstract level here the design projects offer a very concrete, situated, embedded and materialised medium for the meta-level to reside in. In the context of utopia-driven projective research, the design projects are not primarily an application or test of the concepts of territory but rather the very medium through which the concepts are generated. Their somewhat strange ‘artefactual reality’ mediates between the abstract and the concrete, between the real and the virtual, between present and future and between theory and practice. To further explore the potential of the design projects in a research context I used the mechanism of extraction and abstraction to take from the projects the core elements, both on the level of the subject matter and on the level of the design approach and to develop these into a research topic and research approach that surpasses the particularity of the projects, thus contributing to the general fields of design research and urbanism. Confronting this reflection with theoretical frameworks results in the

delineation of an area of research that outreaches the projects. Proposing this utopia-driven projective research and Meta-Urbanism is thus the result of thorough reflection and work on the material from a number of design projects I was involved in. With this study I have tried to transform a certain number of design characteristics into research characteristics. The aim was to define the role of this specific genre of design both in the field of design research and in the field of urbanism. The research conducted here can be characterised as a process of identifying specific qualities and potentials, naming them and framing them in a more articulated approach and field.

It is important to note when evaluating the way the research was conducted that the research and the approach used have some limits and gaps that have to do with the use of the projects. The choice of working with conceptual design projects in which I had myself participated set some limitations to the range of projects that could be used – by definition limited to my own design practice. One might argue that there are numerous other design projects, notably the whole utopian architectural design oeuvre, that can provide good case material for the issues discussed in the thesis. Study of a broader range of design projects within the context that has now been created will certainly help to further develop the notions of utopia-driven projective research and Meta-Urbanism. However, in order to articulate and frame the potential I thought was present in this specific genre of design, I felt it was necessary to have ‘lived’, interiorised and ‘engrained’ the design process that is behind these projects. This allowed me to put the idea of ‘theory-through-design’ into practice in this thesis and to have the emphasis more on conceptualising than on (historical) analysis.

While the projects in many respects were the core material from which the research outcome was derived, at a certain point what is delineated outreaches the projects and thus other input is needed for further development. The chosen design projects all belong to different design contexts and were not originally embedded in the research context developed here. Hence, the notions of utopia-driven projective research and Meta-Urbanism, although they originate from a reflection on these projects, cannot actually be tested by the same projects. In order to address this gap, a series of new design projects will have to

be set up, now intentionally embedded in the created research context. These new projects would also serve to test and refine the concepts (i.e. worlding, concept of territory, etc.) and mechanisms (i.e. abstraction-extraction, theory-through-design, etc.) that were generated through the research. Such a next phase in the research will also have to address the limitation caused by this doctoral study being an individual project, not part of a larger research project or research group. This impeded the development of the transdisciplinary approach considered essential to the field of Meta-Urbanism – that is, the involvement of theoreticians as designers in their own right.

Essentially the design projects in this thesis have served the purpose of generating a theoretical exploration and the conceptual understanding of Meta-Urbanism. The research approach developed emphasises an iterative knowledge process that oscillates between theory and design practice – not setting one before the other but intimately feeding from one another.

Reflections on the core line of the research: bringing conceptual design into research

1. A matter of achieving consistency between the research approach and the research field.

When design is connected to research it is most often seen as a kind of method, in the sense of doing research ‘by design’. My position in this was that the methodological level necessarily has to be connected to the content level and that there should be a fit between the two. What is it that can be researched by design, what is the proper subject matter and what kind of design can be used most effectively to research that subject matter? In general that means that more specification is needed when talking about research and design. The conceptual design projects I started from, although they have investigative characteristics, belong to a design practice, not to a research practice. To make them operative in a research context a number of steps had to be taken. Their general content level had to be identified. What is the fundamental question these projects address? To which broader frame of thoughts could this be tilted? I identified the content level as the ques-

tion of alternative urbanisation, of creating concepts of inhabitation and I related this to the frame of worlding. Furthermore, the genre of design had to be defined and related to an area of operation. The genre of design was defined as critical, utopian design and related to the field of Meta-Urbanism.

Regarding the methodological level the issue was to identify the specific design characteristics that could evolve into research characteristics fit to address the content level. The design characteristics projectivity, imagineering and prefiguration were singled out because they were considered especially relevant to reconceptualising urbanisation and to acting in the field of Meta-Urbanism. In order for the design qualities to evolve into research qualities they were brought into a specific research approach: utopia-driven projective research. The mechanism of utopia-driven projective research consists of bringing a series of consciously interrelated conceptual design projects into interaction with theories, generating mediative hypotheses that enable the on-going process of future orientated sense-making. Projectivity, imagineering and prefiguration are central to this process. These are characteristics that were derived from the conceptual design projects but in themselves they are not characteristics that belong exclusively to design. Also theories can have these characteristics and in utopia-driven projective research it is the projective and imagineering aspect of theory (philosophy, sociology, etc.) that is used rather than for instance, the more analytical, describing or explaining aspects. Or we might say that projectivity, imagineering and prefiguration are the specific design qualities that are made operative both in the conceptual architectural design and in the theories involved, thereby acknowledging that theoretical approaches also have design qualities.

Through these steps I have found a way to integrate conceptual design as a mode of knowledge production in research on urbanism, a field in which sciences and design inextricably go together but do not find it easy to open up for each other's way of addressing questions. The world of research historically inherits so much from the (natural) sciences paradigm, that openness towards a more design-like paradigm is still hard to accomplish. There is reluctance to allowing the designer-researcher to grow from a translator's role to a more essential input. At the same time we can notice that the architectural and urban design

disciplines also react quite defensively when it comes to defining their role in research (and especially their relationship with theoretical approaches), insisting on an identity of their own while having great difficulties making explicit what this is. Ethnography of science has already shown convincingly that both knowledge paradigms have a lot of commonalities and that their incompatibility is due more to the habit of (methodological) conventions than to the actual practice of research. By identifying a number of specific qualities that are common and central to both the design involved and the theory involved, the divide between the two knowledge paradigms, in this specific context of utopia-driven projective research can be resolved. The notion of utopia then captures the essentials of the mechanism, holding the projectivity, the imagineering and the prefiguration and the symbiosis between theory and practice.

2. A matter of looking beyond dichotomies.

Design is generally considered able to work with the most heterogeneous and incongruous elements, moving at once among them, across them and beyond them. Especially in conceptual design this is a capacity not so much of resolving the opposition or conflict but rather of transgressing it in order to conceptualise something beyond it. When transferring conceptual design to a research context in urbanism, this capacity is used to identify the precise points of intersection between apparently opposite elements that were brought together in the development of utopia-driven projective research and Meta-Urbanism. This point of intersection is then framed as a new entity, which includes the dissolving of persistent dichotomies and the transgression of the being-at-the-intersection. A number of the most important dichotomies that were brought forward in the elaboration of the research approach and the research field were theory/practice, real/virtual, present/future and urbanisation/environment. In general terms, the idea was that they should be integrated. The challenge then was to investigate what integration exactly meant, what would it lead to, what the purpose was of integration in this particular context. This involved the naming and framing of the points of intersection that were needed to develop utopia-driven projective research and Meta-Urbanism.

The point of intersection between *theory* and *practice* was framed as *sense-making*. While we usually consider the way to a theoretical solution as the hypothesis, we will call the way to an operational solution, the project. Here, the two are merged. Theory and design, abstract and concrete are put together as two sides of the same coin. They are considered developing in parallel to enhance sense-making as situational awareness and as a motivated, continuous effort to understand connections in order to anticipate their trajectories. The intersection between the *real* and the *virtual* is activated by the notion of *prefiguration*. There is the manifest real that is perceived in daily life and that dominates our thoughts and actions. But there are also latent realities. These can be imagined, foregrounded and activated in the virtual. The prefiguration of those realities that are absented by the dominant manifest reality, renders these realities perceivable as well, such that the real and the virtual are both equally observable and can be interrelated. The intersection between *present* and *future* is established as one of *projection*. The common direction of thinking is from present to future, which leads to thinking in terms of probabilities. Projection is a means of jumping beyond the probable and thinking from future to present, allowing profection, which is about looking forward and reflecting on possibilities and desirability. The envisioned integration of the apparent opposites, *urbanisation* and the overall *environment*, is expressed in the notion of *worlding*. Worlding aims at the creation of diversified concepts of territory resulting in urbanisation models based on land ethics.

This is about naming and framing an area so that it goes beyond or 'transcends' the confluence of different elements. In my view this is an important part of transdisciplinarity. It is commonly accepted that architecture and urbanism behave par nature in a transdisciplinary fashion. This is mostly seen as due to the fact that these design disciplines incorporate a plethora of different disciplinary and non-disciplinary knowledge forms including the know-how of lay-people. However, I believe that the capacity to achieve transitivity as the emergence or conceptualising of a new area that goes beyond the confluence of two or more existing areas is equally inherent to the design disciplines and that this capacity is of specific relevance for transdisciplinary knowledge production in architecture and urbanism. For reasons explained

above, bringing conceptual design thinking in research can enhance the creation of new areas beyond the integration of existing frames of thoughts. This seems to me particularly relevant in the context of utopia-driven projective research in Meta-Urbanism.

Reflections on future research

The thesis mainly presents a process of identifying a research approach (utopia-driven projective research) and a research field (Meta-Urbanism). Utopian thinking and worlding are featured as the main players. The mechanism of the approach and the delineation of the field were derived from the conceptual design projects and a gradually built up landscape of thoughts involving different theories. What I found is that within the projective research the (re-)validation of the notion of utopian thinking is crucial, and so is the notion of worlding within Meta-Urbanism. However, both these notions need further elaboration. Utopia-driven projective research and Meta-Urbanism now provide a frame wherein this elaboration can take place. Both utopian thinking and worlding are very broad topics so what is needed is to elaborate on their operativity in the specific context that has now been created. Utopia-driven projective research specifies one subset of an otherwise ambiguous field of research by design, and Meta-Urbanism gives an area of operation, more clearly defined than the ambiguous intersection of art, architecture and urban design, where the role of conceptual design was positioned.

With this thesis I created the awareness of this level of Meta-Urbanism and the awareness of an approach that fits it: utopia-driven projective research. However, the actual development of the field of Meta-Urbanism has not been part of this research project. So how then can we build the field of Meta-Urbanism? One way is to study the past and look for 'forerunners', to study existing projects and theories to see how they fit and feed Meta-Urbanism. Another way is to start experimenting and working with the concepts by setting up investigative design projects. This would then actually be applying the utopia-driven projective research as outlined in this thesis. This line of future work

concerns the question of how to assure the operativity of utopia-driven projective research. The construction of the field and the approach was done through a process of extraction and abstraction from the conceptual design projects. I would argue that utopia-driven projective research can only be activated, set in motion, by setting up a carefully conceived series of projects that now consciously and intentionally use the characteristics defined – projectivity, imagineering and prefiguration – and address the topic of worlding. This will provide new material to refine the utopia-driven mechanism of the approach and to build up the transdiscipline of Meta-Urbanism. The conception of the projects should be orientated to exploring alternative concepts of territory to see what kind of settlements that may bring about. This process might be guided by questions posed earlier in the thesis, such as: can we, in the current context of unsettlement, revise the notion or concept of how to inhabit our environment, taking into account the problematic relation of urbanisation with the non-urbanised and the dynamics of nature, and look for other ground, not only physically but also mentally and conceptually? Can we think of conceptions that go beyond the urbanisation of the total environment and instead conceptualise the diversity of life worlds of which the urban is but one aspect? Future research could include trying out the perspectives and conceptual approaches for investigating specific critical or liminal urban situations that relate to worlding and unsettlement, such as coastal settlements under threat of climate change. Building up the field of Meta-Urbanism will require working with a transdisciplinary team, since this is the only relevant way to address the issue of worlding and urbanisation. And equally importantly, the transdisciplinary approach will make it possible to define more accurately the role of theory in the mechanism of utopia-driven projective research. I have now set a guideline by stating that the theory has to emphasise the projectivity and imagineering as the design projects do. In that respect, the mediating role of the design projects in relation to the theory needs to be further explored. This is related to the theory-through-design approach, which could be further strengthened by investigating the intriguing issue of how powerful artefacts can be carriers and generators of concepts and act as discursive statements.

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NOTES

¹ T.O.P.office (Turn On Planning) was founded in 1970 by Luc Deleu, architect urbanist. Starting point, motivation and goal of the studio was questioning architecture and urban design, their position and duty in a global society. This generated the necessity to think about why and how to run an architect studio and how to direct it towards a truly independent and autonomous development with the use of a large set of media. So T.O.P. office was set up with the very conviction that it would be better to reduce the spatial impact of building and to build less. On many occasions - apart from being an independent research team developing an autonomous format for urban research by design – T.O.P office participated in the debate on urban planning and architecture. By the experience acquired over years of research the studio is specialized in organizing very large and complex programs and meanings, sometimes in an oversized monumentalism, but always with imaging concepts and a planetary point of view, bearing the earth's scale in mind. (www.topoffice.to)

² FLC [FUCKLECORBUSIER] is an ongoing sequel of designers in free association and has everything to do with the clash between individuals - with the clashing of individual aims, experiences, desires and intuitions into something more interesting than the unique expression of the sole identity and into something more flexible, workable and exciting: a collectivity, not a compromise. The coming together of individual backgrounds, motivations and practices as designers naturally made FLC projects evolve around crucial points where everything meets: shared territories no matter scale or medium. What FLC started to do is emphasise in each job, commission or project, the possibilities to turn conflicts into positive energy, introducing the imagination of future conflicts over which space can be negotiated. FLC is part of this flip-mode society where networking outsmarts bipolar routines, where reality and fiction merge, where references go tactile and extra-sensory but stop being simply visual. And in this flip-mode era of reorientation in planning and politics some very big problems and contradictions emerge. That is why there is a need for more imaginative design. (www.FLCextended.be)

³ In a number of interviews and TV documentaries the social scientist Manuel Castells explains 'the aftermath project' (which brings independent leading intellectuals together once a year in Lisbon). This network of intellectuals tries to analyse the different evolutions of the credit crisis in real-time: the metamorphosis of the financial crisis into a crisis of employment, a fiscal crisis, a European crisis, etc.

⁴ This is an adapted and updated version of a text fragment taken from: Janssens N., 'Critical Design – The Implementation of Designerly Thinking to Explore the Futurity of Our Physical Environment', In G. Maciocco, ed. *The Territorial Future of the City. Urban and Landscape Perspectives 3*. Berlin: Springer Science+Business Media. pp.105–107

⁵ The term 'imagineering' describes the blending of imagination and engineering, and was popularised by an American aluminium company in the 1940s. The term is also used by the Walt Disney Company in their design and development arm, Walt Disney Imagineering that is responsible for the creation and construction of Disney theme parks worldwide. In Moyersoen, J. Segers, J., *Urban Interventions and Generalized Empowerment*, Booklet of the Generalized Empowerment Urban Forum, London, 18 June 2006, 'imagineering' refers to the production of visions, images and representations of the city and its future.

⁶ The term 'meta-urbanism' appears in discussions on cities as marketed and entertainment products. Meta-urbanism refers in this context to a phenomenon found all over the world, mainly through the form of themed environments, such as theme parks, themed malls, the thematic re-urbanisation of old historic central areas and 'disneyfied' environments. It connotes to a type of placemaking that aims to evade the daily reality present in cities. 'Meta-Urbanism' as I develop it in this thesis, however, does not refer to this discourse. The field of

Meta-Urbanism I propose is concerned with the relation between the (urban) environment and people's existential practices (concepts of territory) rather than with urban environments becoming designed by market strategies.

⁷ Urbanisation historically has been very much related to the growth of cities. The concept of urbanisation therefore has problems dealing with situations in which the number of people decreases –the phenomenon of shrinking cities, but also the phenomenon of 'exodus' to the countryside and decline of cities due to economic downfall. The static, built structure of urban settlement, once abandoned creates hostile environments. It is hardly removable and hence remains polluting. The idea of re-generation is not fundamentally part of the spatial format urbanisation processes produce(d).

⁸ Sloterdijk states that people, wherever they are going, wherever they settle themselves, always have this capacity to create for themselves a specific interior space and its sphere. As such, 'sferopoièse', 'atmosferopoièse' and 'topopoièse' happen simultaneously. They constitute the formal aspect of local world creation (Sloterdijk 2003, p.540).

⁹ Swyngedouw in this context does not refer to Deleuze's and Guattari's concept of de- and re-territorialisation but there are clearly relations to their philosophy.

¹⁰ Augustin Berque distinguishes in human history, landscape societies from societies without landscape motivation. All landscape societies present the same five criteria: (1) treatises on landscape; (2) linguistic representations (or different ways to say 'landscape'); (3) written representations describing the aesthetics and sensorial values of the environment; (4) pictorial representations with the environment as subject and (5) the existence of pleasure gardens, translating an aesthetic appreciation of the environment and nature' (Berque 1995). Lemaire, in his analysis of evolutions in art (literature, painting, etc.), points out that treatises on landscape, linguistic representations, written representations describing the aesthetics and sensorial values of the environment, and pictorial representations with the environment as subject, have largely disappeared in modern times. Now they seem to be re-appearing (Lemaire 2002) .

¹¹ 'Zoning was developed in Germany from about 1890 as a means of adapting building regulations to the special needs of different functional districts within towns. The idea was imported into the United States after 1900 and combined with the native form of socially-discriminatory zoning which was already being used to keep undesirable uses, and the individuals who went with them, out of high-class districts. It is this American use of zoning which has attracted the most interest ever since'(Sutcliffe 1981, p.210).

¹² In Flanders this was the case until 1997. At that time, the Spatial Structure Plan Flanders was officially introduced and from then on, one needed a special education to be able to work as an urban planner. In the beginning the education was established as a postgraduate program, leading to the title of urban planner. Today this education has grown into a complete masters programme. That is, architecture students, after completing a bachelor's degree, can choose to follow a two-year master's programme leading to the title of architect, or a two-year master's programme leading to the title of urban planner. In this new structure the distinction between urban design and urban planning is still not clear cut, with urban design remaining an important part of the architectural education.

¹³ Regarding the agency of the non-human and objects Bruno Latour's work, most notably the Actor-Network-Theory, is often cited. He states that in the social sciences, objects might have been long considered 'humble servants, living on the margins of the social, doing most of the work, but never allowed to be represented as such [...] because action was delimited a priori to what "intentional", "meaningful" humans do'. In order to understand objects properly, one has to drop the disciplinary polemics about distinguishing one part of the object as developed by

scientist and engineers, from another side – the ‘human dimension’ – as explored by sociologists’ (Latour 2005, p.73;71;83).

¹⁴ Gilles Deleuze in *Milles Plateaux* refers in this respect to White’s (unpublished) work, *Le nomadisme intellectuel*. (Deleuze 1980, p.470)

¹⁵ It is important to note with respect to this wordly scale and scope of geopoetics that to think in terms of world doesn’t mean neglecting or forgetting the local. An integral part of geopoetics is, as Tony McManus describes it, ‘the large view combined with detail, the linking of local and global, abstract and concrete, energies emerging into delineated space, force welling up into form’ (McManus 2007, p.130). White illustrates this link between local and global, saying that ‘a very little knowledge of geology connects the Caledonian Chain on the one hand with the Appalachian system in America and with a mountain line running through Scandinavia east. The same goes for hydrography, zoology and linguistics. East Scottish rivers flow into the Rhine complex of the North Sea, which is the continuation of the North European plain. Scottish birds know Greenland and Africa as well as they know Iverness. And every language has long roots. Every human being too’ (White 2006, p.76).

¹⁶ Projectteam: Luc Deleu, Laurette Gillemot, Lieven De Boeck, Rebekka Deleu, Anoeck De Smet, Isabelle De Smet, Charlotte Geldof, Stan Jacobs, Nel Janssens, Francis Jonckheere, Mark Kramer, Malies Lenaerts, Lien Moens, Anne-Sophie Moors, Thibaut Rome, Dmitry Sakhno, Roman Selyuk, Gunter Deslagmeulder, Herbert Staljanssens, Peter Swinnen, Michel Van Achterberg, Steven Van Den Berghe, Hanneke Van Hassel, Joris Van Reusel, Kristof Vermeir, Wietse Vermeulen, Els Vervloesem, Mattias Vroom, Myrka Wisniewski. (1995-2002)

¹⁷ Architektur Zentrum Wien: 5th Viennese Seminar on Architecture, 1994. Theme: The Empty Space. Project: ‘A strange Attractor in Vienna’. Project leaders: Luc Deleu and Jan Verheyden. Project assistants: Nel Janssens and Lieven De Boeck

¹⁸ Text published in 2005 on the Biennale Rotterdam website:

<http://www.biennalerotterdam.nl/biennale/item.jsp?item=1064> (retrieved 10/2010)

¹⁹ The Appointed project team consisted of FLCextended, free associating designers (Carl Bourgeois/ Charlotte Geldof/ Marc Godts/ Nel Janssens/ Koen Pauwels/ Wim Van Der Vurst), GAUFRE Research team (Frank Maes/ Peter Van den Abeele/ An Vanhulle), Roeland Dudal (project leader VAI), Katrien Vandermarliere (director VAI and curator of the Biennale Rotterdam 2005 for Belgium).

²⁰ Project proposal originally submitted as a Science Innovation project. WI/2005/040 COASTOMIZE! is a science information project and interactive event supported as part of the Action Plan on Science Information and Innovation, a Flemish government initiative.

²¹ Project partners: main applicant: Department Architecture Sint-Lucas (Campus Ghent and Brussels)/ project team concept and design: FLCextended, designers in free association / support communication and imbedding in broad public of the project: VAI, Vlaams Architectuurinstituut. Appointed project team: Research- and Design team: Marc Godts, Jesús Azogue, Carl Bourgeois, Roeland Dudal, Ester Goris, Michiel Helbig, Arnaud Hendrickx, Pieter Heremans, Nel Janssens, Tom Schouten, Johannes Taelman, Wim Van Der Vurst, Kristof Vermeir / Project leader: Marc Godts / Exhibiton creator (curator):Sven Vanderstichelen / Scientific committee TRY OUT 20 08 2007: prof. dr. Johan Verbeke, departemenshoofd Architectuur Sint-Lucas, Katrien Vandermarliere, directeur Vlaams Architectuurinstituut, Patrick Labarque, oud-docent Architectuur Sint-Lucas, Herman Daenen, professor in de Economische en Consumentenpsychologie VUB, Charlotte Geldof, adjunct Afdelingshoofd, afdeling Ruimtelijke Planning RWO, Ellen Goeleven, Dienst Onderwijs en Onderzoek Architectuur Sint-Lucas, Sven Vanderstichelen, tentoonstellingsmaker, VKE

²² The different disciplines present in the project team: architect and experimental designer: Marc Godts, (project leader) – engineer-architect and computerwizard: Pieter Heremans - architects: Carl Bourgeois and Arnaud Hendrickx - architect-spatial-planner: Nel Janssens - architect and fashion designer: Ester Goris - engineer-architect: Roeland Dudal - architect and transmedia artists: Wim Van Der Vurst and Michiel Helbig – transmedia artist: Jesus Azogue – information architect and graphic programmer: Kristof Vermeir – software developers: Tom Schouten en Bram Labarque – webdesigner: Ophelia Van Campenhout – industrial scientist: Johannes Taelman – art and cultural scientist: Jin Berghmans - art and cultural scientist and curator: Sven Vanderstichelen.

²³ The term 'magnificent surroundings' was coined by Dubois-Taine (2003) to classify suburban landscapes and features found around European agglomerations. It designates, for example: 'Seaside and hills in BAB San Sebastian, in Copenhagen, in Helsinki. Mountains in Innsbruck, protected forests in Zürich and in Switzerland - in each case these are overwhelming natural surroundings.' Dubois-Taine, E. (2003), *Outskirts of European Cities. Understand better, govern better. Insights on outskirts*. State-of-the-Art Report. (= COST – Action C 10), Brussels, p15.

²⁴ <http://www.fondationvocation.be>, accessed 20/06/2011

²⁵ My translation from the application documents, Gouden klaver 2008, written in Dutch by Charlotte Geldof.

²⁶ In the thesis Charlotte Geldof wrote to obtain the degree of spatial planner, she studied the influence of energy transportation networks and production units on urban planning.

²⁷ <http://www.fondationvocation.be>, accessed 20/06/2011

²⁸ 'By issuing its Law of the Sea in 1982, the United Nations has allocated sovereign rights and obligations relating to the first twelve nautical miles of "territorial sea" and the next twelve nautical miles of "contiguous zone" to coastal states worldwide. Those parts of seas and oceans located just outside these delimited areas are called "'international waters" or "'high seas". Beyond the outer limit of the territorial marine area, "exclusive economic zones" (EEZs) have been designated, which run from the land/sea limit to an outer limit set at maximum 350 nautical miles into the sea. Within these EEZs, coastal states have been allocated certain rights and obligations of research, exploitation, maintenance and management of natural resources found within the head of water, on the seabed and in the upper subsoil layer.'(Geldof et al. 2011)

²⁹ UNCLOS, in the Law of the Seas, has formulated some legislation on the management of the high seas. However, this legislation probably needs to be enhanced in order to ensure the collective character of the high seas.

³⁰ 'Managed retreat entails replacing hard infrastructural coastal defences with natural defences: landscapes adapted to absorb or moderate the force of the waves. This strategy of using a salt marsh lagoon in the intermediate zone as a safety valve will reduce the risk of flooding of the higher grounds further inland'(Geldof et al. 2011).

³¹ Urbanisation now is about compressing space by conceiving it as a thing for concentration, connection and densification. Sloterdijk states that the efforts of modernity consisted in compressing space in order to conquer it. Even nature, which was a space for distance, for separation and for positioning, is conceived now as incorporated into the concentrating, connecting and densifying space that surrounds us as a world of technology. (Sloterdijk 2006, p.272)

³² In the description the designers produced of M.U.D, the project is labelled as: 'a model (no worldview) as a proactive image, an anticipation of reality', 'making thinkable the unthinkable',

'M.U.D as an artist impression has a relation with reality but does not represent (future, desired) reality', 'taking distance from existing reality to create a new credible one', 'no total vision (only a possible moment in time)', 'a visionary image', 'no visionary image, it just shows what is already there', 'a "wild" spatial scenario', 'an expressive end product: a visual synthesis on a Flemish mural carpet', 'the prefiguration [of the M.U.D era]', 'magnification of reality', 'challenging manifesto', 'visionary pamphlet', 'free and "wild" thinking'. (Goossens 2007)

33 'Luxurious through ideas and spatiality rather than through luxurious and expensive materials. [...] The luxury is created through the design of a strong architectural/urban design backbone that provides a diversity of spaces for different amenities, expressing a rich cultural and social environment for the inhabitants'(Deleu 1996, p.15).

34 For this idea of the ideal society utopia gets criticised a lot. Utopias that are realised tend to become anti-utopias or dystopias. Utopian societies become dystopian societies characterised by repressive social control systems or humans abusing technology. Bill Ashcroft states that 'the debate over whether Utopia is a playful satire or a serious proposal for an ideal community persists to the present day, and is reflected in the perpetually ambiguous relationship between utopias and dystopias in literature'. However, he remarks that 'while all achieved utopias are degenerate, without utopian thinking liberation is impossible' (Ashcroft 2009, p.8).

35 'This also relates to the well-known distinction between functional rationality and substantive rationality (Mannheim, 1940). Functional rationality refers to the systematic evaluation of means in order to achieve a given end, substantive rationality to the systematic evaluation of possible actions in terms of values such as efficiency, legitimacy, justice' (Needham 2001, p.143).

36 In this respect, it is also remarkable that the notion of poetics, in more recent years, pops up in important, seminal scientific work. White refers to:

- '*La Nouvelle Alliance*' (1976) of Ilya Prigogine and Isabelle Stengers: in the theory presented in their book the authors at a certain point arrive at the notion of '*une écoute poétique de la nature*'.

- '*Le roman cosmogonique*' (1989) of François Foulatier who exposes the '*émiettement du savoir actuel et le mouvement potentiel vers une unite future*'. He talks in terms of poetic function.

- '*La Structure poétique du monde*' (1987) of Fernand Hallyn who discusses Copernicus and Kepler.

- The notion of 'autopoetics' that can be found in the work of the biologists Varela and Maturama

- The notion of aesthetics linked to cartography that is apparent in anthropological, psychological and cybernetic studies of Gregory Bateson. (White 1994, p.29)

37 In architecture, a discipline that includes both science and design/art, this dichotomy is noticeable in the research conducted. Linda Groat refers to Julia Robinson's two systems of inquiry, Science and Myth, which describe architectural research. The Science paradigm includes architectural research on technology, engineering, or behavioural issues. The Myth paradigm is usually associated with architectural research drawn from an arts and humanities base.(Groat 2002, p.25)

38 There are lots of attempts being made in the design research community to map and define all the different interpretations of what research by design is. Rosan Chow made an analysis based on three models: Practice-Led Research, Project-Grounded Research and Research through Design (RTD). To compare these models, she distinguishes ten categories. The first eight categories consider the elements of the research model relating to its substantive, methodological, and theoretical dimensions. The last two categories refer to the social context in which the models are constructed. She noted that one of the difficulties to achieve more clarity in the definitions of different types of research by design is that 'The proponents of RTD can

also have different goals: to deal with institutional change, to establish research programs, to satisfy one's intellectual curiosity, to integrate design into a science-dominated field, and/or to follow the current trend. They develop their version of RTD to achieve the goals that they have in mind. This explains why there are different versions and highlights the need to make their differences clear. As more and more practices are labelled RTD, it will serve us well if we are clear about what they mean'(Chow 2010).

³⁹ Model is here understood as a prognostic or prescriptive (model for) rather than a diagnostic or explanatory tool (model of).

⁴⁰ When talking about combining knowledge of facts and knowledge of values, the notions of matters of facts and matters of concern as developed by Bruno Latour come to mind. In a lecture he gave for an audience of designers he stated that 'If the whole fabric of our earthly existence has to be redesigned in excruciating details; if for each detail the question of good and bad has to be raised; if every aspect has become a disputed matter of concern and can no longer be stabilised as an indisputable matter of fact; then we are obviously entering into a completely new political territory' (Latour 2008, p.11). He further states that 'Reality is not defined by matters of fact. Matters of fact are not all that is given in experience. Matters of fact are only very partial and, I would argue, very polemical, very political renderings of matters of concern and only a subset of what could also be called states of affairs' (Latour 2004, p.232). Although these notions on matters fact and matters of concern, together also with the notions of 'thing' and 'gatherings' are certainly relevant to the issues I discuss regarding the role of facts and values in design and in human – non human relations in the context of urbanisation. However, in the context of this thesis, I have not elaborated on Latour's concepts.

⁴¹ The relation with philosophy is also noticeable in the more established conceptions of architectural theory that, according to Crysler et al became increasingly problematised and unfashionable. They refer to the theory building in architecture that could be defined in terms of a 'Popperian "scientific method" as for instance, building sciences, the "first generation" of design methodologists, instrumentally inflected approaches to design based on post-occupancy evaluation, amongst others. Then there are theoretical approaches defined in terms of a Husserlian "phenomenological method" (suspiciously cast as essentialist), studies of vernacular built forms and environments, supported by Levi-Straussian structuralism (seen as tainted by their latent humanism), the discipline's ancient investment in theories of aesthetic formalism, wherein various systems of proportion and composition authorized the proper arrangement of architectural forms and spaces, the renewed interest in European urban history, urban morphology and architectural type under the heading of 'neo-rationalism' and post-structuralist theory, architecture's intermittent engagement with critical theoretical traditions, such as Marxism' (Crysler et al. 2012, p.4).

⁴² Judith Mottram notes that 'the term "field" implies both a subsection of a domain, as a discrete "area of operation or activity; [or] a subject of study", as well as the people playing the game. The term domain then is taken to describe a distinct area of knowledge and action within a culture, where culture is "the symbolic knowledge shared by a particular society"' (Mottram 2002, p.71).

⁴³ Harvey proposes therefore a spatiotemporal utopianism. He proposes to convert the imaginative spatial play to achieve specific social and moral goals into the idea of potentially endlessly open experimentation with the possibility of spatial forms. 'This permits the exploration of a wide range of human possibilities (different modes of collective living, of gender relations, of production-consumption styles, of the relation to nature, etc.)'. This to Harvey is a privileged means to explore alternative and emancipatory strategies. (Harvey 2000b, pp.182–183)

⁴⁴ Virtual means 'capable of producing a certain effect' (first attested from 1432). The computer sense of 'not physically existing but made to appear by software' is attested from 1959. www.etymonline.com

⁴⁵ 'Habitability is best defined in systemic terms: it refers to the interface and interactions between individual or collective "inhabitants" of the world (i.e. all of us human beings) and the world in which we live (i.e. our natural and artificial environments, which includes the biocosm, technocosm, sociocosm and semiocosm)' (Findeli 2010, p.292).