SUMMARY

Viby An Interspace is an urban development project for Viby Sjælland. Viby, located in the southern part of the Municipality of Roskilde, is a small suburban station-town in the midst of a growth spur where the Municipality foresees a growth that will double its size with regard to population and physical expansion. This puts Viby in a transitional position as it awaits an exploding future as the suburban carpet of single-family houses unrolls itself.

The project is based on the theories of landscape urbanism as its philosophical foundation. Landscape urbanism is therefore explored through the writings of landscape architect James Corner, and the project highlights the notions of a *living system*, *mechanisms* and *images* as key concepts that can facilitate a physical design for Viby.

Viby An Interspace intervenes on Viby's current direction of expansion by proposing a public belt, the Trace, as the overall structural principle for the town - a belt that consolidates over time concurrently with the construction of suburbia's detached houses, thus grasping the mechanisms of the market forces. The belt contrasts around a number of points, so-called Interspaces, where programmatic and spatial experiences are intensified. These Interspaces act as beacons in the belt, ensuring both variation as well as coherency.

Viby An Interspace reverses the image of suburbia and marks a shift away from the perception of a district that is dull and conformist to that of a landscape that is rich, lively and educational.
With the erection of new suburban homes follows a range of accompanying mechanisms, these being the mechanisms of urban pulse, surplus processes and shifting landscapes. These are often seen as standard mechanisms taken for granted in the ever-expanding town, but here they are perceived as potentials for an innovative design for suburbia.
A manner of imaging brings to life the mechanisms of Viby's suburban market forces. This process of imaging is a way of articulating the mechanisms of Viby to the public and is achieved through the three imaging acts of RE-CONTEXTUALISING, UN-BLACKBOXING and PRE-LINKING. These three acts thus convert the mechanisms into tangible design principles that will determine the shape, direction and content of the public belt.

Programmatically, the belt is consolidated by the need for a continuous expansion of institutional programme in Viby. The public belt is thus an intersecting 'institutions belt' - here manifested as a course dotted with institutional programmes, the interspaces, and connected by the remaining belt of public activities and infrastructure for the whole town.
Physically, the belt is consolidated by the increasing levels of soil and stormwater management that are organised to shape a spatially distinctive landscape stretching across Viby. The belt is vegetated as an ecological corridor for the flora and fauna of suburbia.

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VIBY AN INTERSPACE

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PREFACE

Viby An Interspace is the product of a long final thesis for the 10th semester Urban Design Masters degree at the Institute of Architecture and Design, Aalborg University. The thesis has therefore stretched over two semesters with first a theoretical and analytical semester followed by a more design oriented semester.

The project submission is comprised of two parts: a process report (this document) as well as a set of 14 posters. The posters present the final strategy and design proposal of the project while the report accounts for the theoretical dissertation, analysis as well as supplementary material such as a documentation of the design process. The theoretical dissertation together with the design proposal thus support each other for a full understanding of Viby An Interspace. It is recommended that the posters be studied before reading the process report.

The report is comprised of five chapters that each present a different angle to Viby An Interpace.
Chapter 1 is a theoretical chapter that unfolds contemporary approaches to urbanism with focus on the theories of landscape urbanism. This chapter is the philosophical foundation of the project, holding the key to understanding the project and introducing strategic concepts that are applied in the physical proposal. A short summary of the most vital passages of this chapter is included on poster 2 of the poster material, but the full theoretical understanding is found in this chapter.
Chapter 2 introduces the context of the project, Viby, which is analysed through registrations and mappings on several scales as well as an account of Viby's expansion over time.
Chapter 3 is a reflective look on the concept of the project, discussing underlying considerations and thoughts of the concept and design. A short reflection on the juridical implementation of the project is also presented here.
Chapter 4 treats the process of design, explaining the different phases of the design process and arguing for choices taken underway. This chapter thus offers an insight into the processes of iterative brainstorming, evaluating, sketching and building physical and digital models.
Chapter 5 is the so-called Utilities chapter where supplementary material is presented. This chapter should be viewed as a sort of appendix to the project. Presented here are workshops and reference projects as well as additional background research with a historical account of the development of Copenhagen and an examination of the planning framework in which Viby is situated.

Unless otherwise annotated, all illustrations used on posters and in the report are product of the authors of the project. Sources are listed at the end of this report.

CONTENTS

INTRODUCTION

Held airborne by its feathery *pappus* of fine white hairs, the dandelion seed parachutes across Viby's grassy lawns of lush suburban gardens. The sounds of play and laughter, of droning lawnmowers and of the wind sweeping through tree branches reveal a rich landscape of human activity and biodiversity – a living system. This suburban landscape is not unique to Viby alone, but is home to 70 % of the Danish population. Ironically, this landscape is seemingly also invisible in the mental image of Denmark and scorned by the country's cultural elite. Facing a suburban expansion that will double its size over the next decades, small-town Viby risks dissolving into the rest of Denmark's invisible landscape.

Danish sociologist Henrik Dahl portrays suburbia under the concept of 'the invisible Denmark' as an image of Denmark that is concealed in the general discourse of the country, having been neglected by the elite of the society. (Stensgaard) This creates an anaesthetic relationship to these places as people have no way of conceptualising the architecture and lifestyles that reign here. He describes suburbia as in fact having many architectural styles as a result of the "do-it-yourself" culture, where inhabitants rebuild and renovate their own houses. These styles, however, are in no way recognised as true architectural styles by the architectural elite. (Stensgaard) The same can be said of suburbia as a landscape, where the gardens of suburbia hardly are acknowledged for their landscape qualities and biodiversity.
Dahl states that the lack of respect for the architecture of suburbia leads to a disrespect for its people and lifestyles. (Stensgaard) This anaesthetic relationship thus poses a challenge for the planning of these areas, as the architectural world, just like the rest of the population, also lacks a way of conceptualising suburbia.

Dahl goes on to describe how the appreciation of the Danish heath is a result of the image portrayed by artists of the 19th century – a portrayal that reversed the previous bleak and harsh perception to one of beauty and character. Likewise, Viby An Interspace seeks to reverse the image of suburbia and, just like the artists, portray a shift away from the perception of a district that is dull and conformist to that of a landscape that is rich, lively and educational.

This endeavour looks to the contemporary urban theory of James Corner's landscape urbanism to uncover means by which this can be achieved, and here the power of images are brought to life - images understood as mental conceptions of space. The design of images thus becomes the instruments that will facilitate the expansion of Viby. These images are operationalised, not through the design of new suburban typologies, but through the design of a public space that is consolidated over time and that will embrace the everyday life of suburbia: the future schools and institutions of the town. Viby thus becomes the context in which the theories of landscape urbanism are unfolded and explored as a physical strategy and design.

METHOD

Viby An Interspace is a project proposal for the Danish suburban town of Viby Sjælland. The strategy and design proposed are based on an in-depth theoretical account of James Corner's landscape urbanism. The project thus takes a theoretical position and applies the principles of this position as a general approach for the rest of the project, from analysis to concept and design. This means that the theoretical position is applied as a lens through which the context of the project is perceived, resulting in a quite specific methodology to the different stages of the project.

The project can therefore be said to generally apply a deductive logic where a general theory is chosen from the beginning and then narrowed down to specific observations. It is important to note that the theory in question here is not a thesis in need of confirmation, but rather a stance, an architectural discourse, reflecting on the contemporary situation and proposing how to act herein. The purpose of the design proposal is therefore not to determine whether or not landscape urbanism is a successful theory or not, but rather seen as a way of unfolding the potentials of the theoretical stance as a new approach to planning.

THEORETICAL STANCE

The theory draws mainly on the writings of landscape architect James Corner. Being one of the main advocates of a landscape urbanism approach, he has produced a wide range of articles and essays with notable focus on the concepts of landscape and ecology, notions most relevant for the theory of this project. In addition, his writings are to a greater extent than e.g. fellow landscape architect Charles Waldheim, abstract proposals for new methods and techniques rather than just reflective views on the history and evolution of landscape urbanism. Charles Waldheim is, however, still included in a case study of his project Decamping Detroit.

In addition to James Corner, a number of supplementary authors and theorists are also included to support or elaborate on key issues. These are primarily used in the first part of the theoretical chapter, Urbanism of Our Time, to account for the general trends in contemporary urbanism and the planning approaches emerging herein. In the latter parts they are only included as a way of expanding on specific topics that Corner touches upon.
American philosopher John Rajchman has contributed to the definition of contemporary planning approaches in the form of his term 'new pragmatism', why he, together with Danish architect Tom Nielsen, are used to account for this trend. Stephen Graham is engaged to unfold the perception of the city as a network, a field where he is one of the dominant theorists. The theories of German professor Thomas Sieverts are applied in several sections of the chapter, both as a means of unfolding the suburban landscape as a contemporary urban condition, but also to support Corner on some key issues regarding landscape and images. Likewise the writings of architects Stan Allen, Rem Koolhaas, Alex Wall and Steen Høyer have been drawn upon sporadically through the use of central quotes and short passages that substantiate or highlight certain elements of the theory.

The project theory is supported by three case studies that exemplify the theoretical stance in concrete project proposals. This is a way of converting the concepts and notions into physical design, while also enabling an assessment of the consequences of applying a theory such as landscape urbanism. In other words, it is through the case studies that potential weaknesses and risks are uncovered, but also unforeseen advantages that the theoretical account did not envisage. The use of case studies thus is an important step from discussing the theoretical stance to developing concrete design principles.

ANALYSIS

The analysis phase entails an in-depth understanding of the context of the project. Viby Sjælland is the site wherein the project will place itself, entailing a process of registering and mapping in Viby, but the context also stretches itself to concern the general suburban tendencies in Denmark, requiring an understanding of Danish suburbia through literary studies.

The course of action regarding examinations of Viby is influenced by the theoretical stance which determines the subjects to be examined and in which they are analysed. An example of this is the theoretical focus on the underlying and invisible processes of the urban landscape, giving the mapping process a direction where invisible processes are registered as vital mechanisms of Viby. Likewise, the process of mapping Viby is inspired by Corner's mapping technique, presented in Chapter 1, where mappings not only are used to register, but also to uncover and draw up new relations.
A crucial step towards understanding a context is also through personal encounters with the place, why 'field work' in the town itself play an important role. Such visits not only give an aesthetic and spatial understanding of the context, but also give potential insight into more invisible relations such as social conditions that can be uncovered through interviews and conversations. This can shape a more mental image of the context at hand. These local conversations are used as perceptions throughout the Viby analysis of Chapter 2.
Additional background research (found in Chapter 5) elaborates on regional and juridical tendencies with an account of the historical development of the Copenhagen region and a brief analysis of the current regional planning documents which are seen as an important process reflecting the juridical aspect of planning.

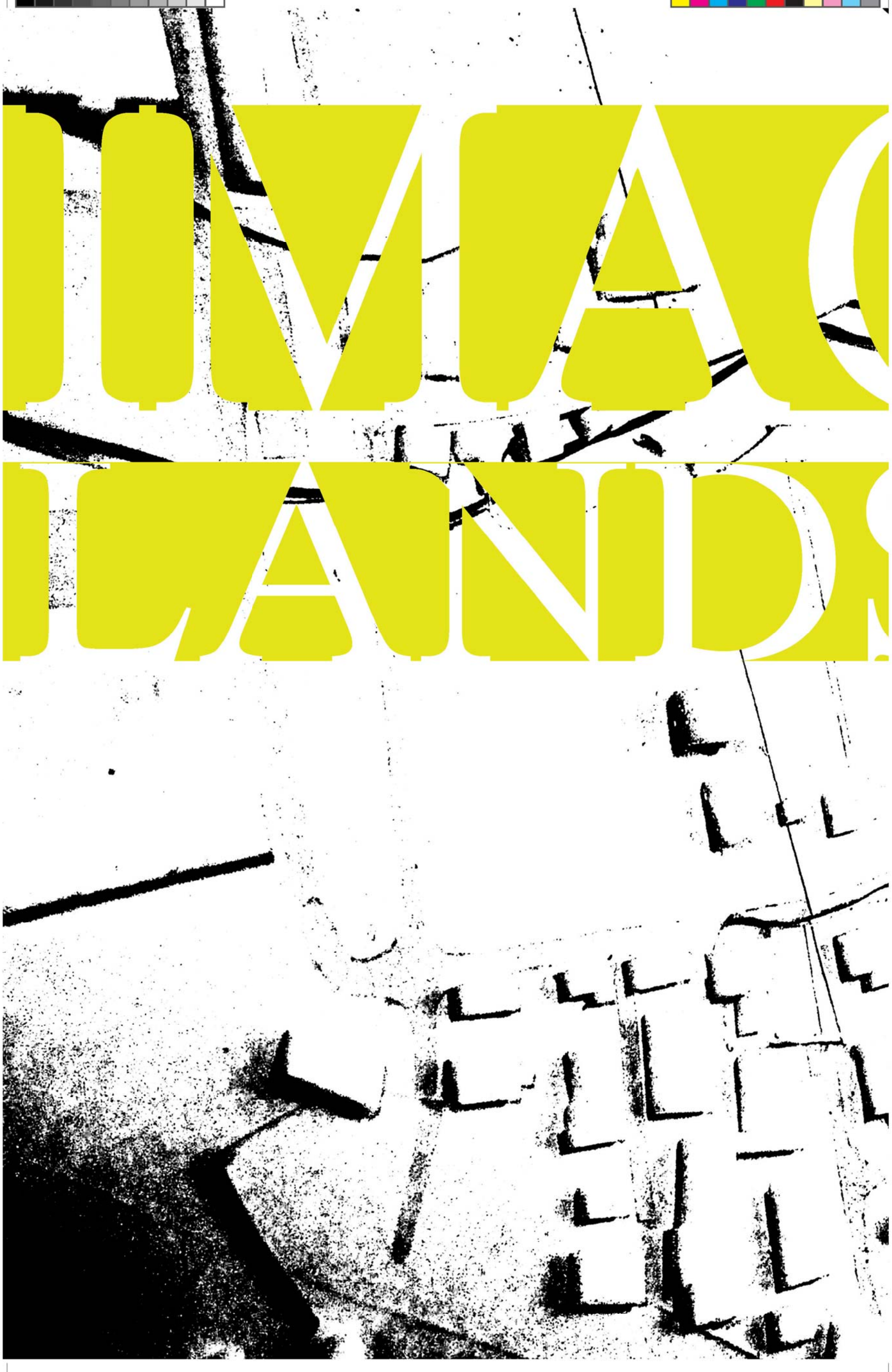
CONCEPT AND DESIGN

Concept development is where the theoretical notions are merged with the understanding of context. 'Concept' is here understood as a set of design intentions and principles that are in spirit with the theoretical stance while also springing from the context. The concept is thus the binding link between on one side discourse and registration and on the other a physical design, and can thus be described as an interpretation of the theory into more tangible objectives and structures.
The concept, however, is simultaneously also a set of principles that can be generalised to any suburban context similar to Viby. In this view the concept is a generic guideline, and the solution fitted to Viby may in fact be fitted to many suburban areas in Denmark.

The design process deals with the stages that convert the concept into a physical design proposal. Although the iterations of the project allow for repetitive reflections on theory and analysis, the design is fundamentally based on the concept.
Of focus in this process are investigations as to how the principles of the concept and theory can be converted into spatial and visual entities that offer experience and educational value in harmony with the concept, but also in accord with general considerations of space and form. Of great influence here is the use of inspirational reference projects. Here a field trip is conducted as part of the design process, entailing a round-trip of selected public spaces in the Copenhagen area. This trip has the purpose of experiencing real-life spaces that not only can inspire, but also give relevant insight into spatial and visual design elements, understanding of scale, detail and context and programmatic requirements. The contents and conclusions of this trip are accounted for under the Utilities of Chapter 5.

The design process entails repetitive tests and trials that not only optimise the design itself, but that can comment back upon the concept and thereby cause optimisation of the concept as well. The design process is in this way also an iterational one, not only affecting physical outcome, but also the project as a whole, and the concept and design process therefore constantly optimise each other. The process of test and trials is continuously evaluated according the theory and concept by assessing each proposal in relation to the consequential form/space, of realisation, of images projected and of its open-endedness. The design process is documented in further detail in Chapter 4. In addition, the Utilities of Chapter 5 accounts for the workshops and reference projects that have contributed to the concept and design development.

MAP
LAND



LANDSCAPE

1

Viby An Interspace is in part a theoretical project and this first chapter is an account of landscape urbanism, which is the theoretical position of the project. A brief summary of the most vital passages is included on poster 2, but this chapter is fundamental to understanding the philosophical standpoint of the project and should be viewed as not a supplement to the design proposal of the posters, but rather as the theoretical counterpart of the design.

The chapter consists of three parts, where the first introduces the trends of contemporary urbanism, the second elaborates on James Corner's conceptions of landscape, ecology and images, and the third is a study of three cases

IMAGING LANDSCAPE

The theoretical foundation for this project takes its point of departure in landscape urbanism.
Landscape urbanism can be boiled down to a single statement: it builds on the concept of landscape as the medium through which urbanism is generated.
The genesis of the method is a response to the fact that the contemporary city now is perceived through the lens of landscape. Consequently, landscape is displacing architecture's historical role as the basic building block of city making. Landscape has become the lens through which the contemporary city is represented, and the medium through which it in part is constructed. The use of landscape is argued by the fact that landscape is capable of reproducing urban effects by the organisation of the horizontal surface. This is in the contemporary condition of decentralization and decreasing density an appropriate tool for urban designers as the traditional static figure-ground planning is inflexible in relation to the transformation pace of the contemporary city. (Waldheim 2001a, p. 10)

Landscape urbanism acknowledges the complexity and dynamics of the contemporary city, seeing potential and strength in these complexities. In trying to define these new circumstances, landscape urbanism opens for new opportunities of engaging the dynamics of the city on their own term. Through the merging of the terms landscape and urbanism, the hybrid concept thus puts focus on indeterminacy, open-endedness and cross-disciplinarily, drawing on ecological notions to understand the urban landscape. By referencing to the dynamics of landscape and the methods of landscape architecture, the act of urbanism is given a new understanding. Instead of viewing the city as a figure-ground concept, the lens of landscape enables us to view the city as a living surface with the characteristics that this implies and encourages towards new methods of action with which the urban designer should operate.

Emerging over the last ten years, landscape urbanism is far from any coherent set of design guidelines, although the theory is seemingly in the lead towards shaping a common landscape and process based understanding and practice for the contemporary city.
The term 'landscape urbanism' was coined in the 1997 conference and exhibition of the same name and here landscape architect Charles Waldheim used the term to describe the emerging design practice. The exhibition contained an international survey of public urban spaces with contributing projects by Waldheim as well as fellow landscape architect James Corner. (Shane 2006, pp. 58 – 59) Since then the emerging practice has evolved into an alliance of various theorists and practitioners that support landscape urbanistic notions through interconnected theories, methods and projects.
Waldheim and Corner can be described as the main advocates of landscape urbanism, and especially the writings and projects of James Corner has greatly inspired the approach that this project has taken, as he (in our opinion) succeeds in formulating, visualising and designing landscape urbanistic notions that have a chance in our contemporary world. His poetic way of articulating ecology and the merging of different technical, biological and architectural disciplines towards a sustainable design practice has been of great influence for this project.

The methods applied in this project of how to analyse, conceptualise and design are thus interpretations of Corner's theoretical stance, and they are here put to work in the semi-urban context of Danish suburbia as a way of unfolding its variety of solutions and sparking new life into the traditional suburban planning. This is relatively new for landscape urbanism, as current projects revolve in a context of public parks and large-scale landscapes. This project, however, sees the potential of working with landscape urbanistic principles on the fringe of the city where discussions of nature/culture, ecology and landscape are essential. The perception of the city as a dynamic surface of living processes can shed light on the current static view of suburban planning. Instead of just a steady transformation of agricultural fields into grid structured parcels, the methods of open-ended planning and interrelation between processes can promote new planning standards for suburbia.

Throughout the following chapter, the exact meaning, reason and consequences of landscape urbanism are discussed and the writings will thus account for the philosophical viewpoint of this position and the design implications it involves.
The first part of the chapter will outline the contemporary urban condition that has given rise to a generally renewed perception on planning as is the case with landscape urbanism. Of focus here are the philosophical and theoretical roots of contemporary approaches as well as the societal and physical tendencies we are witnessing in urban areas today. Additionally, the first part outlines the planning approaches emerging from this urban condition with the new tendencies of interdisciplinarity and dynamic, adaptable planning.
These general tendencies are taken further in the chapter's second part that delves deeply into the concepts of landscape, ecology and images – concepts which set landscape urbanism apart from other contemporary theoretical and planning positions, and concepts which landscape urbanism and notably James Corner meticulously dissert and examine as vital conceptions for contemporary urbanism.
The third part of the chapter is a study of three case projects that cast light on concrete design strategies that are landscape urbanistic in different ways, thus holding a variation of potentials for urban planning, but also giving rise to a discussion of the risks and weaknesses of such an approach.

The chapter thus unfolds landscape urbanism by first establishing a platform through a general account of background and history, secondly discussing its key concepts and thirdly the physical consequences. It is the intention that this will form the appropriate conditions for the further development of an analysis and design concept for the project.

THE URBANISM OF OUR TIME

Landscape urbanism represents a whole new wave within the field of urbanism – a paradigm shift significant in the architectural world, but also in all disciplines dealing with the environment in which we live. This paradigm shift can be characterised as an acknowledgment of the rising complexity of the urban realm and implies the emergence of a whole new planning practice of which landscape urbanism is a part – a stance proposing a more process-oriented approach to planning. Process in the sense that the urban condition should be perceived as not only built material, but also as a flow of material and immaterial processes: virtual, social, environmental, economic, technological and physical infrastructures that shape and reshape the urban landscape. And process in the sense that the act of architecture and urban design is a process in itself. This view recognizes the complexity of the contemporary city as a system of interrelated dynamic forces and does away with the previous dualistic conceptions of the world into centre-periphery, city-countryside or urban-suburban. Instead it entails a merging of these concepts in favour of viewing the contemporary city as a place of change, unpredictability and potentials.

The following will account for three tendencies contributing to this paradigm shift and the notions of landscape urbanism, thus making up a new urbanism of our time: urbanism as a modern paradox, urbanism as interrelated and competing networks and urbanism as a dissolution of dualities. These tendencies then conclude in a discussion of the resultant approach in this urbanism. Each of these tendencies could in itself be subject to further investigations and elaborations, which has not been the objective here, and they are therefore described only as a brief overview that can shape an understanding of contemporary planning practices as well as a foundation from which to unfold the perceptions of landscape urbanism.

A MODERN PARADOX

The paradigm shift towards a more process based planning is essentially a gradual confession that chaos, coincidence and ambiguity are permanent within the contemporary city. These phenomena are not new, however, as they in fact spring from the modern society in its hasty progress towards new technologies. Thus the modern society from which the new planning practice tries to distance itself is in fact the creator of its foundation; a paradox as the static and foreseeable view upon the world has entailed a dynamic an unpredictable world.

Contemporary approaches seek to reconcile with the modern society's dissolution of traditions and institutions. Hence, the modern society has proceeded into a new and more self-critical stage, where the modernistic dreams of a rational and palpable society are abandoned. (Pedersen, 2000 p. 470)

Modernism was a trend of thought which embraced change and the new. By rejecting historical styles and tradition, modernists did not gain their legitimacy from a central original act in the past; instead the legitimacy of theories was linked to a coming future. The modern legitimacy was based on an idea one could try to make into reality, an idea-based form of legitimacy that gave the modern attitude the characteristic project-form where the will was pointed towards a goal. (Pedersen, 2000 p. 461)

The modern society was reflected by intense economic and technological development; the cities were growing and new social classes emerged. The adaption of modern production into daily life, such as electricity, the telephone, and the automobile, created a need for new forms of manners and social life. The modern society was characterised by mankind's movement towards the good and utopian society by means of the effects of knowledge and technology. In the end, science and scientific rationality came to be seen as the source of logic and stability. (Pedersen, 2000 p. 460)

In essence the modernists argued that the industrial and mechanized age brought with them new realities that would be permanent and that these new realities would equal aesthetical beauty and goodness, hereby creating an ideological paradigm with focus put on new technologies to create the utopian society.
Concurrently, the paradigm known as 'pragmatism' arose as a critique to modernism. The pragmatic attempts to reconcile rationalism's interests for principle (what should be) and empiricism's interests for proven facts (what is) are fundamental for the contemporary way of thinking within pragmatism, and thus this approach stands in contrast to the positivistic search for an eternal universal truth known from the philosophies of modernism. Accordingly, pragmatism invalidates ideologies and theories of the future by instead focusing on what is here and now. (Rajchman, pp. 212-213)
These two paradigms, the ideological modernism and the anti-ideological pragmatism, were both developed in the early 1900s. When modernists sought to create the utopian future, pragmatists stated the impossibility to speak of the future but instead focusing on the status quo.
William James, one of the first pragmatists, stated this problem of how to see and respond to the emergence of things for which we have no preset manner of seeing or responding to. He called it "the problem of novelty" – the problem of how to deal with "things in the making". (Rajchman, p. 213)
This original understanding of the world without 'absolutes and essence', as the pragmatists describe it, becomes relevant in the contemporary world of unpredictability and constant changeability. With the acknowledgement that the city is under eternal change with its buildings and places constantly having to adapt to new needs, it is hard to argue that architecture contains the truest solution. The belief in this architectural essence as a goal for an artificial aspiration that claims the right to decide the physical design of the city is not relevant in the pragmatic acknowledgement that meaning only arises as things make a practical difference. (Nielsen 2004)
The 'things in the making' have thus been given renewed life as a formulation capable of capturing a revitalised pragmatic approach of grasping what is here right now – a pragmatism fitted to the unpredictability of contemporary urbanism. This paradigm shift was actualised by architects such as Rem Koolhaas in the 1990's through architectural discussions and is now evident in today's architectural theorists and practitioners. The paradigm has by American philosopher John Rajchman been labelled 'new pragmatism' (Nielsen, 2004), being not a purely pragmatic approach, but also containing modern attitudes as well. This is seen in the way contemporary architects do not dissociate themselves from theories, programmes and abstract correlations as the classical pragmatists, but instead take starting point in the actual unpredictable character to then work with such theories, programmes and abstract correlations.
Rajchman describes new pragmatism as 'a pragmatism of diagram and diagnosis'. Here he refers to the forces which operate within the urban realm, e.g. market forces and stakeholders, forces that are perhaps unpredictable, but which we can articulate and experiment with as "things in making". New pragmatism thus engages in many unknown futures impossible to grasp, because it is always in progress - in the making. (Rajchman)
With diagnostic methods, the new pragmatist takes its starting point in the existing city and is open for its changeability. (Nielsen 2004)
Rajchman's description of new pragmatism and its methods paint an overall picture of how contemporary architectural practices approach the city. In other words, many of the more radical approaches to architecture and urban design we see today spring from new pragmatist thought in one way or another.

INTERELATED AND COMPETING NETWORKS

To narrow down the notion of unpredictability we stumble upon the view of the city as a network. It is said that the city should be viewed as dynamic and adaptable. The city should be understood as flows and eco-systems. The city is in fact not a city, but a region, or perhaps the whole world. The meaning of such statements is best explained by first looking at the concept of the network city.

The massive expansion of our cities has laid the groundwork for complex and extensive infrastructural systems in and between urban regions, while also being a response to the increasing spread of virtual networks such as e-mails, instant messaging, cell phones and wireless communication. With globalisation and privatisation, these tendencies have shifted from modernistic infrastructural planning ideals, from viewing infrastructures and utilities as a public service that provided the city, to complex competing networks and their related interests, stakeholders and spaces.

Stephen Graham, American theorist and geographer, has carried out intensive research in this matter, and in his book Splintering Urbanism (together with co-author Simon Marvin) he explains how the contemporary city is now to be perceived as much more complex and dynamic as a consequence of global economies, television, communication and mass mobility and that the contemporary city can be viewed as ecosystems of competing networks, which link the cities together and form the core of global capital, producing the geography of flows that structure economies and societies today. He investigates the contemporary urban condition regarding networked infrastructures such as transport, telecommunications, capitals, energy, water and streets, which make up cities and urban regions, and sees the contemporary urbanism as a complex and dynamic sociotechnical process. (Graham 2001, p.8)

Graham describes these urban processes as constituted through many superimposed and interconnecting infrastructural 'landscapes', which rely on each other and co-evolve with urban development and urban space. (Graham 2001, p. 8) This use of the term 'landscape' draws on the notions of landscape and ecology, although not as directly as seen in landscape urbanism, which is devised more through eyes of a landscape architect and the characteristics of landscape, topics which will be discussed in the second part of this chapter. But by referencing to a landscape of processes, the networks that Graham speaks of become grounded in the spaces of our cities.

In these discussions of network, attention is given to issues of identity, place and geography, issues of great importance in the architectural world, but also issues which may seem threatened by the tendencies of the network city. According to Graham, of special interest here are especially the hubs – or the points – of the network city. He pinpoints that leading distribution hubs for road, rail, sea and air logistics seem to emerge as mini-cities in their own right due to their connecting flows, while also delinking from the immediate spaces around them to a certain extent. (Graham 2004, p. 165)

Graham follows that the tension between concentration and deconcentration are at all scales embedded in the relationship between urban and network architectures, resulting in a much more fluid and fractured urban form, where the urban periphery can be the centre and the centre can be the margin. (Graham 2002, p. 111-112)

These thoughts are further elaborated by Alex Wall, who settles with the 'traditional city' by instead renaming it the 'regional metropolis'. He thus brings forth new ways of perceiving cities in a more regional perspective. Wall stresses a fundamental paradigm shift from viewing cities in formal terms to looking at them in dynamic ways. He describes the regional metropolis as served by overlapping networks of transportation, electronic communication, production, and consumption, where infrastructures and flows of material have become more significant than static political and spatial boundaries. *"Hence, familiar urban typologies of square, park, district, and so on are of less use or significance than are the infrastructures, network flows, ambiguous spaces, and other polymorphous conditions that constitute the contemporary metropolis."* (Wall p. 234)

Wall furthermore points out the interrelation between these networks. He compares the contemporary metropolis with a spreading rhizome, dispersed and diffuse, but at the same time infinitely enabling, hereby saying that all processes are interconnected and networked across vast regional – if not global – surfaces. (Wall p. 234)

The view of the city that Graham and Wall present to us exemplifies the new pragmatist philosophies in an architectural context, as it attempts to redefine the substance that makes up our cities. By introducing the notion of 'flows' and 'processes', attention is given to the fact that we as planners are not limited to dealing with the design of physical objects alone, but also material and immaterial processes in time and space. In addition, with the idea of network as open-ended and horizontal, as having no final form, but always being open and adaptable, these thoughts also point to a more process-oriented planning - the notion that planning for processes and planning over time is perhaps a more appropriate way of capturing the unpredictability of the contemporary city instead of ideological attempts to predict a shape and form that the city must follow.

DISSOLUTION OF DUALITIES

With the notion of the city as network and urban spaces as fractured also follows a so-called dissolution of dualities in architectural discourse. This dissolution refers to the tendency that the former dichotomies used to describe the physical attributes of our cities, centre-periphery, urban-rural, culture-nature, no longer apply to the condition at hand. We are therefore in need of a new 'language', both verbally and visually, with which to describe our urban environment to ease a more appropriate planning practice for our cities. This dissolution reflects the general tendency towards a network structure - a structure that cannot be described with the help of oppositions as was known from the days of modernism.

This issue is greatly problematised by Rem Koolhaas. He insists that identity in its essence centralises and relates to a point. Therefore, when its sphere of influence expands, the core of this area is diluted, while the periphery is left as an undefined and neglected area. *"Conceptually orphaned, the condition of the periphery is made worse by the fact that its mother is still alive, stealing the show, emphasizing its offspring's inadequacies."* (Koolhaas 1995, p. 1249) The situation Koolhaas here expresses is how our definitions of centre and periphery are beginning to lose their former significances. With cities expanding in size and network, many peripheral areas no longer relate to the historic centre of cities, but may start to create an identity of their own. If the centre is diluted in its identity, the periphery may become stronger economically and socially – the periphery may in fact become the new 'centre'. This fractured nature of the urban fabric is also the splintering urbanism that Stephen Graham's network city refers to, a situation where the city now begins to compete from within itself to global levels. Thomas Sieverts, German architect and professor, elaborates on this notion in stating that the pace of information and physical flows has blurred the notion of space and increasingly fractured the structure of the contemporary city, which gradually has dissolved the traditional hierarchical pattern of urban vs. nature. (Sieverts 2003, p. xii-xiii)

This proves quite a challenge for urban planning, as the city and its sites must now be addressed in new ways. If we take a look at the periphery, the urban has always been known to encroach on the rural, but now many urban areas are taking rural form and vice versa. These semi-urban areas have become so extensive as to constitute entire generic zones. *"These might be called peripheral sites, middle landscapes that are neither here nor there, and yet are so pervasive as to now characterise the dominant environment in which most people actually live."* (Wall p. 234)

Thomas Sieverts identifies this semi-urban condition in his concept of "Zwischenstadt" where he manages to express the diffuse suburban condition in a specific and constructive way. The term Zwischenstadt describes the emergence of a new urban-rural landscape which is characterised by an increasing dissolution between the structure of the city and the open land, and it furthermore indicates a progressive dissolution of traditional hierarchies and a mutual penetration of built structure and landscape. Zwischenstadt thus *"signifies that today´s city is in an "in between" state, a state between place and world, space and time, city and country."* (Sieverts, 2003. p. x)

According to Sieverts, Zwischenstadt is often criticised for the fact that it appears unplanned and disorganised, with small individual islands of geometrically structured patterns without one clear densification point, created by the behaviour of the real estate market as buyers are constantly seeking affordable properties reachable from the city and with access to the open country. In the course of time the original freedom found in Zwischenstadt becomes limited as the areas fill up and due to the fact that the new development areas have to respond to the restrictions of the increasingly built-up areas. When the available land has been completely developed, further development can only be implemented through intensification, reutilisation and regeneration of disused sites. Consequently, a carpet of settlement seemingly without plan is produced, because small incoherent real estate trends have drawn the plan.

Sieverts responds to the reality of the contemporary situation of Zwishcenstadt, not because he favours it, but simply because it is an unavoidable consequence of contemporary urban structure. Here he implicitly criticises the profession of urban planning as he points to the great rejection of these areas in the minds of many planners. This poses a problem, as people gain an anaesthetic relationship to these areas, being mentally and emotionally unable to embrace them, and therefore feeling no responsibility for the areas. (Sieverts, p. 5)

Sieverts perception of the semi-urban condition is thus in no way negative or dismissive, but in fact optimistic. It calls for new design approaches capable of grasping the immense possibility for invention and experimentation on the fringe of the city, as these are the exact areas where the city truly evolves and grows. He argues that due to their indefinable and unpredictable character, these areas have to them an air of freedom and possibility for new ideas and experiments. (Sieverts, p. 5)

"Instead of criticising the lack of urbanness, we could perceive a decentralised cultural diversity… Instead of complaining about the loss of centrality, we could recognise a modern network structure…more akin to our pluralistic and democratic society..." (Sieverts 2003, p. 49)

Sieverts' Zwischenstadt is a refreshingly dynamic portrayal of areas otherwise criticised for lack of identity with poor public spaces and life. Instead he puts focus on their indefinable character as an object of interest and imagination, sparking a creativity and dedication much needed towards these areas by the world of architecture. The approach he calls for is one that does not attempt to redefine or alter the nature of suburbia, but rather one that works with the potentials and qualities that such areas hold.

These peripheral sites are still the 'tabula rasas' of planning. They are often seen as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clean slates on which housing demands and financial models can steer the planning of new urban areas – a perception in need of a new direction. These sites are also characterised by processes and are as much a living witness of history and change, albeit these processes are not as tangible. These areas also carry with them a unique aesthetic that due to its everyday character often is neglected and lost in the masses of the trivial.
The fractured urbanism that these semi-urban areas are part of is also an urbanism full of potential. Although seen by many as troubled sites of crises or lacking vitality, they beg for innovation and experimentation. The challenge lies in how we as urban designers address them. How can we overcome the dualities that have previously constituted our discipline?

A NEW APPROACH FOR THE PARADIGM SHIFT

Sieverts' search for imagination and creativity when planning for the contemporary city of networks seems to hit a target. He acknowledges that the present view of urban development is shaped by the concept of uncertainty and calls for a design process capable of dealing with the indeterminacy and making the fragmented urban landscape "speak" to the human. (Sieverts, p.8 & 12)

Sieverts thus argues that research and analysis of urban structures has to incorporate a certain degree of uncertainty, which means that standard models of analysis no longer apply to the understanding of the contemporary city. The analysis needs to operate experimentally on different levels, while simultaneously examining the contemporary city with the purpose of creating a general explanation of the phenomenon. A more creative and forward-looking approach is thus needed to grasp the pace and uncontrollability of the city.

Such creativity calls for a degree of openness in the design which works with the pace of society instead of ignoring the complexity of and hence binding it for future generations. Likewise Rem Koolhaas reacts on the conventional approach to planning in his essay "Whatever Happened to Urbanism?… *"If there is to be a 'new urbanism' it will not be based on the twin fantasies of order and omnipotence; it will be the staging of uncertainty; it will no longer be concerned with the arrangements of more or less permanent objects but with the irrigation of territories with potential; it will no longer aim for stable configurations but for the creation of enabling fields that accommodate processes that refuse to be crystallised into definite form…"* (Koolhaas, 1995, p 969)
Everything thus seems to point at the necessity of an approach to urban design which engages and embraces the dynamics and uncertainty of the contemporary society – a necessity of working with 'things in the making'. The art of urban design is therefore becoming less about finding new spatial forms and aesthetic appearances and more about activating and orchestrating social, political and ecological processes, as these processes have much more "power" in the establishment of urban relationships than spatial form. The contemporary approach to the urban hence recognizes the effects of form, space and materials which together constantly reshape the make-up of cities, as such physical form and material shall not only be valued according to aesthetics, but also for their instrumental and productive effects.
The perspective of a city of interrelated networks brings architecture and urbanism together with issues surrounding the social and technical make-up of mobility systems like the internet and transport systems, which calls for an interdisciplinarity that draws on sociology, planning, geography, sociology of technology and urbanism – an interdisciplinarity that acknowledges the co-dependency between the different 'landscapes' of urban processes. This interdisciplinarity states a much more humble role for the architect than the modernists would have accepted, acknowledging that we as architects and planners are not the only experts according the contemporary city. James Corner insists on this by declaring that *"A designer can no longer walk into meeting as heroic author or masterplanner; one must be prepared to engage, converse, share, reflect and revise."* (Corner 2003, p 22) In other words, the urban designer must engage different disciplines in the design process, hereby incorporating and activating the complexity of the contemporary city in an early stage of the design process. This stance of interdisciplinarity is supported by Koolhaas, who pronounces that the creation of cities is based on a wide range of parameters of which the architect can hope to influence only a few. (Nielsen 2004)
The need for interdisciplinarity in the design process calls for architects and designers to orchestrate a collective of different professions and generate new interrelationships, which can lead to ideas towards a new synthesis. It is thus important to recognise that the urban designer shall not be a specialist in ecosystems or in political systems, but should

merely use these parameters to create and engage new images and projections.
This also casts new light on the urgency for a more interdisciplinary approach within the world of architecture alone, where tradition has ensured a professional division between the architecture of buildings, of landscape and of cities. This distinction between the landscape architect, the building architect and the urban designer, just like the dualities of the city, are also dissolving. With no sharp distinction between urban and rural, between nature and culture, how can we maintain disciplines that still operate with these dichotomies?

CONCLUSION

The tendencies described above as well as the resultant approach basically draw an overall picture of the philosophies and rationales behind landscape urbanism. In other words, landscape urbanism is in its essence a new pragmatist approach that views the world as an eco-system of networks and processes. However, what truly makes landscape urbanism stand out as an actual position is its view on landscape and ecology, why especially the dissolution of urban-rural and nature-culture is interesting here, and why its theories may truly come to life when applied on sites of the aforementioned semi-urban landscapes.

The consequences of these tendencies is a design approach focused on open-endedness and interdisciplinarity, an approach that reforms the previous conception of the architect as an artist expressing a personal vision through architecture. Architecture is instead given a new role as an interface between humans and the rest of the world, and must somehow also respond to a wish of creating a better world through social and environmental awareness. This new approach also entails that the influence an architect has on the world is only temporary and is simply one of many influences from a wide range of disciplines. Instead of viewing this as a threat to our discipline, this project optimistically grasps this as a potential of creativity! From being designers of permanent objects we become architects of integrated processes and relations, and by acknowledging this we may in fact gain more influence than ever before.

LANDSCAPE URBANISM

Building upon the tendencies presented in Urbanism of Our Time, landscape urbanism continues in these tracks by not just reflecting the tendencies of the contemporary situation, but reaching a new approach of planning with the flux of the city. James Corner suggests a landscape urbanism with a whole new line of thought which puts focus on the relation between human and nature as a necessity to reverse current situations of ecological instability and social imbalance. This is presented and interpreted in the themes of landscape and ecology which spark a renewed perception of human, nature and culture as being part of the same ecological system. The concepts of images and mappings elaborate on the perception of the world as an ecological system and propose a new approach to planning with this attitude. Each of these themes is central in Corner's approach to and perception of the contemporary city and his work can therefore be seen as steering the theoretical foundation of the project.

LANDSCAPE

The notion of landscape is a key concept in landscape urbanism. James Corner relates the term 'landscape' in landscape urbanism to the meaning of the old German word *landschaft*, which does not refer to the idea of scenery, but to the environment of the working community comprising dwellings, pastures, meadows and fields.

This signalises that the interpretation of the word is an intimate mode of relationships among the different actors on the field such as buildings and fields, patterns of occupations, activity and space. Here Corner relates landschaft to the German gemeinschaft, which refers to those forms and ideas that structure society in general, meaning that landscape is to be understood as an occupied milieu with the effect of this occupation and its engagement over time. The term landscape thus no longer refers to a mere picturesque interpretation, but rather to a connecting surface that organizes objects, spaces and the dynamic processes and events which act upon it. (Corner 1999, pp. 154) It is an interpretation of landscape as an active surface, meaning that landscape is much more than just spaces in-between buildings and recreational space. Landscape is therefore to be understood more broadly as the inclusive ground-plane of the city, being the surface accommodating buildings, infrastructure, supplies, open spaces, enclaves, and natural habitats. In this way landscape as landschaft becomes the ground structure that organizes and supports a wide range of steady and evolving actors on the surface of the city. (Wall 1999, pp. 233)

Corner contrasts the landschaft understanding to the term *landskip*, which sees landscape as contrivance, primarily visual, which implies a picturesque perception of landscape. The perception of landscape as landskip thus implies an interference in the creation of the picture, where the picture is not a sole reproduction, but rather an interpretation of a representation. Corner explains the problem with the term landskip as a denial of the deeper modes of existence, interrelationships, and creativity – a denial which conceals the agendas of those who commission and construct it, hereby limiting the design and planning of the field in shaping alternative interrelationships to improve human conditions. By reducing landscape to the interpretation of landskip, the field of planning will only revolve around representation and the creation of static images. (Corner 1999b, pp. 154-155) However, landskip is still an important parameter in the creation of images which are crucial to the urban designer as representation is the groundwork of our discipline. The act of representation is therefore not neglected, but the concept of landscape is in landschaft elaborated to entail more meaning than just a picturesque representation. By using the word landschaft it is possible to project the productive and participatory phenomenon of the everyday in the interpretation of landscape, which means that the landscape becomes a working landscape capable of absorbing changes over time. The urban surface is dynamic and responsive, and like a "catalytic emulsion", the surface literally unfolds events in time. (Wall, p. 233) This interpretation of landscape as a surface thus signalises an adaptability which is constantly reworked by the agents acting on it. In this sense, the city becomes just as much a working landscape as the agricultural

fields, as the plots of private gardens and public activities constantly work on the urban surface. Likewise, the gardens are defined less by their representational image than by the activities of gardening, just like agricultural fields which are shaped according to the logistics of farming, and cities which are shaped according to flows, processes and forces of urbanization.

Corner's definition of landschaft puts focus on the performativity of architecture rather than on exact aesthetic appearance, a notion which is verified by Stan Allen who states that contemporary architecture is a material practice – an activity that works in and amongst the world of things, and not exclusively with meaning and aesthetics. Allen continues that a concern with the behaviour of large-scale assemblages over time makes contemporary architects work with performance: energy inputs and outputs, the calibration of force and resistance; they are less concerned with what things look like and more concerned with what they can do. He speaks for a practice engaged in time and process – an architecture devoted not to the production of autonomous objects, meaning, and aesthetics, but rather to the production of directed fields in which programme, event and activity can play themselves out. (Allen 1999, p. 11)

This interpretation is similarly supported by Steen Høyer, Danish landscape architect, who gives his take on the Danish landscape, which is characterised by being just as much a cultural as a natural landscape, as logistics of agriculture constantly have reworked the landscape. Additionally, the urban expansion since 1960 has stimulated transportation, energy, and communications infrastructures to be the most significant landscape architectural features of the country. A shift in service economies has furthermore increased the employment in the urban area which consequently has created a demand for recreational space in the countryside. These tendencies put great pressure on the traditional Danish landscape, posing the question of how to embrace and integrate these conditions in the future Danish landscape. The normative approach within the Danish field of planning is one of preservation, which according to Høyer presents a static view upon landscape as a framed picture visualised on a postcard. However, this approach forms a paradox, as the image wishing to be preserved derives from a landscape which has been worked, produced and transformed in practical ways. The scenic image thus only presents a static image as a historical sign, while the experiences of land move from engagement and change, constantly absorbing the features played upon it. (Høyer 1999, pp. 69-71)

Corner, Høyer and Allen thus all seeks to understand the landscape as a living and performative surface with a constantly evolving character as result of both natural and cultural processes. However, by withholding the interpretation of landskip, Corner puts focus not only on the performativity of design, but also on the representational act as the tool of urban designers for the creation of images, a concept which merges the two terms. We will return to the concept of images later in the chapter.

This perception is radically different from traditional views within planning, as it forces us to view landscape in the same ways we view the city, and also to view the city through the lens of landscape. These reversed optics spring from a fundamental discussion of the reality of 'the natural world' and the term 'ecology'.

ECOLOGY

"humanity has developed…as nature reflecting upon itself"
Corner, in his description of social ecological thought. (Corner 1997, p. 95)

James Corner actively engages ecology in his way of acting within the architectural field. This is a response to the condition of the contemporary city by defining the metropolis as thick living mat of accumulated patches and layered systems, with no singular authority or control. (Corner 2003, pp. 59) He thus views the city as a living ecology. Ecology is by James Corner defined by the fact *"that all life is bound into dynamic and interrelated processes of co-dependency"* (Corner 2003, pp 63), signalising that every single unit operating on the planet is part of an overall ecosystem, and can thereby cause significant effects somewhere else on the planet. Additionally, the complexity of these multiple interactions creates effects that in interrelationship with other effects will evolve continually new forms and interrelations in time. The caused dynamics and interrelations defined by being in the process of becoming something else are highlighted in the concept of ecology. (Corner 2003, pp. 59)

Corner's use of the term ecology is by no means without a great degree of reflection, and his choice to engage this quite value-laden word in his writings and projects seems an

act of profound intention and determination.
The word ecology has its roots in the mid 19th century as a name for a new biological discipline, defined as the scientific study of the relationship between organisms and between an organism and its environment. The term organism may refer to both the biological organisms of nature as well as human beings. (Kvisthøj, p. 2) This scientific field is often applied in architecture as well, especially in landscape architecture. How this science is operationalised in architectural theory and practice is where ecology becomes interesting for this project.

Corner points to the fact that the word 'ecology' is far from an objective or neutral term, but in fact describes and constructs a diverse range of ideological positions, e.g. green politics, nationalism or even feminism. It creates different ways of perceiving and relating to nature – from rational views to those that are mystical and religious. (Corner 1997, pp. 83 – 84)
He criticises landscape architecture for engaging a very scientific ecology where nature and landscape are seen as separate from culture. He sees this as a failure to recognize that nature in itself is a cultural construction. (Corner 1997, pp. 84 – 85)
As an example, Corner mentions the evolutionary and active life processes of which ecology speaks – processes which are rarely engaged in landscape architecture. This has led to exclusionary views of what is 'natural' and often aspirations to recreate such 'naturalness', e.g. through the use of terms such as 'foreign' and 'exotic' versus 'native' species. (Corner 1997, p. 86) Such an approach does not accept the ongoing evolutions and mutations in the biological world, processes which would otherwise constantly redefine and dissolve such a vocabulary. Cultural activity is also part of this evolutionary process, and human influence on biological conditions is perhaps as 'natural' as any other.
In other words, the values and aesthetics we see in nature and landscape are in themselves cultural ideas, not springing from the actual 'nature'. When architecture chooses to emphasize and build on such values, the cultural concept of an 'external nature' is strengthened, and perhaps it is time to break away from this non-reflective line of thought.

This notion of an 'external nature' often carries with it an awkward relationship between nature and culture, where one is favoured or dominates over the other. Corner explains how this can be seen in the two dominant streams of ecological practice within landscape architecture: resourcist and restorative ecology.
Resourcist ecology perceives nature as composed of various resources that have a certain value to humankind, and therefore utilizes ecology to gain or manage control over the 'environment', e.g. in forestry, agriculture and recreation. Restorative ecology focuses on the physical reconstruction of nature or perhaps whole regional eco-systems, having a romantic view of the natural environment as being primary and native. Where one stream utilizes ecology to maintain and strengthen human control over the environment, the other uses ecology to argue for a romantic view of Nature without the interference of humanity, whether it be through urbanity, art or cultural life. According to Corner, both of these ecological streams thus fail to address the social structures that underlie such a dualistic view, and the social issues of alienation, domination and estrangement are ignored. (Corner, 1997, pp. 90 – 93)
This dilemma puts perspective on Steen Høyers critique of the preservative traditions in Danish landscape planning, which neglect the cultural processes which have shaped and are still shaping the landscape in question. How can we protect nature from human influence, when the essence of what we are trying to protect is just that: humanity?

Corner therefore calls for a renewed ecological perception that, instead of promoting human domination over the non-human (Corner 1997, p. 87) or placing nature on a pedestal not to be touched by humans, works on the premises that the natural and cultural worlds cannot be seen as contradistinctions, but as interdependent constructions. Natural and cultural processes should be seen as part of the same ecology where cities are just as ecological as forests and rivers, as they are all part of the same ecosystem and together create dynamics and interrelationships that spark a process of evolving into something else. Corner describes this ecology as integrative "soft systems", or living systems, such as fluid, pliant, adaptive fields that are responsive and evolving. The living system has the ability to absorb, transform, interact and exchange information with other agents working in its surroundings and it thus obtains the ability to handle and process movement. This interpretation of ecology calls for the constant need for cities and landscapes to be flexible so they are capable of responding to changing needs, demands and potentials. (Corner 2003, pp. 58-63)

However, natural and cultural processes cannot be merged as equal parties. By quoting eco-socialist Joel Kovel, Corner emphasises that *"We cannot collapse the human and Natural worlds one into the other, except as a wishful illusion. We have only the choice*

as to how Nature is to be signified." (Corner 1997, p. 99)
And to signify is the exact competence that architectural practice embraces. In this view ecology must find a new role when operationalised in architectural language, no longer just enabling a scientific study or prescription, but able to *"inform and embrace those poetic activities that create meaningful relationships between people, place and earth"* (Corner 1997, p. 88).
If we as designers and architects engage an ecological view where nature and culture are part of the same living system, this ecological view will manifest itself in the spatial and social worlds we attempt to create. The key here is the creative process by which we design these worlds. It is the interface that can create the meaningful relationships of which Corner speaks – the relationships which spawned the field of ecology to begin with. Design and architecture thus become the media through which nature and culture are articulated and signified as images – and this articulation is essential for the relationship we as humans have to nature, the environment and our own culture. If we wish to help bring forth a world where a meaningful relationship is established between humans and between humans and nature, the design must be a conscious attempt do away with this externalisation of nature. Only then can we talk of solving the ecological crises and environmental strains of the world, as the problem begins with ourselves and our relations.

IMAGES

A binding notion in Corner's comprehension of landscape and ecology is thus the concept of images. Images are here the media which deal with the establishment of new interrelationships between human and nature, and through this it stimulates a new perception of culture and nature as part of the same living system.

Corner elaborates on images in his article Eidetic Operations and New Landscapes, by casting light on the forces of images. *"To restate an important point, no matter how objective and descriptive the claims for it might be, imaging always exercises agency, actively unfolding, generating, and actualizing emergent realities."* (Corner, 1999b, pp. 160) By this he states that images produce an appearance of what is otherwise invisible, such as when reading a book or listening to music where the images appear mentally. (Corner, 1999b, pp. 159) Corner defines the act of imaging as eidetic operations, which he denotes as *"Specific ideational techniques for construing (imaging) and constructing (projecting) new landscapes."* The eidetic operation is therefore to be understood as ideas constructing an image and the ability to project the image in space. The role of the architect is thus less to picture activities than to facilitate and instigate images in the creation of space. The perception of image can therefore be linked to a conventional map in an atlas as the map produces an appearance that is invisible, but over time and use is accepted as convention. It thus sparks an elaboration on the creation of space, because space itself is neither sensible nor imaginable, but is created mentally in the act of imaging. (Corner 1999b, pp 161)
In other words, the concept of images is to be understood as a way of designing performatively with space, utilizing the temporal changes in the creation of space to establish meaningful relationships. This could for instance be in the creation of events which stimulate the perception of the space by adding new layers of meaning and hereby forming a public opinion towards the space. In this way, images become the interface in which human-to-human and human-to-nature relationships are established. Working with images thus becomes a performative act in it self as it exposes meaning in space and thereby mentally establishes the space. Additionally, by actively engaging the different processes on site through images it is possible to reveal a deeper layering than is otherwise visible to the eye.

Corners concept of images is supported by Thomas Sieverts, who also draws attention to the significance of images. Sieverts sees images as especially suited for providing the basis for designing with uncertainty. Here images are capable of signalising an open functional definition of the open wholes and brand the aesthetic of nature, thus being capable of developing a political decisional power. Designing images thus stimulates the fantasy and creates an imaginary space of hope which when implemented opens for rich processual stages, where each stage stimulates the population to play with them and to take possession of them, which again stimulates to the ever evolving shaping of space. (Sieverts 2003, p. 162)
Images are hence according to both Corner and Sieverts capable of dealing with the open-endedness and processual making of space, where images establish the human perception of space.


26

MAPPING

The concept of images casts a light on the task of the urban designer, who brings focus to the actual activities of creativity in the creation of images in contrast to the theorist and historian who primarily puts focus on the idea or object. A concern here is according to Corner not so much the kinds of images the designer brings forth, but rather the kind of imaging activity which is activated in the process of generating images. Here he suggests mapping as a method of creating images, as mapping incorporates and "plays" with different processes on the site.

Corner elaborates on the act of mapping in his article The Agency of Mapping, where he investigates the potential of mapping as a generator of design. This is an acknowledgement of the fact that mappings in themselves are never neutral or objective, but are the result of a selection of information and a graphical layout – or staging – signalising a conscious or unconscious agenda within the map. To bring about this emancipation, one has to not only select and isolate a chosen amount of information, but also has to redesign the whole framework within which this information is to be understood. However, he acknowledges that diagrams and mapping in themselves do not produce form, but rather they emit formative and organisational influence; shape-giving pressures that cannot help but be "embodied" in all subsequent states of giving region of concrete reality in which they act.

In his article Corner operates with the terms *mappings* and *tracings*. He describes tracings as mappings as equal to what is, simply reproducing what is already known, and instead calls for mappings as *equal to what is* and to *what is not yet*. Corner thus introduces new mapping methods that are less static and more open-ended in accordance with a more contemporary understanding of the world as a complexity of many layers, flows and processes. According to Corner, this new understanding of mappings unfolds potentials previously unseen or unimagined by gathering and showing things presently invisible but which may also conceal enormous potential for the unfolding of alternative events. The mapping thus becomes more a project than a mere empirical description. (Corner 1999a, pp. 149 - 151)

Corner emphasizes the capacity to reformulate what already exists as an important step in the art of mapping – a reformulation of not just physical attributes such as topography, rivers, roads and buildings, but also the various hidden forces that shape the system of a given place such as natural processes, history, economic and legislative conditions; political interests, regulatory mechanisms and programmatic structures. By visualising the connections and interactions, mapping actively participates in unfolding future potentials and unfolding a design process. (Corner 1999a, pp. 149 - 151) Thus the boundary between analysis and design begin to intertwine and blur as the analytical process evolves into a design proposal, and the design process involves analysis. Mapping thus becomes the creative process where the creation of images is unfolded – a sort of notations technique where potentials are being selected and new interrelationships are being instigated. The act of mapping is therefore capable of proposing and dealing with new interrelationships and processes with the potential of generating new form and images. It hence becomes a new design method which addresses and works positively with the mechanisms of the contemporary city.

Corner's mapping is closely related to John Rajchman's diagnosis and diagram. Rajchman argues that we are made up of processes of complexity and differentiation of futures unknown. The diagram connects us in other, indirect ways that work more through linkages, complicities, and alliances that grow up around new questions or in response to new conditions or forces. (Rajchman p. 217) According to him, diagrams are those images that introduce "possible movements", allowing for hybridity and relations of mixture; they thus let unforeseen things happen rather than trying to insert everything into a plan, system, or story. (Rajchman p. 216-217) Rajchman states the new meaning of the term 'diagram' as something that can function as an active, operational tool rather than just a passive, graphic presentation of already known conditions. *"It is a style of analysis, thinking, perhaps even of design,…"* (Rajchman p. 215-216) Corners method of mapping can in the same way be defined as an operational tool where future potentials are unfolded with possibilities of generating new forms and expressions.

'Fields', 'extracts' and 'plottings' comprise the operational structure of mapping according to Corner. The field is the aforementioned framework in which the extracts are organized, a graphic system consisting of orientation, scale, coordinates, units of measure and the graphic projection. This is perhaps the most creative and challenging act of mapping as

it requires the ability to distance oneself from conventional mapping techniques. Extracts are the things observed and drawn into the framework, being selected, isolated and pulled out from their original context. Extracts may include objects, quantities, forces, velocities and trajectories. Lastly, plotting draws out the latent relationships between the extracts of the field. It is here that potentials are uncovered as plotting entails a creative interpretation process of the map. (Corner 1999a, pp. 164 - 165)
This operational structure can also be applied to a design process where “fields” becomes the framework of the plan, “extracts” the information at work at the site, which through the operation of “plotting” are instigated into new interrelationships which can unfold various new shapes and forms within the framework. In this view the mapping in fact becomes the open plan, working with the complex layers of the contemporary city, not programmed or predetermined, but with space for transformation and unpredictability, and is as such a plane that images the real world as dynamic and constantly producing new unpredictable opportunities.

Together the techniques of mapping thus service a new art of instrumentality, an art that may prove to be ever more relevant in the face of a world where cities will continue to see exponential population growth, increased environmental stresses, complex demands upon space, and radically weakened control with planning due to ever increasing market forces. Here mapping seems to offer an alternative approach to the traditional static plan, as the mapping incorporates and integrates the dynamics in the plan and instigates these to evolve to new potentials, and as such the dynamics of the contemporary city are reversed into potentials instead of possible parameters of destruction.

CONCLUSION

James Corner unfolds new perceptions of landscape, ecology and images. These are terms usually well-known within the architectural field, but here they are given new definitions or drawn into a different light. With focus on the more performative character of these terms, describing the world as a living system within which the mechanisms of the contemporary city interact, as well as the representational technique needed to bring this performativity to life, Corner adds a new layer to the formal and spatial traditions urban design. Through his mapping techniques he additionally proposes a more concrete method for the analysis and design process to follow, a means of poetically building up the images that are so vital for new relationships to take shape.

CASES

Landscape urbanism will now unfold itself through a study of three case projects which can elaborate on contemporary planning approaches, explore the physical proposals of landscape urbanism and reveal consequences and advantages. The projects in question are Ville Nouvelle Melun-Sénart by O.M.A., Emergent Ecologies by James Corner & Stan Allen and Decamping Detroit by Charles Waldheim & Marili Santos-Munné. These three have been chosen as they represent three different landscape urbanism approaches for the city: Ville Nouvelle Melun-Sénart works with the expansion of the city, Emergent Ecologies with a public park and Decamping Detroit with urban regeneration, hence comprising three different aspects of planning in the contemporary city. The general content of each case is first accounted for regarding the project objectives, plot and main operation. The cases are then discussed crosswise on a number of themes.

The selection criteria for the choice of case projects has been a focus on the fact that they all to a certain degree can be described as landscape urbanistic in order to compare the physical outcome, but also that they differ in theme and focus. The three projects of choice all work at a relatively large scale, and none of them directly treat the architectural form of buildings. This is perhaps a general tendency in landscape urbanistic projects as the scale of the project and consolidation of its elements may in fact hinder the notions of open-endedness. It can therefore be argued that landscape urbanism is not meant to be applied in projects of small-scale architecture, but is more relevant on large-scale planning considerations or as a landscape and park design.

VILLE NOUVELLE MELUN-SÉNART (case material & illustrations: Koolhaas 1995, pp. 972 - 989)

Architect: O.M.A, Office for Metropolitan Architecture
Status: Competition proposal for Ville Nouvelle Melun-Sénart, France (1987)
Location: Ville Nouvelle Melun-Sénart, France

The project for Ville Nouvelle Melun-Sénart by Office for Metropolitan Architecture is a competition proposal for the last of the villes nouvelles that encircle Paris. The Ville Nouvelle Melun-Sénart competition was launched in 1987 and the competition brief encouraged a development strategy for a new city encircling the already built up urban mass of Paris. O.M.A took a very clear stance on the project signalised in the quotation *"It was heartbreaking, if not obscene….to have to imagine here, a city."* (Koolhaas 1995, pp. 972-973)

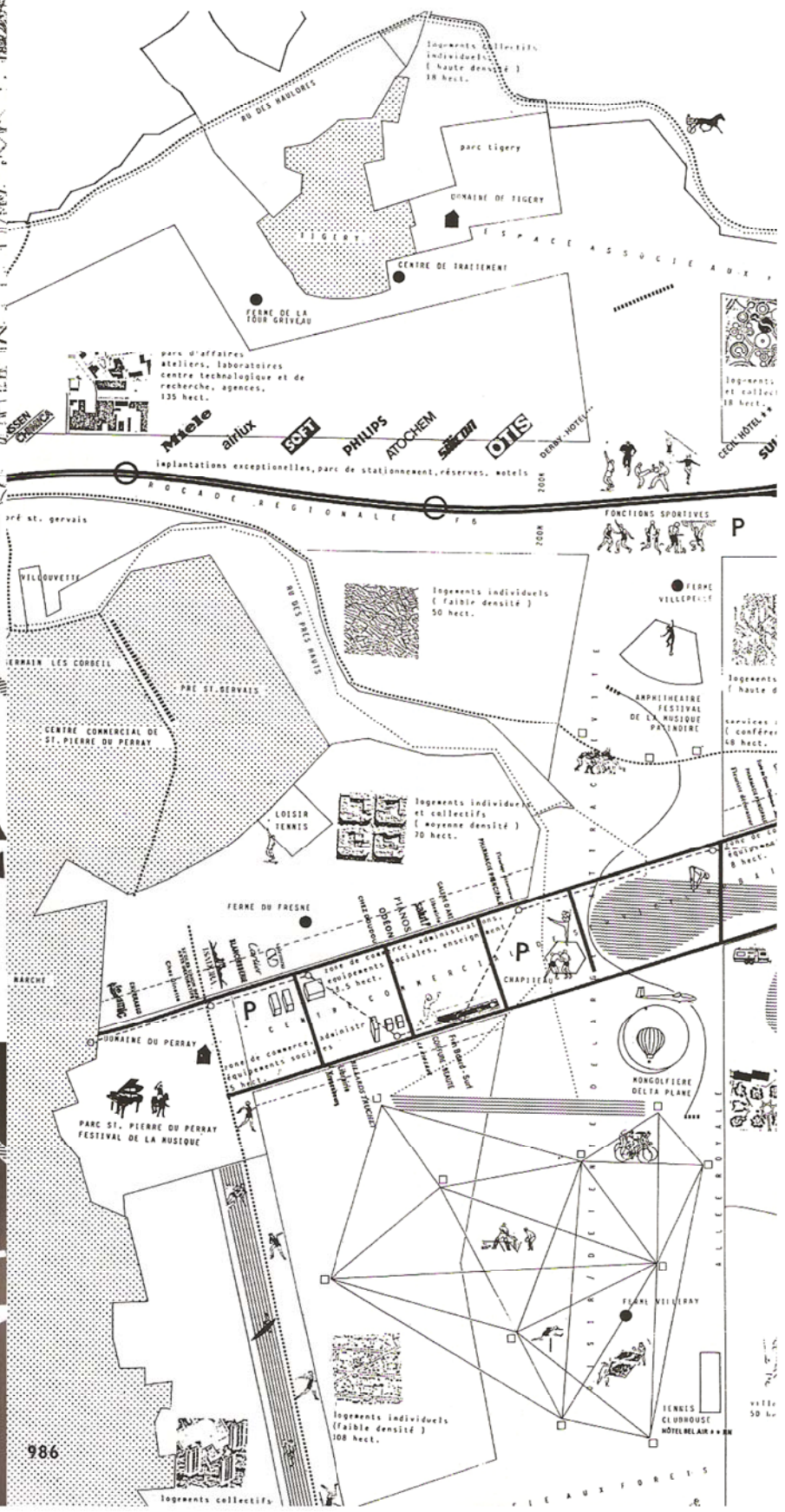
The project is thus a project about preservation rather than building - a stance caused by the result of the incontrollable market forces, which according to O.M.A has made it unbelievable that the built can be planned and mastered. As such the built is perceived as out of control and assigned to political, financial and cultural turbulence, as opposed to the un-built which is perceived as green, ecological and popular. Preservation of the un-built is in the situation of uncontrollable market forces an easy and legally controllable manoeuvre relating to the popularity of the green void. Preservation is thus the primary concept of the project captioned in a single word: surrender. O.M.A propose a surrender to the market forces by only planning a preservation of certain nature qualities of the area. O.M.A thus suggest a landscape urbanism attitude towards planning by accepting the dynamics of the contemporary city and working with them as a premise, hence proposing an open-ended plan where the generator for urbanism are the qualities of the void which will secure a sustainable future for the Ville Nouvelle Melun-Sénart.

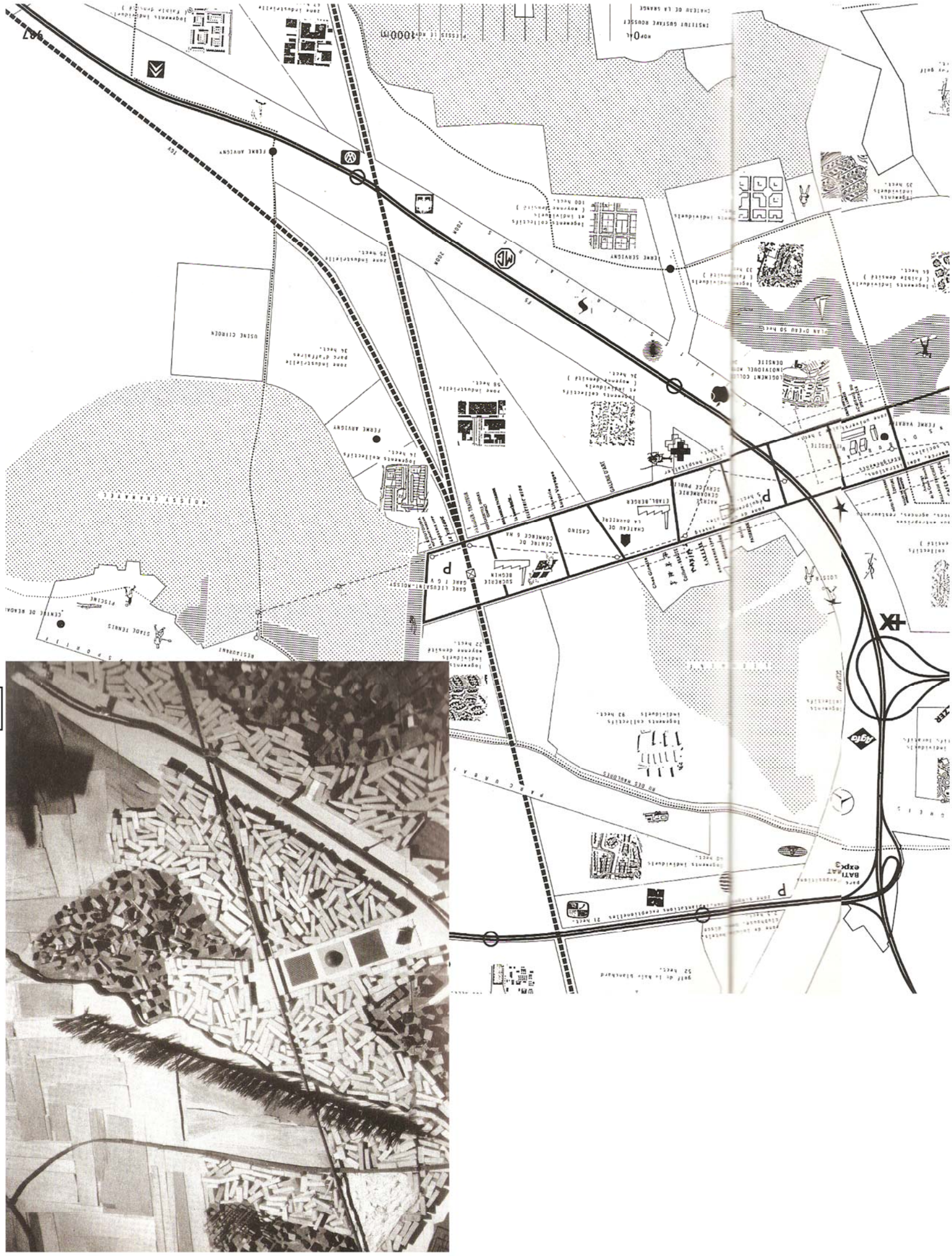
PLOT

The area of Melun-Sénart is composed of old villages, two enormous forests, farmland, a future campus, a highway and a stunning area of landscape between the forests which was used by the French kings for deer hunting.
It is located in the outskirts of Paris, and the context of the area is therefore one of suburbia. The site thus presents the remaining nature of the nearby surroundings of Paris.

OPERATION

The physical operation of the project is the reservation of landscape through the composition of a Chinese figure, consisting of a range of crossing bands which symbolise the landscape elements of the site which are to be protected from the 'contamination' of the city.
The Chinese figure thus establishes the structuring element of the new city, which contrary to the classical city is built on the idea of a void that reaches every new neighbourhood in the future city. O.M.A hereby create a potential contrast between the empty preserved areas of the site and the forthcoming built-up urban mass of the Ville Nouvelle Melun-Sénart. The physical construction of the project is thus composed by the bands and the islands, where the bands present the preserved public voids and the islands present the future urban mass.
The bands are constructed as a system of linear voids with different characters. Some of the bands are preserved with the intention of preserving original landscape or historic elements to "engage" beauty. Other bands are formed according to the existing highway and TGV line. These are bands with a more urban character. The one running parallel to the highway will be future settlement for urban elements such as supermarkets, headquarters, office parks etc., whereas the band running parallel to the TGV line functions as a buffer for noise pollution from the trains passing. Additionally, other bands secure views to the two forests while other bands are intended to be distributors of major public programme. Here one of the programmatic bands is to be programmed with a future campus, where O.M.A proposes that the campus should be structured in a sequence of campus programme instead of the traditional enclosed enclave.
The various bands create the framework of the future city. Similar for the bands is that they relate to the public. The city will thus be formless, defined by the system of bands, which guarantees beauty, serenity, accessibility and identity despite of its future architecture.


RU DES HAULORES
parc tigery
DOMAINE DE TIGERY
CENTRE DE TRAITEMENT
FERME DE LA TOUR GRIVEAU
parc d'affaires
ateliers, laboratoires
centre technologique et de
recherche, agences,
135 hect.
Miele
airlux
SOFI
PHILIPS
ATOCHEM
OTIS
implantations exceptionnelles, parc de stationnement, réserves, motels
ROCADE REGIONALE
FONCTIONS SPORTIVES
VILLOUVETTE
RU DES PRES HAUTS
Logements individuels
(faible densité)
50 hect.
PRE ST.GERVAIS
CENTRE COMMERCIAL DE
ST. PIERRE DU PERRAY
LOISIR
TENNIS
logements individuels
et collectifs
(moyenne densité)
70 hect.
FERME DU FRESNE
DOMAINE DU PERRAY
PARC ST. PIERRE DU PERRAY
FESTIVAL DE LA MUSIQUE
MONGOLFIERE
DELTA PLANE
FERME VILLEPREUX
logements individuels
(faible densité)
100 hect.
TENNIS
CLUBHOUSE
HÔTEL BEL AIR



This introduces a new concept for urban planning, namely that the best way to proceed in the chaotic contemporary city is by securing and designing the public spaces as they represent the only controllable places that are not dominated by the market forces.
The islands represent the counter forms of the bands, as they are plots for future building construction. To encourage a variety of building enclaves, the islands have different size, shape, location, and varying relationships to nature and infrastructure. The islands are therefore intended to be developed independently of each other according to the given programme and the created context, hereby encouraging heterogeneity in architecture, programmes and ideologies, which will ensure that the identity for each of the islands reinforces the coherence of the whole. Additionally, each island represents a building step towards the complete expansion of the city, and will during the 20-year period function as a phased development.

EMERGENT ECOLOGIES (case material & illustrations: Czerniak, pp. 58 - 65)

Architect: James Corner and Stan Allen
Status: Competition proposal for Downsview Park (2000)

Location: Toronto, Canada

Emergent Ecologies by James Corner and Stan Allen is a proposal for the Downsview Park competition in Canada launched in 2000 as a design competition between five interdisciplinary teams. The purpose of the competition was to facilitate the conversion of the former military base into a public park that could embrace the public and nature.

The competition brief sparked a redefinition of the park typology and ecological balanced design based upon changes and adaptation over time. The brief entailed three primary intentions: an open-ended approach, the engaging of new ecologies to unfold, and formation of interdisciplinary teams, hereby inviting a broad range of experts, e.g. ecologists, engineers, architects, landscape architects and artists, to intervene and play with the processes of the site enabling their dynamic unfolding. In short, the competition brief aimed at accommodating inventive design proposals based upon landscape urbanism attitudes towards planning, which respond to social and natural structures of the site and initiate its development into new landscape structures capable of supporting new ecologies and engaging a wide range of public uses and events. A process of public participation had been put forward in the outline of the brief to ensure the needs and desires of the local community. (Czerniak, pp. 13 -17) The competition brief is almost exemplary, as this is one of the first times a competition actually incites the attitude of landscape urbanism as the basis on which the proposals have to be created, thus underlining the potentials of working processually with engaging ecologies of human and nature in design.

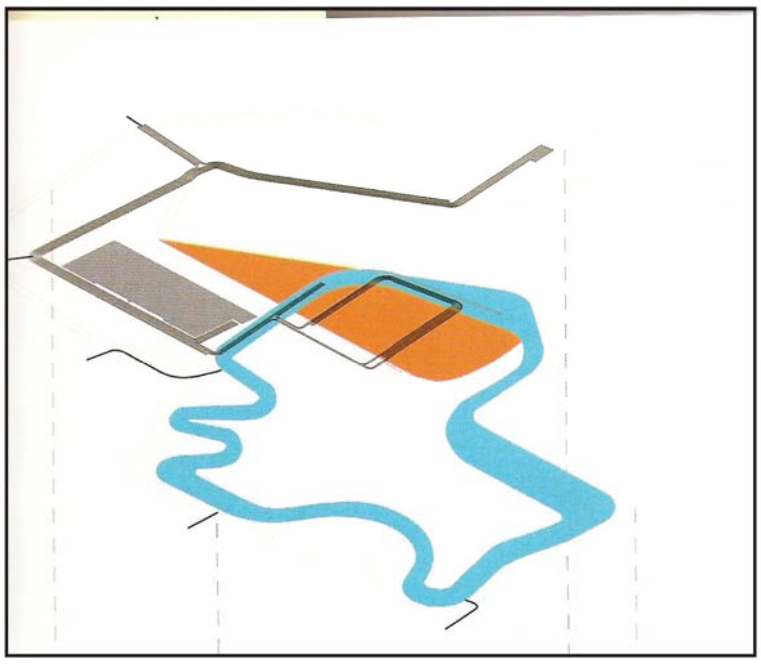
Participation in the competition demanded a prequalification which resulted in a selection of five interdisciplinary teams: FOA, OMA and Bruce Mau Design, Bernard Tschumi, Brown & Storey and James Corner & Stan Allen. OMA and Bruce Mau design won the competition with their Tree City proposal, which is as yet still in the implementation phase.

PLOT

Downsview Park, 320 acres of Federal Park, is a former military base located in the geographic heart of the greater metropolitan area of Toronto, Canada.
It is located in a context characterised by a low dense suburban structure and is surrounded by communities that date back to the 1950's and 1960's. The Downsview Park site has been open to the public since 1996 and includes landscapes of the former airbase with open, rolling meadow landscapes infiltrated by sports fields, trees and a few abandoned buildings.

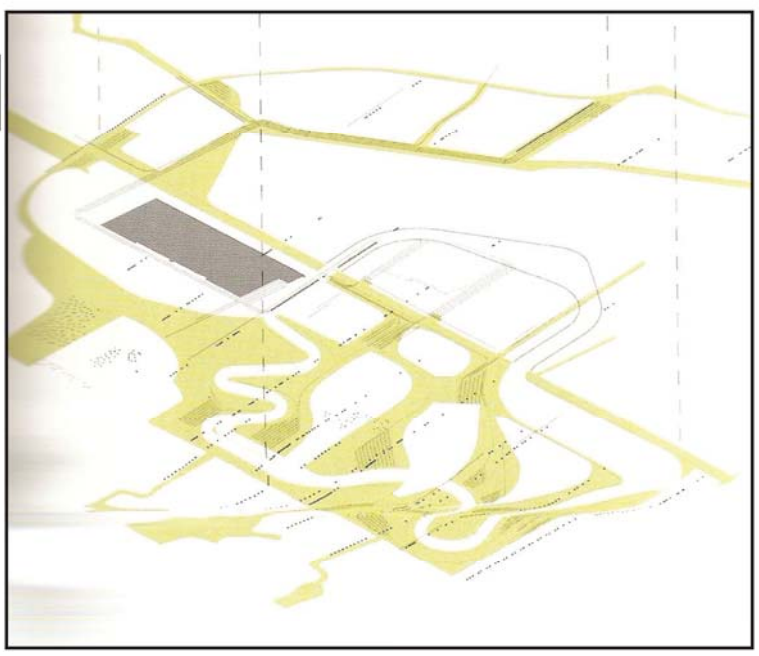
OPERATION

The physical operation of the project is the construction of an organisational matrix of interacting systems which comprises two complementary and integrated systems, respectively circuits and through-flows. Circuits accommodate activity programmes, event spaces and human flows, while through-flows are the hydrological and ecological dynamics of the park.
The purpose of circuits is to physically link sectors of the site by encircling and connecting currently disparate territories and to stream and concentrate active programmes along and within large circulation corridors. Additionally, the intention is to frame and protect large spaces of open landscape, sky and horizon. Circuits consists of five interlocking circuits which provide a broad ribbon structure with pathways and services that set the basis for development of all active programmes, event spaces and facilities. The five circuits are respectively the activity track, the multimedia event surface, the east-west distributor, the perimeter runway circuit and the potential runway circuit. The activity track is a low-budget track that is equipped and furnished for outdoor activities to unfold with programmes such as plays areas, display terraces and sports fields.

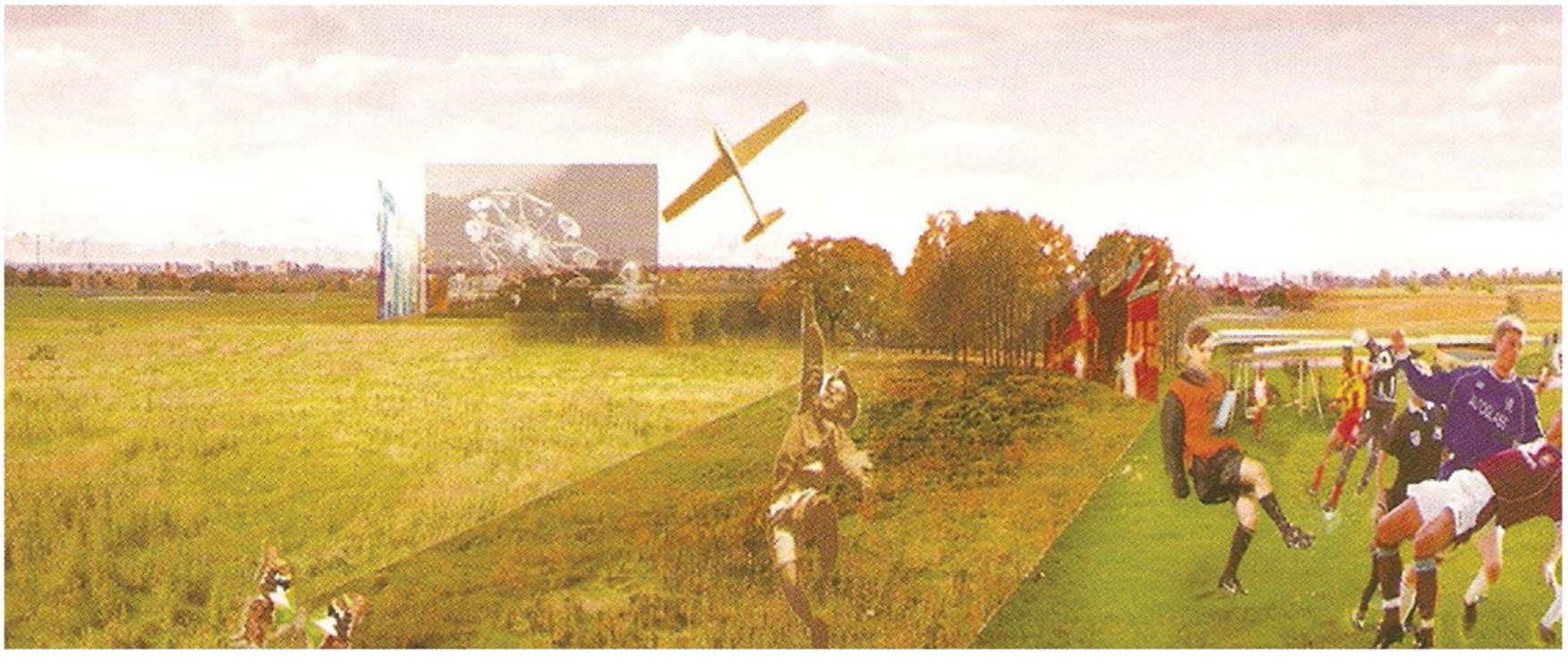


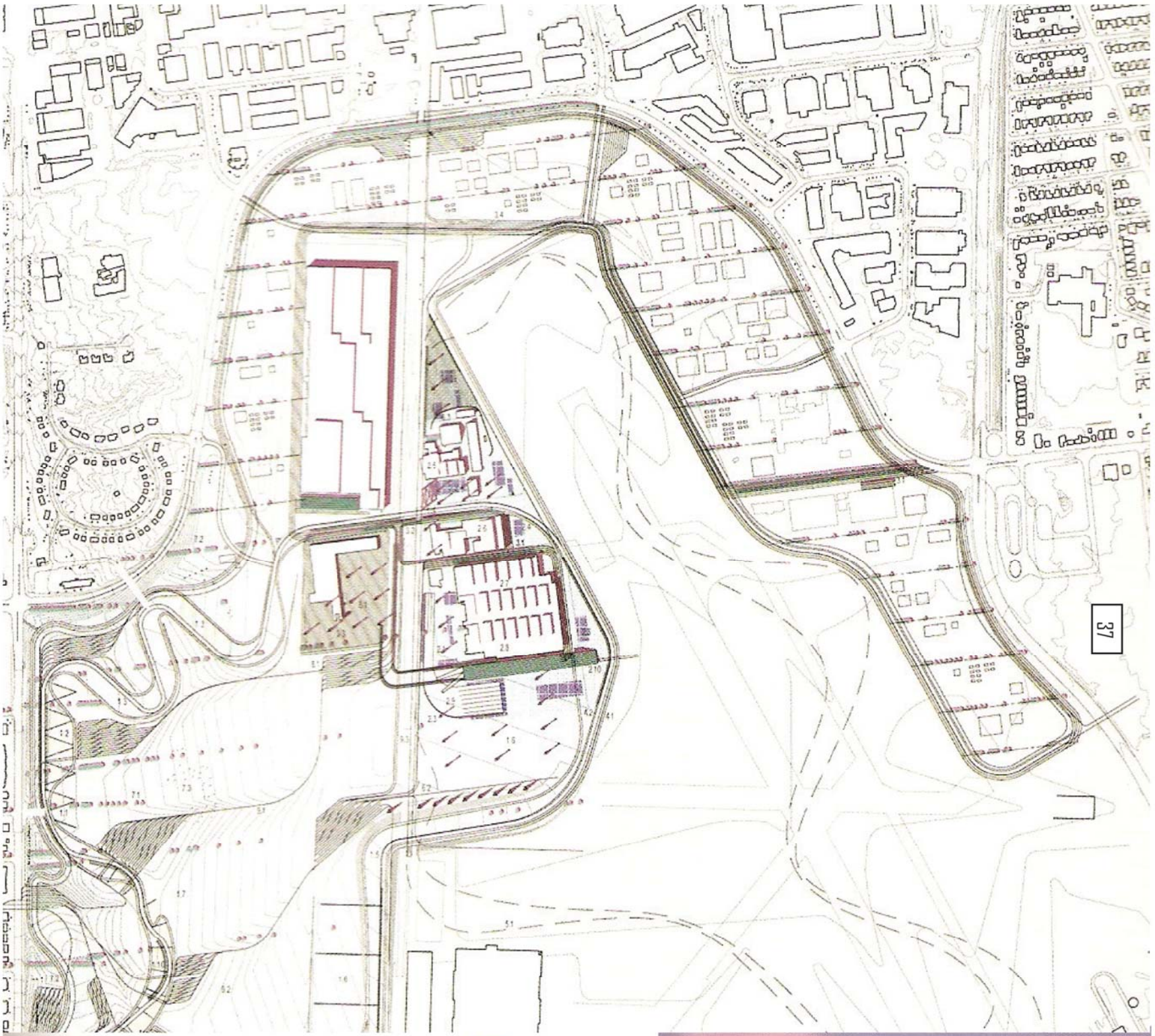
circuits

+



through-flows

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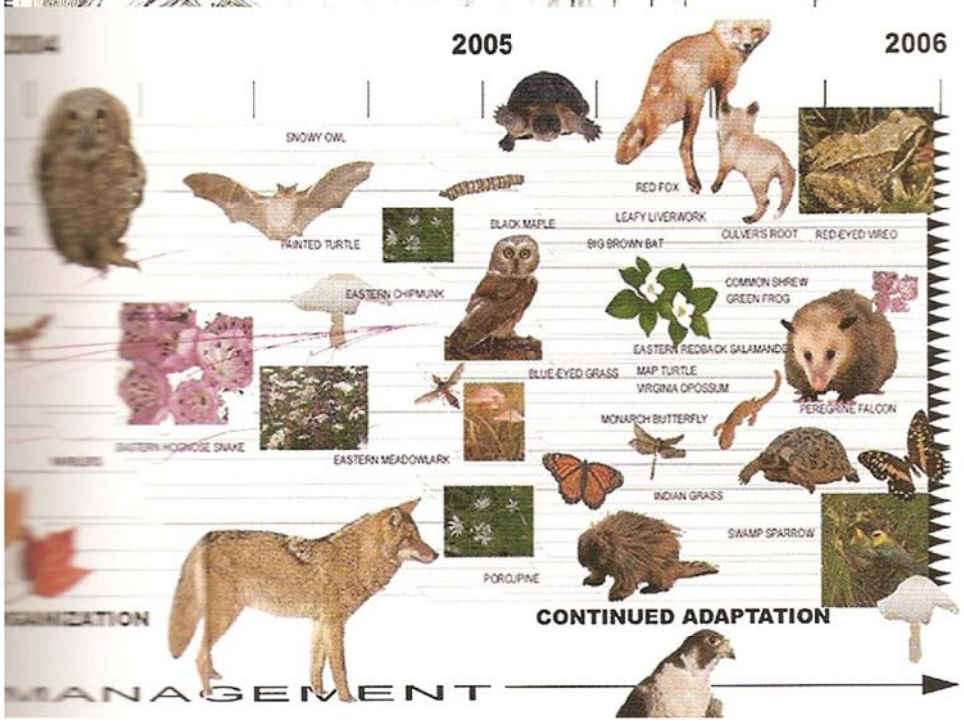
2005
2006
SNOWY OWL
PAINTED TURTLE
BLACK MAPLE
RED FOX
LEAFY LIVERWORK
BIG BROWN BAT
CULVER'S ROOT
RED-EYED VIREO
EASTERN CHIPMUNK
COMMON SHREW
GREEN FROG
EASTERN REDBACK SALAMANDER
BLUE-EYED GRASS
MAP TURTLE
VIRGINIA OPOSSUM
PEREGRINE FALCON
MONARCH BUTTERFLY
EASTERN HOGNOSE SNAKE
EASTERN MEADOWLARK
INDIAN GRASS
SWAMP SPARROW
PORCUPINE
CONTINUED ADAPTATION
MANAGEMENT

The multimedia event surface consists of primary indoor activity spaces such as museums, shops and a community hall grafted with some outdoor event places. The east-west distributor is a gravel promenade with roofed sections allowing for markets to unfold and is covering more ordinary needs such as parking fields and pedestrian ramps. The perimeter circuit and the potential runway circuit are both trails for mixed use where the perimeter circuit is an asphalt path and the potential runway circuit has varied covering.

The intention of through-flows is to maximize connectivity and circulation throughout the natural ecosystem, hereby linking the site to larger ravines and woodland systems, and creating a storm water strategy that slows, stores and improves water quality on the site, thus replenishing groundwater levels and diminishing downstream flash-flooding. Finally, the aim is to allow for the drift of biomass, energy, services and site elements in clouds of alternating intensity according to localized needs. Through-flows become physical through a matrix of drift and gradient fields that organise drainage and wildlife flows, habitat and planting, site furnishing, lighting and information flows. The matrix system is hence constructed through five primary through-flow systems e.g. the continuous meadow-way matrix, the ridge and furrow drainage system with associated habitat nests, the drift fields of lighting, equipment and information elements, the east-west lines of windbreak tree-lines and the conifer clump patches. A windmill field provides electricity for the lighting and media screens placed around the park, hereby creating a self-sufficient system. The structural planting consists of an assortment of maple, chestnut and oak trees placed along the old plot lines and mixed conifer clumps are planted along the perimeter of the site, hence framing the park area. The ridge and furrow system consists of an open drainage system into which all water on the site drains. The water collects in the furrows and slowly drains into the ground. Due to the many different soil-water conditions created by the ridge and furrow treatment of the earth, a wide range of habitat communities are sustained with wetter species inhabiting the furrows and the drier ones on the ridge. The meadow-way consists of successional meadow biotopes and meadow swales established along the rail corridor.

Vegetation is utilized in the establishment of corridors for the flows of people, water and wildlife and simultaneously enhancing water quality and biodiversity. Additionally, the design of the park establishes ecological connections on a regional scale by linking the park through green corridors to regional ravines. Corner and Allen note the north-south strip's ecological significance by proposing a continuous system of meadow corridors to connect the park regionally, thereby letting the strip act as a dispersal corridor for some wildlife species on the site.
Corner and Allen furthermore put forth a design that makes references to the cultural landscape of agriculture that once existed on and around the site by using repeating patterns of large trees in single rows that enclose broad fields of grass, hereby engaging biological processes to structure and commemorate the history of the site.
Social processes are also part of the ecology of the project. The project has been praised for coming very close to assuring that the park can become a democratic public space. This is achieved by letting the users inscribe their own traces over time into the various surfaces and pathways, and hereby allowing room to potentially transform the park into a public space. Here they provide very little programmatic guidance over the course of their proposal in order to make the park capable of absorbing changing needs of the public and adapting to different uses. (Mitchell, p. 107) In this way Corner and Allen come close to conceptualising the park as an equalisation of the park as a public space and a landscaped park. However, the main explanation to the emergence of a public space is related to their perception of ecology. Here Corner and Allen develop a kind of "operations ecology", which is to be understood as a plan for administrating the park so it constantly draws in varieties of publics, e.g. neighbours, community groups and diverse park uses. Corner and Allen advise a design that…*"allows the flows of both natural and cultural life to move through and colonize the site in multiple and flexible ways."* (Czerniak, p.58) The notion of colonization here implies the power to appropriate space, which occasionally will be contradictory to those who already occupy or control it, hereby acknowledging the often inherently contradictory nature of public space where different groups constantly fight over the right to decide over the space, thus acknowledging that any true public space must at some level be exclusionary, and to some degree ordered and administered. (Mitchell, p.104 - 106)

DECAMPING DETROIT (case material & illustrations: Waldheim 2001b, Decamping Detroit, pp. 110 - 121)

Architect: Charles Waldheim and Marili Santos-Munné
Status: Project Proposal (2001)
Location: Detroit, United States of America

Decamping Detroit is a project based on the Detroit Vacant Land Survey set in action by Detroit's City Planning Commission. The survey marks a minor evolution within the field of planning as it not only recognizes that the city is in stage of abandonment but grasps this dynamic by initiating a further abandonment of the city by proposing a strategic erasure of the city, thus responding to the crucial result of the massive immigration from the city centre to the surrounding suburban neighbourhoods, hereby leaving the inner city deserted. Statistical facts reveal very clearly the hasty de-population of Detroit, which in 1990 spent $25 million on the removal of abandoned houses and other structures.

The strategy of Detroit's City Planning Commission is thus elaborated upon by Waldheim and Santos-Munné in their proposal Decamping Detroit. By taking the city's proposal for the abandonment of the least viable lands as face value, the project set forth scenarios by which Detroit would be decamped. The project here identifies seven bounded territories within the city where over 70% of the area is defined as vacant land, and suggests scenarios by which they might be reconstituted. Additionally, they identify territories where over 50% of the area is defined as vacant and pronounce it for future annexation.
These urban voids are, by Waldheim and Santos-Munné, proclaimed as sites for the staging of ex-urban landscapes of indeterminate status. Inspired by the Andrey Tarkovsky movie, Stalker, several latent layers creating mutual ecologies in the abandoned zones are revealed *"…Tarkovsky's zone represents the overlay of a primordial and abundant natural environment, an aging and abandoned industrial infrastructure, and an increasingly opportunistic set of mutating ecological conditions".* (Waldheim 2001b, p. 111) They therefore suggest the conflation of infrastructure and ecology as a means of dealing with the abandoned zones of Detroit. Resultantly, the zones are not just being returned to nature, but are identified as true void spaces of indeterminate status. (Waldheim 2001b, pp. 105 - 111)

PLOT

The project is a strategy for the city of Detroit, which is the largest city in the state of Michigan, being a major port city and also well-known as the world's traditional automotive centre under the nickname of 'Motor City'. In the second half of the 20th century Detroit lost half of its population as people moved to outward lying suburbs, which has left Detroit in a state of shrink.

OPERATION

The design operation of the project is the proposal of four strategically conceptual stages: dislocation, erasure, absorption and infiltration, which all will be enacted in each of the abandoned areas with the purpose of hastening the process of erasure, naturally removing the residue of the urban fabric such as contaminated soil, and the insertion of activities to slowly initiate a re-colonization of the zones.
Dislocation revolves around the voluntary relocation of last residents, supported by political and economically closure and divestiture. This initiates the discontinuation of services and supplies and thereby alters the status of the extant ground and building fabric, thus slowly de-populating the abandoned zones with the aim of sparking the erasure process of the zones. Erasure is the acceleration of the erasure of deserted buildings. It is approached biologically with the insertion of wildlife species and plant species which effectively hasten the natural deterioration of the city's building fabric as an effect of weathering. Additionally, regular burnings of houses are initiated for a further erasure process of abandoned areas. Absorption is an ecological attempt to re-constitute parts of the zones through tree farming, hereby allowing parts of the area to enter a period of less maintenance. Additionally, these tree farms can potentially set the foundation for future

Zone 2 **Migrant Worker Mobile-Homesteads**

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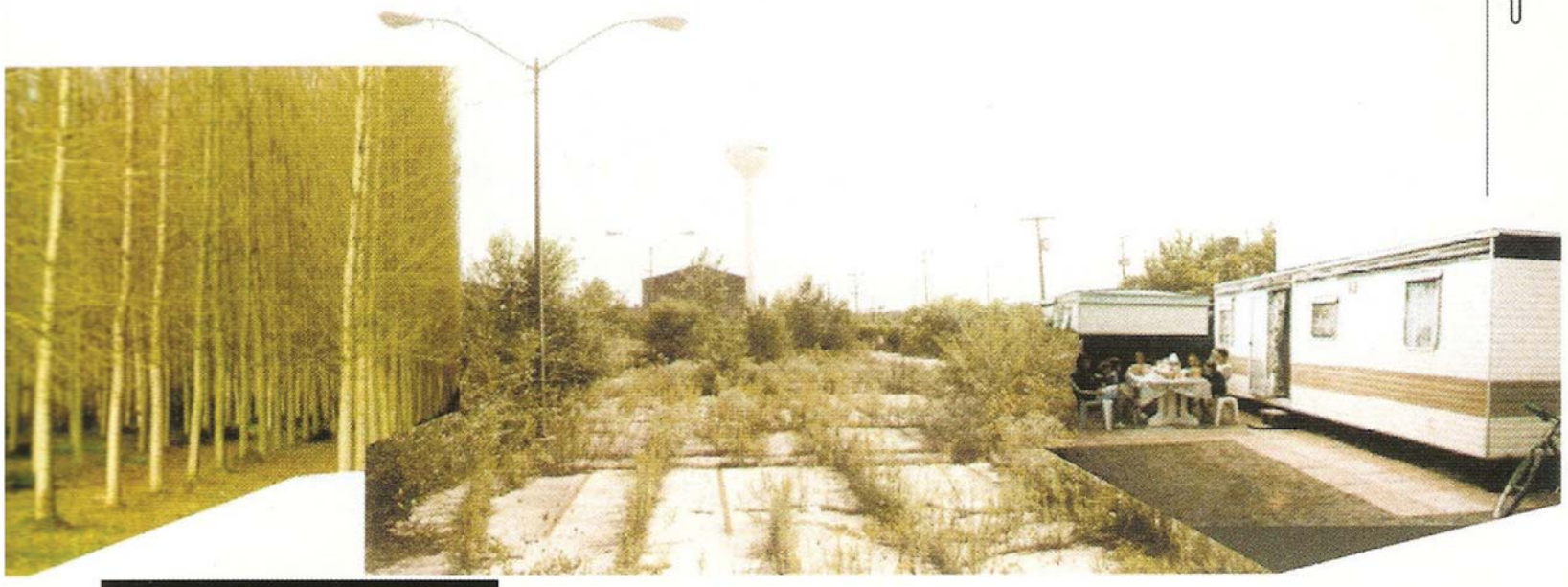

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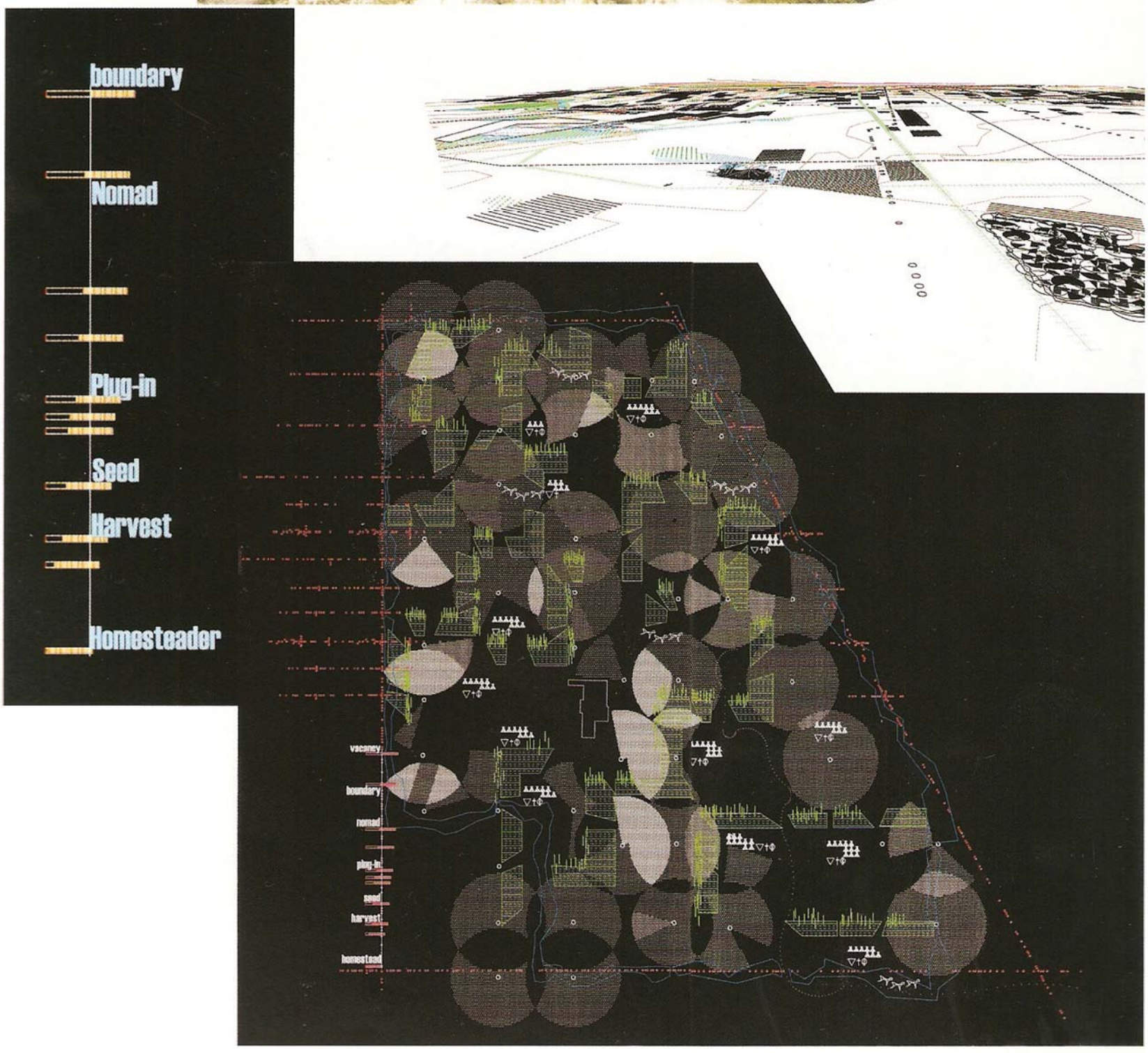

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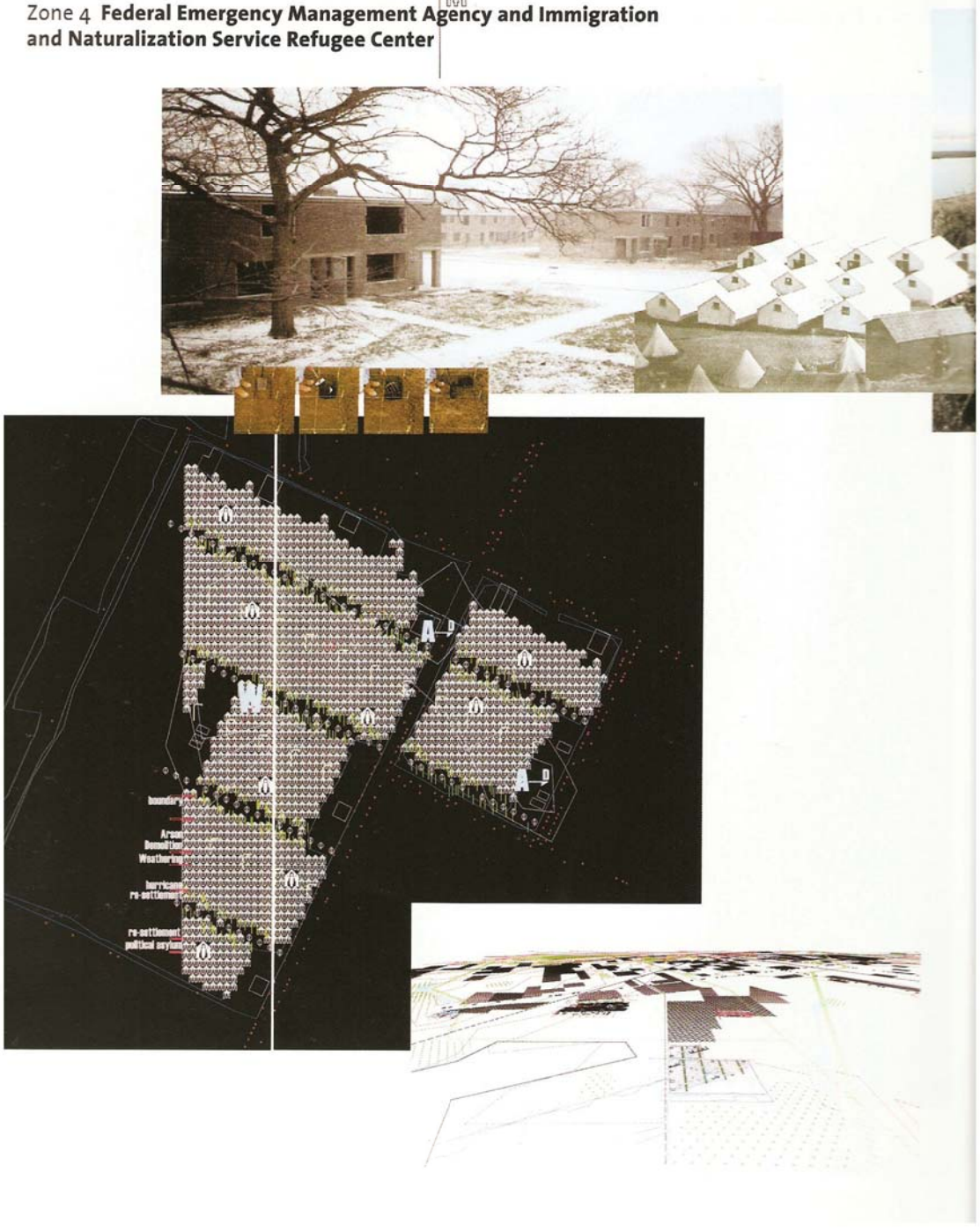
Zone 4 **Federal Emergency Management Agency and Immigration and Naturalization Service Refugee Center**



re-colonization, for instance as ex-urban resource parks. Moreover, an inundation of the ground through selective flooding is initiated as a long-term solution to the contaminated ground on many sites. Here the utilization of existing river and lake systems are initiated for collection and distribution of the region's fresh water supply, which in turn will clean up the contaminated surface. Absorption therefore changes the urban ecology with the aim of changing the perception of the abandoned areas and simultaneously enforcing an evacuation of the zones.
Infiltration concentrates around the future re-appropriation of the abandoned zones by suggesting a re-programming of the zones. Important here is that each re-programming proposal supports the created setting of erasure and relative vacancy of the zones. The future colonization of the abandoned areas is also intended to be adaptable towards individual and collective demands, thus implying public participation in the unfolding of temporary activities inserted in the zones. (Waldheim 2001b, pp. 112 - 114)

Ecology is in this project unfolded in various ways and with a multitude of layers and processes. Biological and urban residual processes are activated in the project with the primary aim of erasure and re-constitution of the areas. Here, vegetation in the form of wildlife species enter as an active part in the erasure of building structures, while slowly embedding a greener image of the abandoned zones. Likewise, tree farming is established to generate a new, almost self-sustainable, habitat of the field. Thus the area will be perceived as one of nature rather than one of urban fabric. Contaminated soil, as one of the urban residual processes, is treated by utilizing natural potentials of the site and allowing controlled flooding to wash off the contaminated soil of the surface. This signalises that the high exploration of nature as an active player opens for possibilities for establishing active nature dynamics with a high environmental impact which can slowly treat sites and reverse their meaning. Establishing a new ecology of the surface thus revolves around the erasure and clearing of the zones.
However, the concept of ecology is, in this project, also activated in relation to social processes, where the engaging of the public with the insertion of temporary activities is initiated with the attempt to let people colonize the zones. Important here is the fact that the vacant areas are highly adaptable to the wishes of the public due to their indeterminate character and their openness. Aiming at letting people, with nature, inscribe their meaning in the space over time can re-constitute the zones as valuable to public and thereby generate a re-colonization of the zones.

COMPARATIVE ANALYSIS

The three cases exemplify ways of using landscape urbanistic principles to develop respectively a new urban district, an urban park, and a regeneration of urban areas in decline. They all apply landscape as the lens through which the design is perceived and shaped while also engaging and materializing processes in physical design. Landscape is thus the operative medium through which each proposal – urbanism – is conducted.
The way in which each of the projects tackles these issues, however, varies a great deal. The following will therefore cross-examine the cases on four topics, namely how the philosophy of 'a lens of landscape' is expressed in each project, which mechanisms are activated, how each of them construes an act of imaging, and lastly, in which ways the design is engaged as an open living system.

THE LENS OF LANDSCAPE

By first looking at the lens of landscape we can determine in which way each project can be perceived as landscape urbanistic.

Melun-Sénart applies a landscape urbanistic approach by using landscape as the main operation for planning a new urban district through the concept of defining "where not to build". This is also a way of surrendering to the market forces and a confession that the built areas of the city cannot be mastered or planned. The project thus poses an exceptionally strong statement regarding the unpredictability of our cities, which is taken as a premise for the project. Instead of attempting to steer development through guidelines or principles for the development of the urban built areas, it abstains from this in all aspects. The market forces are thus accepted as mechanisms of the contemporary city that should not be battled.

Emergent Ecologies views the metropolis as a living ecology - a landscape capable of absorbing changes over time. Here the relations between nature and culture are vital to the shaping of the park – in park design as well as future use. The project thus applies the ideas of landscape urbanism to the full, which can be said to come quite naturally as a result of the design brief, where such an approach was a criterion of the competition. In addition, Corner and Allen are chief proponents for the theories of landscape urbanism. Furthermore, the brief relates to the shift in the understanding of nature and environment and their relationship to culture and technology, which is based in the demand for more intensive social and recreational uses reintegrated with natural systems. Simultaneously, the design of the park needs to draw on the history of the site, creating the basis upon which the future framework of the site can provide new activities, community formations, and ecosystems to emerge, hence creating a strong identity by redefining the contemporary park and commemorating the history of the site. The second concept derives from the stance that human activities are to be seen as an integral part of the ecosystem on the site. Nature and humanity are here to be treated as ever evolving and interacting concepts. The design of Downsview Park should therefore entail new ways of coping with and enhancing the complex needs of dynamic natural and urban systems and their mutual emergence. (Czerniak, pp. 13 - 21)

The rationale of landscape urbanism also permeates the ideas of Decamping Detroit, which views the city as a landscape. Landscape as a lens of understanding and a toolbox is here applied in a quite urban context, and the hybrid concept of landscape urbanism thus seems to be justified the most in this project. The project argues that landscape is the only medium capable of dealing with simultaneously decreasing densities and indeterminate futures, which is the character of the voids from which the project evolves. This demands a strategy of landscape urbanism that is capable of establishing an adaptive and open-ended surface with the purpose of dealing with the erasure of the abandoned zones. Thus the case of Detroit casts light on the reversal of traditional architectural approaches which revolve around colonization and building towards those of un-building, removal and erasure. These are according to James Corner important concerns in the contemporary field of planning, which is not only caused by the case of de-population as in the case of Detroit, but also the opposite extremity where the major expansion of urban

areas bring about a need to preserve or retain areas of open space. (Corner 2001, pp. 122 - 124) Each of the cases applies strategic operations (dislocation, erasure, absorption and infiltration). These strategic tools can be utilized in the development of open reserves of space - reserves that are fastly disappearing as low-density development sprawls upon the surface of the earth.

MECHANISMS

In order to elaborate on the landscape urbanistic methods of each project, let us take a look at how each project activates the mechanisms of the contemporary city. Each case accomplishes this in their proposals, but they differ greatly as to the types of mechanisms engaged and the degree of integration and interaction between them.

Melun-Sénart's main operation is an acceptance of the market forces that drive contemporary urbanism, and the project applies these mechanisms by, ironically, not operating with them at all. The mechanisms of the market forces are thus left alone to steer the urban development while the project focuses on the planning of spaces of public landscape. This is in sharp contrast to the other two cases, Emergent Ecologies and Decamping Detroit, as the mechanisms of Melun-Sénart work at a much larger scale, the scale of planning in itself. This results in the mechanisms being invisible in the actual design proposal, where the notion of the market forces are seen as something separate and unconnected to the design of the public spaces.

Emergent Ecologies, on the other hand, initiates various ecological systems in the park design by relying on various types of scaffolding in the structuring of dynamic activities on the park site. In contrast to Melun-Sénart, the mechanisms of natural and social processes are here utilized and designed for in their own right, but with constant meetings and clashes allowing the two systems to interact and become interdependent. An example of this is seen in the use of windmills to generate local electricity for the park lightning, where an element in the social circuit is directly linked to natural forces. Both natural and social processes thus constantly adapt and reflect each other to create the design of Downsview Park.

With regard to the mechanisms of the urban landscape, Decamping Detroit is especially interesting as it very determinedly applies 'the lens of landscape' as a means of working with urbanism. Where Melun-Sénart does not seem to actively engage mechanisms and Emergent Ecologies succeeds in this, although the park context of the proposal limits the reaches of the 'urbanism' in the project, Decamping Detroit exemplifies aspects which the other two projects do not. Here natural processes are engaged actively on the sites to ensure a dislocation and erasure, while the social processes and programmes proposed spring directly from these natural processes. Additionally, some of these natural processes are an acknowledgement of social programmes and history of the place. Natural and social processes thus continuously spring from each other, influence each other and adapt.

IMAGES

The images that each project construes in space also casts a light on the philosophy of each project.

In Melun-Sénart the image of the void becomes a strong symbolic icon as the main structural principle, and it is here hoped that this void can somehow influence the architecture of the future surrounding built areas through long-term development. It is therefore intended that the images planned and designed in the public bands will be projected onto the future architecture of the built areas – that the image of public space will affect the physicality of the market forces.
The perception of nature reflected in the project is one of reservation and protection, where the 'beautiful' landscapes are somehow rescued from the grasp of the contemporary city. This view does not seem to acknowledge the interplay between the landscape of the 'natural' and the landscape of the 'city', but has a more dualistic view of the two. The project does, however, promote a potentially diverse plan with focus on public spaces and landscape.

James Corner and Stan Allen suggest an aesthetic for Emergent Ecologies based on the image of optimised ecological systems. It brings forth a more processual based aesthetic rather than the common picturesque aesthetic, an intention Corner and Allen have a quite determinate approach towards. This is reflected in their own project description, which has a performative ring to it.

"In this way, geometry and form is less important for what it might mean or look like than for what it actually does." Corner + Allen (Czerniak, p. 58)

The aesthetic thus lies in the meeting of the different structures of through-flows and circuits, and the emergent forms and combinations which evolve from the two systems. Hence the pathways cross and intersect through a variety of created nests which stage the high biodiversity of the site, and hereby allow people to experience the rich intricacy of the always emergent settings. The placement of the circuits and through-flows is therefore not just a coincidental structure, but a way of determining where they can benefit each other with regard to image and aesthetics. Here the paths and walkways for human flows have been planned according to aesthetic views of and interaction with the natural and biological systems of the park – a means of ensuring that these systems are noticed and acknowledged by the public through experiences. The engaging of human in the natural processes of nature is therefore the primary image of the Emergent Ecologies project.

The identity and brand of the park revolves around the notion of open-endedness and emergent ecologies, which will occur in a continuous interaction between public use and the natural and urban residual systems of the park. Corner and Allen describe the unfolding identity of the park in the quotation… *"The park's identity will subsequently evolve and be reshaped as users inscribe their own traces into various surfaces and pathways over time."* Corner + Allen (Czerniak, p. 58) This evokes the image of a park where people are part of the ever evolving ecological system of the park, and thereby create a park which adapts to the public use. It therefore suggests an attitude towards sustainability related to the brief of the competition, where human and nature are not to be perceived as contradictory concepts, but instead be seen as integrated parts of a larger eco-system.

In Decamping Detroit, the vacant and empty spaces become the aesthetic of the project and are envisioned as highly complex with multiple layers and therefore escape any easy definition or explanation. Waldheim and Santos-Munné use the embedded qualities of such spaces and work with preserving this perception of the spaces, thus leaving them free of design, composition, or representation, which opens for the population to embed their own elaboration and meaning of the space. Instead of naming particular activities on site, the sites are staged as true voids spaces, thereby enhancing the imaginary and mythical conditions of the sites, with relation to the rendering post-industrial landscape of Detroit. Thus the existing image of Detroit – the abandonment, the cars, the arson – is utilized as a basis for a renewed image of the city.

A LIVING SYSTEM

The overall planning process also takes different shapes in the three projects. Melun-Sénart seems to apply a sort of non-planning technique, while the other two projects focus more on process and participation. Decamping Detroit does this to an extent where form and physical design are almost non-existing, which sparks a discussion into the consequences of landscape urbanism in real life projects – where do we draw the line between product and process?

The planning of Melun-Sénart works with a clear structural concept, the Chinese Figure, around which the market forces can reign. The plan is thus extremely open-ended as it leaves large areas as 'holes' in the plan – parts of the plan are in fact unplanned. These areas stand in contrast to the public bands which are planned to great detail. The plan fulfills the notion of a living system, as it is open for adaptability and unpredictability over time and works on the premises of the city. The plan does not, however, take a stance towards how the mechanisms of this living system will interact – they are neither defined nor activated, but rather left as unplanned elements.

Emergent Ecologies, however, grasps the potentials of a living system to the full. *"We do not determine or predict outcomes; we simply guide of steer flows of matter and information. Thus, we present the park as a precisely engineered matrix, a living groundwork for new forms and combinations of life to emerge."* Corner and Allen (Czerniak,p. 58)

Corner and Allen propose a layering of multiple flows through the site shown in the drainage strategy, the resulting topography and its migratory patterns with the surrounding territorial

organizations. In this way the design becomes adaptable to changes locally and regionally over time. This is exemplified in the surplus water from the ravines during floods that will migrate into the park through the furrows and affect the habitat nests, hereby temporarily changing the meaning, use and experience of the landscape. Similarly, the meadow ways poise the park for the invasion and flow of wildlife through the site. Additionally, in the attempt to establish maximum flexibility in the future adaptation of the plan, Corner and Allen propose an alternative species model rooted in the biotope, thus suggesting a variety of ecological scenarios to unfold in the park. Ecological emergence is therefore present in the project due to the initiation of different conditions for the establishment of many kinds of plant communities, wildlife and corridors.
However, not only the ecological emergence of wildlife and biotopes are adaptable in the design scheme of the park. It is also adaptable towards the public, which is initiated by the insertion of a steering group with the aim of constantly proposing modifications of the park which will create an ever evolving setting of the park.
The open-endedness in the project is therefore to be understood as a combination of the dynamics of nature, which constantly reshape the park and the unfolding of new public activities.

Decamping Detroit speculates on the initiation of processes which will stage the vacancy of the zones rather than creating a fixed masterplan of any kind. Speculation is a key word here. Instead of fixing the zones through architecture, processes related to humans taking power of the area and the biological processes establish conditions for re-colonization to perform and unfold in more dynamic ways – an open-ended planning. This means that rather than “scaping” the land in strict design and composition of meaning, the potential is established for “scraping” the zones from its various residues, e.g. symbolic, political, and material. The “scaped” ground here becomes the vacant space of absence which accommodates multiple interpretations and possibilities. (Corner 2001, p. 123)
The project thus moves away from the designed form of architecture and landscape to something un-designed, un-built and open. However, this is not to be understood as simply leaving the space alone, but entails supporting existing potentials and establishing infrastructural points and lines. The processes will continually reshape the vacant space and the ever-evolving absence of the zones which slowly will stage the vacancy of the area more clearly, and thus making it more adaptable to the needs and uses of the public. The project can thus be seen as a preparatory phase of the zones before the re-colonization of them into the urban fabric.

Decamping Detroit thus creates a genuine challenge for architects to work with the staging of the empty, which is in stark contrast to the ordinary work of architects dealing with formal expression and completion. On the other hand, the lack of physical design also questions the ability of such a planning method to successfully be implemented.
Although sympathetic with sustainable and process-oriented thought, such open-ended projects do meet a generally degree of criticism. In the attempt to create adaptive systems and responsive designs, many projects end up imitating or symbolising a system instead of being one in themselves, and creating an unintentional representational design over a performative design. And often the architect will produce a quite traditional masterplan in spite of setting out to do the exact opposite. (Gray, pp. 99 - 100)
The implementation of process based projects also proves to be a great challenge. If we take a look at OMA’s Tree City, the winning proposal for the Downsview Park competition, the park is, six years later, still seemingly a construction site with no clear signs of development to the great dismay of the citizens. The project, in its processual thinking, overlooked the importance of also managing public expectations, communicating long-term processes to the public and planning the temporary stages of such a long-term project. (Smith, pp. 34 - 37) Emergent Ecologies, however, seem to have foreseen this dilemma by incorporating a degree of administration in their project as a way of easing communication to the public during the long-term process.

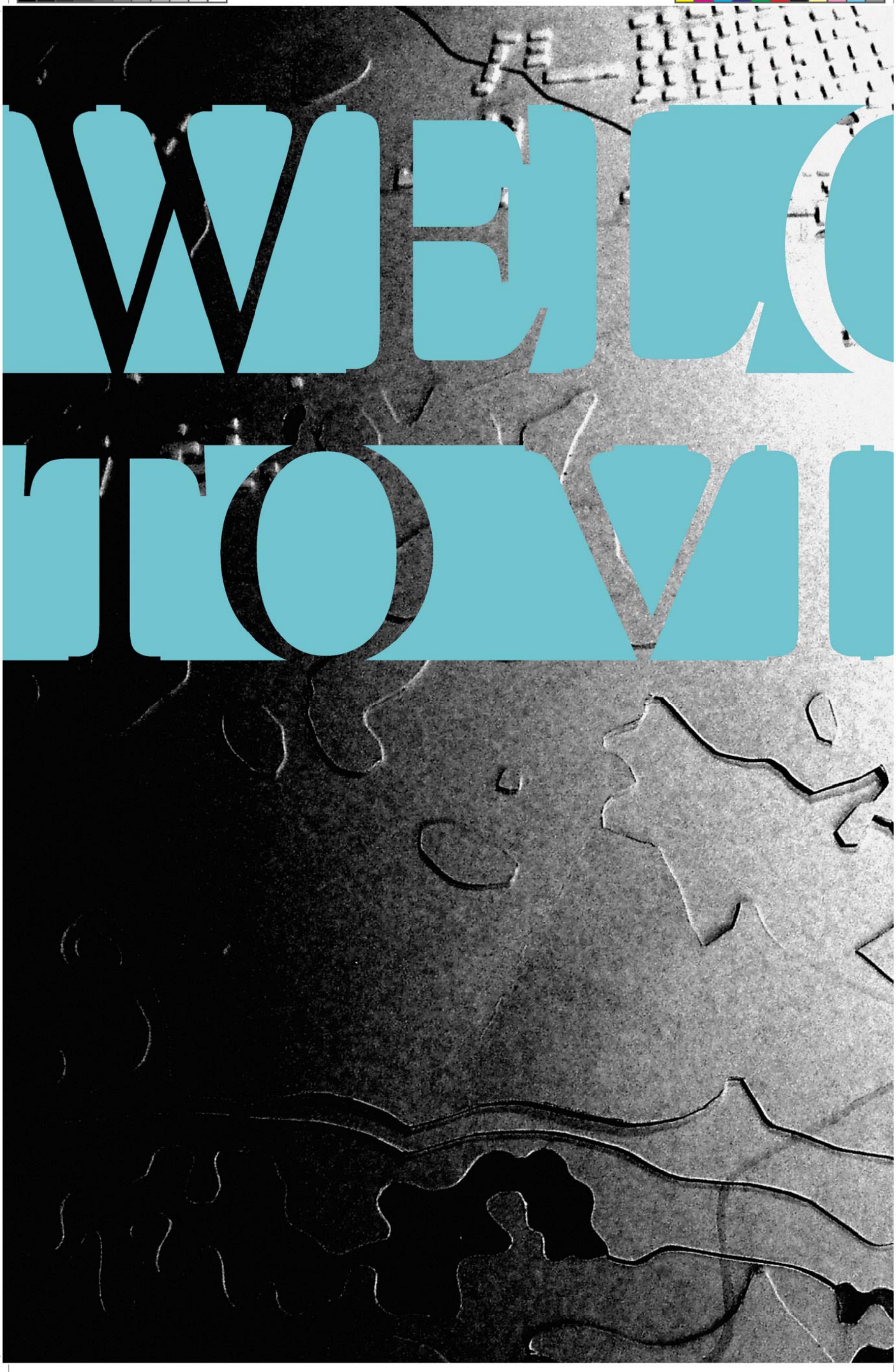
Experience also tells us that processual approaches can have the complete opposite result. The projects often focus on diagrammatic strategies towards the planning of an area, followed by the intention of creating a dynamic plan which can absorb changes over time. Implementing these open-ended strategies into actual physical and finished design that can still adapt to changing needs proves to be of greater difficulty and in many cases openness in planning equals a direct lack of design, as seen in Decamping Detroit.

Processual planning faces quite a challenge in uniting this opposition between openness, unpredictability and process-based planning on one hand, with physical responsibility and physical design on the other. In fact, at times it seems as if these principles are a paradox in themselves, and some see this process-based approach as a threat to true architecture and formal design. However, as a design practice landscape urbanism is

still young. Its theories and principles point in the right directions but need to be taken one step further, and the ideas of performative and responsive urban landscapes have still to prove themselves in the long run through projects implemented in the real world and in real systems. Many of these projects have recently been set in motion, but as the time-scale of these projects often relate to decades rather than years, a long wait is anticipated. In the meantime, the optimism of process-based planning and landscape urbanism is not diminishing the least. It is still believed that landscape urbanism is an approach much more suited to the dynamic nature of the contemporary city and has the ability to shape urban environments that reflect the world we live in.

Landscape Urbanism has now been presented in a theoretical light and through the use of case studies, its potentials have been unfolded and discussed. The foundation has thus been laid for the project, and landscape urbanism will become the stepping stone for the analysis and design of the project - the lens through which the rest of the project is shaped.
Such an approach poses a number of challenges, but also holds great potentials for generating new planning methods for suburban areas that are often neglected in planning by the major architects. Landscape urbanism can bring out the life and values in such areas, values which today are not reflected in the physical milieu, and offer a way of redefining these areas as features in the contemporary city and as images in our minds.

In the light of the fluctuating and dynamic nature of the urban landscape and the lack of human emotionality and responsibility towards these areas, it is believed that urban design must somehow be able to respond to such dynamics. The process of architecture and design, from initial idea, implementation, existence and collapse are all living phases that interact with the social, physical and environmental processes of the city into an interconnected ecological system. The ability of the design to engage these processes, by supporting them, supplementing them or intervening on them, is also its ability to actively perform, take part in and benefit its own ecological system.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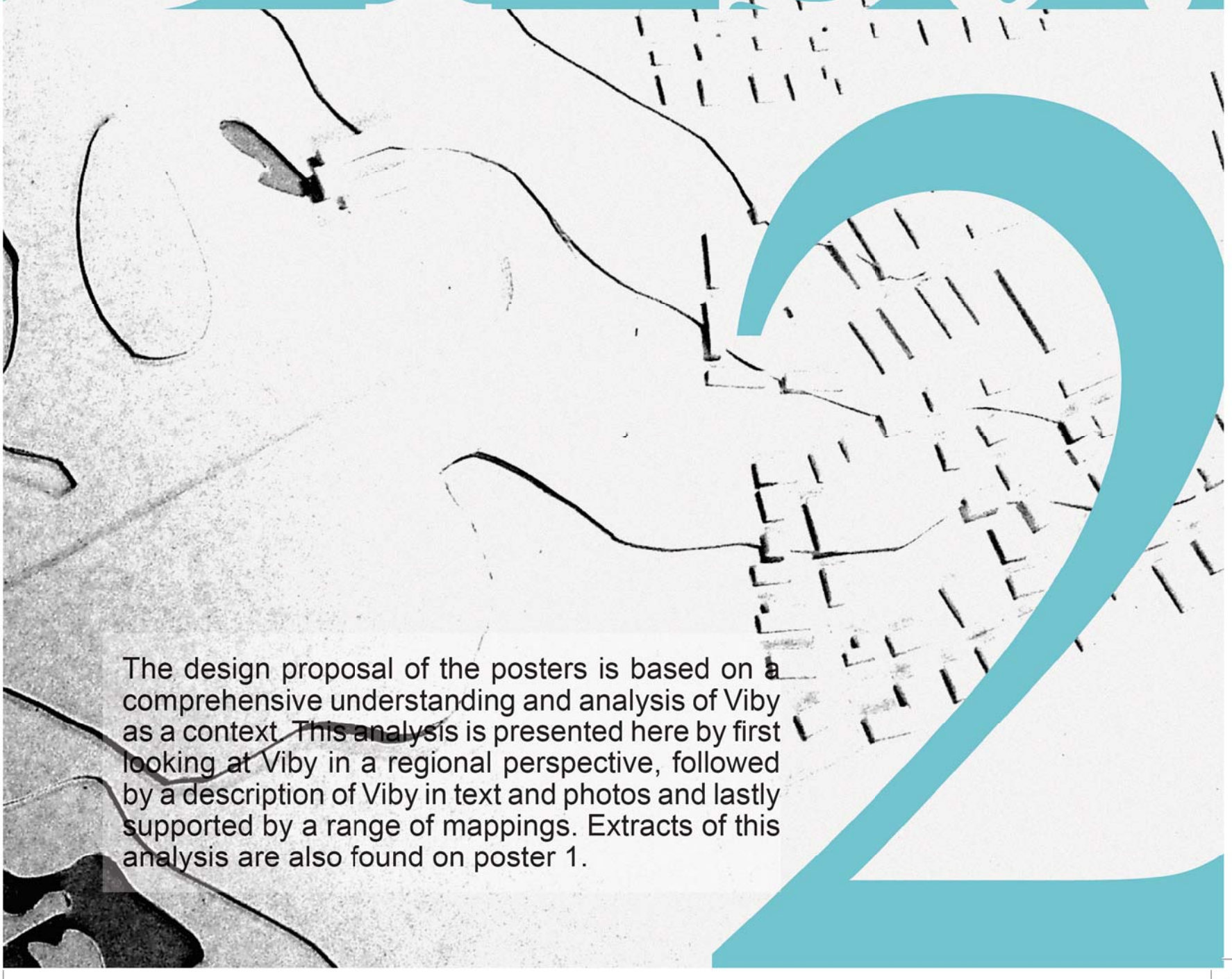


The design proposal of the posters is based on a comprehensive understanding and analysis of Viby as a context. This analysis is presented here by first looking at Viby in a regional perspective, followed by a description of Viby in text and photos and lastly supported by a range of mappings. Extracts of this analysis are also found on poster 1.

WELCOME TO VIBY SJ.

Viby, located in the southern part of the Municipality of Roskilde, is a small suburban station-town with its 4360 inhabitants, acting as a commuter-town to Roskilde as well as the Danish capital, Copenhagen. Nonetheless, it is a town in the midst of a growth spur where the Municipality foresees a growth that will double its size with regard to physical expansion and increase the population with up to 9500 new inhabitants. This puts Viby in a transitional position as it awaits an exploding future as the suburban carpet of single-family houses unrolls itself, and also poses a challenge of how to ensure a socially, economically and ecologically sustainable development of this expansion.

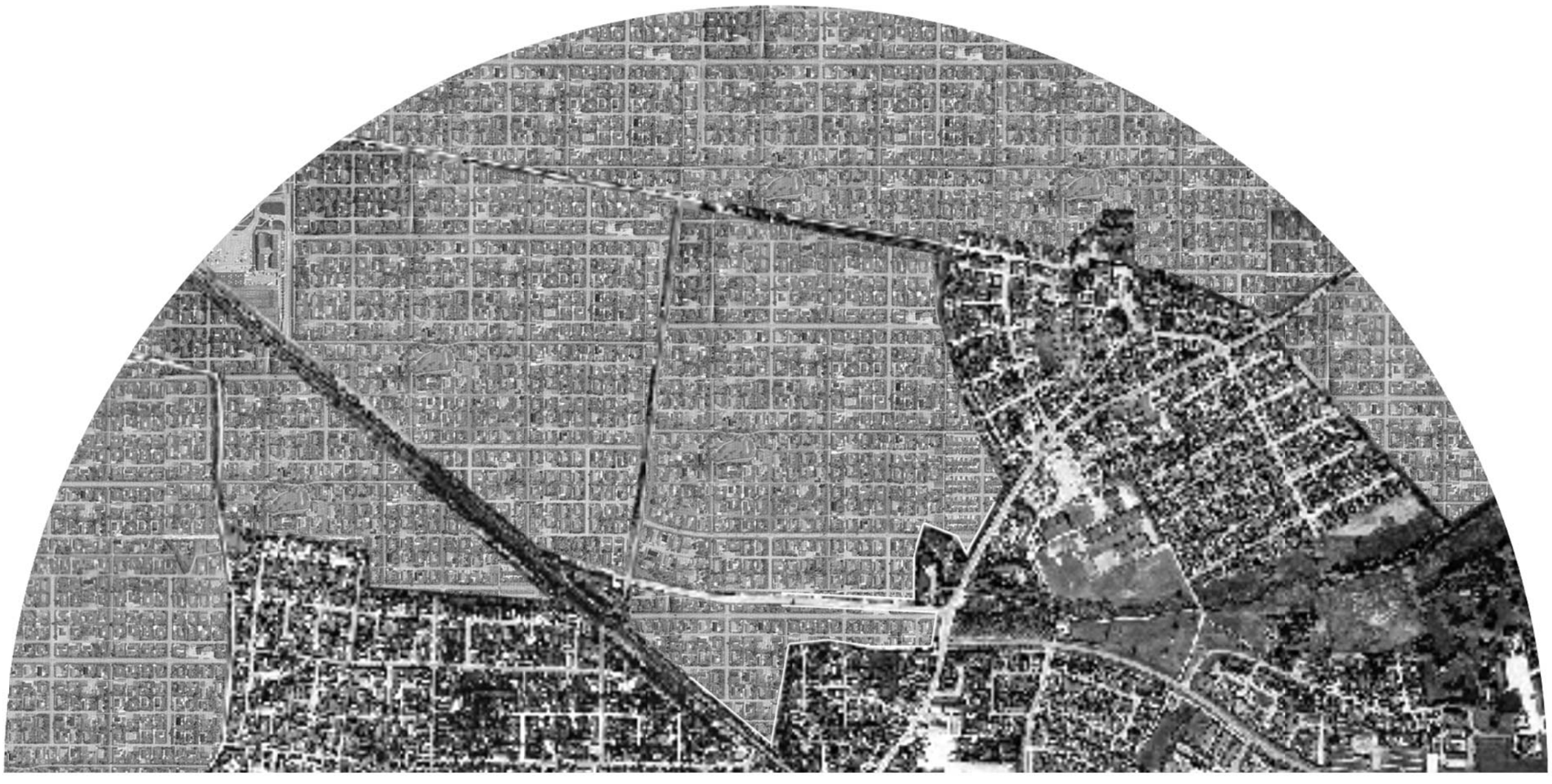
In general, the overall development of Copenhagen in its structural Finger Plan has left clear marks on Viby's structure and character as the region has witnessed a major suburban expansion of the 1960's and 1970's. This development continues today as Viby serves Copenhagen and Roskilde as an alleviating commuter-town and has officially been appointed as such by the Municipality of Roskilde. (Roskilde Kommune 2007a, p. 9) Simultaneously, the Danish Ministry of the Environment, in relation to Finger Plan 2007, is currently investigating the possibilities of an extension of the Roskilde finger, why light is shed on Viby as a town with potential for further development – a potential grasped by the Municipality as they prepare Viby for major expansion. (Miljøministeriet 2007, p. 28) The importance of the stations in Copenhagen's railway structure is especially interesting for Viby, which is highly dependant on its station to survive. Simultaneously, this station also accentuates Viby as a purely residential town – as a sleepy suburban commuter-hub. This view is also reflected in Viby's shifting juridical framework with the recent Municipal Reform of 2007, where Viby until a year ago was part of a rural municipality, the Municipality of Ramsø, to now assuming its role as a satellite town by being situated in a greater urban structure in the Municipality of Roskilde.

The regional planning of Finger Plan 2007 sets the overall frame and regulations for the Municipality of Roskilde and thereby also for Viby, and here the station proximity principle is particularly relevant. The station proximity principle presents a systematic approach to the planning of Copenhagen's metropolitan area that dictates an urban development radius of 1000 m around each station to ease traffic congestion– a principle the Municipality of Roskilde implements in their vision for Viby, although with minor adjustments. They highlight the fact that a larger radius is acceptable for the users of Viby, thus suggesting building sites in Viby with a distance of 1500 m to the station. The future expansion of Viby is thus to take place within a circle shaped area around Viby. The expansion will also be accompanied by an increased demand for public institutions such as kindergartens and a school, additional retail units as well as an improvement of the infrastructural system in Viby, which currently is perceived as problematic. The Municipality envisions a future brand and identity of Viby that is formed on the notion of the station-town, where the station is rendered visible as the spine of the town. (Roskilde Kommune 2007b, p. 6)

Viby's expansion thus places Viby in a pioneering position regarding the future role of small residential commuter-towns facilitating Copenhagen in its structural

Finger Plan development. If these small-town communities all face major expansions as they relieve the pressure on Copenhagen's 'fingers', perhaps the development of such communities should to a greater extent draw on their local qualities of landscape and low densities than the Finger Plan outlines, and the notion of the station proximity principle gains new meanings in such a suburban context.

Top: Viby is situated in a greater Finger Plan context where the potential extension of the 'Roskilde Finger' along the railway line will strongly affect Viby's future. Bottom: The railway line along with several main roads connect Viby to major towns such as Roskilde and Copenhagen. The regional infrastructure is additionally enhanced by the regional pathway system for pedestrians and especially bicyclists, where two of these are planned to pass through Viby.



The expansion of Viby will occur in the shape of a circle with a radius of 1500 m that symbolises the maximum distance residents should have to transport themselves from the station. The station proximity principle thus takes shape in Viby, becoming a site for the unrolling carpet of forthcoming suburbia.

VIBY IN WORDS & PICTURES

VIBY AS A HISTORICAL DEVELOPMENT

The dwelling typologies of Viby bear witness to the historical development of the town. The contemporary Viby has thus emerged from a history which reflects the general development of Danish society, and its current expansion and appeal to commuters has been an on-going tendency throughout semi-urban settlements in Denmark from the mid 20th century.

The two villages Gl. Viby (Old Viby) and Dåstrup were the first towns to lay the foundation of the current structure in Viby. Dåstrup developed around a church and a village pond, which is rendered visible in the structuring of the buildings in an almost circular organisation around the church. The architecture of the buildings tell the tale of a village community with the primary source of income based in the rural. Looking at the structure and architecture of Gl. Viby, it seems as if the town has originated from the manor house Vibygård, where the workers at the farmstead settled within short distance from the manor house. The architecture of the buildings is today a mix of new and old village structures mimicking the single-family housing typology incorporating the values of the detached house, private garden and garage.

> *"The Copenhageners are the ones who purchase houses in Viby and commute to Copenhagen according to real estate agent Jørn Abildgård."*

In 1859 the railway line from Copenhagen through Roskilde to Jutland was established, and here it was decided to place the train station a little south of Dåstrup and Gl. Viby, which brought forth a significant town expansion in relation to the station, hence creating the basic building blocks of the new station-town which we know as Viby. It induced a relocation of a great number of the surrounding service functions to Viby, as this was where the infrastructural connections could be found. The city structure resultantly revolves around the station, creating a little plaza, where the local inn with its horse stable was located. The town has thus expanded in a linear structure from the station along the street Søndergade, which has structured the further town expansion. Trade and town functions were concentrated in the northern part of Søndergade in close connection to the station and the buildings in the south were more related to the rural surroundings of Viby. The primary typology of Søndergade is hence the double-structured building, where the façade facing the street functions as shop, service or repair shop, and the structure

Left: The elder villas of Viby were some of the first houses to be constructed after the station was established in the early 20th century.
Right: An old farm located by the village pond of Dåstrup is one of the last remnants of the days before the Viby became a station-town.

behind is dedicated as the residence of the owner of the shop. The tense linear course of Søndergade is today preserved, even though the course changes in character around the middle where small front gardens create a rural charm in spite of its proximity of the town. (Roskilde Kommune 2007c,)

After this initial growth spur, the period between 1930 - 1960 only saw the construction of few buildings as the population growth was at a standstill. Senior citizens were the predominant population of Viby by the 1950's, jokingly referred to as "the old-timers' town". (Johansen p. 101-102, 111-114)

The town expansion accelerated again from 1960 and onwards with the arrival of component-building and concrete into the town structure, thus breaking with the traditional brick buildings, which is particularly rendered visible around the central plaza , Torvet. (Roskilde Kommune 2007c) The 1960's furthermore marked the beginning of major land subdivisions around Viby, targeted at building single-family housing that would attract new tax -paying citizens to the town, thus grasping the suburban tendencies in Denmark. This

was before the establishment of the Municipality of Ramsø, which at this time consisted of three parishes: Snoldelev, Ørsted-Dåstrup and Gadstrup-Syv, the last of which Viby was part of. Development thus varied a great deal within these parishes, and especially Ørsted-Dåstrup was more cautious and reluctant to embrace these new developments. Regardless of the pace of building activity, one thing was certain – the prospect of incoming cash encouraged the parcelling of land, and market forces dominated the situation. (Johansen pp. 32 – 35, 116 – 119)

With the merger of the three parishes, thus becoming the Municipality of Ramsø, development continued throughout the sixties and almost exploded in the seventies where Viby and its neighbouring village Dåstrup spread into each other to create a continuous urban entity. This massive expansion also brought about infrastructural extensions, such as roads and sewage lines, as well as institutions. (Johansen pp. 119 – 122)

In general the 1960's is characterised as an era of economic prosperity in Denmark, with a resultant growth and expansion in the metropolitan area of Copenhagen. Statistics reveal that approximately 50 000 homes were erected each year and new infrastructures, roads and railways were constructed, and this was therefore the period where the main suburban areas of Denmark was developed. (Thelle, p. 331) These tendencies shaped the grid structure of parcels surrounding Søndergade, which with the rationale of modernism laid out the grid assuring a short distance to the railway station and closeness to the service functions. The parcel house, which today is the predominant dwelling typology in Viby, is also considered the primary typology of suburbia. It thus reflects a general development in Denmark, where the parcel house has become the principal typology and consists of 41% of the total amount of dwelling typologies in Denmark (Vestergård, p.173). The parcel house typology, comprising a single-family house with garden and garage, is commonly considered as an ideal family dwelling. It is the dwelling designed for families, where the children safely can play in the garden or on the streets with other children of the neighbourhood. It provides the family with a refuge located in a green enclosed garden in short distance from nature. Anne Cathrine Lawson describes the parcel house as the place where you can do whatever you feel like, without having to think about your neighbours. It is the dwelling with scullery, refrigerator and carport that creates a straight life line from the shopping centre, over the boot of the car to the dinner table or to the kitchen bench. (Lawson) This signalizes the values of privacy, freedom and effectiveness related to the typology.

"According to local conversations, Viby's population is generally open to the prospective expansion, which they see as a natural course of events. Of importance is that the institutional sector, spare time activities and shopping possibilities can keep up with the expansion."

The most recent development in Viby resembles the suburban typologies of the 1960's although with a more varied architectural expression. The pictured area was erected around the turn of the century.

The 60's was also the period where three four-storey building blocks in Viby were erected. The buildings are structured around a common green area, which provides recreational space for the residents of the building. This reflects a general modernistic trend of the high-rise building typology that originally was a social project aimed at creating social interaction between the residents and securing light and airy spaces, with access to green spaces for the children to play. The typology comprises the private dwelling unit, and a range of common spaces and facilities such as green areas, laundry, stairways etc. Unfortunately, the dwelling typology no longer responds to contemporary values of society, and has therefore deemed the typology to be one associated with the lower social classes of society, resulting in problems related to the phenomenon of ghettoes, where the high-rise enclaves are experiencing problems regarding crime and safety. The three building blocks have however not created ghetto like tendencies in Viby, which can be argued by the long distance to Copenhagen and the fact the buildings are well integrated in the town structure.

With the arrival of the eighties, the population boom had slowed significantly with a steady number of newcomers each year. By this time, in 1982, the Capital Council (Hovedstadsrådet) presented a supplement to the Regional Plan for the Greater Copenhagen that incorporated Ramsø in its plans, requiring that the Municipality of Ramsø draw up a Municipal Plan for future growth. The development of this plan called upon the opinion of the public. (Johansen, pp. 122 – 124) It hence demonstrated that Viby by this time was considered as being of influence in the metropolitan area of Copenhagen, which in Viby is signalized by the shift from being an agricultural-based area to a commuter town - from the 1950's where 40 % of the population were employed in agricultural sector to only 4 % in 1998. In spite of the decreasing amount of farmers and their declining position in local life and politics, the agricultural fields still dominate the expansive views from Viby and the processes and cycles of agriculture still permeate the surrounding landscape. (Johansen pp. 93 - 94)

"Ole Hindsbo from the Danish Society for Nature Conservation hopes for a preservation of village qualities to avoid Viby becoming a new Manhattan."

The 1980's were in general affected by the consequences of the heavy building activity and the economic stagnation gave rise to a reflection of the urban qualities, resulting in a renewed focus on urban qualities, streets and squares hereby returning to images to the structures of the past, reflected in the post-modernism approach to the city. The row-house as the low-rise high-density building hence became a popular building typology because of the effort to regenerate the qualities of older city districts. The structure of Viby has since also adopted the row-house typology, which can be seen in the northern and south-west part of Viby. The row-houses are arranged around green common areas,

and can thus be viewed as a merge of the parcel house and the high-rise typology, as it incorporates the privacy of the small appurtenant garden and the social aspect in rationale of the high-rise typology by offering common green spaces and parking opportunities.

The period from the nineties until today seems to witness a renewed acceleration of the town expansion of Viby, which can be seen as an impact of the economic boom and the increasing commuting tendency. The values of society are now affected by the individual identity making, where the concept of "you are what you consume", is reflected in the preferences of uniqueness. New parcel house types are thus appearing in Viby aiming at fulfilling the consumers' values. The firm Eurodan is the dominating player on the market in Viby creating new subdivision areas in the northern and western parts of Viby, here incorporating the traditional values of the parcel form clothed in new architectural expression. Additionally, a new three storey-building comprised of two buildings turning towards a common parking area has been built. Each residential unit has an accompanying balcony and a gallery, which provides each dwelling with a private outdoor space.

Viby holds biotopes of different kinds, and especially the suburban biotope is significant in Viby's urban fabric. The hedge is here a visually dominant element.
Opposite page left: The suburban biotope is the breeding ground for social interaction and neighbourliness.
Opposite page right: The retention basins of Viby, although an urban process of managing rainwater, becomes a biotope that mimics the 'natural' wilderness.

VIBY AS A LOW DENSE GRID

The single-family housing structure comprises approximately 90% of the building structure in Viby, and creates a low dense grid structure, which is one of the main features of suburbia.

Characteristic of suburbia is that the core of suburbia will mostly be defined by either an old village or a station-town, and that the sprawl of the surrounding area is defined by a grid structure, created by the continuous portioning of the surrounding landscape. The low-structure of Viby consists of three districts, where each of them span their own grid structure. The old village Dåstrup, which was established in a circular shape around a church and a village pond, has continued the circular formation in the expanded grid structure, whereas the structure of Viby evolves around the linear course of Søndergade, which has created a strict regular grid structure encapsulating Søndergade. The structuring of the northern part of Viby is seemingly not related to the nearby old district Gl. Viby, but has created its own regular grid structure. Even though the grid structures are shape differently, the single-family typology shapes a similar composition of small green squares glued with infrastructural links, which connects to the station and the external highways.

VIBY AS A BIOTOPE

It might seem as if the green network is the most distinct feature of Viby. From private or semi-public areas, green corridors branch off towards the edge of the town. In contrast to inner-city areas, Viby offers a varied supply of green recreational spaces, from the dwelling terrace, the garden, the neighbouring playgrounds, sport fields, public city parks and terrain vagues to the more artificial landscape shaped to embrace and separate the dwelling units, such as the hedge of privets. The network of recreational space is linked through the like of narrow passages of paths, grassy roadsides and rain water collection systems. The green pieces and links together shape the green landscape of Viby.

The landscape of Viby is, however, to a great extent shaped on the premises of dwelling typologies, creating the primary green holes within the city structure. The single-family housing typology with the incorporated square shaped garden hence creates the primary green composition of Viby. The low dense parcel structure simultaneously imitates the openness viewed in the landscape.

In this relation Anne Cathrine Lawson defines suburbia as a landscape of city structure and landscape leftovers, which has adopted the scale of landscape and openness, but has neglected the meaning of space and its latent nature. (Lawson) This not only signalises that the concept of landscape can be adapted to the shape of suburbia, but also responds to the highly cultivated habitat of suburbia. It thus seems as if Viby has adopted the biotope of suburbia.

The habitat of Viby is one of cultivation, constantly adapting to the trends of contemporary garden aesthetics. However, the hedge of privets has been favoured by many residential owners, undoubtedly because of its dense and fast growing structure, which secure the residential area privacy. Other dominating garden features are the grass lane, trees and bushes together with roses, lilies and tulips to adorn the garden. Vegetables and fruits are also part of the habitat of Viby, even though the Spanish slug lately has threatened this, by having picked out the vegetables of the garden as primary food chamber. Looking at the fauna of Viby the dominating animals apart from the insects and birds will be the pets, especially the dog and the cat seem to fit perfect in the quiet neighbourhoods close to nature, where the cat can go hunting and where the dog owners can walk the dog.

The surrounding landscape of Viby presents a variety of biotopes. The wheat fields are the most dominating habitat of the adjacent rural landscape, creating an almost non existing biodiversity, because the cultivation of the field and the use of pesticides eradicate the natural biotope of the area. Apart from the rural landscape, a variety of high biodiversity areas appear. Here forest, meadows and streams represent the wild uncontrolled nature, which creates numerous potentials for biodiversity within and around Viby. Looking at a regional scale, the most dominating biotope is the adjacent rural landscape, where suburbia's closeness to farmland, forests, meadows, marshland and streams bring about a much larger variety of biotopes. The potentials of biodiversity are supported by the Regional Plan 2005, which expresses the intention of afforestation in the southern part of Viby. Additionally, the streams, marshland and meadows are appointed to be protected naturally environments.

> *"Lone Plovstrup, urban planner from the Municipality of Roskilde, argues that people move to Viby to be close to nature and that many families return here to start a family. She also highlights the many young people who chose to move away, why more activities for this age group is needed."*

The railway line is Viby's life nerve to the rest of the world (right), but simultaneously a barrier that divides the town in two (left).

VIBY AS INFRASTRUCTURES

The infrastructures of Viby can be defined as having three different layers. The internal infrastructure, the external infrastructure and the railway line with the station as Viby's primary transit hub.

The internal infrastructure shapes the lines of the grid structure and glues the city together while pathways create internal shortcuts between the different enclaves of the town. These pathways bifurcate within the town, and link to the infrastructure, which creates the

possibility of easy and safe movement around in the city. At a regional scale the Roskilde municipality has expressed a vision of expanding their network of regional paths, two of which will pass through Viby: a path coming from the North along Viby Å through the Ramsø valley, Ramsødalen, and a path passing through town in an East-West direction. These two paths will create a soft infrastructural link to Roskilde and Køge Bay.

> *"The locals at the inn agree that Viby has a strong local community – not inclusive the new Copenhageners of course."*

The major external links consist of main roads to surrounding major towns, most importantly Roskilde. Some of these road connections experience a bottleneck situation when passing through Viby due to the viaduct carrying the railway over the road at Ørstedsvej. Here the road narrows in to become a single-lane road, thus slowing the traffic significantly.
The railway station is seemingly a life nerve to the town, which provides fast links to Roskilde and Copenhagen. Facts reveal that it takes around 8 min to travel to Roskilde and 30 min to Copenhagen, which makes the city well situated for commuting. The train departs from Viby every hour and three times in rush hour, signalizing the adaptation to the need of the commuters. People moving to Viby are thus often commuters with daily travels to and from Copenhagen. This is confirmed by a local real estate agent, who primary sells the houses in Viby through a motto of easy accessibility. Statistical facts also reveal that currently around 1200 people travel by train back and forth from Viby on a daily basis, and that this number apparently is increasing. Thus the mental and physical identity shifts from being a local, introvert town to becoming subordinated to larger towns.
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VIBY AS A PROGRAMME

Viby's daily pulse is characterised by the commuter peaks of the station (middle), but the station plaza is usually empty the rest of the day (right). During the hours of the day the suburban life of Viby takes place in the local institutions (left).

Originally, the programmatic composition of suburbia was simply dwelling, resulting in a dependence of work, leisure, shopping etc. in nearby cities. This initiated the commute between suburbia and the city.

Even though the suburbs today are more programmatically diverse and thereby more independent of the city centre, a hierarchy between city and suburbia can still be witnessed. Programmatically, the suburbs today contain dwelling units, commercial units, workplaces and institutions, although the relations in-between these are unequal. The amount of dwelling units is still dominating in suburbia, which generates a great extent of commuting to and from the inner city that offers working places. Institutions and consumption programmes in suburbia secure the daily needs, while entertainment such as cultural and leisure activities take place in the historical centres. However, the more diverse programmatic composition of suburbia has also initiated increasing commuter

traffic between the suburbs. The commuting pattern is according to an investigation created by the environmental ministry increasing, which is caused by the inescapable separation between residences and work in the contemporary city. (Nielsen 1994, p. 146) The programmatic composition of Viby also draws the picture of a “dwelling machine”, where the businesses currently are being degraded to storage facilities as the factories have moved out their production to low-income countries. Trade, however, still exists in Søndergade and schools and institutions supporting the dwelling programme are distributed around in the city.

VIBY AS AN EVERYDAY SPACE

The commuter culture has great impact on the daily rhythm of Viby. The highest intensity peak of Viby is generated around the railway station in the mornings and afternoons, where the commuters leave and enter the town, hereby emptying out the dwelling enclaves during daytimes.

Simultaneously, it is mainly the elder inhabitants and the young inhabitants of Viby who potentially can create life in the town. However, the young children of Viby either spend their daytime in day care, nursery and schools, and apart from Dåstrup School, these are relatively introvert structures, encapsulating the rhythm of the young children. The elder people on the other hand can be seen at the Torvet doing their daily shopping, sitting on the benches in the park, playing pentanque or doing some activities in relation to the elder centre. In the afternoon some of the young people will be found in the sports association, Viby Idrætsforening, and some people can be seen walking the dog in the public park. Evening time in Viby will locate the primary activity in the enclaves, which often will be an introvert activity in relation to the private dwelling, however children can be seen playing on the streets in the summertime. It thus seems as if the life of Viby is limited to the daily peak of the train station and some sports activity in the afternoon, and this image is also reflected in the “Vision of Viby”, where the town is described as a bit sleepy. Resultantly, the few public spaces of Viby are left quite empty due to the lack of flow of people. In connection to this view the suburb has by many been defined as a dormitory suburb, signalizing the mono-functionality of suburbia with residential as almost only programme. The city life in suburbia is in relation to this also often imaginarily deemed to be one of lesser existence, and according to Collins dictionary the underlying definition of “suburban” is as: (Mildly disparaging) conventional and unexciting. (http://www.collinslanguage.com)

> *“From a municipal point of view, Viby does not sell itself well enough. Lone Plovstrup, urban planner from the Municipality of Roskilde, proposes that the town be branded on the station, the local community and the proximity to landscape.”*

Suburban life and public spaces of suburbia should according to Birgitte Bundesen Svarre be assigned and designed as ordinary everyday spaces, due to the lack of density of both buildings and inhabitants of suburbia. She uses Dan Túrell’s novel “Images of Vangede” to exemplify the meaning of the ordinary spaces of suburbia, and stages their potentials of being public domains and meaningful spaces within the city. The ordinary spaces are by Turéll described as creating experiences that are far from ordinary, which according Svarre calls for the engaging of the ordinary spaces of the everyday life in the design of public spaces in suburbia. (Svarre, pp 70-72) The ordinary spaces of Viby can thus be found in the intensities of commuter peaks and institutional life, which reflect the daily rhythm of the town.

VIBY AS URBAN PROCESSES

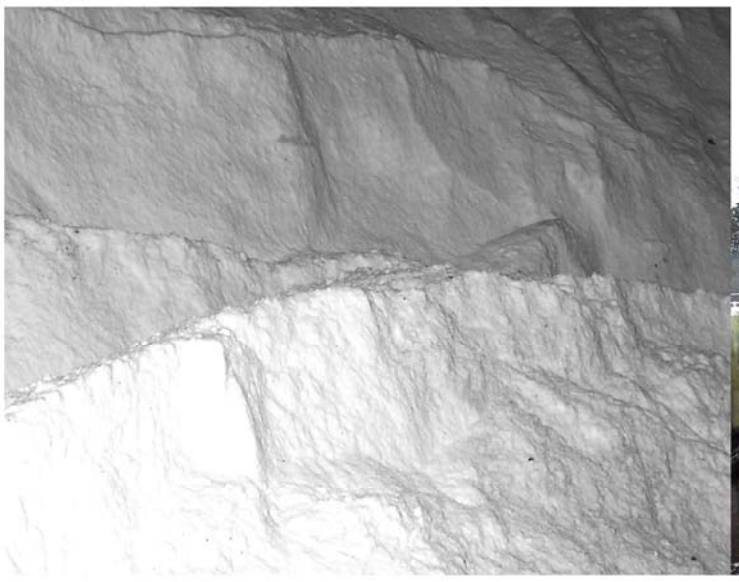
Everyday spaces of Viby can also be defined as the urban residual, urban supply and urban maintenance processes of the town. These multiple processes are the spine of the town, securing a consistent functioning of the town while constantly adapting to changing premises and demands. In spite of the importance of the processes they are almost hidden from the inhabitants of Viby.

> *"Revealing the mechanisms of maintenance in Viby, municipal caretaker Verner Jensen states that the waste water treatment plant is overburdened at times with excess rainwater."*

The urban supply of Viby consists primarily of energy and water. A few windmills located in short distance of windmills generate energy purchased by Dong energy, which provides energy to the town. The water supply is delivered by three different small local waterworks, namely Viby Vandværk, Dåstrup Vandværk and Viby Dals Vandværk. Viby is by the Ministry of the Environment outlined as an area of particular water interest.

The urban residual processes of Viby are wastewater and waste management, as well as a contaminated site in the northern part of the town. The waste is in part handled by the weekly renovation company with the assignment of collecting the waste from the dwelling units and transporting it to the incineration centre in Roskilde, whereas the local recycling depot handles garden waste, old electronic equipment, discarded furniture and other sizeable scrap effects. The wastewater is treated locally in the town by Viby Wastewater Treatment Plant, and after having treated the water it is channelled directly into Viby Å. Several retention basins are placed around the town to slow the pace of the water that flows to the wastewater treatment plant. This is a system where the rainwater and the wastewater flows are mixed in some parts of the sewage system of Viby, with the consequence that the retention basin contains both rainwater as well as wastewater, necessitating that they are fenced of from the public. This eliminates the possibilities of these basins to act as wild nature reserves for the town to enjoy and occupy. It is simultaneously a relatively unsustainable method for dealing with rainwater, for in spite of it being an effective way of hindering flooding in Viby, an increasing concern for the value of water questions this blend of two otherwise separate water flows and hinders ecologically correctness by actually polluting the relatively clean waters of the rain.

The urban maintenance is assigned to the municipal maintenance yard with duties such as gardening the green areas of the city and securing a functional infrastructure by salting and snow clearing during winter time and additionally securing a consistent flow of Viby Å, by cutting the plants in the water.



Left: The maintenance yard is responsible for local road repairs and the needed equipment for this makes the maintenance a unique landscape in Viby – a landscape to which the population has no access.
Middle: One of the responsibilities of Viby's maintenance yard is the de-icing of the roads during winter, why the yard includes a massive salt depot – a strong visual element that is boxed into a warehouse.
Right: The water treatment plant cleanses the waters of Viby before it is channelled into Viby Å.

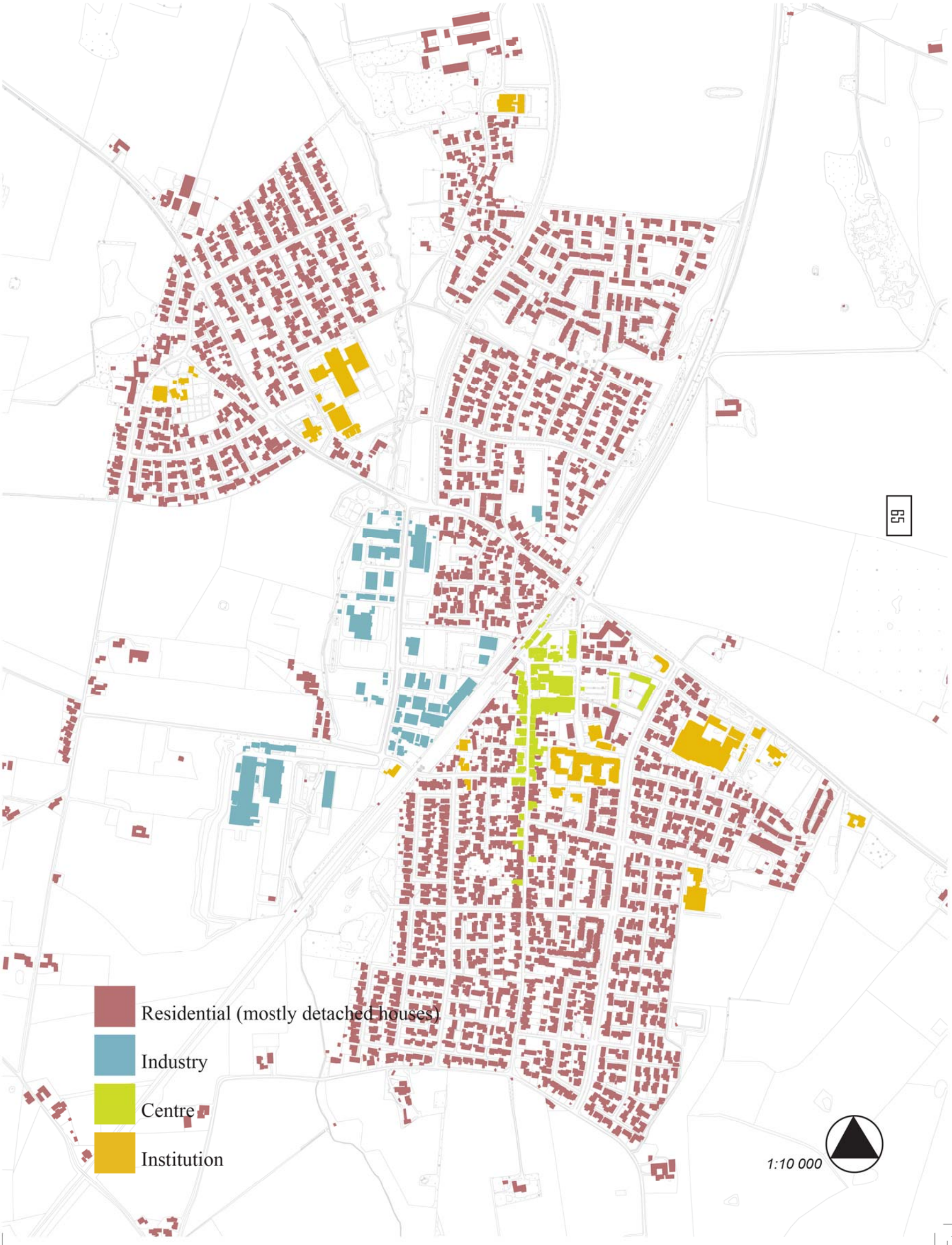
MAPPINGS

WELCOME TO VIBY SJ.

Viby, although a coherent structure, still goes by the more local names of the old villages of Dåstrup, Gl. Viby and Viby. The main road of Ørstedsvej/Assendløsevej connects the town by car – the station connects the town by rail. Two large parks offer recreational space for the inhabitants: Ramsødalen and Kildemosen.

PROGRAMME

Viby is programmatically dominated by residential units. The industrial area west of the railway is in nature of its specific programme and structure almost a town within the town. The centre of Viby around the station is characterised by shops and supermarkets. The schools and institutions of Viby are some of the largest building structures in the town.

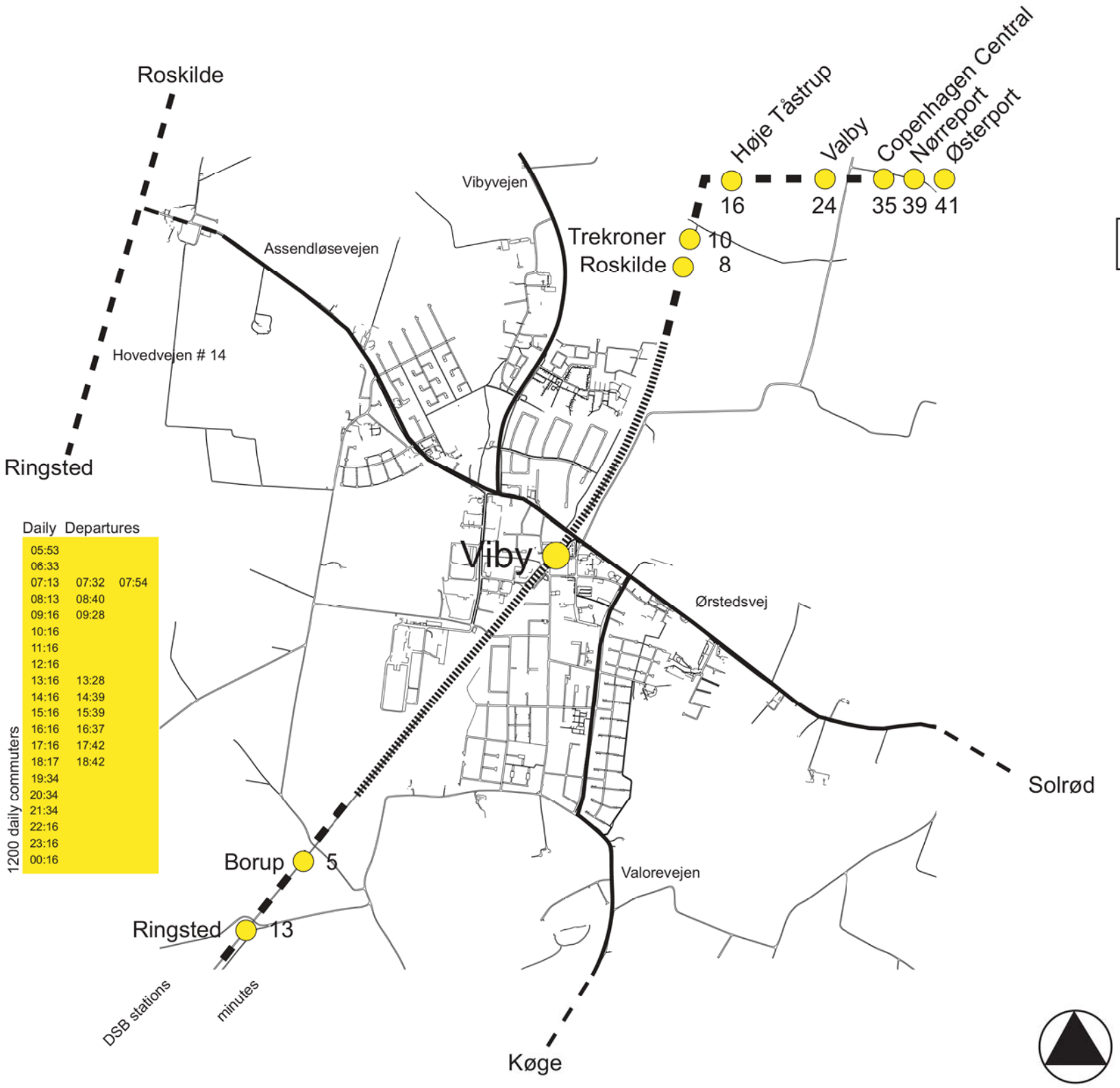


INFRASTRUCTURES OF SPACE

The station is the infrastructural hub of Viby, and is ironically also the reason for the railway barrier in the town. The road system of Viby is arranged in the suburban grid structure.

INFRASTRUCTURES OF TIME

Viby's infrastructural situation is not only a physical and spatial one, but also one that bears the dynamics of time as a vital factor. The town is linked to Roskilde, Copenhagen and Ringsted by the railway, and thus effectively connected to the network of the capital region to a much greater degree than it is connected to its neighbouring towns. (Data collected from www.rejseplanen.dk)

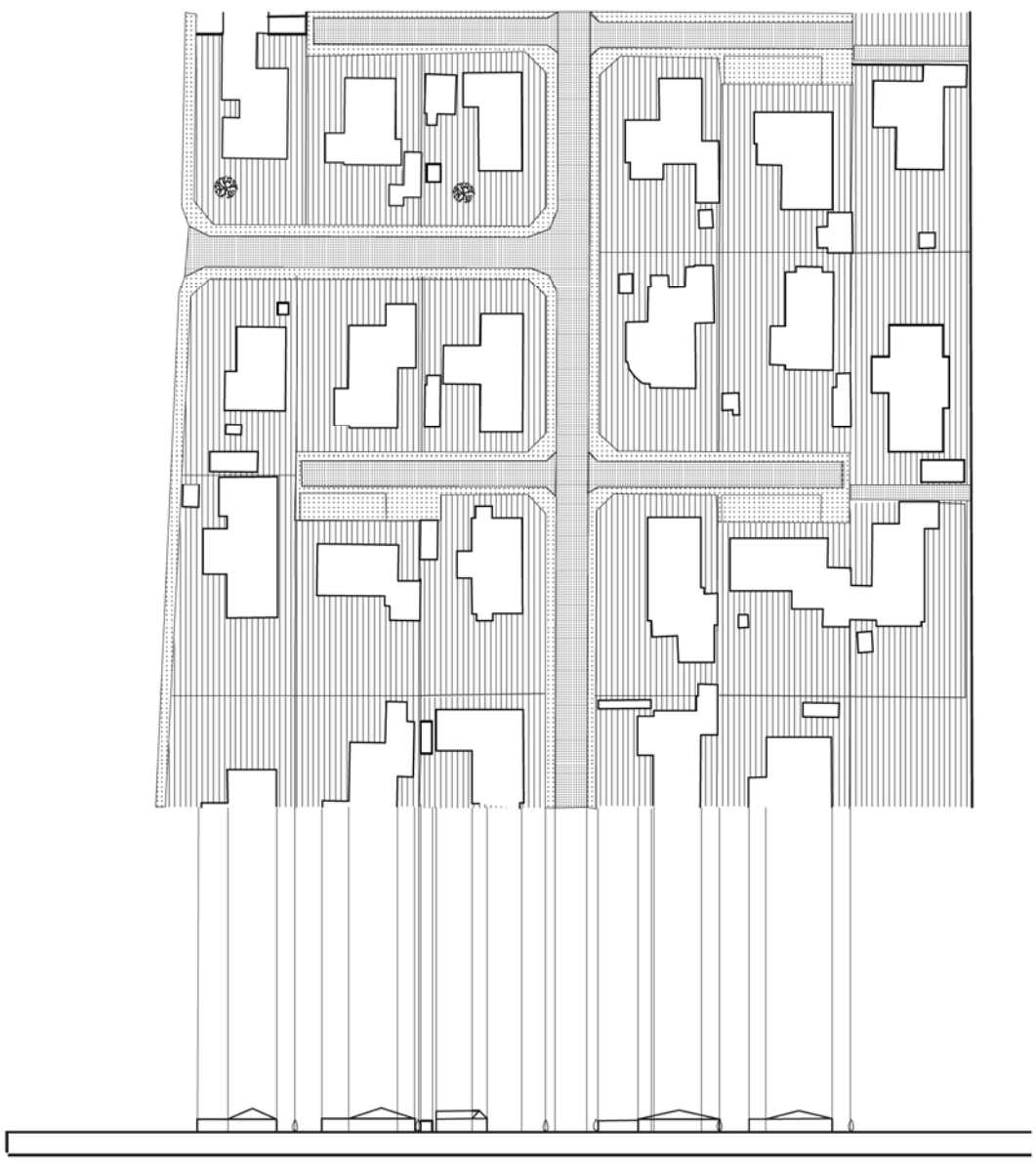


BUILDINGS

The built areas of Viby clearly reveal the suburban grid of detached single-family houses. This pattern in interrupted by the older housing structures of Søndergade, the industrial district, the two schools and some newer rowhouses to the North.

SUBURBAN CARPET

Viby's suburbia can be viewed as a coherent landscape rather than simply building structures. This mapping uncovers the many elements that make up this landscape – elements that all can be seen as visual elements of different characters.



5% VEGETABLES AND FRUIT

5% FLOWERS

20% DRIVEWAY

15% GRASS

1% FLAG POLE

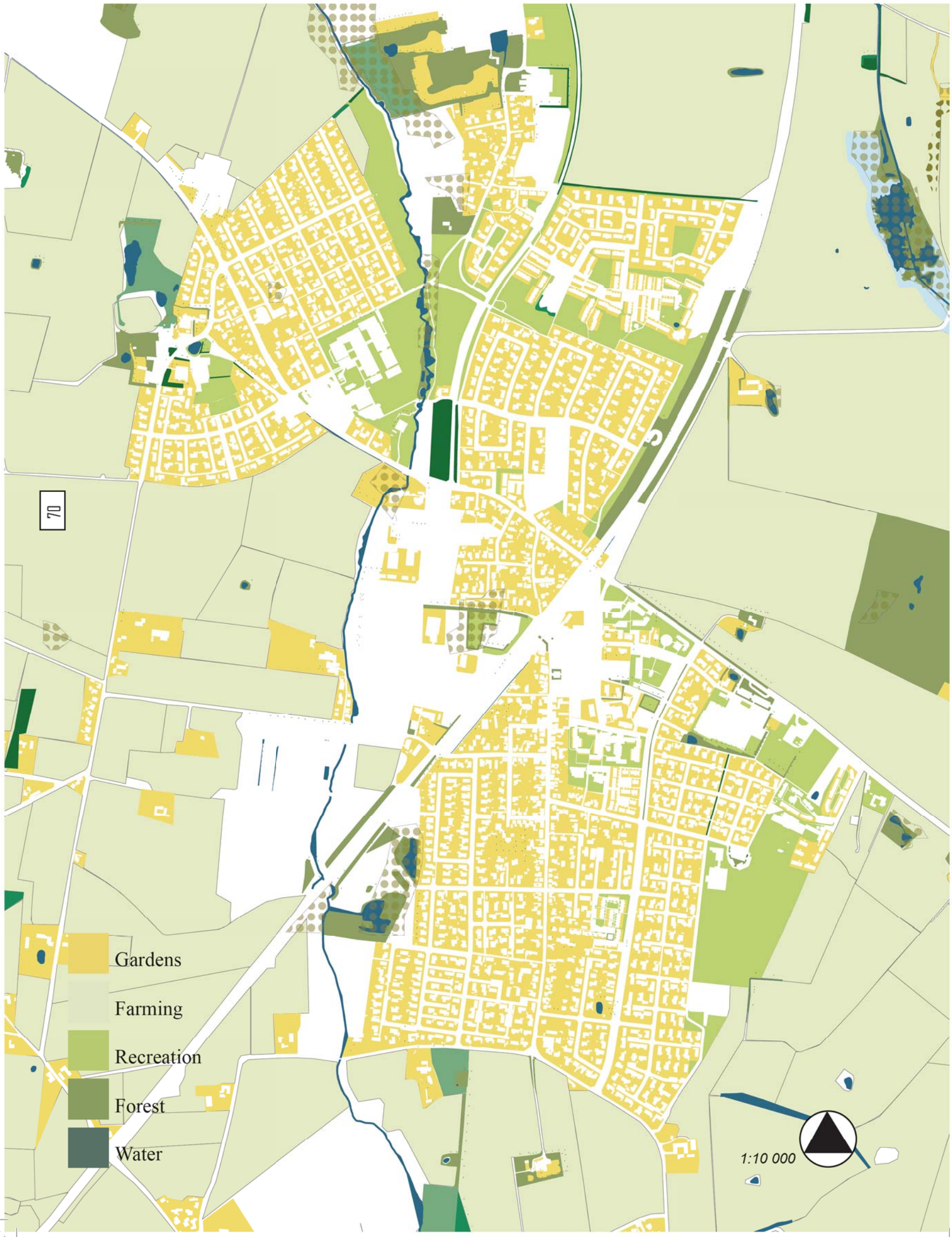
10% TREES

10% HEDGE

34% BRICKS

BIOTOPES

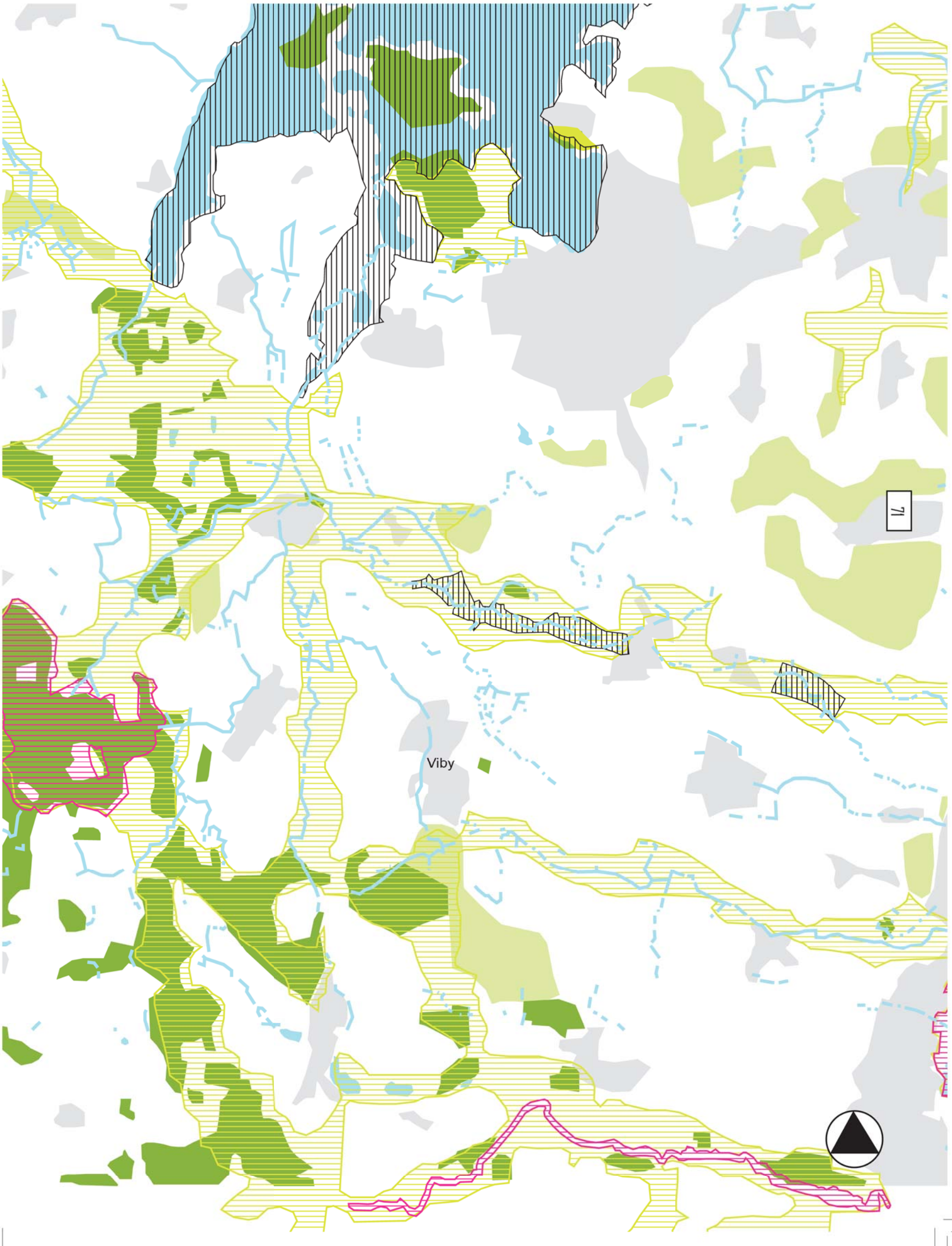
When viewing Viby as a biotope, the large expanses of suburban gardens are exposed. These gardens stand in contrast to the open field of agriculture that surround the town.



BIOTOPES – REGIONAL

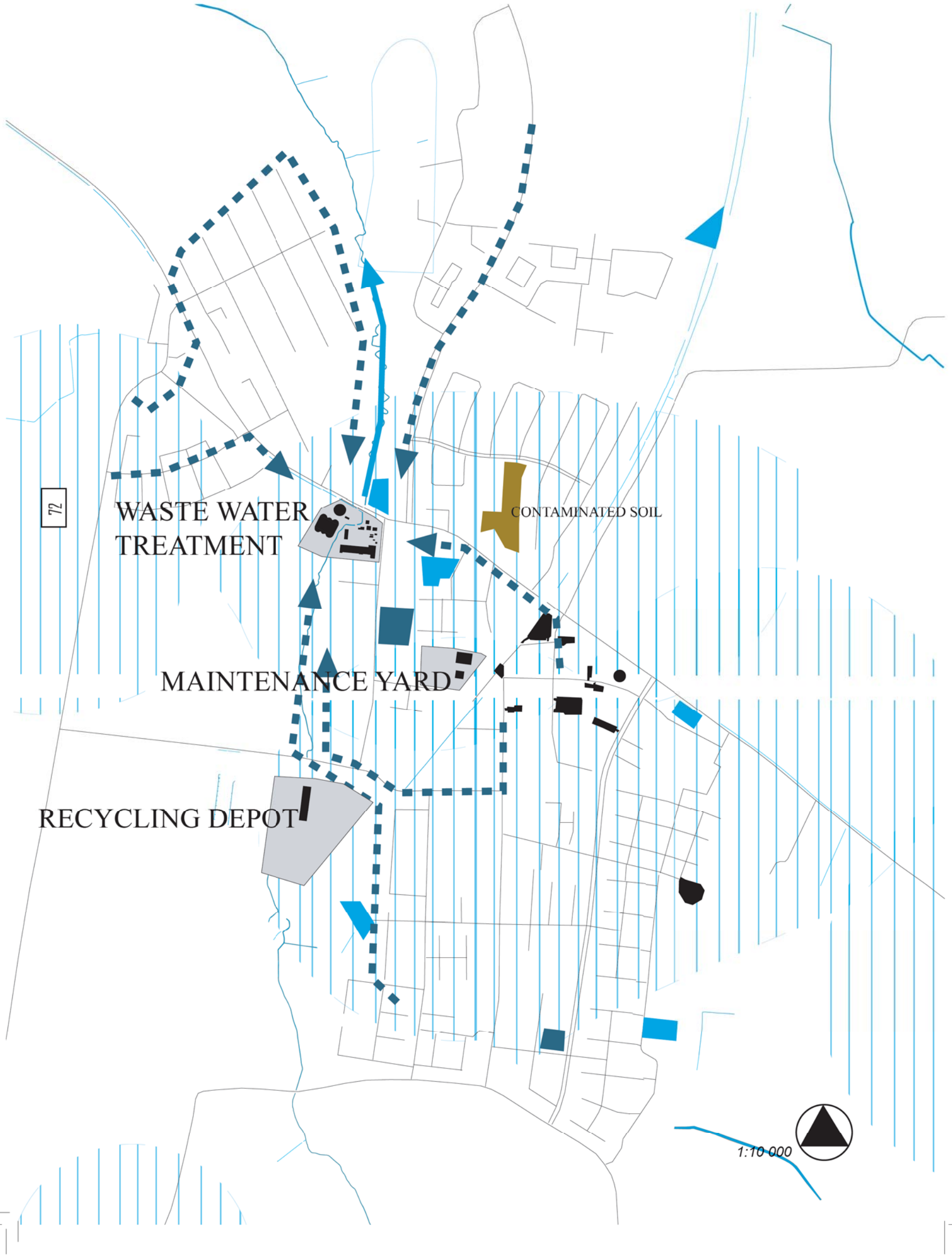
Viewing the biopes at a regional level reveals the ecological corridors where habitats are allowed to disperse across the region. This is a way of securing biodiversity.

(Data collected from www.arealinfo.dk)



URBAN PROCESSES

The three major urban maintenance units of Viby are located in the industrial area in close relation to Viby Å.



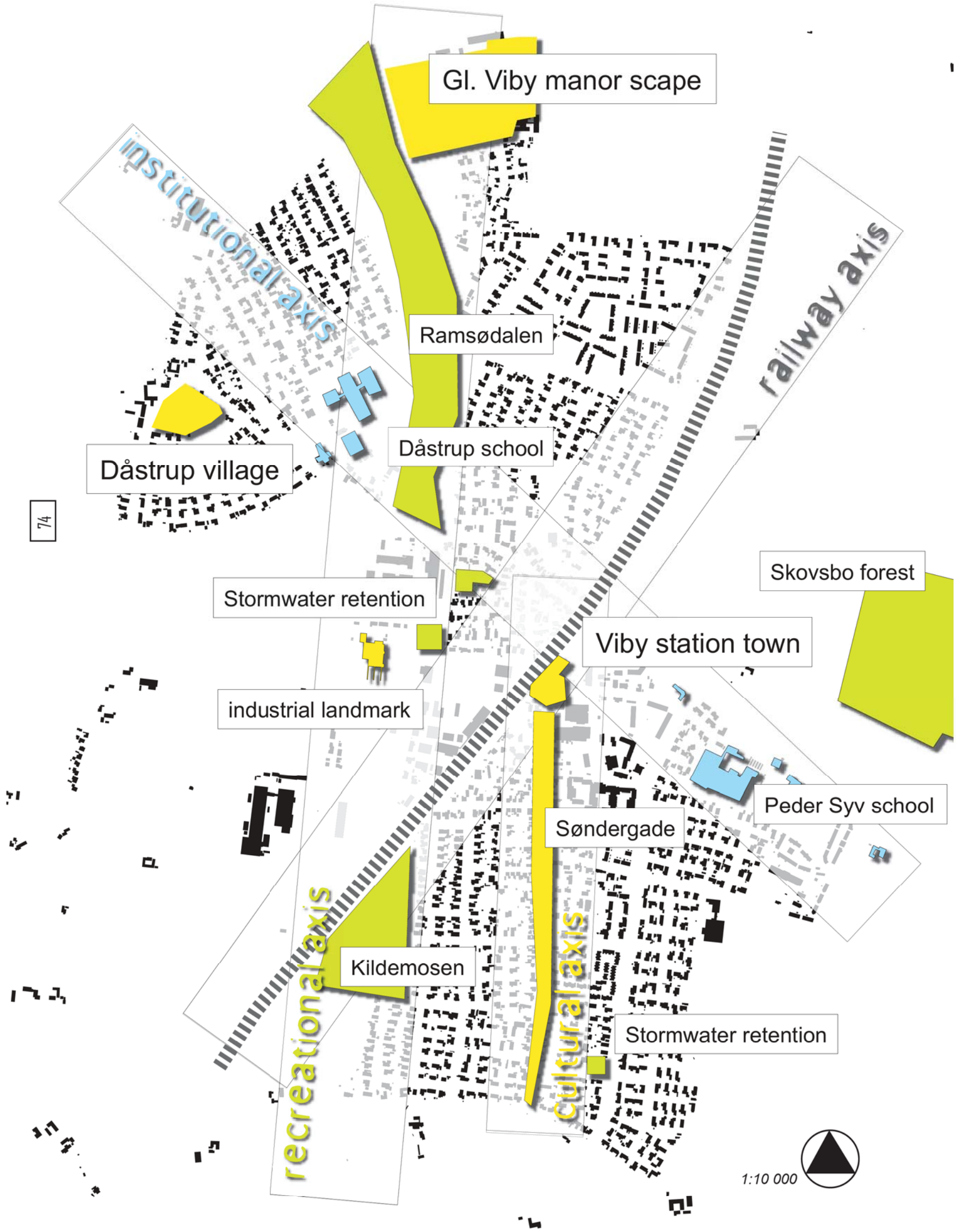
RESTRICTIONS

The invisible forces of planning consist of both restrictions and potentials that local and regional planning has enforced. These forces dictate certain directions for future building activity.

(Data collected from www.arealinfo.dk)

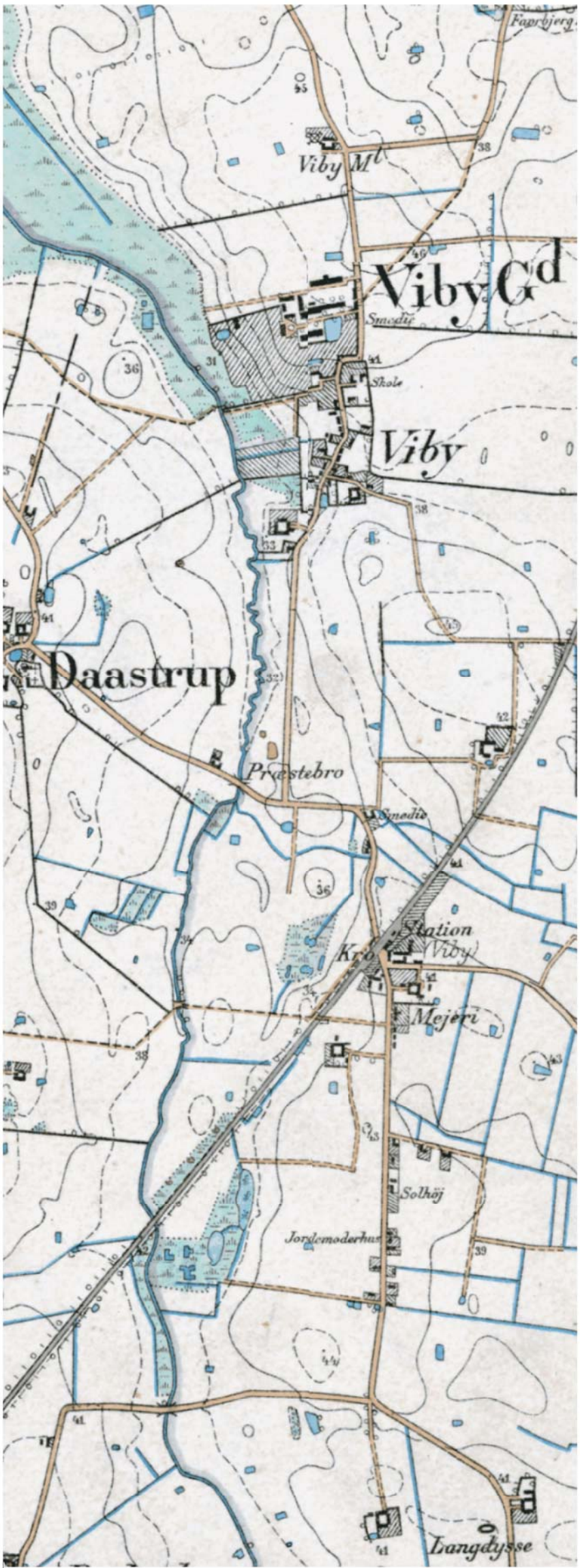
MENTAL MAP

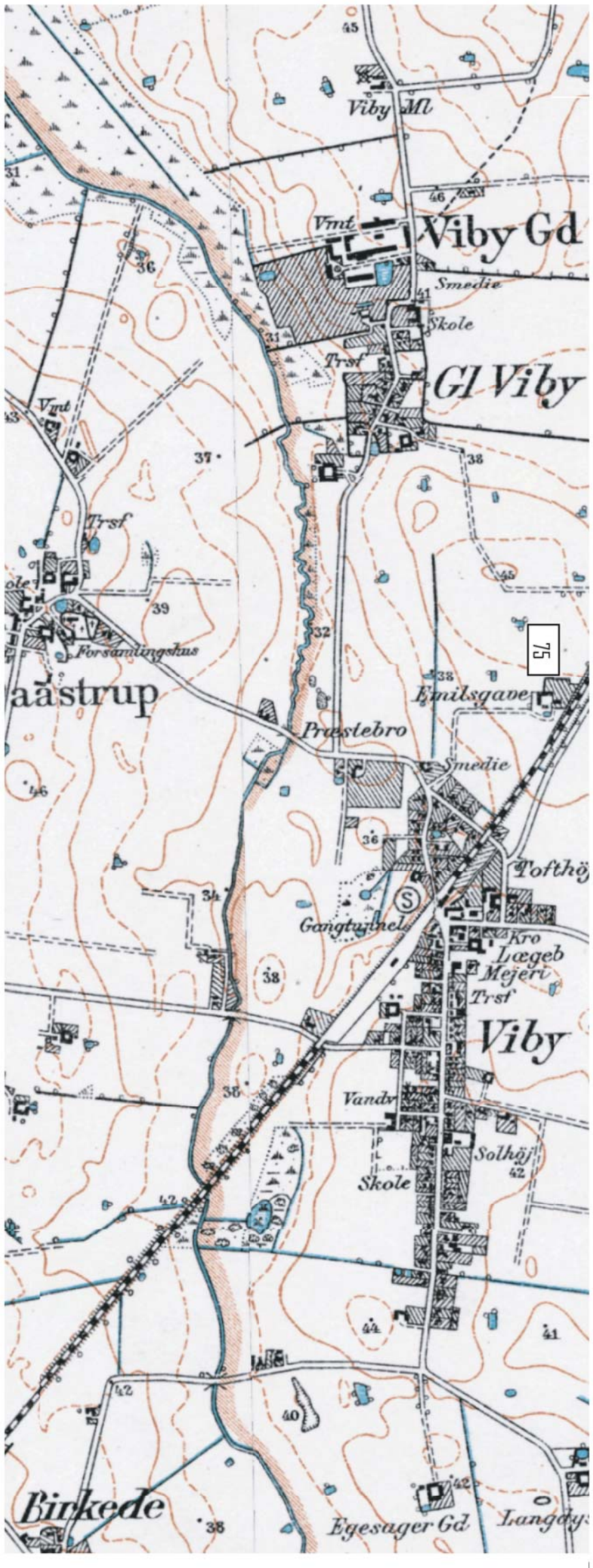
Viby bears a mental image that also can be seen as invisible forces. This mental mapping of Viby pinpoints the landmarks of the town that are profound in visual identity.



HISTORICAL MAPS

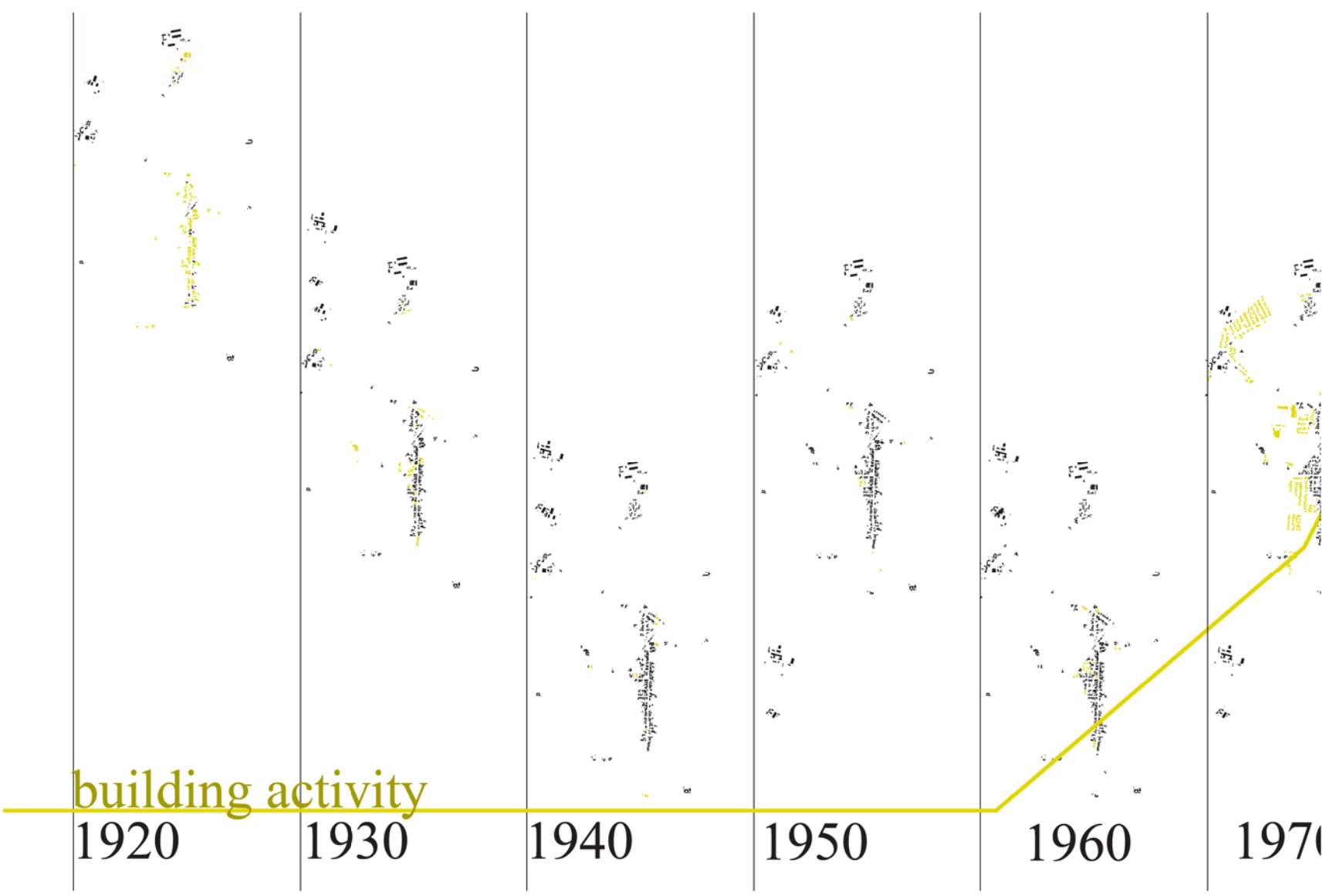
Historical maps of Viby showing the expansion of the town before the arrival of suburbia in the 1960's. The two maps are from the second half of the 20th century (left) and first half of the 21st century (right). (www.arealinfo.dk)

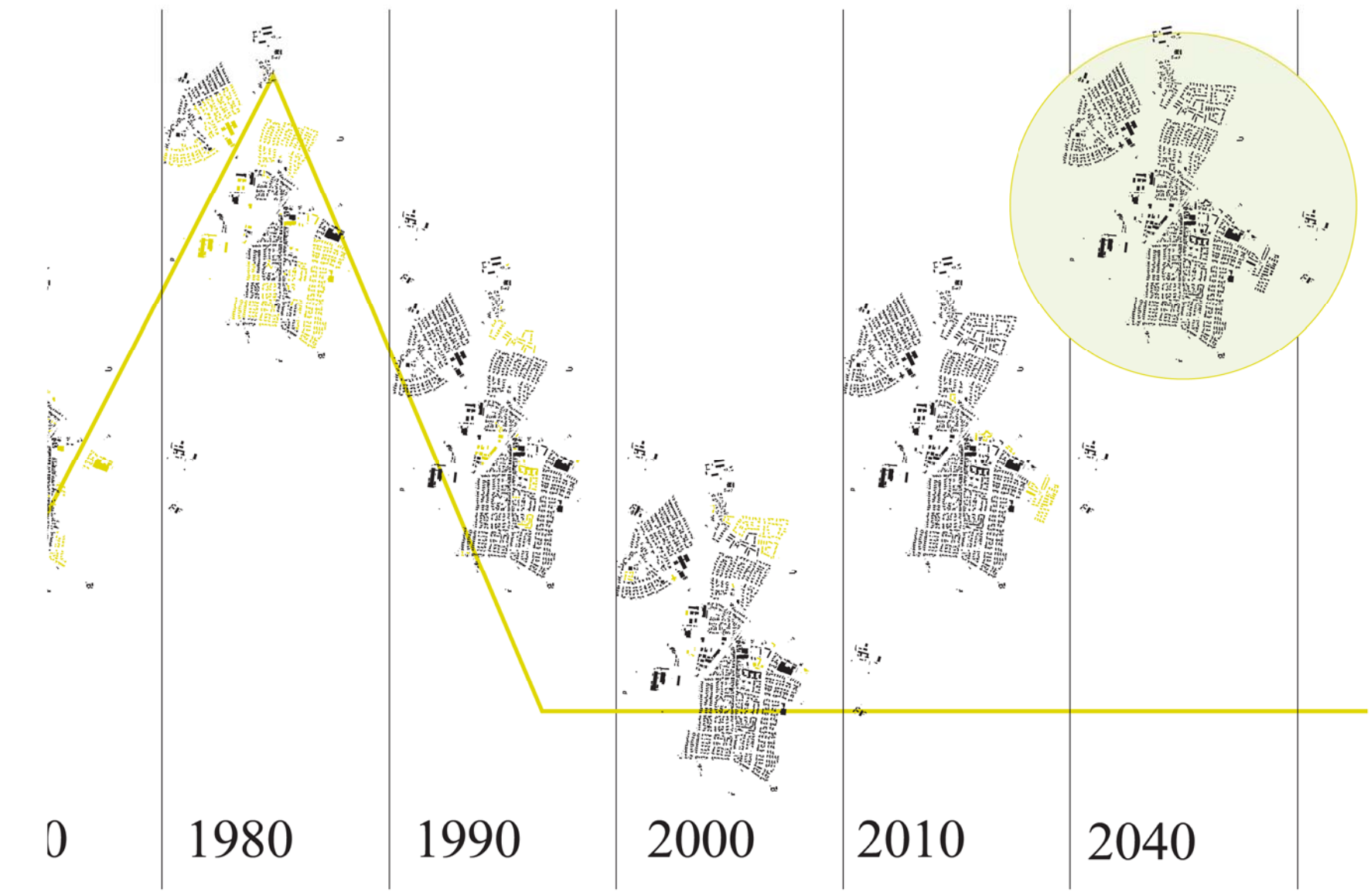




HISTORICAL DEVELOPMENT

Viby's development is strongly marked by the suburban expansion of the 1960's and 1970's where major areas of the town were established.



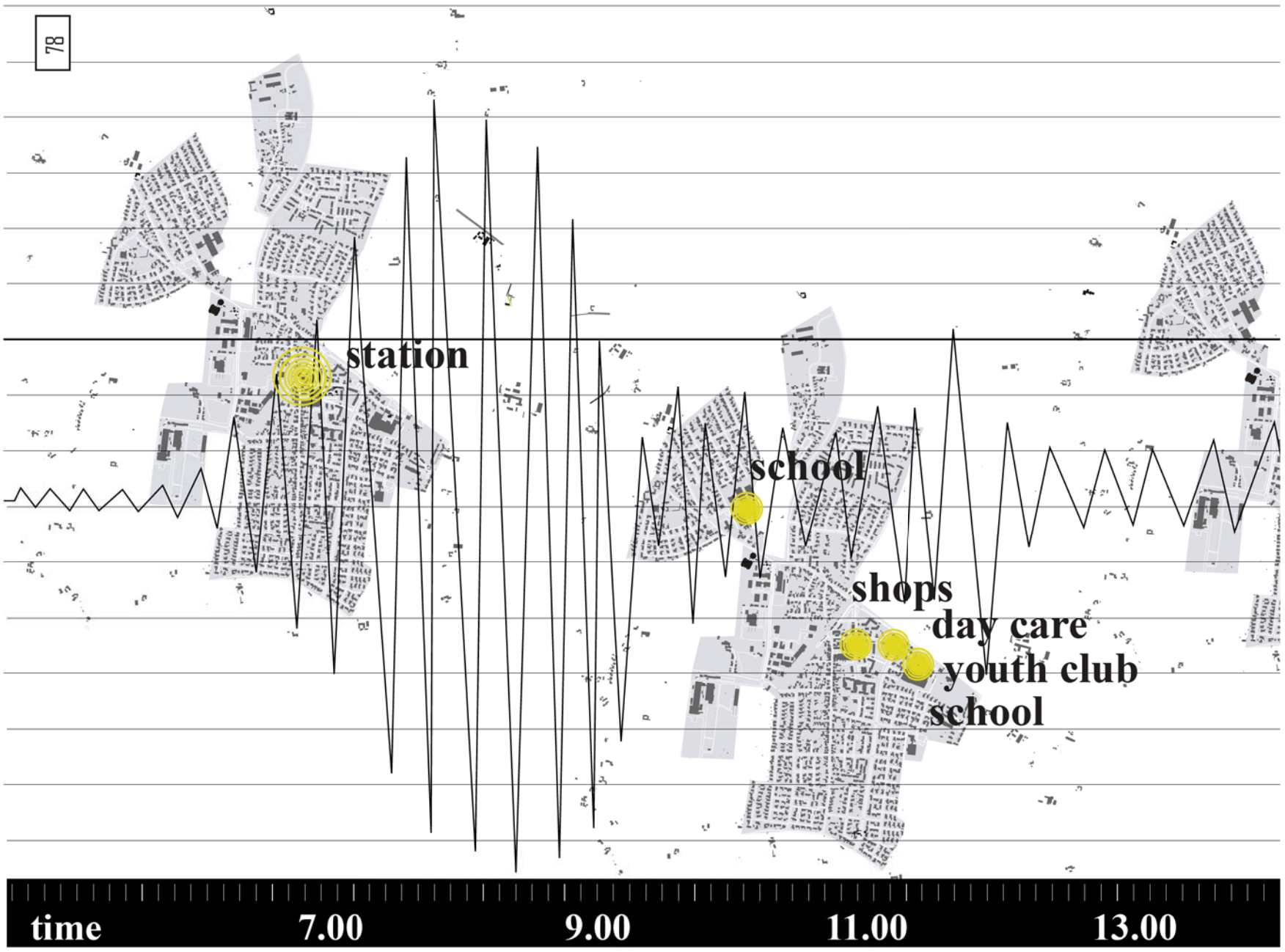

0
1980
1990
2000
2010
2040

DAILY PULSE

The pulse of Viby is one that peaks around the station in the mornings and afternoons. While the town is emptied out by the majority of the population, the daily life of the institutions become the everyday life of Viby. The afternoons and weekends witness the shopping life peaking, while the life of Viby moves to the residential areas in the evenings.

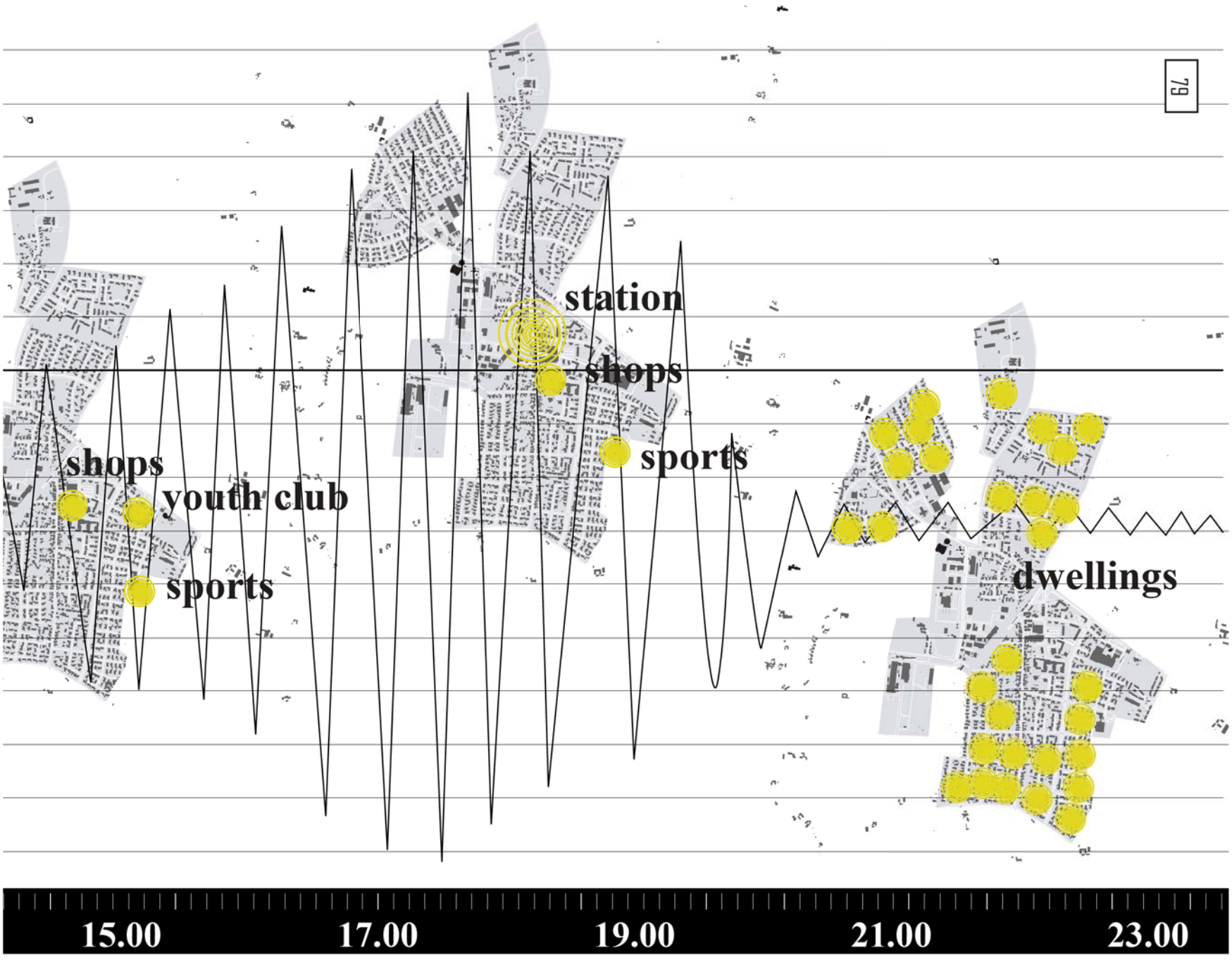
MORNING & AFTERNOON PEAKS: The station area centralises around the station plaza, Torvet, which is the infrastructural hub of Viby. It is a plaza that has witnessed the history of the town since the station was established and is thus a strong historical symbol together with the central tree, the yellow station building and the inn, Viby Kro. These elements provide the plaza with surrounding facades that enclose the plaza as a spatiality fitted to the human scale. The plaza is quite run-down and in need of renovation.

WEEKDAY: The two schools of Viby are structured in two different ways. Dåstrup School consists of an open rhizome-like building structure that interacts with its open spaces and also its urban context. Peder Syv School (pictured) is a more introvert structure with enclosed school yards and fenced in sports fields.



AFTERNOON & WEEKEND: The shopping programme of Viby is especially dominated by the local supermarkets. These supermarkets are large box-like typologies that open only to one side with the main entrance, but are closed off to the others. In addition they are accompanied by the open expanses of large parking spaces.

EVENING & WEEKEND: The dwelling areas of Viby are made up of single-family detached housing units with accompanying gardens, and these gardens are the setting for large parts of Viby's daily life, especially in the evenings and weekends.



FACT SHEETS

In addition to the tracings of Viby, the following fact sheets have been applied as a way of drawing up unseen potentials in the town. Four existing processes in the town, forestry, farming, soil contamination and storm water management have thus undergone a ‘mapping’ process in order to test the potential of ecological processes as a living system.

fact sheet 4
afforestation secures drinking water

VIBY'S WATER

Identified as an area of special drinking water interest and containing several well field capture zones, Viby and its surroundings are obligated to secure the groundwater resource in its domain. Afforestation has been acknowledged by the government as an obvious means of protecting and securing water resources in Denmark, as forests involve a minimum of environmentally straining substances such as pesticides. (Skov- og Naturstyrelsen 2003, p. 17) **Lands adjacent to Viby have in fact already been indicated as potential afforestation zones that can extend existing woodland areas in the region and secure ecological corridors and biodiversity and thereby help fulfil the national goal that 20 to 25 % of Denmark should be covered by forest landscapes.** (Skov- og Naturstyrelsen 2002)

Today seven waterworks supply Viby and its surroundings with water. Viby Waterworks, which is the largest, together with the waterworks of Viby Dals, Dåstrup, Søster Svenstrup, Kirke Syv, Hanskevejens and Syv Holme. Some of these waterworks supply almost of half the town while others supply only a handful of residences, but together they comprise a local water supply network manifested in physical points in and around Viby. (www.roskildeforsyning.dk)

INTERVENTION

Afforestation seems an obvious method for securing drinking water, supporting biodiversity while also offering recreational possibilities and resistance to new urban development in Viby. The local network of waterworks in Viby can be seen as a stakeholder with the financial ground to support such an initiative as well as a potential interest in gaining publicity and positive reputation.
It is therefore suggested that a strategy be initiated to establish forest on areas around Viby, on prospective urban development sites as well as their rural surroundings, and using the forest to create connections into the town and perhaps between the waterworks. The value of the local drinking water, manifested in the physical waterworks constructions, is thereby rendered visible to the public and awareness can be encouraged regarding the value and protection of Danish ground water.
The forest thus becomes a new link in the ground water cycle – a link enabling physical interventions in public spaces and structural principles for urban development areas. Three forest types have been chosen to be the building blocks of this new forest, each dominated by different species - beech, oak and ash/alder - and thereby offering a variety of spatial and aesthetic experiences. Each of these three forest types matches the climate and soil conditions of Viby.

Implementing such a strategy involves a number of different stakeholders and a variation of financial models regarding either public afforestation or private afforestation.
Private afforestation, i.e. forests on private land, involves the land-owner as a stakeholder. A private business such as the waterworks is prohibited from purchasing farmland to erect forest, and private afforestation as a means of securing drinking water is therefore usually a collaboration between the local waterworks, land-owner and authorities (municipality and state). The costs of erecting new forest rounds up to approximately 40 000 kr./hectare including soil work, planting and maintenance. To cover these costs, the waterworks may charge an extra consumer fee to finance afforestation on the lands of a private land-owner. (Skov- og Naturstyrelsen 2003, pp. 17 - 23)
Another option would be for the land-owner to receive subsidy from the government when erecting forest, but this model does not allow for additional subsidies from waterworks, and can therefore not be combined with the above-mentioned model.
A third option is public afforestation, where the state purchases land and maintains the forest, while the waterworks and municipality contribute with financial means.
However the financial model, the forest will then slowly begin to provide a basis for income, first through production of wood chips and firewood, and after several decades as a real timber production. (Skov- og Naturstyrelsen 2003, pp. 17 - 23)

fact sheet 4
APPENDIX

beech forest

This mixed forest holds many species and is varied in structure. Beech is the dominant species with a significant share of ash, maple, bird-cherry, hornbeam and lime. These secondary species are found mainly in groups, but also individually. A horizontal structure appears between these different groups of varied size and age, whereas a vertical structure appears around clearing, as ash and maple create lower layers. Beech forests is a natural vegetation in many parts of Denmark and therefore linked to many plant and animal species. Beech is a good nesting tree for e.g. birds of prey and woodpeckers, while its fruits provide food for many species.
The mixed beech forest offers structural variation and potential to create a great number of different spatial experiences. The beech trees provide the feeling of a large space lifted by pillars, whereas the other species can offer a more intimate effect.
(Larsen, pp. 202-203; Granby, p. 5)

oak forest

This one or two-layered forest is structurally varied with potential for a rich and varied undergrowth and therefore also a diverse wildlife. The oak species is linked to the greatest number of insects and other invertebrates in Denmark, up to 800 species, and also attracts deer, mice and a great number of birds.
Aesthetically, oak woodlands a re pleasing to the eye as a lush forest during spring and summer while exposing many harvest colours of orange and red during autumn. From a distance the forest may seem dense, but at close hand it is often experienced as being quite varied with both horizontal (group-wise) and vertical (layered). structures.
(Larsen, pp. 208-209; Granby, p. 5)

ash & alder forest

A many-layered forest of alder and ash species with a great variety in size and age development, where ash will dominate the forest as a whole, while alder will dominate mainly on moist soil. This forest is potentially the most varied in Denmark with a rich shrub flora and fine habitats for many moss species. The fruit from the ash tree attracts many birds and the buds are attractive for deer.
This forest type, being quite dense and jungle-like, is ideal for creating variation in the rest of a forest area.
(Larsen, pp. 214-215; Granby, p. 5)

JURISDICTION

Afforestation
The designated afforestation zones (positive zones) indicate areas where forest is desired.
Forests should be established in minimum 2 ha, preferably more.'
The forest should emphasize and protect landscapes characteristic of the region as well as important art historical traces and cultural environments.
Pesticides and fertilizer should be avoided.
Deciduous forests are preferred.

Areas of special drinking water interest
When placing activities and constructions, contamination of the ground water should be avoided.

Ground water threatening activities and constructions must not be established unless specific locational considerations necessitate this. In such cases requirements to interior design, surveillance and maintenance shoouls secure against contamination.

New ground water threatening activities and constructions in relation to existing businesses, institutions or residential areas may only be established under specific terms.

Well field capture zones
As a main rule, no permission is given for ground water threatening activities and constructions.
Attempts should be made to end ground water threatening activities and constructions in relation to existing businesses, institutions or residential. If this is not possible, the risk of ground water contamination should be reduced.

(HUR Regionsplan 2005)

ECO-SCAPE

The Danish landscape has for centuries been characterised by vivid crop fields and farmland, a sight that still dominates the scenery today. However, these farms are not solely idyll and landscape, but major production units capable of straining and polluting the environment just as any other industrial factory. With increasing societal concerns for the environment, many farms have converted their operations to more ecological and organic based production units in order to alleviate this strain and as part of a branding strategy that caters to a constantly growing size of the Danish population.

INTERVENTION

Tendencies are pointing towards converting an increasing number of farms to organic productions, and it is proposed that eco-farming be activated in relevant urban development sites in Viby and the surrounding lands.

Viby is already the home of an ecological farm, Vibygård, which is co-owner of the online sales shop Frydenholm A/S, specialising in organic foods. (www.frydenholm.dk) In addition to this, a number of areas around the town have been indicated as SFL-areas (especially sensitive farmland), areas in which the government offers a subsidy if the farom choses to focus on a more environmentally friendly production. (www.sfre.dk)

A wide range of potential crops could be suggested for a conversion to eco-farming, but here the cultivation of hop plants is proposed. Hops are a flower known for its use as a flavouring and stability agent in beer. This is especially interesting combined with the fact that a small brewery is located in Viby. Viby Brewery started as a spare-time activity in 2004 and slowly evolved into a tiny but professional brewery located in Viby's industrial district. However, after a few years no news seems to have left the brewery and its buildings stand empty along Grønningen. (www.viby-bryghus.dk) It is therefore proposed that a revival of the brewery be initiated, this time with organic beer brewed on organic hops from the local farm Vibygård.

Generally, hops production in Denmark is limited, as it is mostly imported from countries such New Zealand and Germany. However, with the recent explosive interest in beer and micro-breweries, local breweries seem to be on the lookout for a true Danish hops species and the production of 100 % Danish beer. (www.danskhumle.dk)

fact sheet 2_organic hops

fact sheet 2
APPENDIX

ORGANIC HOP GARDENS

Organic farming is defined at a type of agriculture that does not apply synthetic fertilizers and pesticides, plant growth regulators, livestock feed additives, and genetically modified organisms, but rely or more natural maintenance methods such as crop rotation, integrated pest management, crop residue, compost and mechanical cultivation.

Organic farming can be said to improve conditions for pests, but simultaneously also improving conditions for the animals who prey on such pests. This can be encouraged through the establishment of small local biotopes that can support a variety of animals to combat the threat of pests.

It is claimed that organic crops have a much slower growth rate than non-organic crops due to the limitations regarding nutrient supply. However, the organic products are said to contain a larger quantity of vitamins and antioxidants, and therefore beating conventional farming, not in quantity, but in quality. (www.okologi.dk)

Regarding cultivation of organic hops, experiments have already been initiated with the support from The Directorate for Food, Fisheries and Agri Business, resulting in the cooperative venture 'Dansk Humle'. The purpose of this project is to recreate the foundations to cultivate and make use of Danish hops in an original Danish beer production, and involved are Århus University and Copenhagen University, Carlsberg as well as an organic farm, Tystrupgaard, which will carry out the testing of new hops cultivation. (www.danskhumle.dk) It could be imagined that Vibygård could assist in this project through a local hops cultivation that will be brewed almost instantly in Viby Brewery – ready for tasting!

Hop plants (Humulus lupulus) are native to the temperate zones of the northern hemisphere. It is a perennial plant that produces annual vines (or bines) from a permanent root stock. They may grow up to (25 feet) in a single season, but will die back to the root stock each autumn. Hop plants are dioecious, which means they have separate male and female plants, and the hop flowers used for brewing are found on the female plant only. These flowers look like small cones with an approximate length of three to five cm, containing alpha and beta acids and essential oils which give each type of hops its characteristic bittering or flavoring properties which is used for brewing. (www.freshops.com)

The plant is typcaly grown up strings in fields called hop gardens, and planting is carried out in early spring. It is propagated either by nursery plants or by cuttings set in 'hills'. After one year it becomes necessary to install poles into the hills around which the bines reared from plants are wound. The hop lays dormant during winter and is relatively unaffected by freezing temperatures. The annual bines break ground is when soil temperatures have risen to the point where most spring flowers appear and growth continues until approximately mid-July when most hops are either past bloom or in full bloom. Most female flowers develop and ripen between mid-August and mid-September, which is when the harvest will take place by picking off the hops by hand. The hops are then dried, exposed to the air for a few days, and packed in sacks and sent to brewery.

After the flowers ripen, the bine will continue to build reserves until it totally dies back with the first freezing temperatures of the coming winter.

(www.freshops.com)

JURISDICTION

The term 'organic' is in the EU reserved for agricultural products that comply with the EU regulation for organic production. This regulation is in fact a detailed set of rules for both plant crop production and animal husbandry. All products sold in the EU with the name ecologic, biologic, organic or the like must as a minimum live up to these requirements. This demands an annual inspection of the farms. (www.okologi.dk)

fact sheet 5 phytoremediation as biofuel

fact sheet 5
APPENDIX

CONTAMINATION IN VIBY

Soil contamination is a common problem in former industrial sites, and here Viby is no exception. Located north of the railway line, a site had been classified as a V2 contamination indicating a definite contamination of the area. This is due to the former haulage contracting firm located on the site, where a damaged tank leaked petrol into the soil.

The Ministry of the Environment are taking action against further contamination of Danish soil by laying down stricter requirements for relevant activities, e.g. oil tanks, while also investigating how contaminated soil affects humans, animals and plants. (www.mim.dk) **However, measurements still need to be taken regarding innovative remediation methods for these contaminated grounds.**

INTERVENTION

There are several options with regard to a clean-up of such a site, categorised into two methods: on-site (in-situ) or off-site methods. Off-site implies an excavation and removal of the soil to a separate depot or remediation facility. On-site involves methods where the soil is not removed such as aeration with risk of air pollution or soil containment by capping or paving. (www.mim.dk)

A biological approach is suggested here in the form of phytoremediation, which is the use of plant uptake to reduce the content of pollutants. This method is still relatively new, especially in Denmark, but seems to offer a cheap and effective clean-up process without having to remove and transport the soil. In addition, it is a method attempting to solve problems 'naturally' through the use of the laws of nature. Phytoremediation is, however, a long-term project where the cleansing process may take many years – a time spectrum to be considered when applying such a method. (phwww.mst.dk/udgiv/Nyt/Vater/200287-7944-734-1.htm)

Several plant species can used in phytoremediation, and according to current sources, the choice of plant species is not related to the contamination types, but should rather be based on plant growth in relation to local climate and the size of their root system. In Denmark, willow is one of the fastest growing plant species and especially suitable for soils will good water supply such as in Viby. If harvested in short-term cycles of one to five years, willow can furthermore be used commercially as an energy crop for biofuel. Using willow as biofuel is becoming an increasingly popular as a carbon dioxide neutral energy source, since burning the biomass releases into the atmosphere only the amount of carbon dioxide that the plants have taken from the air. Thus an ecologically and economically sustainable model is derived. (www.nordicbiomass.dk)

Financially, the implementation of a phytoremediation project will involve the land-owner, the Danish Environmental Protection Agency and perhaps a private biofuel business interested in such a venture. The Danish Environmental Protection Agency provides subsidies from the so-called Technology Pool, for the testing and development of new cleansing methods regarding soil and water contamination as a means of expanding this knowledge field in Denmark. (www.mst.dk)

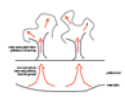
WILLOW

Willow is a tree species chosen for its ability to cleanse soil, its fast growth rate and its potential as biofuel. The species is quite flexible regarding soil conditions and can tolerate flooding for shorter periods. Most important is a good water supply to avoid a too unstable crop production. Through continuous harvesting, the tree is in fact never allowed to grow to full size and will remain at 'plant size' throughout its lifetime.

In the planting process approximately 15 000 cuttings per hectare are planted in double rows. When planted, one to four shoots are created per cutting during the first year. The first harvest may occur three to five years after planting, whereupon the plants coppice vigorously and replanting is not necessary. After this, willow may be harvested every three to five years during winter when the soil is frozen, using specially designed machines. This process can continue for a total period of 20 to 25 years. During this time the willow root structure will have expanded and begun uptake of contaminants. The size of the root system adjusts to the size of the plant above ground, so the bigger the crown of the plant, the greater the root system. It is therefore advisable to harvest at three year intervals at a minimum, thus allowing an expansive root system.(www.fao.org; www.lr.dk)

It is estimated that an appropriate cleansing process will be reached in 10 to 15 years. However, continuous soil testing of the site must be carried out to ensure that the soil quality criteria have been reached. Only within the framework of these criteria is the site suitable for housing and institutional programmes.

As an energy source, willow will enter the market as a competitor to wood chips, and will be transported to district heating plants for combined heat and power production. This requires power plants operating with boilers capable of burning biofuel such as willow. Examples of power plants based on biofuel are located Haslev and Avedøre, both within a distance of 40 km from Viby. (www.dongenergy.com) Regarding quantity, 8 to 12 tons of dry matter per hectare can be expected per harvest.



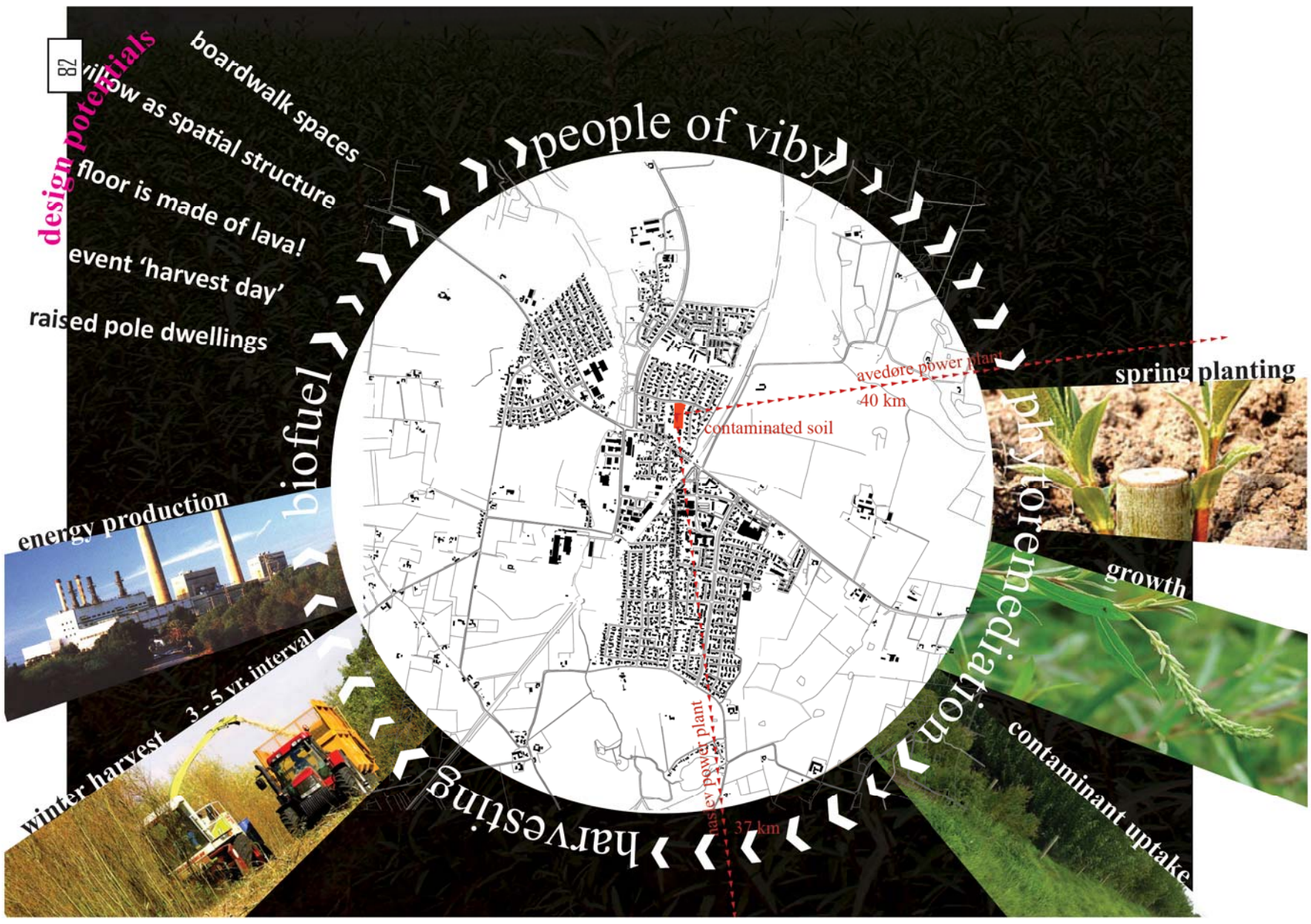
JURISDICTION

According to the Contaminated Soil Act (jordforureningsloven), when a site is to be used for housing, children's institutions, playgrounds, allotment gardens or summer housing, it is to be ensured that the topmost 50 cm of soil is free from contamination or encapped by a permanent, paved surface.(www.mst.dk)

The soil quality criteria is a measure to ensure that use of the soil is acceptable health-wise, especially with regard to private gardens, kindergartens and playground, where children may come in direct contact with the soil. In addition to these quality criteria, general requirements demand that the soil at inspection must not show visible or odorous traces of contamination.

Petrol: 25 mg/kg
C5 – C10: 1.5 mg/kg

Xylene: 0.02 mg/kg



fact sheet 1 runoff water as wetlands

TWO WATER FLOWS

If taking a walk around the urban landscape of Viby, one cannot help but notice a range of rectangular moat-like ponds at various locations. These water retention basins have been constructed to alleviate the local water treatment plant in times of extreme rain. All waste water as well as rainwater is led into a combined system through the waste water treatment before being let out into the local stream Viby Å. This is a way of retaining the water and slowly releasing it at the pace of the water treatment. This is an effective way of hindering flooding in Viby, but with an increasing concern for the value of water, perhaps this blend of two otherwise separate water flows hinders ecologically correctness by actually polluting the relatively clean waters of the rain.

INTERVENTION

Thus at stake here are the two water flows currently combined, and it is suggested that they be separated and treated according to their respective needs. The existing water treatment plant has excess capacity to handle the amount of wastewater in Viby, so there is no need to leas wastewater into the retention basins. Instead, these basins should be intended for rainwater alone. This principle should be enacted in Viby's existing structure and retention ponds, and implemented as a principle for the new urban development areas.
Managing the surface runoff water from precipitation is vital to urban areas because such development consists of large impervious surfaces– parking lots, housing, compacted soil , roads – that hinder the otherwise natural infiltration of rainwater into the ground.
The fact that massive amounts of rainwater causes flooding is a problem in need of a solution – or rather a potential waiting to be grasped. Flooding holds unique opportunities of creating wetland environments that could strengthen the local wildlife by generating new habitats for plants and animals while also providing structural and aesthetic principles for prospective residential areas. Simultaneously, the surface runoff water from precipitation may also contain potential contaminants from roads, lawns, roofs and farm fields.

An artificial flooding control system is proposed consisting of two main elements: a sedimentation basin and an infiltration basin, both of which are capable of supporting a natural biotope and the plant an animal life that this involves. The sedimentation basin is installed with a non-permeable membrane as to avoid infiltration into the groundwater. This membrane is not installed in the infiltration basin, where a more natural relationship occurs between ground water level and basin. Together, these two basins can retain the water internally and thereby avoid the undesired flooding of local streams which do not have the capacity for this, while also ensuring a cleansing process to reduce the amount of contaminants in the water.
(Hvitved-Jacobsen, pp. 3 - 4; Århus Kommune, pp. 5 - 6)

fact sheet 1
APPENDIX


reed

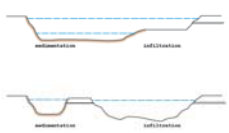

sedge

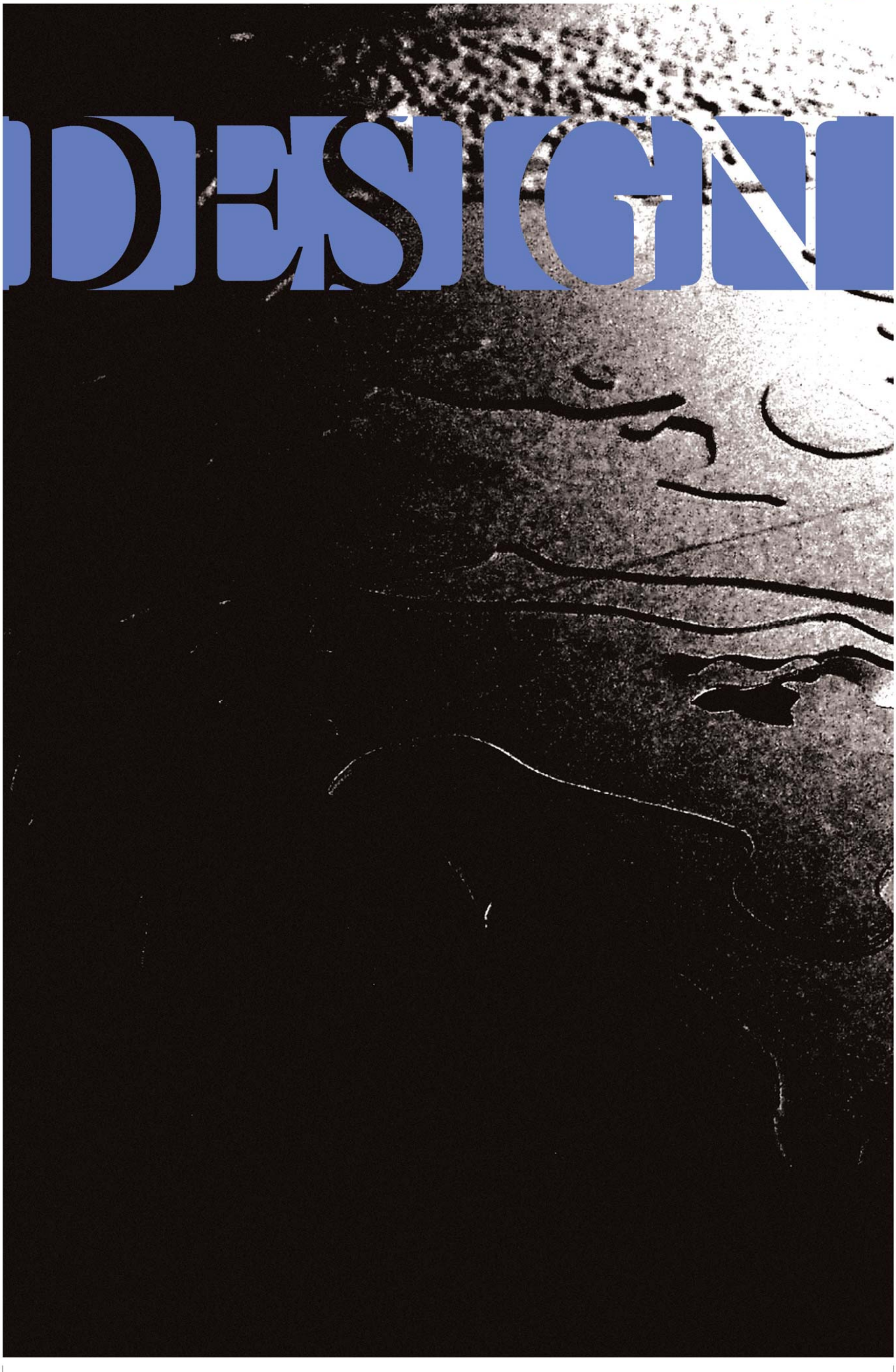

cattail

RETENTION BASINS

The design of the two basins is based on specific design principles. The first basin, sedimentation, does not allow infiltration, so in and outflow have to be well-considered here. The basin should allow for large water intakes while limiting outflow by having only a small outflow at a lower point in the structure. This will cause the basin to most likely contain a permanent amount of water without drying out. The second basin is more flexible with regard to this, and can in fact be installed as a flooding platform for the previous basin. In such as solution, the two basins are united in a single unit where the infiltration part has a dry surface and can act as a public space, but floods over in times of rain. (Århus Kommune, pp. 5 – 7)
The basins can be constructed in a variety of ways. They can be perceived as two separate basins or perhaps be constructed as a single basin with two separate depths and membrane solutions.
(Hvitved-Jacobsen, pp. 3 - 4; Århus Kommune, pp. 5 - 6)

With a number of different plant species, the basins can act as a biofilter. Vegetation in a wetland provides a substrate - roots, stems, and leaves - upon which microorganisms can grow as they break down organic materials. The plants remove up to ten percent of pollutants, and act as a carbon source for the microbes when they decay. Different species of aquatic plants have different rates of heavy metal uptake, which should be considered in plant selection in a constructed wetland used for water treatment. As a wetland environent such basin solutions thus offer many possibilities and may take form as more lake-like environments or that of a marsh or swamp.
Plant species suggested here are reeds beds, cattails and sedges. (www.blst.dk)




DESIGN

REVIEW

This chapter takes a step back and reflects on the underlying intentions of Viby An Interspace and the ways in which this has been achieved through concept and design. This is where the more in-depth considerations of the project are contemplated, and these should be viewed as supplementary discussions to the posters.

The following collages are early sketches for a new image of Viby.

VISION

Viby An Interspace envisions a course of action for Viby that can secure a sustainable integration of the urban development into the existing town while also offering the population a way of conceptualising the otherwise neglected notions of the everyday.
Here two objectives have steered the project.

Firstly, Viby faces a prospective expansion of approximately 3000 new suburban housing units over the next decades. Viby An Interspace views this expansion as a mechanism rather than a static fact. The market forces may permit thousands of new housing units to unroll themselves as a suburban carpet, or development might slow down only allowing few development projects. This is an uncertainty of which planning has no control, but an uncertainty that may in fact provide a time frame within which the project can operate.

Secondly, the project aspires towards a renewed perception on the suburban landscape. This is part of an overall discussion of the perception of landscape, where the project tries to do away with the overly sentimental view of nature that is prominent among Danes. Only few areas in Denmark have not been touched by the hand of man, the majority has been shaped and twisted as an effect of human influence. In spite of this fact, the romantic and sentimental view of nature is the prominent mindset of the Danish population where the Danish landscape is seen as authentic and innocent and the conventional approach to landscape planning is one of preservation and protection. This not only creates an awkward perception of what is ‘authentic’ and what is ‘artificial’, but also neglects large areas of the Danish landscape as almost non-existent, which is the case with suburbia.

PROBLEM

How can the plans for the prospective suburban expansion of Viby accommodate the uncertainty of the market forces and contribute to an acknowledging image of suburbia?

REFLECTIONS ON.....

SUBURBAN PUBLIC SPACE

The strategy and design operation of Viby An Interspace is the proposal for a new public space in Viby that is fitted to the scale and character of Viby.

Applying public space as the primary operation of the project also involves making the choice of NOT dealing with any alteration of the conventional suburban housing unit - the architecture of suburbia is left untouched. This is in part a confession that the current housing trends in suburbia are a result of what the population truly want and aspire for. The house, the garden, the hedge and the driveway all seem to be integral parts of the 'Danish dream' of freedom, privacy and security. The project does not view these as negative factors and does not try to combat them; here they are a premise of the project. It is also a realisation that an altered design of the suburban typology will not make any difference at all – to Viby's future or for a renewed perception of suburbia.
The public spaces of suburbia, however, might have a chance at making this difference. This is where the collective consciousness of the population is played out and where common images of the world are formed. Public space is also where the population gather when venturing out from the confines of their private garden, and thus when they are most open and acceptable for changes and new perceptions. Public space is thus the ground where residents, the architect and the external world meet, and the design of the public space promotes a more acknowledging perception on suburbia in Denmark.

The proposed public space for Viby, the Trace, is shaped in the form of a belt stretching across the town - a space that can trace the needs and potentials of the town and stitch together the existing urban fabric with the new suburban carpet. In this way the Trace will function as a buffer zone between old and new and secure that the new sites are well-integrated physically and socially by securing open spaces and common places for new and existing inhabitants.

The Trace is also a proposal for how suburban public spaces should be planned and designed. It is fitted to the scale of suburbia in scale and character through the employment of pavilion constructions that mimic detached houses, a low-key planning strategy and everyday programming. These not only incorporate a great degree of realism into the project, but together shape a space that is perhaps more apprehensible to the population.

MARKET FORCES AND CONSOLIDATION OVER TIME

The Trace is consolidated over time by the mechanisms of the market forces and is thus designed to absorb the fluctuations of the market forces over time.

These forces bring with them building activity which produces surplus soil and rainwater as well as increased demands for institutions. These are mechanisms conventionally viewed as obstacles for urban development in need of practical solutions, but here the mechanisms are optimistically activated in the design as physical elements that continuously consolidate the public belt. Increased pressure on the market forces, entailing intensified building activity, will thus give rise to an increased consolidation of the public space. On the other hand, if the market forces decrease, development at a stand still will simply leave parts of the Trace with a more low-key character that can cater to more temporary programmes.
In this scheme the market forces are neither ignored, contested nor surrendered to. Instead they are proactively utilised as a positive factor in the planning scheme, bringing with them a greater good for the town, i.e. new public spaces. This reverses the usually negative view on the market as a self-centred and money-driven entity to a force in the contemporary city that can be utilised for the public well-being. It inverts the perception of new-comers from being the uninvited outsiders from Copenhagen to the welcomed bringers of public space and activities for all.

PROGRAMMATIC EVOLUTION OF INSTITUTIONS

The Trace is to accommodate the increasing demands for schools and institutions in the town and the institutions will therefore become the programmatically steering element of the public space.

This is a way of revealing the everyday life of the commuting suburb, where the institutional life is a dominant pulse in the town. Suburbia's public space is therefore proposed not as central squares and plazas with café and restaurants, but rather as landscapes that givespace for the actual life in suburbia – the children and the elderly. The suburban

pulse of commuting and institutional life is a social mechanism in the town, a mechanism which is highly integrated as the Trace becomes a public institutional belt for Viby. The pulse of the institutional life in the town is therefore also the pulse of the belt, which is designed as such.

This builds on the concept of a stretched school consisting of continuous add-ons to the existing two schools in Viby. The school system thus slowly expands over time along with the town's expansion, and the added school units, the pavilions and Interspaces, play a vital role in consolidating the belt as they mark the intensity points of the Trace. The Trace thus becomes the future school belt of Viby with classrooms, facilities and connecting infrastructures; a belt which is also open for use by the local associations and evening schools and also as a recreational space. As a result the Trace supports a programmatic development of Viby's institutional and recreational life, where the expansion of the school symbolizes an increase of public activities. The population can thus slowly inscribe their traces in belt as more and more pavilions are erected, opening spaces for occupation by the public. The Trace is thus not just a physical trace of visual and spatial elements, but a programmatic trace of which the population are the designers.

SHIFTING LANDSCAPES

The Trace articulates a range of different Danish landscape typologies from the more traditional accepted ones to sections of the ‘invisible’ Danish landscape.

By manipulating the notions of ‘nature’ and ‘culture’ in the design it is hoped that this can somehow cause an increased common reflection of the concepts of authentic and man-made nature. This articulation is a way of working with James Corner’s images as a design that not only represents aspects of landscape but works performatively by shaping a new understanding of Denmark, and the three imaging acts of re-contextualising, un-blackboxing and pre-linking are central here. The Trace is thus drawn up to a more general discussion of landscape in Denmark.
Through this operation the project establishes ways of redefining the perception of the Danish landscape by creating new images of suburbia. This is achieved by designing the Interspaces of the Trace as a variation of different landscape images: the mobility landscape, the hedge landscape, the driveway landscape, the water treatment landscape, the soil dump landscape and the landscape of suburban biodiversity.

In the last case the biodiversity of suburbia is employed as an eco-system in its own right that is allowed to flourish, spread and propagate in the public belt as an open landscape and supported by establishing an ecological corridor with flora and fauna that complement each other. The vegetation in the public space is thereby a self-sustaining ecological system of dandelions, rhubarb and roses supporting the animal life of birds, insects and small mammals.

This stands in contrast to the existing north-south recreational course which also supports a biodiversity of its own, but one that mimics the ’authentic’ nature of the wild. Together the two belts initiate a discussion of how ‘nature’ and ‘culture’ should be defined. Especially interesting is the crossing of the belt. This occurs in Viby’s former industrial area with an intensity of urban mechanisms such as waste water treatment and the municipality maintenance yard. This collision is facilitated with a mix of flowery meadow fields as a way of softening the perception of the processes and opening them to the public.

ECOLOGICAL CORRECTNESS OF SOIL AND WATER

The employment of residue soil and storm water in the Trace not only grasps a mechanism of the market forces, but also deals with these in an ecologically correct way.

The residue soil generated from building activity poses a threat to the environment as clear dumping sites are not always provided. The goal of avoiding long transport distances of the soil (an ecologically incorrect solution) is overcome by dumping the soil locally in the Trace. This is also a way of grasping the major potential of the soil as a topographical element that can create spatial quality and recreational activities.

Managing the surface runoff water from precipitation is vital to urban areas because such development consists of large impervious surfaces– parking lots, housing, compacted soil, roads – that hinder the otherwise natural infiltration of rainwater into the ground. This water contains potential contaminants from roads, lawns, roofs and farm fields and should therefore be treated before being lead into the 'natural' system again.
Storm water management is often dealt with by channelling the water into the local sewage system and thereby through the local water treatment plant. It is here suggested that the flow of rainwater and that of wastewater, currently combined, be separated and treated according to their respective needs, thus relieving the water treatment plant of overload. The Trace provides a sustainable rainwater treatment system through retention basins that also function as recreational spaces. These basins are shaped as large asphalted surfaces which change in character in accordance with the rainwater levels, thus reflecting the natural cycles of the rain.

A LIVING SYSTEM

Viby an Interspace thus engages a number of different ecological systems in the design for the Trace, namely the mechanisms of the market forces of suburban expansion, the biodiversity of suburbia as an eco-system and the social pulse of the town.

The proposed strategy can be seen as living system at many scales through its ability to adapt, its ecological considerations and its programmatic evolution. Landscape is thus the medium through which the main operation of the project is carried to life.
This adaptability will be physically expressed in the belt as it changes character over time. From a simple land reservation of the public belt with temporary glasshouses as beacons to increased consolidation with Interspaces and pavilion construction.

This notion of a living system can be seen as an interpretation of Corner's mapping technique. If the living system is seen as the 'field' of the mapping, the mechanisms act as the 'extracts' and the act of plotting new relations can be compared to the imaging acts of re-contextualising, un-blackboxing and pre-linking. The strategy for the Trace can thus be seen as example of the mapping technique having evolved into a strategy and physical proposal, showing how analysis and design can unite.

This scheme is also the way the notion of open-endedness is incorporated. This open-endedness, however, is not a compromise of physical and finished design. This is because the open-endedness of the project mainly works at the larger scales of the project regarding overall strategy and phased developing that secure an open-ended development of the Trace. At smaller scales the project still applies an open-endedness, although this is more related to social and programmatic development over time than physical structures.

BRAND

Viby An Interspace and the proposal for the Trace also imply a new branding strategy for the town, one that highlights the otherwise hidden suburban potentials.

The brand of Viby has great potential for exposure around the station area, as this is Viby's main hub and its connection to the rest of the world. The image of Viby as suburbia is therefore clearly expressed there as a green suburban landscape typology in harmony with the concept for the Trace.

The station as an interpretation of a landscape typology not only becomes a brand for the town, but also a comment to regional development of other towns in the same situation. The image of a green landscaped station area visualizes new possibilities that the station proximity principle of the Finger Plan does not envision, and proposes that station hubs in commuter-town can focus on other previously neglected qualities that can alter perceptions of suburbia and landscape.

REALISATION

Viby An Interspace provides a scheme with a sustainable financial model where the necessary investments that usually accompany building activity, such as investments in residue soil dump, storm water management and construction of new institutions, are relocated for use in the Trace, thus entailing a realistic economy.

The largest investment needed is most likely a municipal purchase of the land which is to become the Trace. With the municipality as owners of the land, the Trace can be ensured through juridical reservation.

Viby An Interspace proposes a phased development, which is legally enacted through a supplement to the Municipal Plan. The phased development takes off with the rejuvenation of the centre of the town – the station area. This will mark the beginning of the phased development of Viby's expansion while also consolidating the public belt at Viby's vital infrastructural hub. Simultaneously, seven temporary constructions in the form of glasshouses are placed throughout the public belt to mark the location of each of the future Interspaces. The reservation of the belt is thus not only a mere juridical act, but also a visual one.
Financially, the station rejuvenation is seen as part of the Municipality's already planned investment in the centre area. The rest of the belt will be an exceptionally low-budget operation consisting only of the temporary standard glasshouses and making use of existing roads and paths to ensure access and flow throughout the belt. This is a well-suited way of incorporating temporariness into planning as the placement of the make-shift glasshouses are not in need of a local plan.

The activation of each new phase entails the activation of a new local plans and kickstarts the development of new suburban housing along with the establishment of a new Interspace. Each phase of housing thus contributes to a new public space for the town.

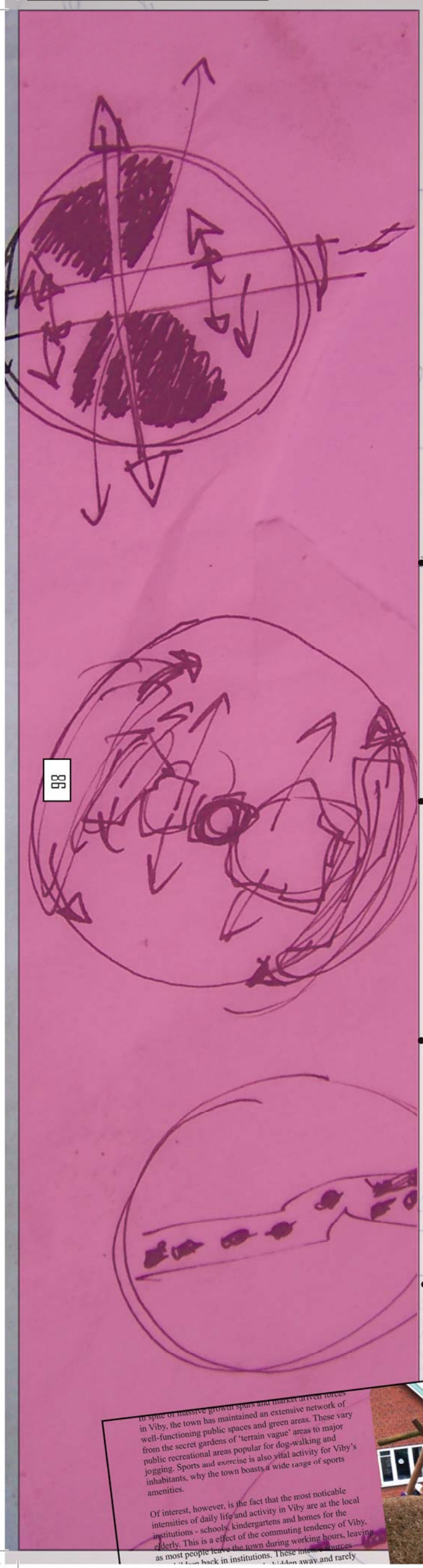
DES

PRO

DESIGN

The processes through which the design and concept of Viby An Interspace have been brought to life are documented in this chapter. This is where the iterative test and trials are portrayed and the choices made in the course of the project are argued.

A wide range of methods and means have been applied throughout this process, why the illustrations depict variations of brainstorming, diagramming, sketching and modelling in physical and digital media.



GENERATOR

SHAPE

1. STEP

form
residential belt at the egde of th

image
working with the perception of t
border of the town

open-endedness
gives a new domain to the town

technical aspects
an expensive solution if the exp
slows down

LOOP

form
residential belt across the town

image
linking across the barriere of the
way track

open-endedness
several belts can be developed
ing to time

technical aspects

BELT

form
different enclaves of dwelling ty
gies are kick-started

image
diverse dwelling typologies crea
different identities in the town

open-endedness
the enclaves can be developed
ing to time

technical aspects

POINTS

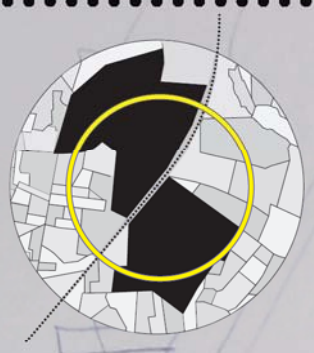
In spite of massive growth spurs and market driven forces in Viby, the town has maintained an extensive network of well-functioning public spaces and green areas. These vary from the secret gardens of 'terrain vague' areas to major public recreational areas popular for dog-walking and jogging. Sports and exercise is also vital activity for Viby's inhabitants, why the town boasts a wide range of sports amenities.

Of interest, however, is the fact that the most noticable intensities of daily life and activity in Viby are at the local institutions - schools, kindergartens and homes for the elderly. This is a effect of the commuting tendency of Viby, as most people leave the town during working hours, leaving

STRATEGY

The process of developing a strategy for Viby was based on an overall intention of devising a physical operation which was able to facilitate the future expansion of Viby. A number of test and trials were therefore carried out and evaluated according to their ability of dealing with the integration of existing residents and newcomers and securing a sustainable development of the predicted detached housing structure. The nine tests are displayed below.

THE FIELDS

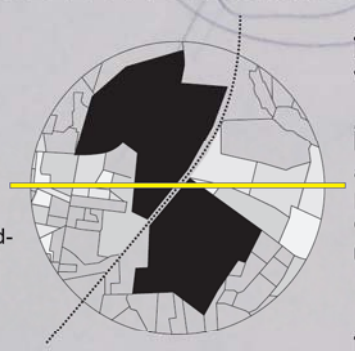


form
a public loop and establishing resistance to the market forces

image
linking the town in a loop structure

open-endedness
the working with processes as to establish resistence will evolve over time

technical aspects

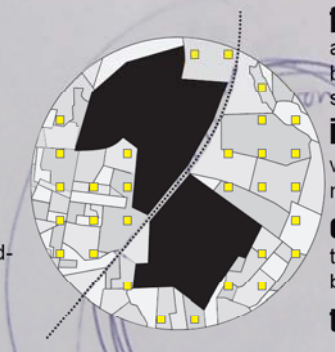


form
working with fields along a public belt

image
an arena where the understanding of public space in relation to suburbia is created

open-endedness

technical aspects



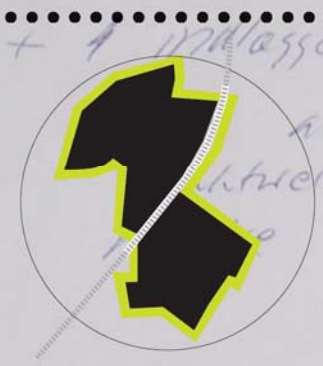
form
all the fields is activated and supported by an external grid-structure of public space/events

image
working locally with creating a community feeling

open-endedness
the creation of resistance to the fields by insertion of public spaces

technical aspects

PUBLIC SPACE

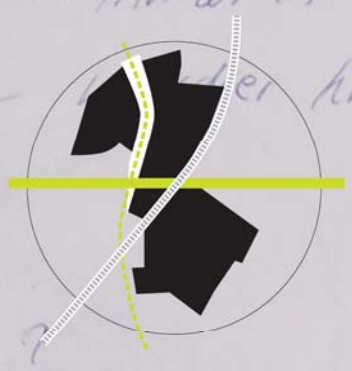


form
public belt surrounding the existing town, but no interventions on the centre

image
the edge of the town creates a platform for integration between old and new

open-endedness
the public space is working with the domain of the town

technical aspects
an expensive solution if the expansion slows down



form
public belt across the town

image
the belt links new and old and connects across the town- and works with the perception of the edge of the town

open-endedness
the belt can be more consolidated as the town exoands

technical aspects

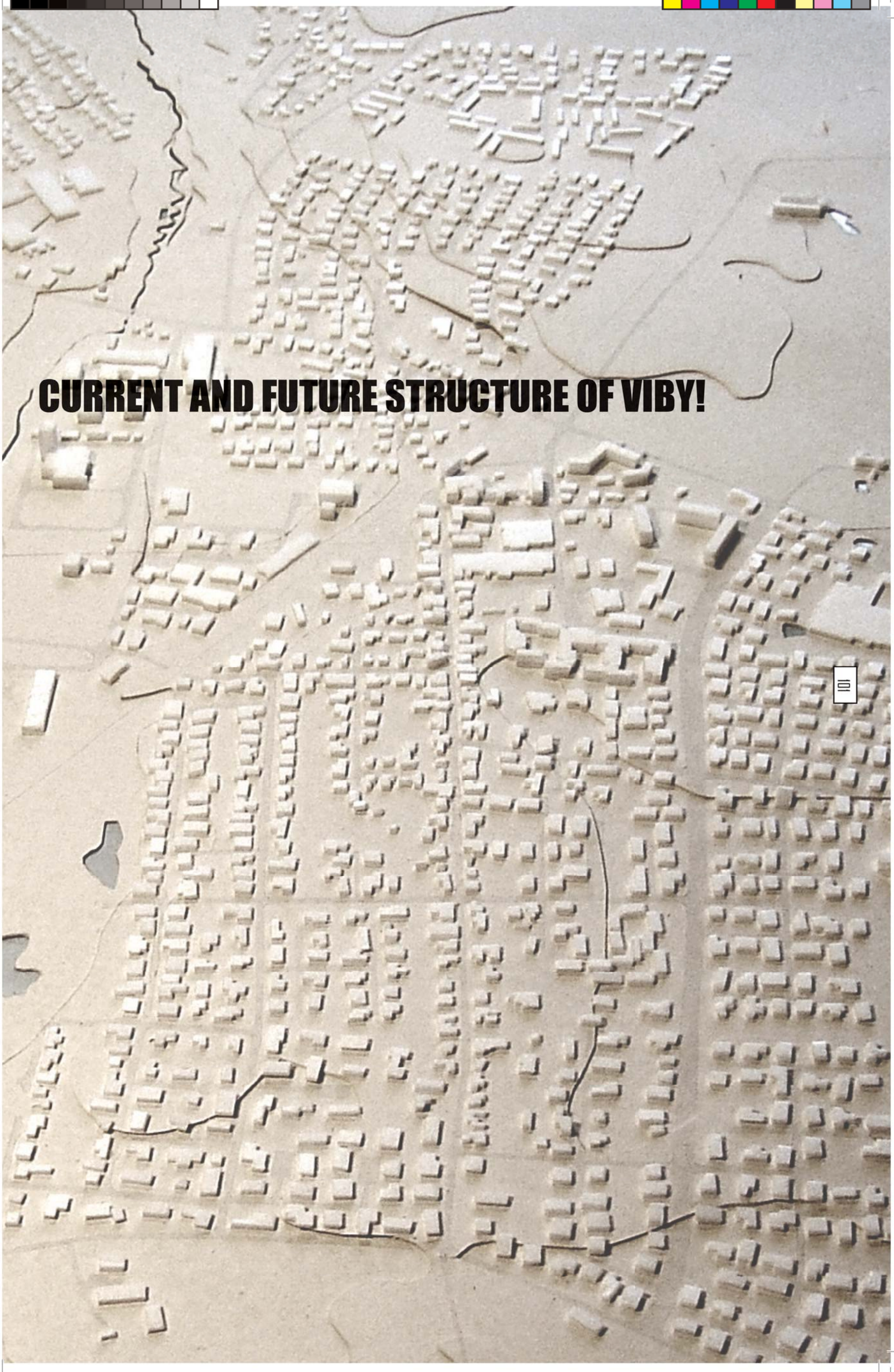
form
a grid of public spaces

image
the belt links new and old and connects across the town- and works with the perception of the edge ogf the town

open-endedness
the belt can be more consolidated as the town exoands

technical aspects

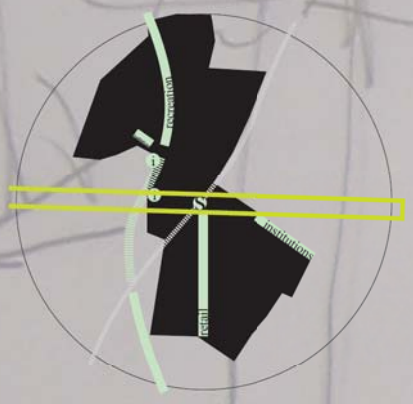

croquis
ROYAL
EVENS HOLD
BYENS BRYGGERI
RECOGNIZING THE DETACHED HOUSING GRID AS THE


CURRENT AND FUTURE STRUCTURE OF VIBY!

SHAPING THE TRACE

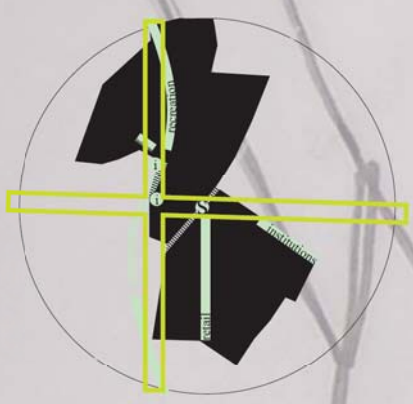
FROM RIGID BAND TO SOFT LANDSCAPE

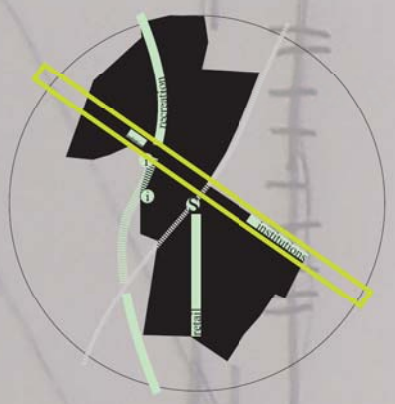
Shaping the course of the Trace was a process steered by the aim of linking existing potentials in Viby. Here it was intended to link across the railway track in order to dissolve the existing separation of the town in two. Simultaneously, with the idea of a new public institutions belt, it was an intention to link this to the existing schools, Dåstrup school and Peder Syv school. Additionally, an aim was to grasp existing public courses of Viby, respectively the main shopping street of Søndergade and the existing North/South recreational course. The development of the Trace design is illustrated in the following examples.



band 1

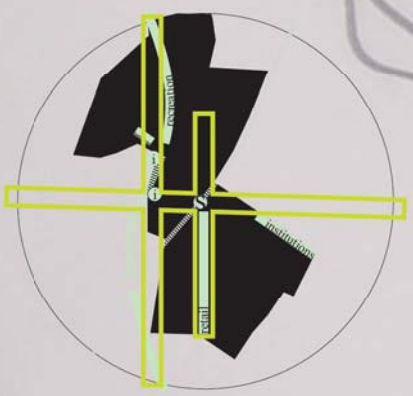
The straight belt is shaped to go through the station and links to Søndergade. However it does not link to the existing institutions, which are recogninzed as the major attractors of suburban public life

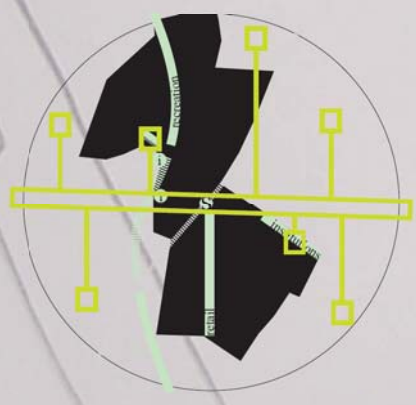




band 2

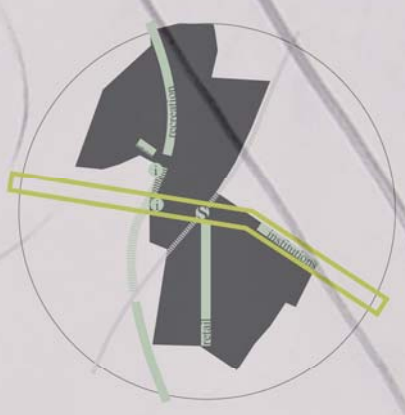
The straight belt is shaped to reach the institution belt along the Ørstads road, and the school in Dåstrup. It however does not link to the station and Søndergade, which withhold the major identity and urban pulse of the town





band with annexes1

A cross form of the public courses are tested. The north/south going public course represent an almost existing recreational course, which in this solution should be finished. The east/west going course represent here the new public institution belt. The solution has the possibility of working with nature perspective, as the north/south going course represents the sentimental nature perspective, whereas the east/west course will represent suburbia as a nature typology, which will put focus the perception of real nature.

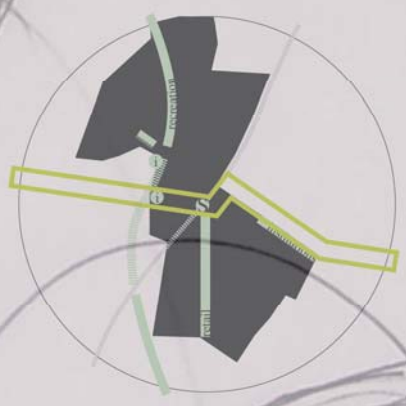


band deformation1

The straight course is here transformed according to the aim of linking to the existing institutional course at the Ørsteds vej. Additionally, it goes through the industrial landmark of Viby, and links to the existing North/South going recreational course and Søndergade.

band with annexes2

Tree public courses are tested, where the two north/south courses, more less builds on existing qualities eg, Søndergade and the recreational course. Economically, is this therefore still a reasonable solution. The new public course will link to the existing courses, however it will only connect to Dåstrup school through the existing recreational course, and only reach the edge of the Peder Syv school.

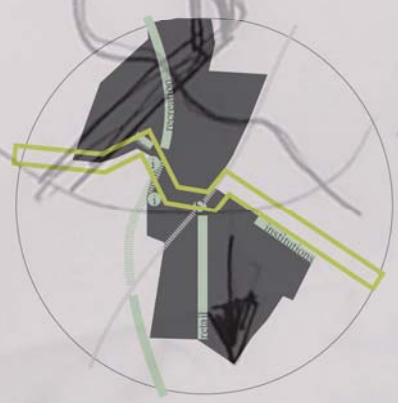


band deformation2

The transformation of the course continues by a re-moddelling, which secures that the course follow the length of the station platform.

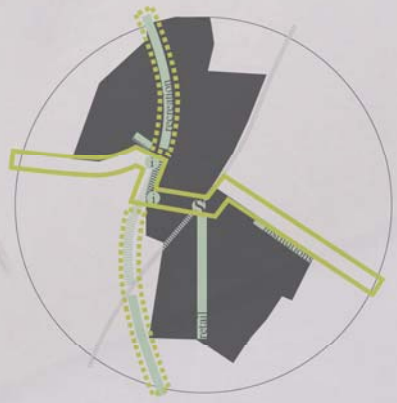
band with annexes3

The straight public course through the station is here tested in combination with a distribution of satellite public spaces, which shall secure a sustainable development of Viby, if detached housing grid conquer the entire circle demarcation. However, the problem regarden the link to the two major institutional programme is still not solved in this solution.



band deformation3

The transformation of the course continues with the intention of linking to the Dåstrup school. Additionally the course creates a buffer zone between existing urban areas of Dåstrup and the east part of Viby, and the course thereby receives the role of being the future arena for integration of the new and old urban structures.



band deformation4

The course shaped here satisfy the intentions of the course, by linking to the existing major institutional programs, the station, the industrial landmark, and the existing public courses eg. Søndergade and the North/South going public recreational course. It furthermore creates a bufferzone between the new and the old city structure, which potentially can become the arena for integration between new and old residents.

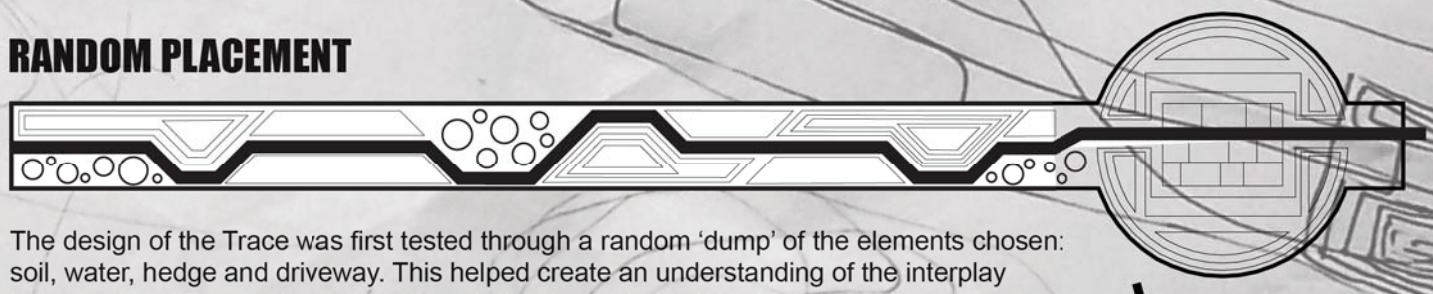
ELEMENTS IN THE TRACE

A major challenge in designing the internal landscape of the Trace was how to create a public space in the context of suburbia. Here a key notion was to work with the scale of suburbia regarding economics, intensities and spatiality. Simultaneously, an aim was to work with the consolidation of the Trace over time, an aim which demanded a design that could adapt to the expansion of the town.

A scheme for the Trace had been devised where the physical design would be shaped with use of surplus processes and suburban elements, and each of these should be capable of creating an image which questioned the perception of authentic versus man-made nature, thus twisting the image of suburbia from one of anaesthetics to a nature typology. The challenge was how these processes physically could create such an image.
Additionally, an aim was to create an impression of a coherent course with easy perceptible intensities. This is where the concept of the interspaces came into play, where they composed the main intensities of the Trace and were to be designed as such. In addition to functioning as future institutional playgrounds, the interspaces were also to be designed with the intention of un-blackboxing surplus processes, the public and private everyday life of suburbia and image the suburban landscape as a bio-diverse nature typology.

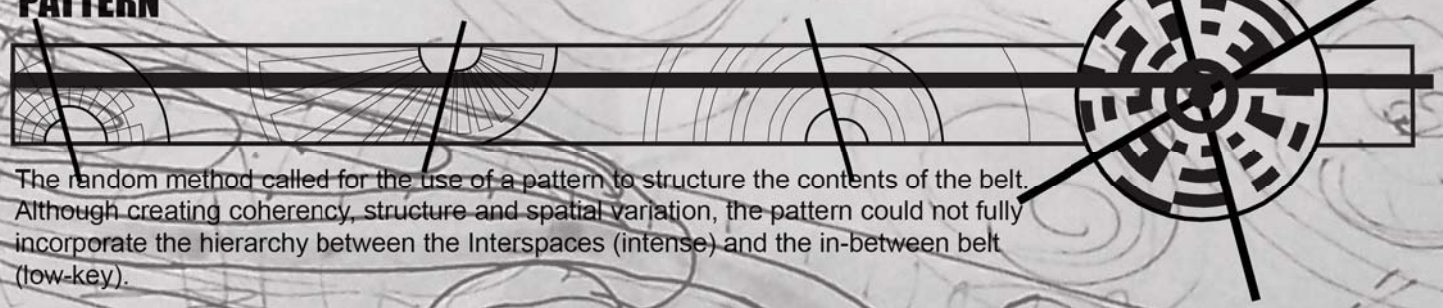
The process of developing a design for the Trace that supported the concept of the interspaces as well as the low-key character of suburbia is outlined in the following three tests.

RANDOM PLACEMENT



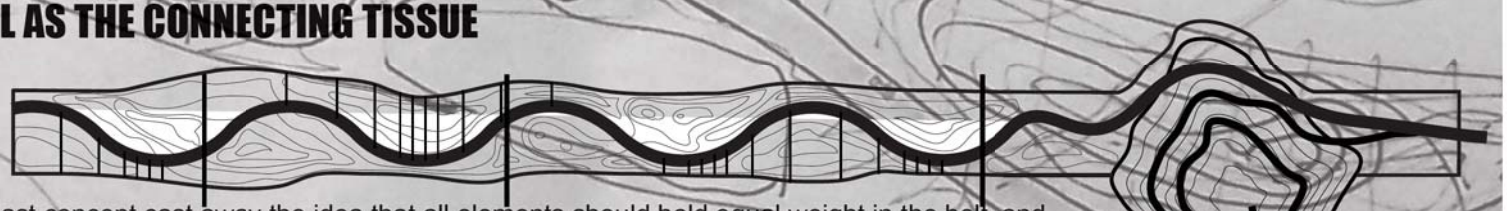
The design of the Trace was first tested through a random ‘dump’ of the elements chosen: soil, water, hedge and driveway. This helped create an understanding of the interplay between the different elements, although the design in itself had no clear concept.

PATTERN



The random method called for the use of a pattern to structure the contents of the belt. Although creating coherency, structure and spatial variation, the pattern could not fully incorporate the hierarchy between the Interspaces (intense) and the in-between belt (low-key).

SOIL AS THE CONNECTING TISSUE



This last concept cast away the idea that all elements should hold equal weight in the belt, and soil (as the strongest landscape element of the project) was chosen to be the topographical tissue that could shape coherency in the belt while also marking the intensities of the Interspaces.

pavilion 2 : hedge

pavilion 3 : water

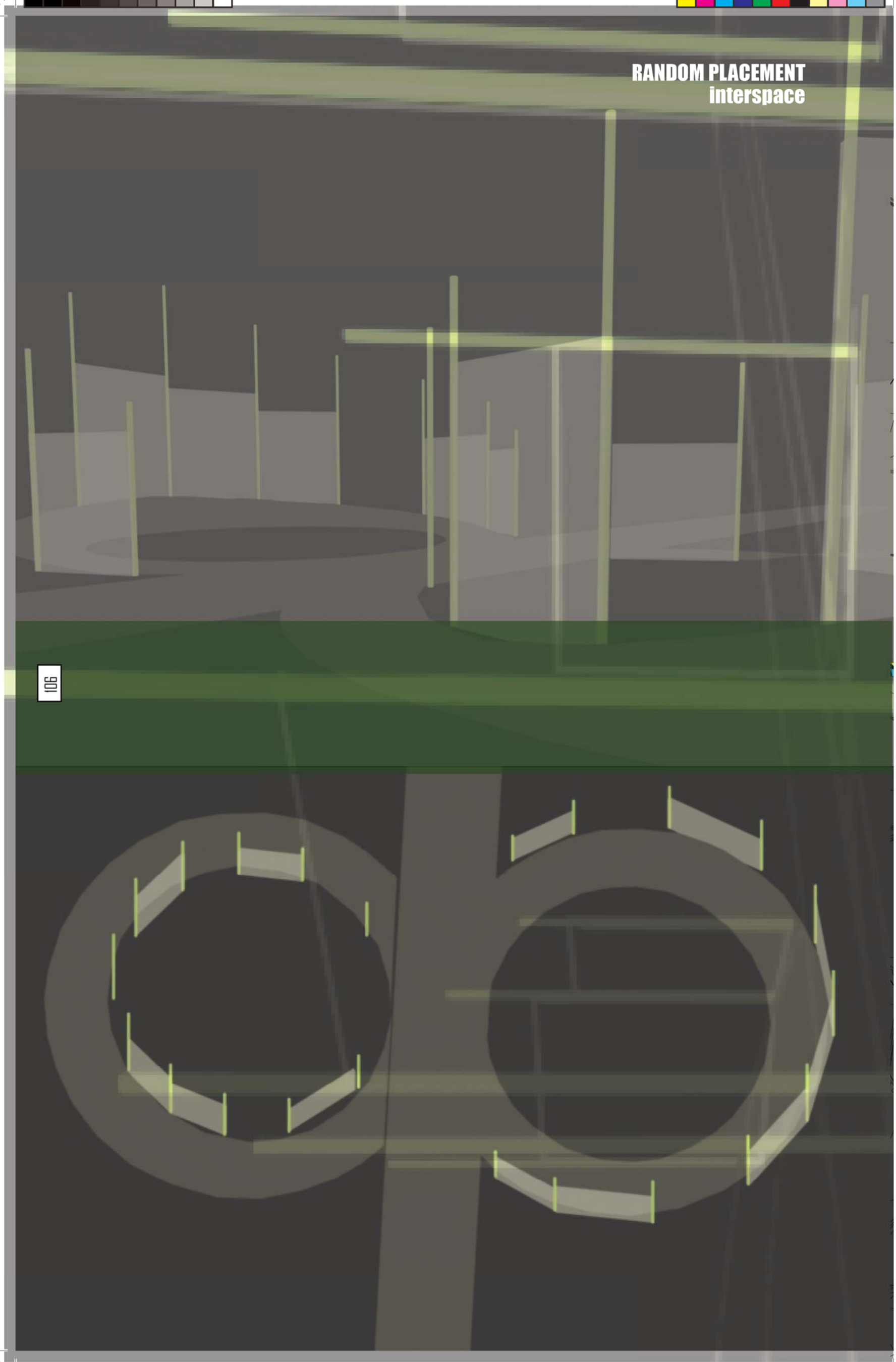
pavilion 4 : global/local link

pavilion 5 : soil

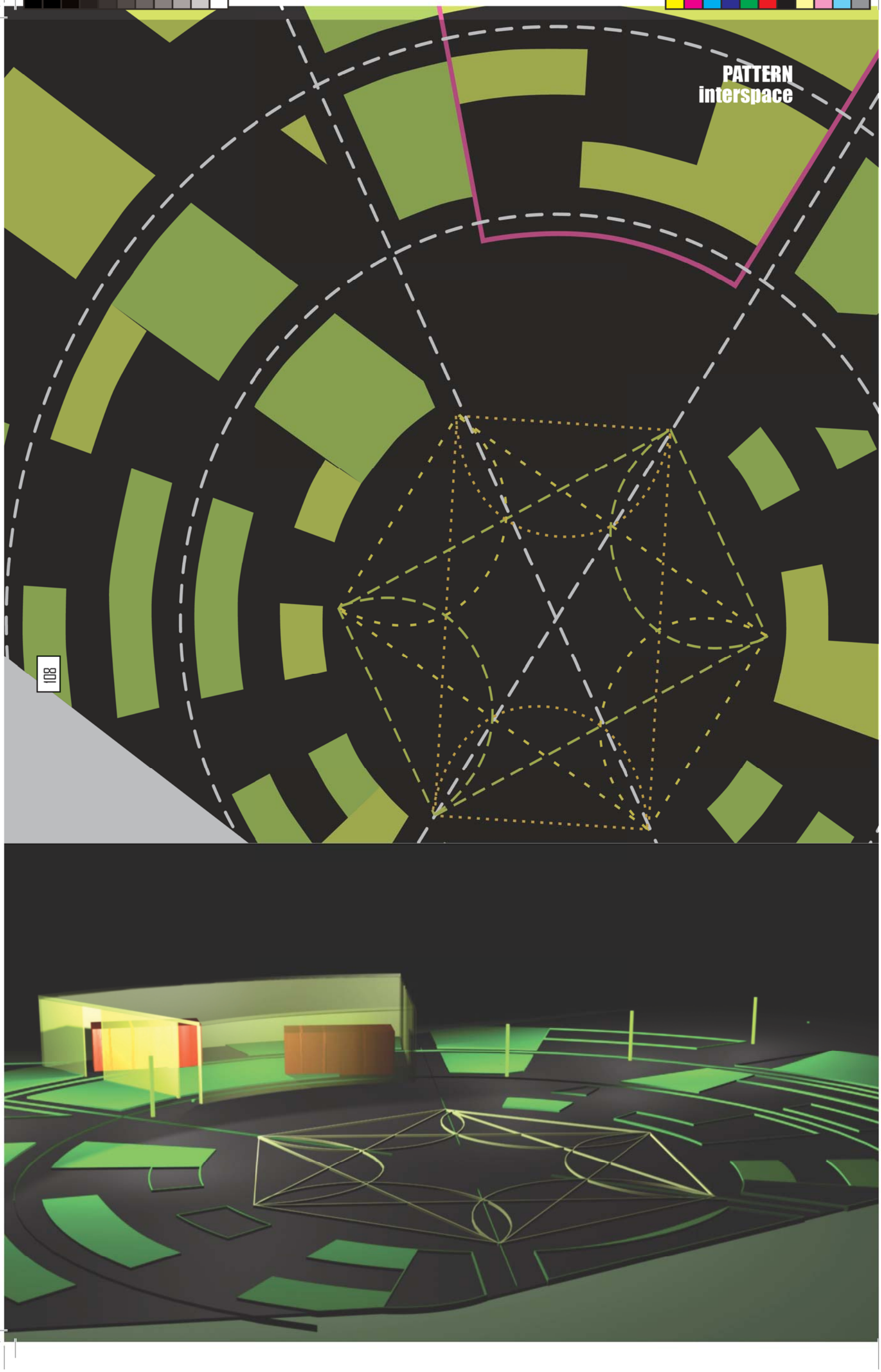
pavilion 6 : driveway

RANDOM PLACEMENT
trace

105


RANDOM PLACEMENT
interspace
106

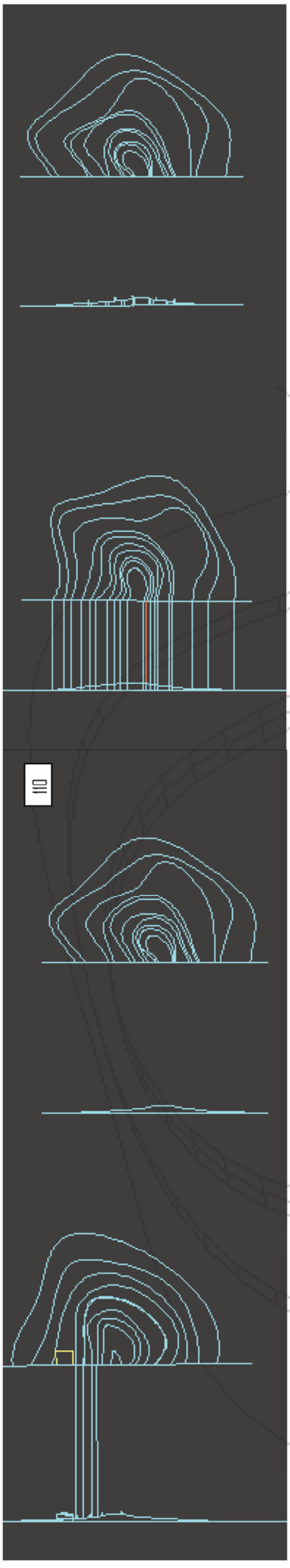
PATTERN
trace


PATTERN
interspace
108

SOIL AS THE CONNECTING TISSUE

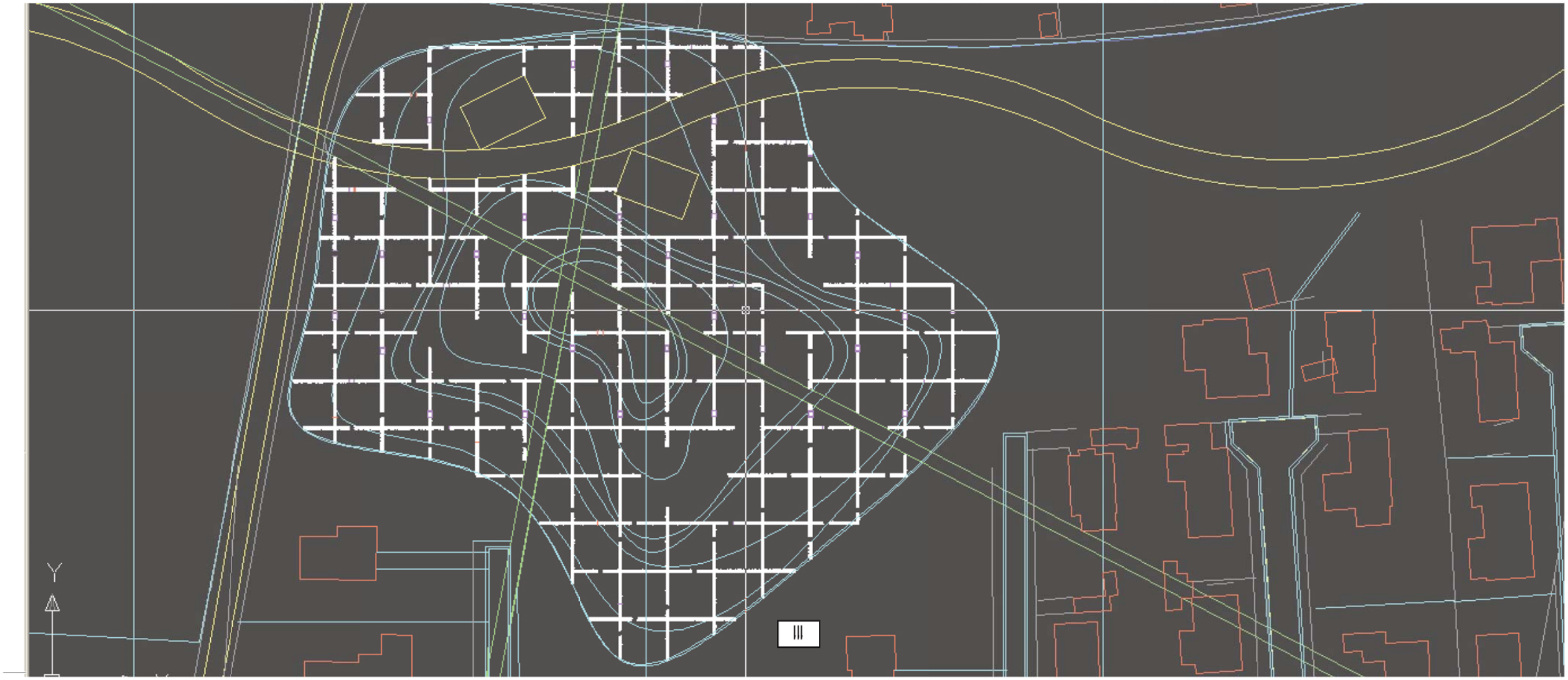
THE HEDGE

The hedge design is intended to work with the image of “behind the hedge” by twisting the private sphere into a public and inviting landscape. Additionally, the aim is to image the gardens of suburbia as appreciated aesthetics.



TOPOGRAPHY

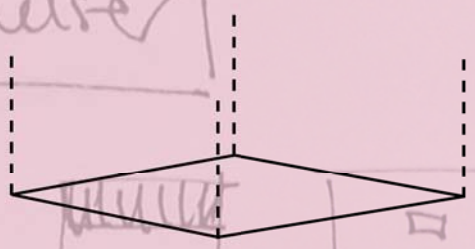
GRID STRUCTURE



PAVILION

The aim of the pavilion design was first of all to create a physical demarcation of the future institutional program – a design that also could visually signify the future programme to come as a mental image. An important parameter here was that the design could encompass the notion of time, which entailed that the pavilion could be functional before as well as after the insertion of the institutional programme. Secondly, the pavilion was to be shaped as a strong visual impression that could accentuate the hierarchy of the Trace – the interspaces. Finally, the pavilions were to signalise recognisability throughout the belt as the same 'domain'.

3D DEMARCATION



The first concept to be tested for the pavilions was the notion of a 3D-demarcation to be understood as a structure that not only could demarcate the future institution, but also a physical 3D construction that the institution could add on to like annexes to a building. In this view the pavilions would function as the first step of the construction of a new institution, e.g. the groundwork or framework for the building. This first step would simultaneously be a temporary structure for soft programming.
Although strong as a concept, this idea posed several problems regarding the realism of implementing the idea, the clarity of how these frameworks could be programmed and also a risk of losing coherence and recognisability.

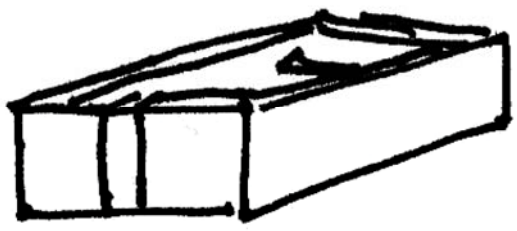
ILLUMINATION

A second concept for the pavilion was the image of pavilions consisting of light and illumination rather than a physical construction. This concept was tested due to the fact that the use of light was seen as a strong visual element that through the use of different colours and e.g. mirrors could create a clear visual connection throughout the belt while also being beacons of inspiration creativity.
This concept, however, could not fully incorporate the future institutions as it posed a risk of demeaning the pavilions as mere pieces of art - symbols of future programme instead of active instruments. The concept also posed a problem of to how the future programme could be incorporated as part of the pavilion, where the consolidation of the institution could risk an abandonment and erasure of the pavilion.

DETACHED HOUSE

The last concept for the pavilions to be tested (and the one chosen for the final proposal) was the notion that the pavilions should mimic the detached houses of suburbia in shape and scale. This was a way of actively drawing on the suburban context to form the pavilions – the pavilion would begin to acknowledge their context.
This proposal involved the pavilion to be constructed, not as a temporary structure which the institution could occupy in the future, but as the institution itself. This solved a great number of previous problems regarding the consolidation of the institutions and the practical issues such as water and electricity would now be installed along with the construction of the pavilion.
In this way the pavilion is not a temporary structure that is erased or altered when the institutions arrive, but is a permanent structure that is constructed with the arrival of the institution. To compensate for this, glasshouses would function as the temporary structures which the pavilion could then replace with a more fixed programming.
The concept of the pavilions as 'detached houses' was chosen for its understanding of the scale and character of Viby's suburbia, for its strong visual recognisability and for its suitability as well-functioning and practical school units with the spatialities that these require.

3D DEMARCATION



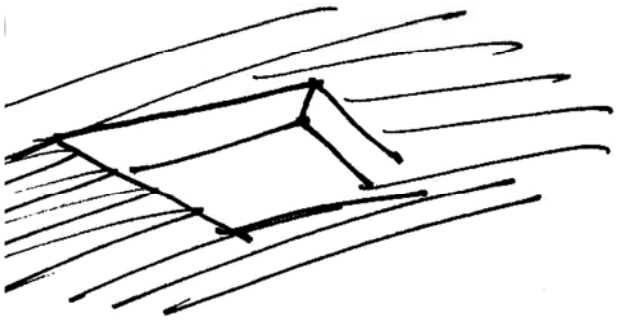
½ size

SCAFFOLDING

1 ROOM

INTERIOR

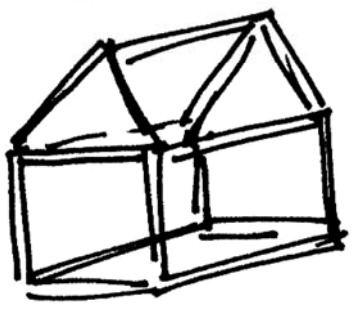
TEXTURED



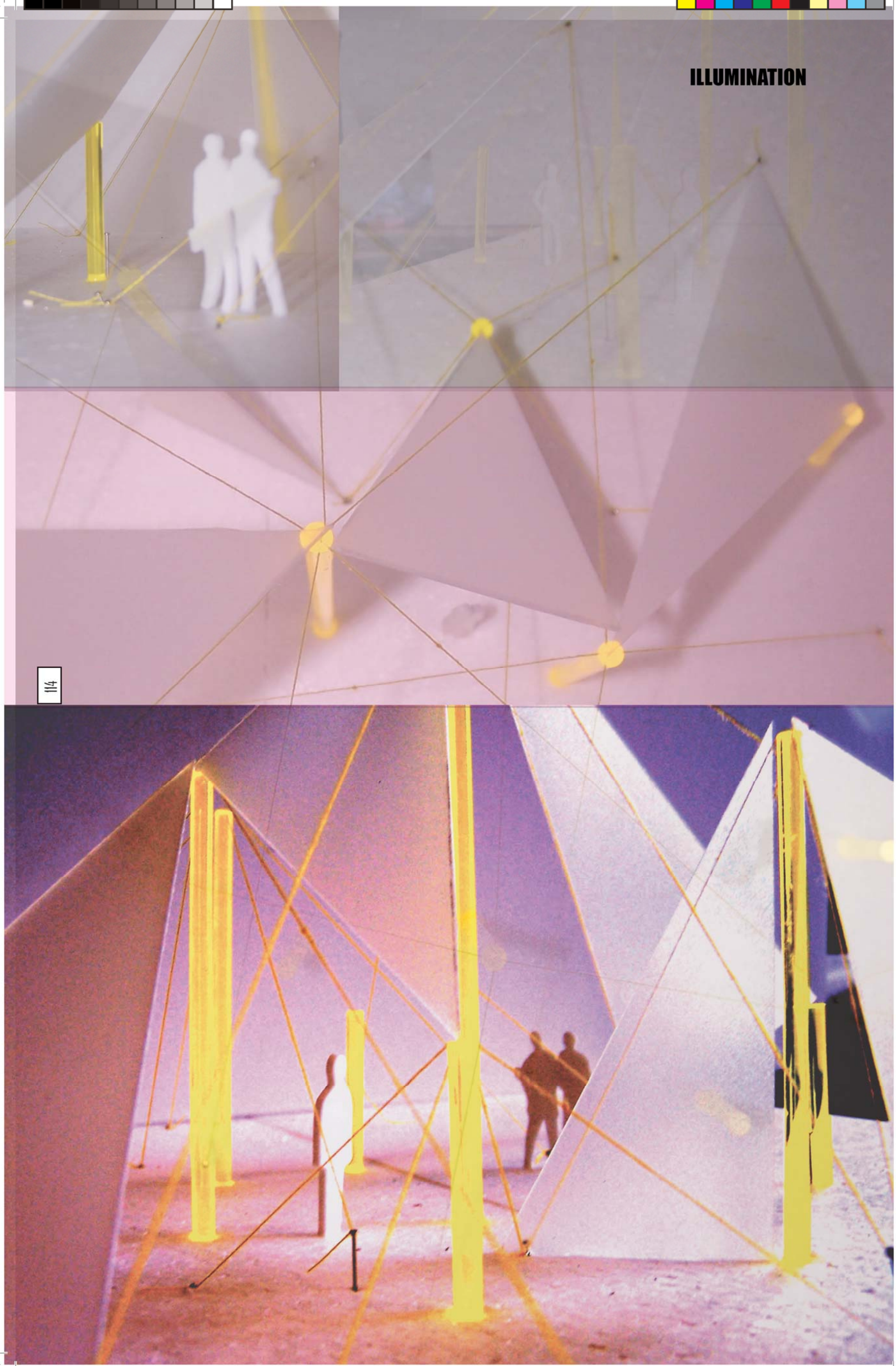
GROUNDWORK
(LANDSCAPING?

RESOURCE
(energy)

Solar panels



FRAMEWORK


ILLUMINATION

DETACHED HOUSE STEP 1: FORM & SIZE

DETACHED HOUSE STEP 2: GRAPHICS

BEVÆGELSE

KØKKEN

SPROG

SCIENCE

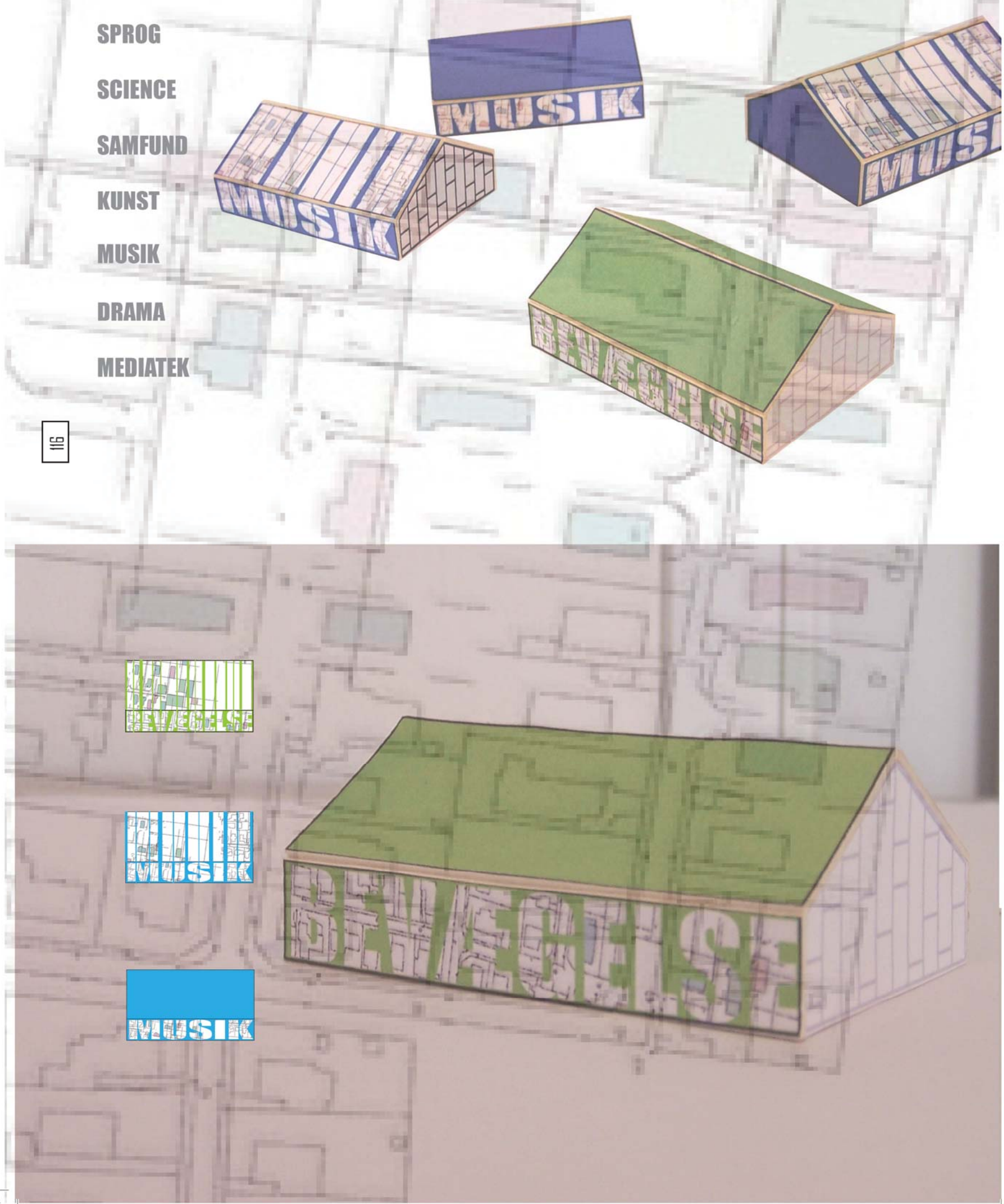
SAMFUND

KUNST

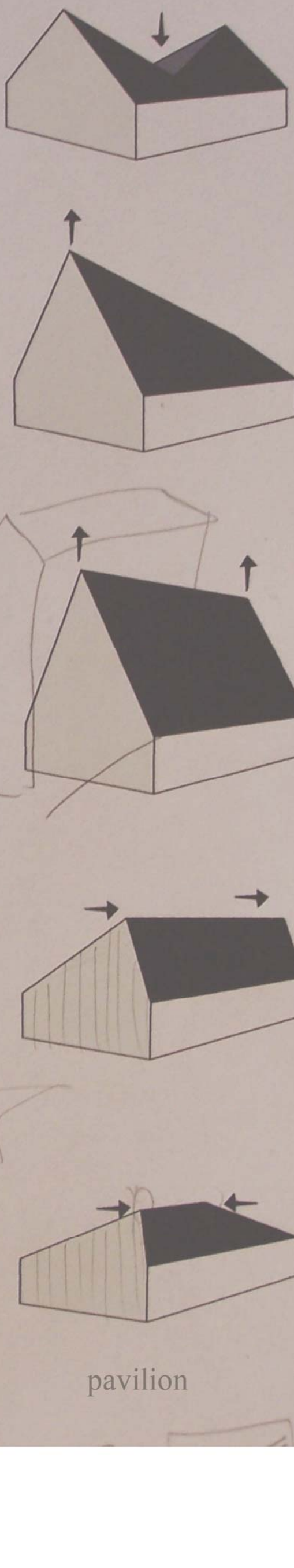
MUSIK

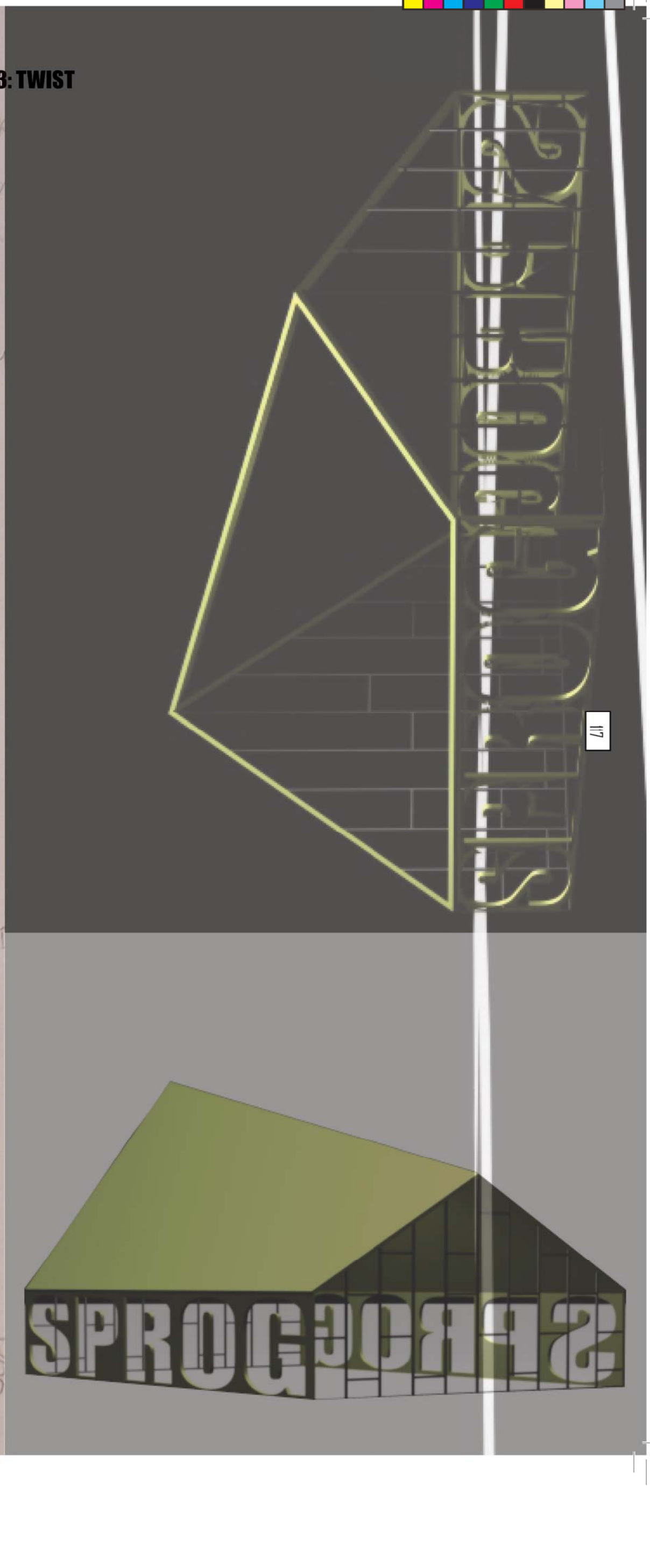
DRAMA

MEDIATEK



DETACHED HOUSE STEP 3: TWIST



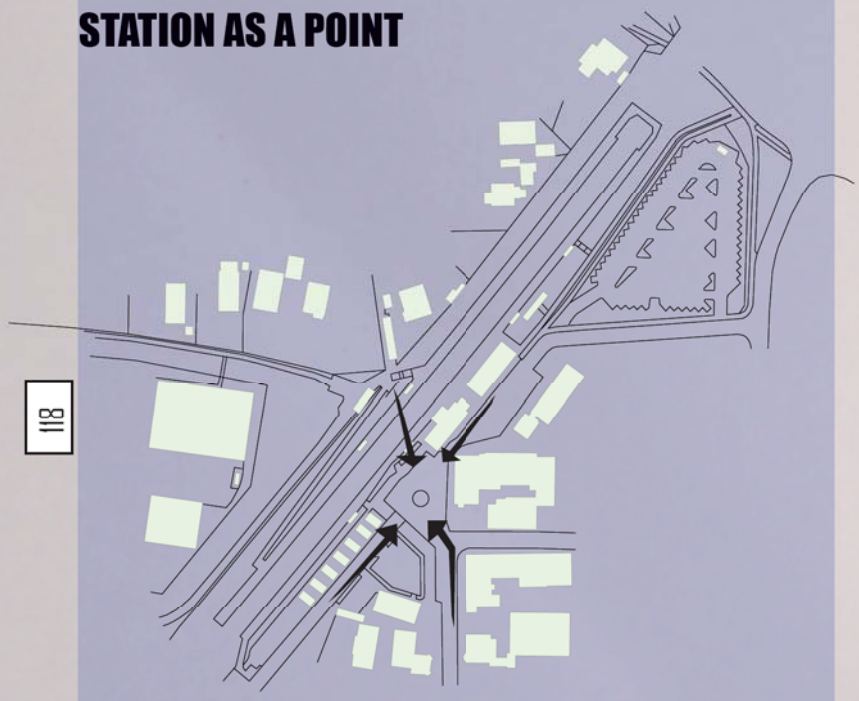


STATION

The station is perceived as the major hub of Viby due to the immense commuting that peaks here every day. The intention with the design of the station was therefore to create a clear image of the brand of Viby that could signalise the station as a landscape typology, with a clear link to the rest of the Trace of which it is a part. Simultaneously, the station was to be designed according to its function as the primary hub of the town, which implied a design which underscored the different flows at play.

The main purpose of the test and trials was to determine if the station was to be designed as point or as a line.

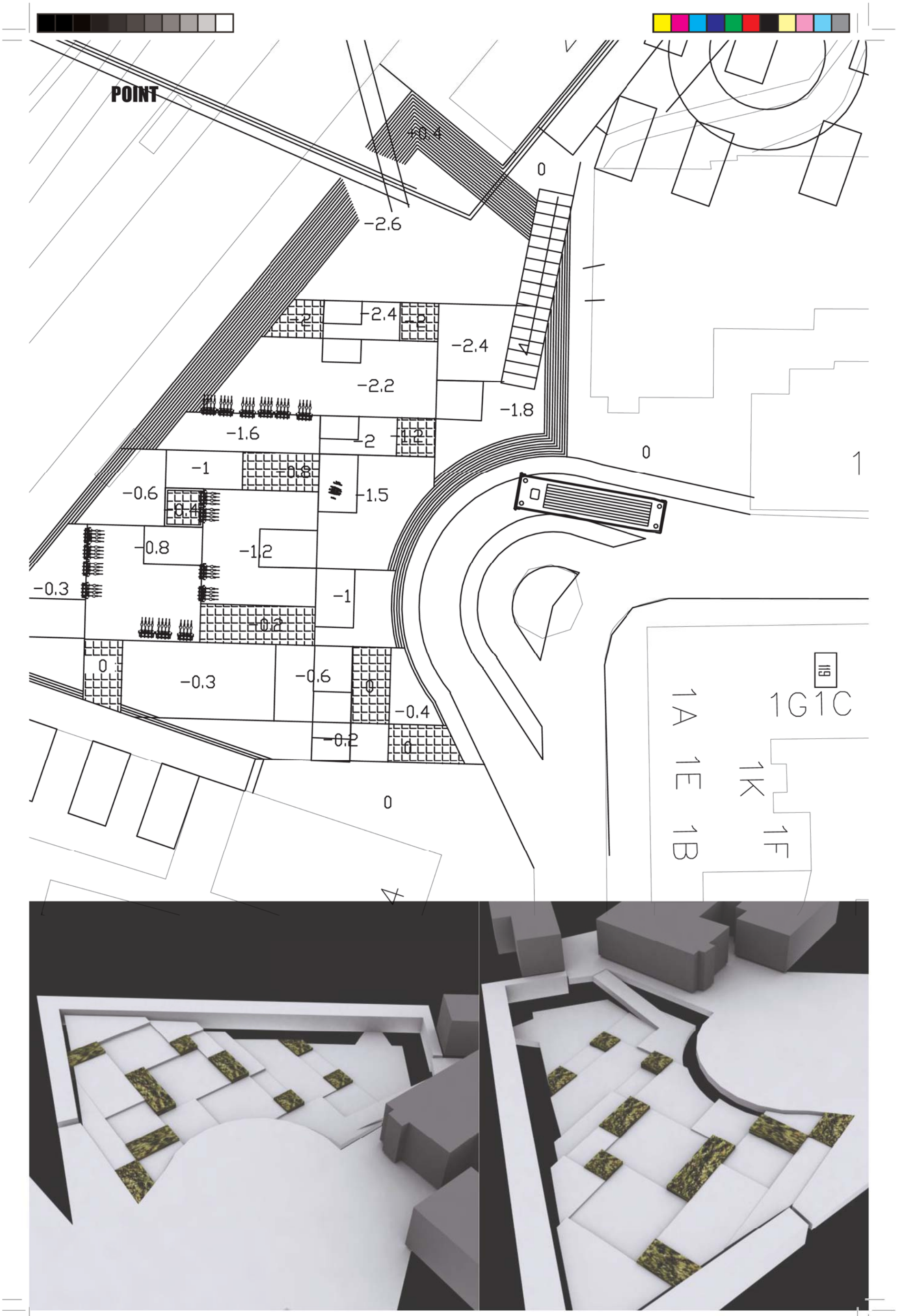
STATION AS A POINT



Designing the station as a point involved taking a starting point in 'Torvet', the existing station plaza, and adapting this to better absorb the flows of cars, busses, bikes and trains that pass through the area.
The station as a point was abandoned again as a result of two dilemmas.
Firstly, the plaza is accentuated by the surrounding historical buildings which provide an image of Viby as a small idyllic station-town. This image does not seem to fit the current direction Viby is taking, where inhabitants do not identify with this image, but rather with an image of the station as an effective hub of infrastructures.
Secondly, although possessing fine spatial qualities, the plaza has difficulty in absorbing the various flows of Viby – these flows would in fact lead to the total reorganisation of the plaza and thus a destruction of the spatial qualities which enticed the design of the plaza in the first place.

STATION AS A LINE

The station as a line was proposed as way of responding to a more contemporary image of the station as a flow area. This also eased the design of incorporating the various flows of the station into one design without compromising any spatial qualities. This was also a way of keeping 'Torvet' intact, not as the main plaza of the station, but as one of several entryways to the line of the station platform.
In short, designing the station as a line was a test of how to ensure continuous access to the stretch of the platform, thus making the platform the new 'station plaza'.


POINT
+0.4
0
−2.6
−2.4
+2
−2.4
−2.2
−1.8
−1.6
−2
−1.2
0
1
−1
−0.8
−0.6
−0.4
−1.5
−0.8
−1.2
−0.3
−1
−0.2
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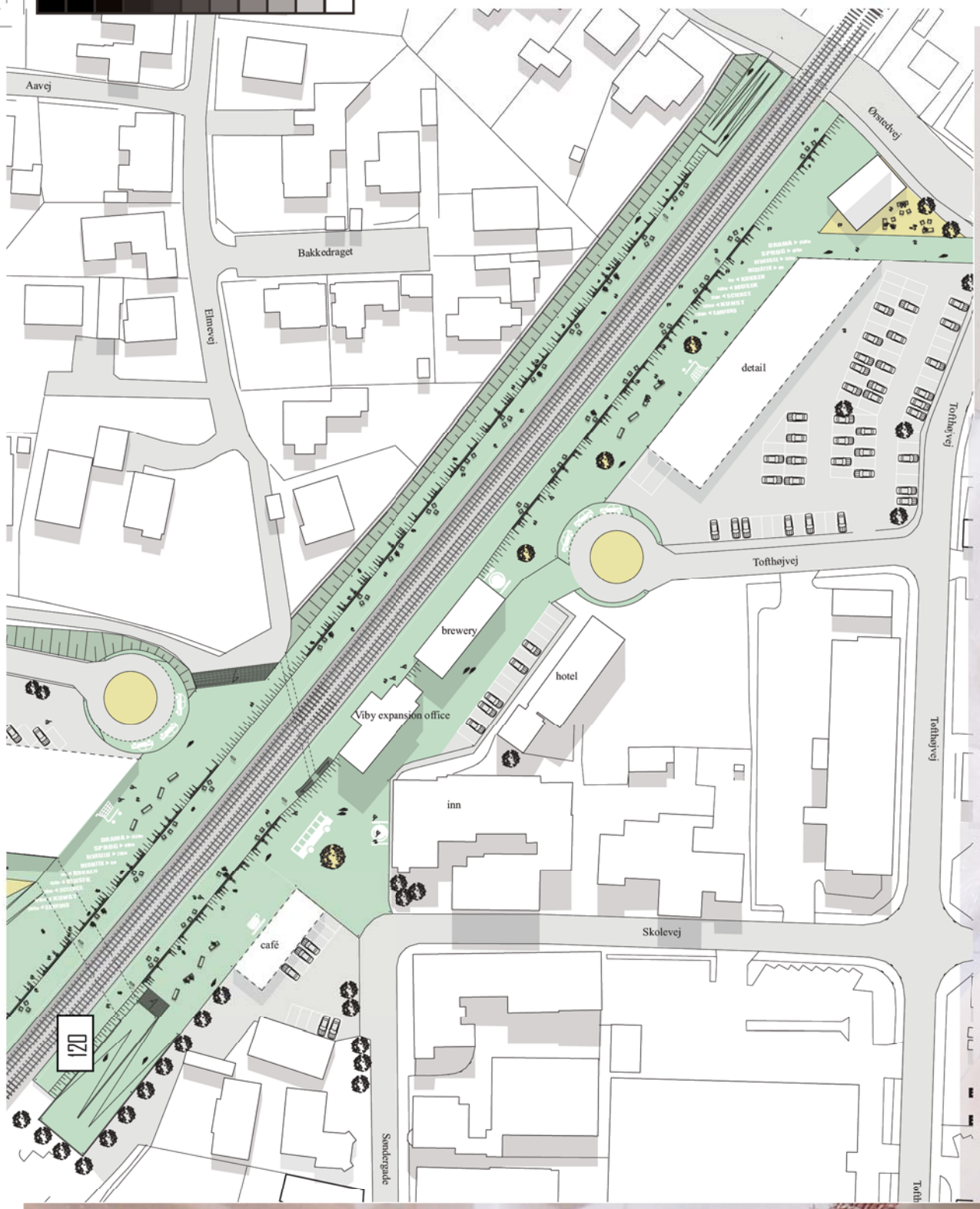
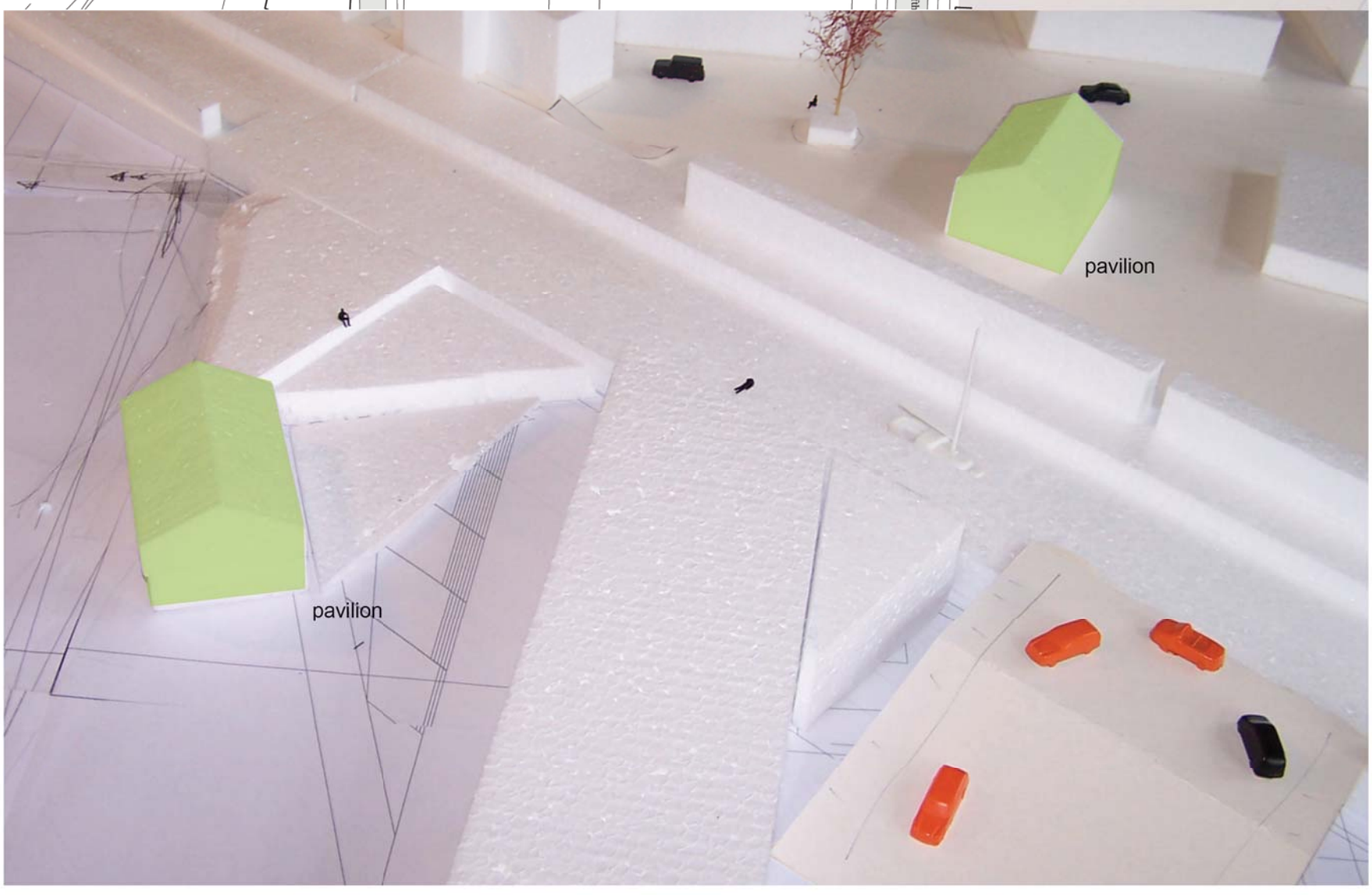
1G1C
1A 1E 1B
1K 1F


Aavej
Bakkedraget
Elmevej
Østedvej
detail
Tofthøjvej
brewery
hotel
Viby expansion office
inn
Skolevej
café
120
Sondergade


LINE


pavilion
pavilion

TOOLS

This final chapter presents the toolbox of the project with supporting workshops, reference projects and additional background research. This chapter should be viewed as a sort of appendix as it is not vital to an understanding of the project, but sheds light on events and ideas that have influenced the project.

The project has undergone three workshops over the course of a year as a means of involving external guidance and counselling by respectively Christina Kvisthøj, SLETH architects and Lars Seerup, and the outcome of these workshops are thus accounted for.

Reference projects are included in the form of both personal visits in the form of a field trip in the Copenhagen area as well as international cases, and these projects have all contributed to central understandings or elements of the project.

Lastly, background research into the historical development of Copenhagen and a study of planning documents relevant to Viby have contributed to a greater understanding of Viby's context and future plans.

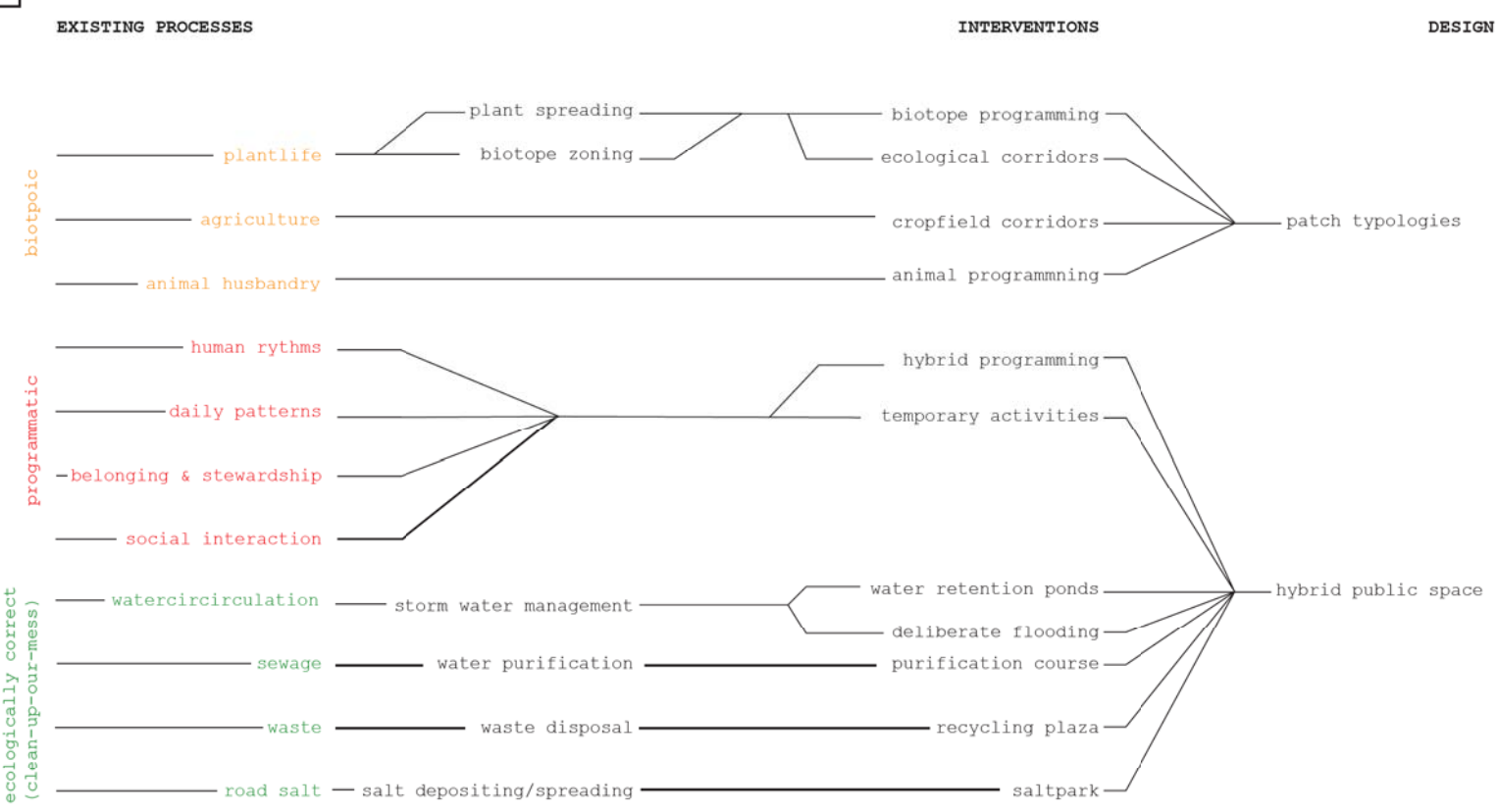
WORKSHOPS

WORKSHOP 1

Participants:
Supervisor: Gitte Marling
External Supervisor: Christina Kvisthøj
Internal Supervisors: Peter Mandal Hansen, Hans Kiib
Students: Gitte Højland Hansen, Rikke Løgtved, Ditte Birkkjær Madsen
Date: November 28th, 2007

This workshop was held three months after semester start and was intended to discuss the first months of research with primary focus on the theoretical approach of landscape urbanism. Here Christina Kvisthøj was given a primary role, as she was in the process of finishing a Ph.D. dissertation on James Corner's concept of ecology, which was of extreme relevance to the project. Preliminary ideas for a design concept and strategy were also presented and discussed together with the notion of 'fact sheets'.

Outcome:
The workshop provided well-needed feedback on the conceptual direction the project was taking and resulted in a further development of the concept. The 'fact sheets' gained importance after this workshop as they became a way of engaging Corner's mapping technique more actively in the project.

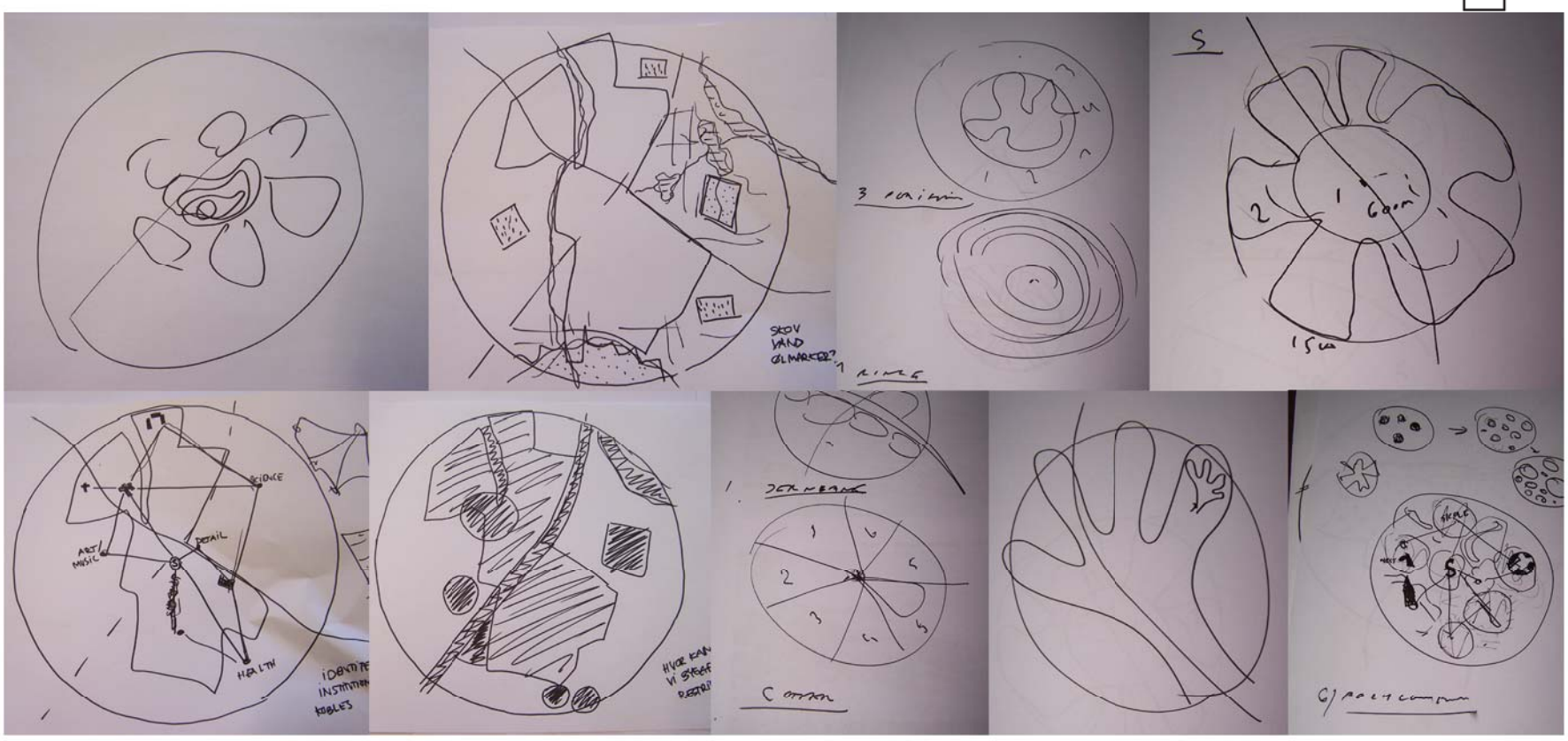


WORKSHOP 2

Participants:
Supervisor: Gitte Marling
External Supervisors: Søren Leth & Henrik Brølling (SLETH) & Jens Bager
Date: March 7th, 2008

The workshop was intended to kick-start the design process of two selected sites in Viby. However, this intention was completely turned upside down by the external supervisors, who instead insisted on working with the development of an overall strategy for the future expansion of Viby. This also seemed to be more in line with the landscape urbanism approach of the project.
Two tests were suggested with the aim of approaching an overall strategy for Viby: a programmatic test and an overall physical operation for Viby. Viby was therefore tested according to different programmatic compositions e.g. Viby as 100% suburbia, Viby as 100% theme city, Viby as 100% village, Viby as 100% business. The tests resulted in a choice to experiment with the notion of Viby as 100% suburbia as this would acknowledge the existing structure of Viby and present the most realistic brand for Viby. This was also the most challenging.
The tests of different physical operations for an overall strategy of Viby resulted in a wide range of different proposals for a future structure for the town. These operations were all discussed at the workshop and related to the approach of landscape urbanism.

Outcome:
The workshop truly kick-started a process of working more actively with the integration of landscape urbanism in the design process and forced the project to rethink its overall operation on the town. This created a well argued foundation for the choice of physical operation of the project.

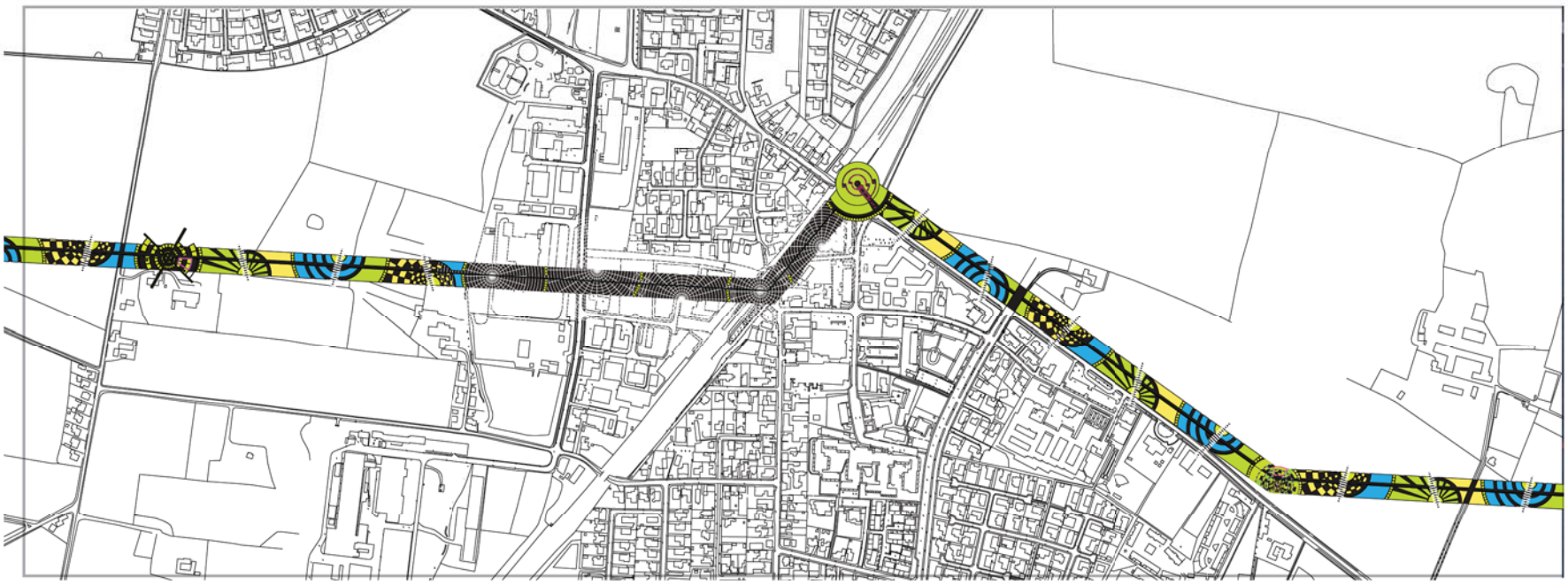


WORKSHOP 3

Participants:
Supervisor: Gitte Marling
External Supervisor: Lars Serup, Transform
Date: April 22th, 2008

The intention with this workshop was to fine-tune the strategy of the project and the physical operations and discuss how the project best was communicated. The workshop was therefore more a general criticism and discussion of the strong and weak points in the project than an actual workshop.
The primary discussion was the focus of the suburban context in relation to strategy, concepts and the understanding of scale in relation to suburbia. Here Lars Serup suggested that the suburban elements should be worked with in a more literal way in relation to the design of especially the pavilion. A focus here was also to which degree the pavilions should be consolidated along with the expansion of the town. A main focus of the workshop was also to discuss the graphical presentation of the project, where Lars Serup suggested a few basic lay-out principles.

Outcome:
The workshop encouraged a fine-tuning of especially the pavilion and the shape of the public belt. The pavilion were altered to mimic the single-family house of suburbia in scale and shape, thus drawing a clearer link to the context. The shape of the public belt was also altered to grasp more of the existing town such as Dåstrup school and the water treatment plant.



REFERENCE PROJECTS

PRAGS BOULEVARD

Architect: Kristine Jensens tegnestue
Location: Amager, KBH
Year: 2001

Prags Boulevard, a course of 1.8 km, is an urban re-generation project where residents in the nearby neighbourhood are able to influence the 7 hotspots of the project. The residents from Prags Boulevard have been involved in the development of the project from the vary beginning. The residents formulated their visions for uses and aesthetics, which was introduced in the programme for the competition. Since the competition, the residents have helped concretize the specific programmes and the project in general. A group of residents was assigned to follow the project all the way to its realisation as a building committee. The course is designed with use of graphics, green removable chairs and yellow light columns. Along the course seven squares are established, where each of them are programmed for different activities such as the kindergarden, the garden, the ramp, the cage, the field and the stage.

"Hovedideen er at boulevarden kan ses som en by landskabelig mark der gradvist indtages og befolkes as byens liv og hastigheder."
(www.kristinejensen.dk)

SOLBJERG PLADS

Architect: SLA

Location: Frederiksberg, KBH

Year: 2003-2005

Solbjerg plads is a relative new square located on an old railway track in between the new metro stations Frederiksberg and Solbjerg. Solbjerg plads is constructed of three parts with each a different theme. One of them is a small road between the station building and the highschool, where SLA has created a warm street space with use of a light concrete paving, which together with the yellow brick buildings facing the street creates an impression of an entirety. The night illumination is kept in a yellow color, and the light is transcended though a pattern, which demarcates different zones in the surface. The use of trees with light tree crowns is together with the illumination creating a fairytale mood between the two buildings. The second part of the square is a big open square, with a water theme, which encourage especially children to play. The water element is supplied with a sound system, which broadcasts the sound of animals. The third part of the square is the “forest”, which is created by a various amount of pine trees, which offer place for relaxation. The forest is illuminated by a red light in the night creating a sense of mysterious impression. Solbjerg plads can be thus seen as a square, which is capable of utilising the difference temporal pulses, as night and day and sun and rain.

(Gehl, 2006, p. 150)

NØRREBRO PARK

Architect: GHB + Steen Høyer
Location: Nørrebro, KBH
Year: 2004

The Nørrebro Park was transformed from a thoroughfare space to a space for recreation in 2004. The new Nørrebro Park separates from the other green areas within the city by being an urban park which integrates activities and architectonical elements from the surrounding neighbourhood. The two canopies is part of the creation of a more urban character, which simultaneously can facilitate minor concerts and jumble sale. The concept of the park is one of intervention and preservation. Old elements as the tree avenue, the football field and a small garden are preserved and new activities such as a skating ramp, a beach volley field and a basket ball net is applied.
Trees and bushes are established across the park as to create more spatiality. The brand of the park lies in 100 pennants with logoes, which is located in groups around the park. It is intended that the logo shall be re-designed every year by organising a competition among the local residents. The proposal is a flexible strategy which programmatically draws a varied course through the park. The course is varied when compared to the wish for activity, aesthetic experience and nature.

'Jeg vil gerne have, at Nørrebroparken skal være et sted, hvor man kan mødes og lære noget nyt blot ved at kigge på andre. Noget af det mest interessante i verden er jo at kigge på andre og spejle sig selv i dem', siger Steen Høyer.

(http://www.ghb-landskab.dk)

HOLMBLADSGADE

Architect: Bjarne Schläger

Location: Holmbladsgade, KBH

Year: 2003

Holmbladsgade in Copenhagen was in 2003 applied a new illumination strategy by Bjarne Schläger. He has created five different lighting elements designed to respond to the main theme of “water music” selected by the community. A basic illumination principle is applied to the street, where 57 luminaires is creating the vision of “hanging in space”. The light leads the eye all the way down the street while simultaneously ensuring the safety of road users. At all 50 corners of the street, where the side roads join the street, there is a wall light- here small lights with winged reflectors, suggest the movement of a wave. Additionally, each corner of the block has received a light, which highlights the name of the side street. The most remarkably illumination element is four software programmed dynamic light sculptures. The sculptures represent Holmbladsgade in a scale of 1:275, and are marked vertically by a wave that recalls the old coastline, and horizontally by lines that are inspired by the layout of the road. Lastly, Schläger has applied 69 small waves of light set in the paving to highlight some of the small side street. In general the illumination strategy creates a new identity to the street, which is capable of joining the space and at the same time create an eventful experience of the street. Simultaneously, it seems as if the project has a very urban character, as Schläger underscores the layout, the walls and the flow of the street in the illumination strategy.

“Art and function, poetry, aesthetics and surprise combine the street that, without disavowing its past, renews its identity”

(Curbi, pp. 68-77)

Overall plan of Holmbledsgade lighting.

(Curbi, pp. 76-77)

ISLANDS BRYGGE

Architect: landscape architect Anne Lise Bramsnæs & architect Poul Jensen

Location: Islands Brygge

Year: 1994

Islands Brygge is an elongated water promenade which bears witness to its history as location for former industrial production. The course is constituted by zones with varying characters, which ensures a wide spread group of users. The activities vary from zones with relaxing activities with sun bathing to more high-speed programmes such as beach volley, table tennis, skater ramp, and a street basket court. Additionally, the park offers picnic areas with permanent barbecue and benches. Cafés are located along the promenade, which together with the programmatic composition of the park secures a constant park life. The main spatial composition is the waterfront, which is supported by the promenade. Besides the promenade more intimate zones are created by use of trees and industrial leftovers, which are used to create a strong image of the park.

BYPARKEN

Architect: Mutopia

Location: Ørestaden

Year: 2007-2008

Byparken is located in the new Ørestad City. The aim of the park has been to design a place for recreation for the local environment and simultaneously be a public park. The physical concept of the park is constituted by an amount of small islands which is being placed in a green carpet of grass. Each of the islands creates small definable gardens designed for a various amount of activities and experiences. The eight islands are thus given eight different identities eg. the scout island, the zen island, the picnic island, the valentine island, the family island, the treasure island, the slide island and the Gilleleje island. Each of the themes given to the islands has been developed through workshops with the residents and potentially future residents of the Ørestad. The islands are framed by different plantings and between the islands is the carpet of grass encouraging to major sport activities. The organisation of the large area in eight small activity intensities, are underscored by the use of surplus soil, which creates small hills.
The park is furthermore designed according to the different seasons, where the planting strategy secures that the park is attractive all year around.

"Indretningen af parken signalerer diversitet og mangfoldighed. "Øhavet" danner i sig selv en masse, små offentlige rum, hvor forskellige brugergrupper kan mødes på tværs om fælles aktiviteter. Til sammen skaber elementer, planter og det liv, der udfolder sig mellem dem, en ØCITY." Kristina Jordt Andersen, MUTOPIA

(Grundejerforeningen Ørestads City, pp. 3-5)

(Courtesy of MUTOPIA Architects)

HIGH LINE

Architect: Field Operations

Location: Manhatten

Year: 2004

Inspired by the melancholic, unruly beauty of the High Line, where nature has reclaimed a once vital piece of urban infrastructure, this project retools this industrial conveyance into a post-industrial instrument of leisure, life and growth. By changing the rules of engagement between plant life and pedestrians, the strategy of agri-tecture combines organic and building materials into a blend of changing proportions that accommodates the wild, the cultivated, the intimate, and the hyper-social. In stark contrast to the speed of Hudson River Park, this parallel linear experience is marked by slowness, distraction and an other-worldliness that preserves the strange character of the High Line. Hereby providing flexibility and responsiveness to the changing needs, opportunities, and desires of the dynamic context, the proposal is designed to remain perpetually unfinished, sustaining emergent growth and change over time.

(www.fieldoperations.net)

(A+T Magazine Vol. 25)

LE PARC DE LA VILLETTE

Architect: Bernard Tschumi

Location: Paris

Year: 1982

”The Parc de la Villette was developed as part of an urban renewal plan on the site of the former national meat market and slaughterhouse. Tshcumi won a competition for the design of Paris´ largest park in 1982. Related to his theoretical work on “event space”, his proposal for a distinctly urban park called for a deployment of a number of abstract, programless structures, dubbed “follies”. It was intended that the bright red structures would then house various events and groups related to the activities of the park. Many do just that, but not all, and not always the activities envisaged.

The design questions the conventional conception of a park as a green open space. While there is plenty of grass here, the “natural” park is clearly designed to express the fact that it is artificial, domesticated. Several thematic gardens are incorporated into the scheme, offering places of discovery and unexpected encounters and juxtapositions between seemingly natural and man-made artefacts. (www.galinsky.com) The Park consists of 35 red follies, sport and recreation areas, playgrounds, a science and technology museum, and a music centre. The follies create the main image of the park. Each follie is based on a cube and deconstructed, according to rules of transformation (repetition, distortion, superimposition, interruption and fragmentation), without any functional considerations. Landscaping, spatial and programmatic sequences in the park were used to produce sites of alternative social practice that challenged the expected use values usually reinforced by a large urban park in Paris. (www.wikipedia.org)

(http://ead.nb.admin.ch/web/biennale/bi06_A/index_n.htm)

CAPITALIZE ON YOUR CONTEXT

Author: Michael Piper

Location: San Diego, California

Year: Proposal for a school 2005

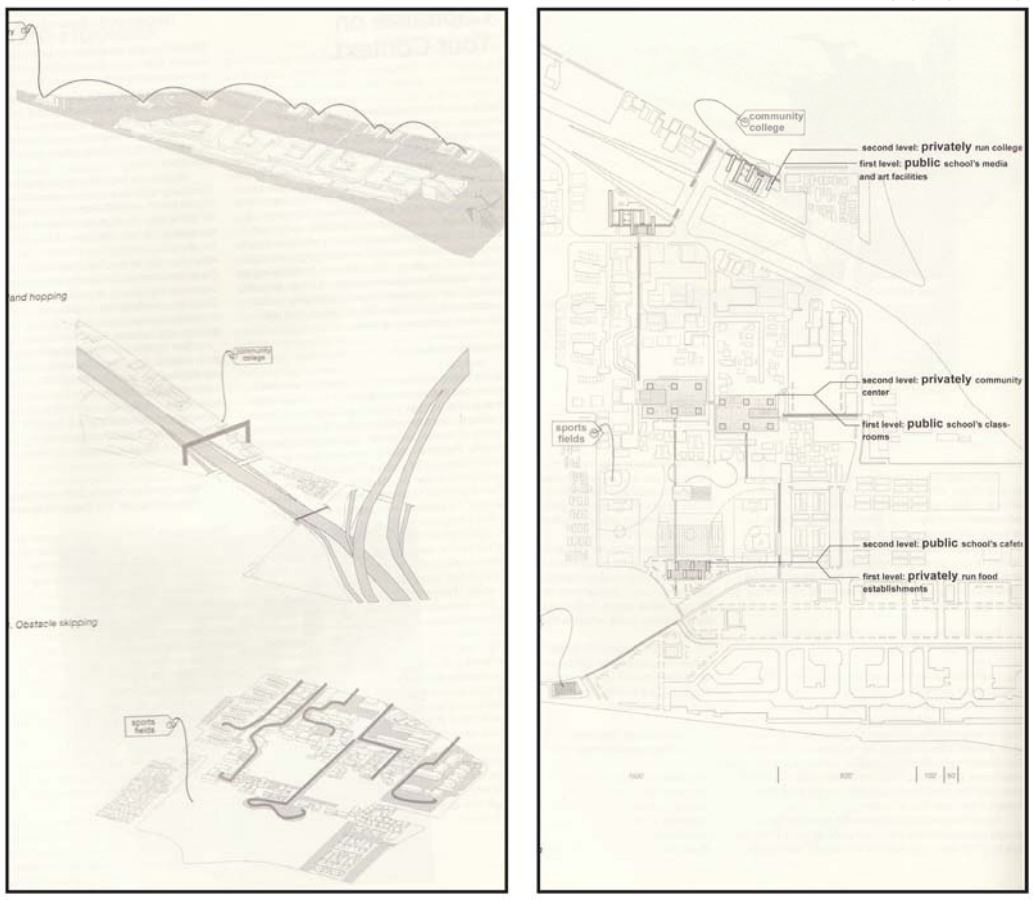
Capitalize on Your Context is a proposal of how to take advantage of the context to create a new high school in San Diego, CA. Michael Piper introduces a way of integrating new into old by making use of negotiation to create new hybrids between existing local programs and new programs for the high school. This project exemplifies how a sense of community is created on basis of existing programs. Rather than resort to the standard school format, a single site set back from the city, Piper suggests a negotiation between developers to create an open campus dispersed in the city, arranged to take advantage of existing programmes and local communities within the city. The negotiation extracts a use of existing programmes for the high school in return for an extension and improvement of the existing programmes. – A hybrid form of funding and operation that involve multiple private and public interests.

Negotiations are made between private developers and local communities in order to achieve a library, a cafeteria, playing fields and classrooms for the high school.
To get admission to a new community library in the city, the developer of the library gets the ownership of the school's cafeteria placed on his parking lot. San Diego State University has an existing satellite campus nearby. Piper proposes an expansion of this campus to provide further facilities for both the university and the high school. In the middle of a local neighbourhood a community centre owns sports fields. For the use of these fields the local community centre gets bonus facilities on the top of a new high school building for classrooms.

In the end the high school is spread through the city with a distance and different programs and paths crossing and interrupting. Hop, Skip and Mosey are analytical caricatures that Piper uses to describe and design for these interruptions.

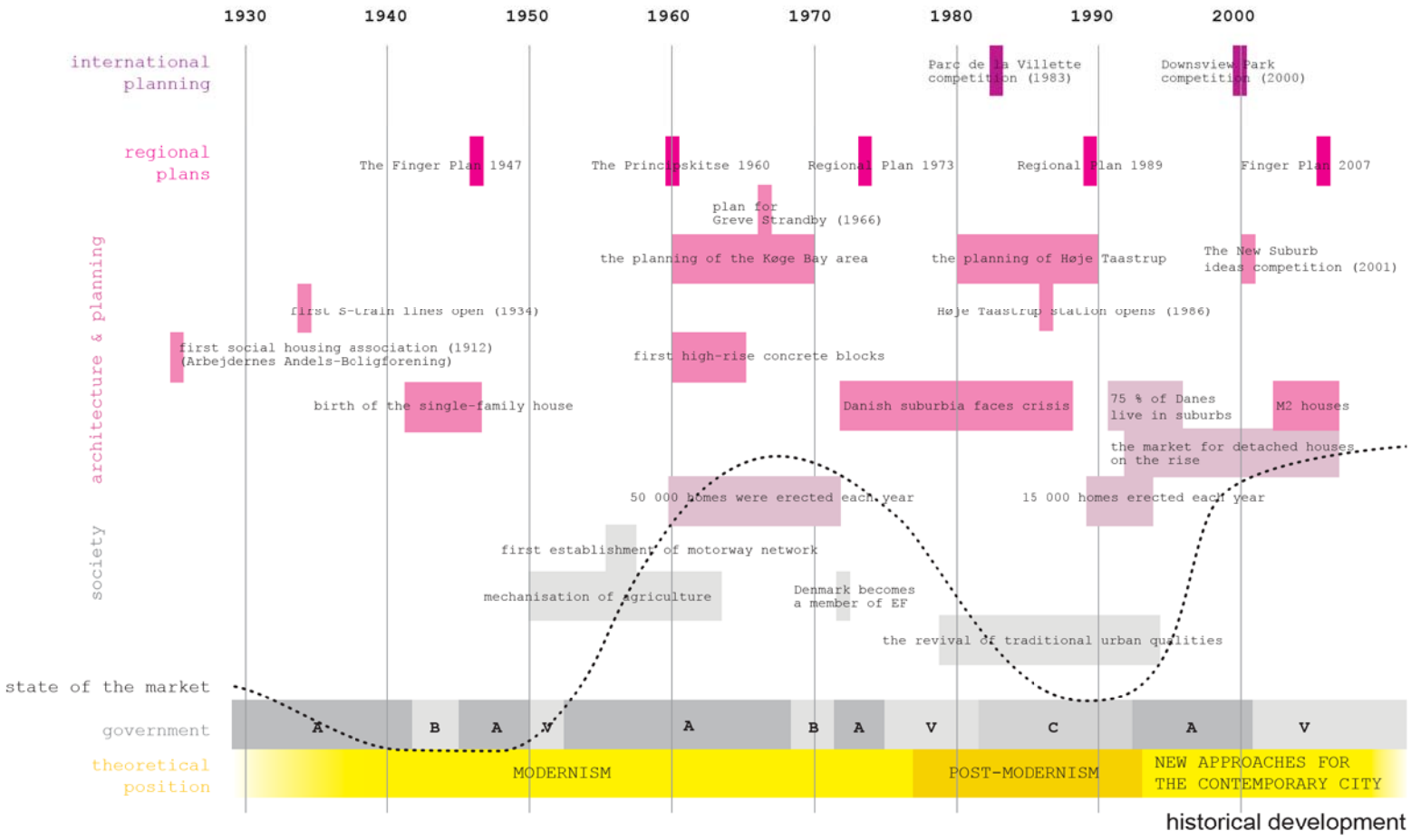
(Piper, pp. 67-71)

(Piper, p. 68-70)



HISTORICAL BACKGROUND

As a means of gaining deeper insight into the dynamics of Danish planning and the rationales underlying the structure of Copenhagen and its outlying areas, we will now take a walk through the historical developments of Copenhagen's semi-urban areas in the 20th century.
Arne Gaardmand, Danish architect and planner, sees three overall stages in recent Danish urban planning, which have been adopted in the following pages as a basis for unfolding the Danish planning development. The period after the World War II, from 1945 to 1960, was a period of waiting and preparing for future ideas and planning reforms. However, little action was taken due to the German occupation of Denmark and the repercussions of war. This gave pace and time for Danish planners to plan for future development such as the Finger Plan of 1947. The years between 1960 and 1975 marked a major change in tempo. The housing production in Denmark exploded and infrastructure expanded massively, and this was the period where the main suburban areas of Denmark were developed. New concerns were at stake in 1975 to 1992, which was characterised by economic stagnation and a resulting change in attitude towards planning and a diminishing interest in phenomenon of suburbia. (Gaardmand)



DEVELOPMENT UNTIL 1960

The first signs of suburban development in Denmark were after the Copenhagen cholera epidemic of 1853, where the danger of contamination drove large parts of the population out of the city to make camp outside the city walls. These areas were to become the so-called bridge districts, “brokvarterer”, e.g. Østerbro of Copenhagen. The term suburb, the Danish word forstad, first officially appeared in Danish statistics in 1906, and soon afterwards became a more common term for a new form of urban culture. Around the turn of the century, Denmark saw a whole movement surrounding the relocation of dwellers from city to countryside, a consequence of the perception that the cities were over-polluted and a search for romanticized country life. The new suburbs offered a perfect alternative, closeness to nature and still within reach of urban culture and services. (Thelle, pp. 329 – 330)

This was the time when the Danish building societies began appearing throughout the country based upon a concept of a common building phase for the society members, who would then gain ownership of their home after a number of years. As a result, these building societies were only for the absolute elite of the country. The housing development of the societies was to a great extent inspired by the English garden city movement, where Ebenezer Howard’s principles were sweeping over all of Europe. Howard’s idea of establishing self-sustaining towns outside the existing cities had in a Danish context been transformed into a new type of suburban residential neighbourhoods. (Dragsbo, pp. 292 – 293)
In 1912 the first social housing association was born in Copenhagen, Arbejdernes Andels-Boligforening, and more followed. This was a reaction to the smaller building societies and an attempt to deal with housing problems at a larger scale and in a way that could grasp the population as a whole. These new housing associations focused on multi-

Copenhagen’s expansion before 1960. (Gaardmand)

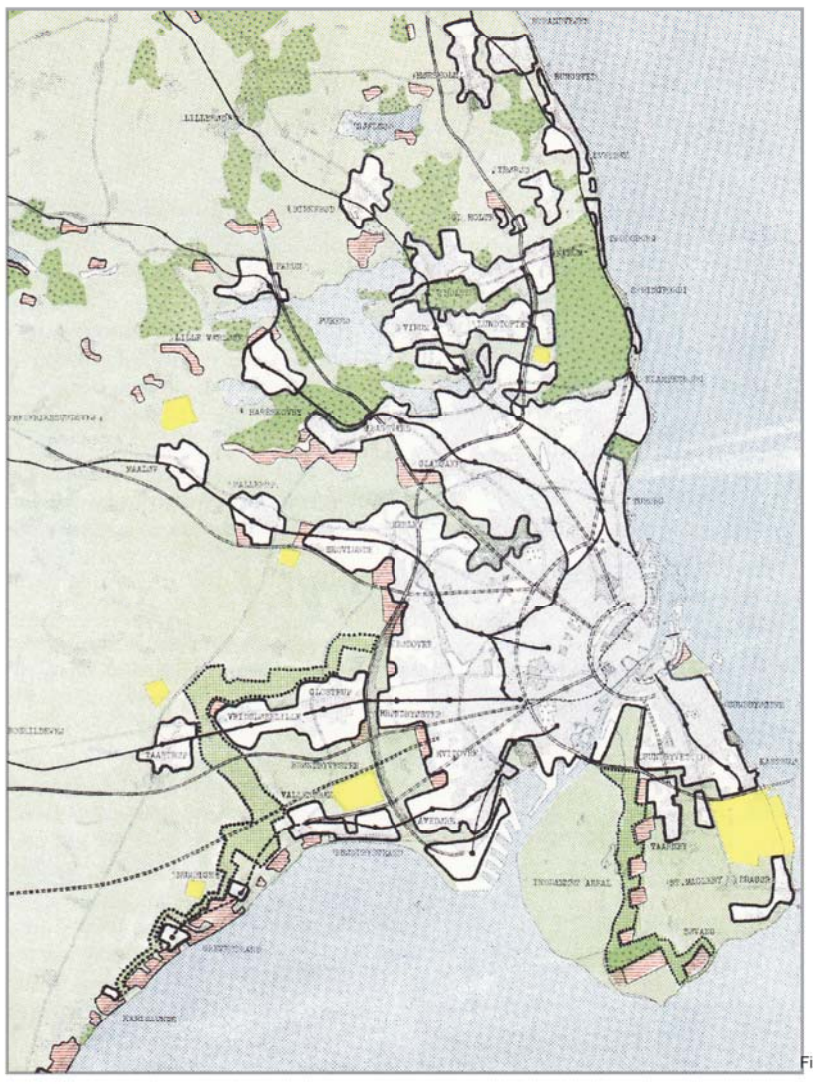
storeyed housing typologies, which became an architectural darling for the functionalist movement of the 1930’s and 1940’s. These social housing projects, which reached into station-towns around the cities, employed functionalist ideals of sun-facing, open structures surrounded by green areas. In the 1950’s, these social housing projects were constructed in abundance, and the state encouraged that traditional building methods be replaced by large scale industrialised methods. (Dragsbo, pp. 294 - 299)
Parallel to the development of multi-storeyed building we find another typology that would characterise the contemporary Danish suburbia. The birth of the detached single-family house was more a result of private initiatives and market forces. This familiar typology recognisable in many Danish suburbs first appeared in the 1940’s, and can be described as a hybrid between the bourgeois villas and allotment gardens movement of the time, thus making the growing suburbs a predominantly middle-class residential area.
These two developments resulted in two types of dwellings which created a rigid division of the new suburban areas: the collective social housing projects on one hand and the detached housing estates on the other. Ironically, the functionalist ideal of the city free of social class separations had resulted in re-establishing a significant class division not seen since the 19th century. (Dragsbo, pp. 297 – 299)
In the midst of this beginning suburban growth, politicians and planners were initiating a more systematic planning strategy for Denmark and the problems expected in Danish cities. This collaboration resulted in an overall framework for how to deal with the future urban expansion. The Finger Plan of 1947 for Copenhagen in many ways marks the beginning of Danish urban planning, and was a visionary example of how to grasp the

planning of Copenhagen as a region and incorporate these new housing typologies and residential areas into an overall urban structure. The expansion of the metropolitan area of Copenhagen during the last 60 years has thus been based upon the Finger Plan to a certain extent. (Thelle, pp. 331 - 332)
With the Finger Plan, a framework had been established for public transport in the city: Copenhagen's S-trains. This railway system, with its first inner-city lines opening in 1934, extended along the five fingers indicated in the Finger Plan, and growth would take place in communities along the S-train lines. (www.dsb.dk)

GROWTH AND EXPANSION 1960 – 1975

The 1960's is an era of economic prosperity in Denmark and great expansion and growth in Copenhagen. Approximately 50 000 homes were erected each year and new infrastructures, roads and railways, were constructed. The suburban growth still had roots in the ideology of a romantic worship of nature as an opposition to the city. These ideals were shared by planners, politicians, bourgeoisie and the working class alike, and up until the 1970's Copenhagen continued to witness a widespread escape from the city to the green, open spaces of the suburban environments. (Dragsbo, p. 300; Thelle, p. 331)

Copenhagen was in this period experiencing a growing pressure on the urban areas, which slowly encroached on the green wedges in the northern part of the region, increasing travelling distances within the metropolitan area. Simultaneously, the rail-serviced fingers of the Finger Plan with the purpose of bringing housing closer to nature as well as workplaces had lessened in importance as private car traffic increased. The city centre had to be relieved by placing workplaces and services in new concentrations outside the inner-city and in connection with the new suburban residential areas. (Munch-Pedersen, p. 79-81; Kvorning, p. 41)



Finger Plan of 1947 (Gaardmand)

THE FINGER PLAN OF 1947

The original regional planning proposal for Copenhagen, the Finger Plan, was a private initiative created by a group of architects in 1947.

The Finger Plan was a response to the increasing and alarming growth of Copenhagen, which resulted in long travelling hours and commuter distances and an overloading of the inner city structure of the Middle Ages and its tram network, and the existing lack of physical and functional order, which was a result of the lack of a wholesome thinking of the metropolitan area of Copenhagen. A group of planners and architects therefore saw the need for a new holistic planning structure of the metropolitan area of Copenhagen, which resulted in the Finger Plan. (Jensen, p. 13-19)

The proven strength of the Finger Plan, which has to a certain degree has been followed in regional planning ever since, sparks an interest into the rationales behind the plan.

The Finger Plan hoped to avoid a stratified and uncontrolled growth of the city as seen in America, but still wanted to maintain Copenhagen's existing growth patterns, which was expanding along five 'fingers' in a radial pattern from Copenhagen's centre. The planners saw no reason in attempting to transform one city type into a completely different type, and instead the Finger Plan tried to uncover the advantages and disadvantages of Copenhagen's existing pattern and growth, and use this as a planning instrument. (Gaardmand, p. 38)

Therefore, the Finger Plan proposed an additional structure ordered along five infrastructural corridors connecting railway stations and related communities. The infrastructure consisted of an S-train network and roads leading into the city centre of Copenhagen through a radial pattern, hereby providing an opportunity to live close to a fast track into the city centre, and thereby reducing the rising travelling times.

Simultaneously, the proposed structure secured large green wedges into the city, which was to be held free of building activity. The green wedges were intended to secure the citizens of the new communities' direct access to a recreational landscape, which would provide quality to the new cities along the infrastructural bands. Thus the original Finger Plan was intended as a monocentric structure, where the inner city was the hub of industry, business, public administration etc., supporting the idea of classical residential suburbia. (Jensen, p. 19-22)

The Finger Plan was based on the basic idea of creating an organisation where the rural, the urban and the infrastructure together generated a new city structure, which could obtain a further expansion of the metropolitan area of Copenhagen. The inner-city was in this way viewed as the brain and the infrastructure as the central nerves. (Munch-Pedersen, p. 47) This wholesome approach to planning, where the metropolitan region is perceived as not only the areas of the city, but also the adjoining villages and rural areas, and the viewpoint that the metropolitan region also should be planned as such, is a perception closely linked to Lewis Mumford's ideas of regionalism and regional planning. He argued for a planning approach that began not with the city as a unit itself, but with the region as a whole and the potentials within the region. (Mumford, pp. 240 – 241)

The plan aimed at creating a structural organisation, which could absorb an increase in population and acreage expansion, hereby stating that a deceleration of the urban growth was not intended. The rationales behind the new physical structure can be divided into four discussions of urban development: the city structure, the infrastructure, the placement of residential areas and workplace and the separation of the city into smaller units.

Regarding city structure, the preliminary analysis of the Finger Plan document evaluated a number of different city structures in relation to the existing centralised structure of Copenhagen. Among these was a city band structure, which if chosen, was supposed to be established along the east cost, hereby securing that all citizens could live in relation to the sea. The band-structure was rejected in spite of its unique potential of locating the city along the coast because the proposal would entail a major reshaping of the existing city. The aim of the research was thus to find a physical structure which could develop on the basis of the existing centralised structure of the city, where the city was structured around a central core. The selected finger structure shows a more sustainable approach by letting the city expand along radial lines, which is a slightly different structure than the existing compact structure of the city. This approach is rooted in the rationales about the future infrastructure of the city. (Jensen, p. 19-20)

By acknowledging the fact that the expansion of the city is related to the chosen means of transportation, different urban traffic systems were analysed and different means of transportation were examined. The analysis proved that the car as the primary means of transportation creates a highly spread low dense city, and that public transport as primary means of transportation of a more dense city surrounding the public transport hubs. At the time, the planners behind the Finger Plan deemed that most people would use public transport, which was decisive for a city structure based upon public transport with a relatively compact inner city area, and a number of long radial lines created by urban mass clusters surrounding railways stations. (Jensen, p. 20-21)

The location of businesses and workplaces in relation to dwellings was also evaluated as the greatest amount of traffic in the internal metropolitan area would be generated by the transport between dwelling and workplace.

The principles behind the garden cities of Ebenezer Howard were considered here, but regarded as uneconomical. Howard's idea was clusters of cities consisting of small living and working units with the primary strength of creating very short travelling distances from dwelling and work. However, these satellite cities have been documented to impede their own development in relation to business and economical growth, and the weakness in the satellite structure was according to businesses and industries that the satellite city could not offer a wide workforce. In accord with the aim of creating a strong city, the industry was therefore placed in bigger concentrations. (Jensen, p. 21-22)

The contemporary city can not only be characterised by its extent and overall physical shape, but also its´ inner city structure, and in acknowledging this fact, the separation of the city into smaller city units was considered. This separation is rooted in two different reasons: a practical arrangement, where the city is separated into independent neighbourhoods with its own institutions and shops arranged in connection to a local centre, and a reason based on a city life argumentation, which considers the contemporary boundless urban mass as bad for the quality of human life because the human is in need of a social connection to a smaller scaled society. It was however not desired to create strong subdivision centres, because it was feared that they could become competitors to the historical centre. It therefore resulted in a looser structuring of the city in bigger units as administrative borders. (Jensen, p. 22-23)

The rationales of the Finger Plan was inspired by the overall planning tendencies, but to great extent also the existing conditions of the existing structure of Copenhagen, and the wish of generating a strong and sustainable metropolitan area. The plan was never enacted in its own right, but was roughly imposed as a city regulation in 1949, where it was recognized for its overall solution and perception of Copenhagen and its appurtenant communities as one city. (Gaardmand pp. 38 -39)

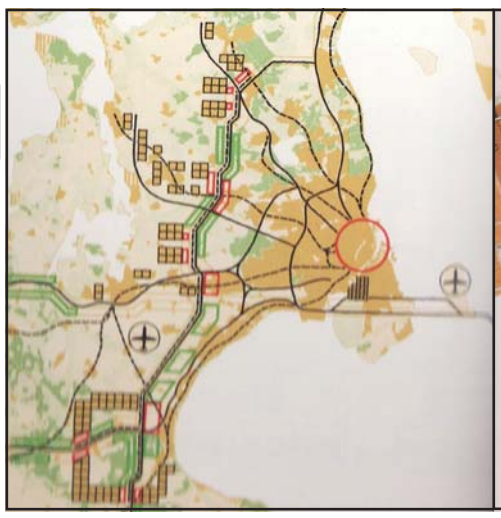
Even though being challenged along the way, the metropolitan area of Copenhagen still follows the overall physical structure of the Finger Plan, and the new legal planning document of Fingerplan 2007 maintains the main principles of the original Finger Plan. However, it is important to acknowledge that the structure of the city has expanded across the frame of the plan suggested in 1947, where the fingers today are much wider than originally intended and the green wedges have simultaneously decreased in size.

The structure of the metropolitan area of Copenhagen has, like in other cities around the world, naturally evolved from a monocentric structure to a polycentric structure, and developed from a classical surburban ideal into a more, although mild, sprawl-like condition. The Finger Plan, originally devised to fight sprawl, is now sprawling itself. These changes can be read in the Finger Plan documents over time, as if the plan is constantly trying to absorb these new inevitable urban conditions, sprawl, into its five-fingered organisation. The overall physical structure of the Finger Plan has thus been maintained, even though the actual ideals behind the plan have changed with society.

A new regional planning document, the Principskitse of 1960, responded to this growing pressure on the urban areas and the increasing population. The Principskitse proposed a transformation of the original Finger Plan towards a polycentric structure with the idea of more self-sufficient city units – an idea intended to reduce the commuter traffic, challenging the classical suburban structure of solely residential communities. (Munch-Pedersen, p. 79) The plan also suggested that growth should begin to 'fill in' the open spaces within the fingers, thus letting the satellite towns sprawl into each other. Very evident in the Principskitse was the prevailing views at the time that growth would generate growth, and that a city's size was decisive of its value to the citizens. (Gaardmand, p. 114)

The Principskitse put focus on new development in Copenhagen's metropolitan areas. Standing out among these is the planning of the southern 'thumb' of the Finger Plan, namely the planning of the Køge Bay area. With a special planning committee and even the enactment of a particular Køge Bay law, the planning of this area was extremely determined. Plans were drawn up in the mid 60's, and the main principles were clear and understandable. The finger would be serviced by an S-train railway line as well as a motorway in connection with a network of roads and paths. The S-train station would in this way become natural centres in the urban structure regarding programmes and density. An expected 150 000 inhabitants would live in the area distributed in 10 enclaves. The development of the Køge Bay area went somewhat as planned, although much slower than expected. The construction of the S-train line was significantly delayed in the process, and the railway to Køge was not fully complete until 1983. (Thelle, pp. 333 - 334; Gaardmand, pp. 123 – 128)

The realization and development the Køge-finger is best exemplified by taking a look at



Regional Plan of 1973. (Gaardmand)

Development of the Køge Bay area. (Gaardmand)

one of these enclaves, in this case the suburb of Greve. Until this time, Greve was known as a summerhouse area for many families of Copenhagen. The first people to inhabit Greve and the Køge Bay area in the early 60's became part of a settler-like community. With plans for a suburb not yet fully constructed and a lack of public transport in the finger, the first inhabitants would influence the future development of the area and in a way saw themselves as pioneers. Examples of life in the suburb of Greve describe how families helped each other with childcare, carpool and shopping, and people recall the spirit of these early years where the area perhaps resembled allotment gardens more than a coming suburbia. (Thelle, pp. 336 – 337)

With the full development of Greve this spirit slowly vanished. Copying infrastructural principles from overseas examples of garden cities, Greve was praised for it road and traffic safety, where walking and bicycle paths were separated from main roads. With the growth of the areas, however, many of these hedged and gloomy paths began to represent a feeling of unsafety and precautions instead. (Thelle, pp. 340 – 341; Hvidberg, pp. 39 - 40)

Generally, the overall planning of Greve has been a quite cluttered process. Plans were initiated in 1966 for a comprehensive plan for Greve Strandby, these including a number of multi-storeyed buildings in interplay with more horizontal detached housing. Although never directly rejected, this plan was also never realised. A series of events, the municipal reform, a new mayor and the economic stagnations of the late 70's, put the plan on hold. In the mean time entrepreneurs disrupted the plan by building detached housing in the middle of the plan, this repeating itself a number of times. So in spite of a visionary and comprehensive plan for Greve, the result has been an unplanned patchwork of a town only driven by political constraint and market forces. (Thelle, pp. 344 - 347)

This tendency, to a greater or lesser extent, is general for the whole planning of the Køge finger. In spite of sympathetic and well-drafted overall plans, the implementation at smaller scales, the architecture and the 'filling' of the plan was not considered in the process. Pedestrian paths will not be accepted by the residents if the adjacent grounds, houses and hedges do not support the overall idea to of creating safe routes. The interplay between large and small scales, of plan and architecture, was thus forgotten.
Shortly after peaking in the 60's, Danish suburbia faced a crisis in the mid 70's, where a round of self-criticism flourished among planners and architects. The end of this period of growth and expansion is thus marked by doubts as to the success of suburbia.
The two predominant housing typologies resulting from modernist ideals in the 1930's, housing estates with detached single-family houses and prefabricated high-rise estates, were based on certain ideals. The single-family houses sought to fulfil the notion of family life in harmony with nature, while the high-rise estates built on the notion of functionalist social housing projects. However, these ideals were in reality rarely fulfilled, where these areas were characterized by small sites, mechanical plans and a lack of interplay with the surroundings. One major reason for this failure to combine countryside with city was a lack of both public and private facilities for the inhabitants. (The new suburb – ideas competition, 2001)

At a regional scale a new planning document was enacted, the Regional Plan of 1973. This plan was again an attempt to control the sprawl of the urban areas by proposing a thick urban band surrounding the city, the A-zone, consisting of industry, recreational areas and infrastructure. This linear city structure was to be supported by four urban centres that could relieve the pressure on Copenhagen and the transport systems.
The Regional Plan of 1973 thereby also enabled a more polycentric organization for Copenhagen, but still maintaining the overall structure of green wedges and the communities structured along the S-train line. The plan was to be executed in several stages, and when the first stage saw the light of day it was in a milder and less controversial version. (Munch-Pedersen)
The 1973 plan marked a transitional period from the explosive growth of the modernistic 60's to the economic stagnations and renewed planning principles of the 80's.

FROM "MORE CITY" TO "IMPROVED CITY" 1975 – 1992

Times were changing in Danish planning, which was especially apparent in the drastic drop in new housing projects, from over 50 000 in the early 70's to around 15 000 in 1992. This stagnation was pivotal for planning tendencies to follow. (Gaardmand, pp. 188 – 189)

The initial doubts surrounding suburban areas continued, which were now the predominant housing typologies in Denmark with approximately 75 % of the Danish population living in suburbs in 1993. (Strømstad, p. 9) This tendency started with the range of new environmental movements criticizing these new "concrete suburbias" and fighting against the extensive demolition of old city districts. The term suburbia was losing its positive meaning, now being associated with terms such as "housing slum" and "desert". Focus was being put on the historical city, and a rediscovery of the inner-city and its values was taking place. This rediscovery was supported by an increasing revitalization of older city districts. (Dragsbo, pp. 300 – 301)
The 1980's thus saw the revival of traditional urban qualities such as streets and squares in the hope of also returning the social patterns and production methods characteristic of cities in the past. The low-rise high-density buildings became a popular new building typology which attempted to recreate the qualities of older city districts in new development areas, often located in the outskirts of more traditional suburban areas. (Dragsbo, pp. 300 – 301; The new suburb – ideas competition, 2001)
One of the most ambitious examples of this revival is Høje Taastrup, a project for a major new urban development built during the 1980's. Its purpose, as indicated in the Regional Plan of 1973, was to relieve the pressure on Copenhagen's inner-city by creating four new centres, where Høje Taastrup was given first priority. Høje Taastrup station opened in 1986 and became the foundation for a completely new township around the station. (Marcussen, pp. 8 - 12)
Høje-Taastrup was built as a classical town, where the street, the square and the urban block made up its components and an attempt to mix residential and commercial areas. Inspiration had been drawn from the old Danish market towns with regard to building

heights, traffic flow, width of streets and blocks. The result was a geometric principle of main axes with squares and plazas where these axes met. By ensuring a wide range of businesses in the town, it was hoped that the inhabitants would choose to work close their home and in this way the commuter tendency could be lessened. This was a reaction against the seemingly uncontrolled former expansion of the city into the landscape which had created areas that were neither city nor land, and it was hoped that the future success of Høje-Taastrup would offer alternative planning strategies for healthy urban environments. Høje Taastrup has thus become a beacon of the change in perception from modernistic expansion to the renaissance of the classical city. (Pannicelli, pp. 68 – 80; Kvorning, p. 41)

In regional planning, this perception was manifested in the 1989 Regional Plan. This new plan had in fact developed from the Regional Plan Supplements, regionplantillæg, in 1982 and 1985 that followed the 1973 Plan. Although meant as a way of detailing and supplementing the 1973 Plan, they in fact began to diverge a great deal from its original ideas. This called for a new plan altogether, resulting in the Regional Plan of 1989, which stayed true to the overall ideas of the Finger Plan. The plan put focus on the principle of station proximity and the importance of increasing density and business programmes near the train stations. The chairman of Capital Council at the time stated that the motto of this new Regional Plan was ‘an improved city’ instead of ‘more city’ reflecting a renewed attitude towards growth, the decreasing population growth and the consequential falling pressure on the city. (Gaardmand, 211 – 214)

Shortly after the official enactment of the plan, the Capital Council was dismissed, and regional planning was thus to be commenced by the local counties and municipalities.

SUSTAINABILITY AND EXPERIENCE 1992-TODAY

Tables were turning again in the mid 90’s, and the market for detached houses in suburban areas once again picked up, prices were rising and new houses were built. This has been a continuing drive, and ownership of house with a garden is today attractive for many families. In fact, tendencies over the last couple of years are characterised by complaints of too few houses for sale, that prices are too high and a lack of building sites in the metropolitan region of Copenhagen. (Vestergaard)

In relation to this tendency of renewed suburban interest, new planning ideals have also been formulated, now taking their point of departure in suburban dynamics instead of turning their back on them.

The deconstructive projects of the late 1980’s is an example of this, not rejecting or attempting to alter suburbia’s structure, but to work with the premises of suburban chaos and fragmentation. These projects were often never realized as they were subject to wild and artistic experiments their way. This deconstructive period has been followed by a more pragmatic planning approach, which takes it point of departure in contemporary urban settings, such as the now dominating suburban structure. (The new suburb – ideas competition, 2001)

A number of new layers have now been added to the planning tendencies governing in Danish society, these namely concentrating on environmental considerations, experience design and a renewed focus on consumption, this time in the form of lifestyles and identity. These are the new dynamics of planning and of the real estate market, the forces and rationales which, like history has shown, will have a physical manifestation on the city which here cannot be predicted. How we chose to work with or against these forces is where the potential lies. Consequently, new approaches to planning of the contemporary city are emerging, signalizing attempts to integrate these new layers, by working with a more diagrammatic and open-ended dynamic approaches, thus entailing potentials for rethinking and reshaping the traditional Danish suburban structure.

The Regional Plan of 1989. (Gaardmand)

PLANNING FRAMEWORK

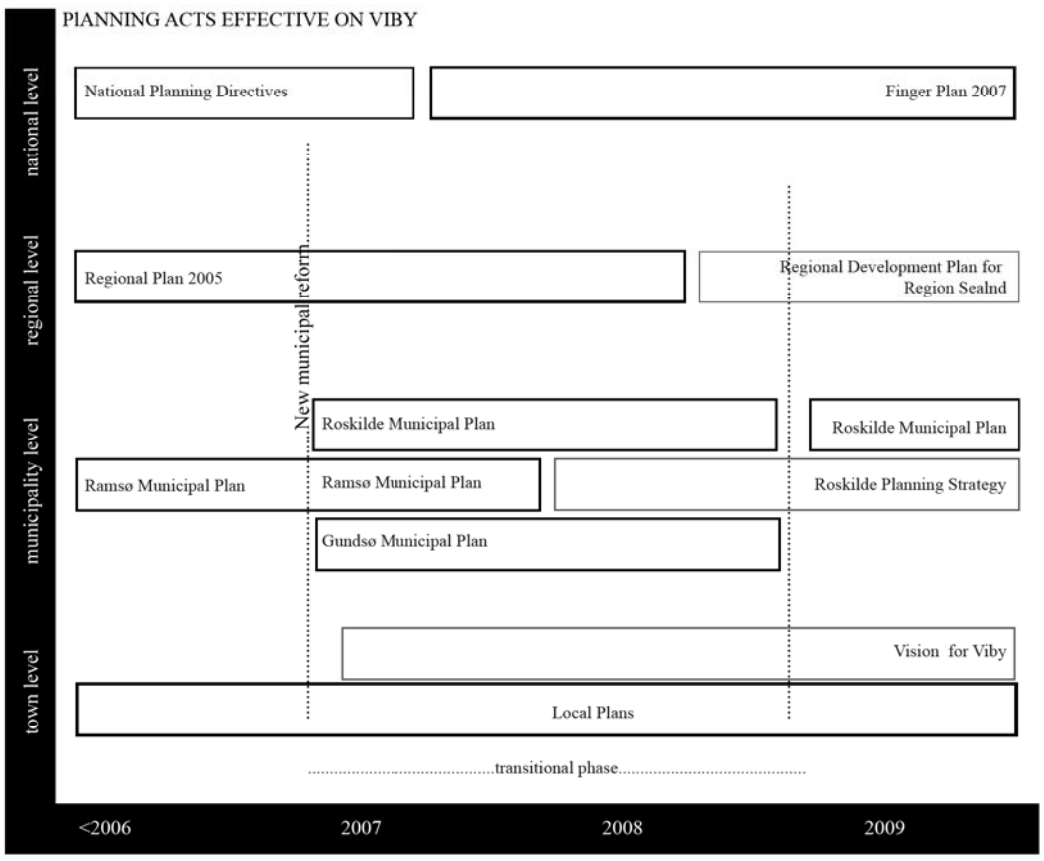
It seems as though 2007 may mark a minor revolution sweeping over the Danish lands. Denmark's new Municipal Reform, effective from January 2007, entails the merging of a great number of the previous municipalities, as well as replacing the former 13 counties with five administrative regions. This totally reorganizes the political, administrative and not to mention the physical planning processes of the country towards a more dialogue-based organization with greater responsibility given to the new municipalities.

The legal framework was formerly constituted of four levels of planning from nationwide policies to the individual site, these regulated through National Planning Directives, Regional Plans, Municipal Plans and Local Plans. As the counties now have been replaced with fewer regions, the Regional Plans as an important link are now removed in Danish planning. The regulations from the Regional Plans have now been distributed on the government and the new municipalities, while the new regions with, having no legal accountability, only are in charge of more visionary Regional Development Plans – visions for a future that the municipalities should implement through Municipal Plans. Hereby the municipalities will be the central point in the physical planning process where Municipal Plans will draw the overall picture of Denmark's future in regard to the overall visions of the government. (Miljøministeriet 2006, p. 26-30)

It is hoped that by situating more decision-making locally within the municipalities, more rightful and coherent plans will be generated. The municipality undertakes the authority of a number of sector laws, e.g. authority of planning the open land, which for instance gives the municipalities the possibility to develop a coherent and more balanced strategy for urban areas versus open land. (Miljøministeriet 2006, p. 27)

However, the governmental planning will, with the Municipal Reform, establish the overall vision of the municipal planning, these being larger national structures such as infrastructure, nature preservations etc. and by way of these National Planning Directives they can handle cross-municipal and national wishes for specific planning principles. The reform will therefore strengthen the government's potential to monitor local development and local needs, and simultaneously with the new regional Environmental Centres, ensure that the municipalities take responsibility for overall national, environmental and societal interest in Municipal Plans. (Ministry of the Environment, p. 14) This means that the planning will be more decentralised but also more centralised, according to the wider use of National Planning Directives to control a sustainable future for Denmark. (Miljøministeriet 2006, p. 31)

The implementation of the new Municipal Reform will be imposed through new Municipal Plans replacing former Regional Plans. This legal shift is under a 2-year process where



Planning documents of the munisipal reform of 2007

planning documents from 2007 to 2009 systematically will replace other.
In general, all former Regional Plans are transformed into temporary National Planning Directives until the new Municipal Plans are enacted in 2009. As forerunners for the Municipal Plans, Municipal Planning Strategies effective from autumn 2007 are imposed as visionary plans with the purpose of kick-starting a public debate, which the Municipal Plans will be based on.
As for the capital area of Greater Copenhagen, Finger Plan 2007 is imposed as another National Planning Directive. This substitutes specific sections of the Regional Plan 2005, made by HUR (The Greater Copenhagen Authority, now abolished), while other parts of the Regional Plan, this being jurisdiction for the open land, are valid until the replacement with the new Municipality Plans in 2009. (Miljøministeriet 2007, p. 11-12)
In relation to this it is important to account for the situation of The Municipality of Roskilde. Roskilde was formerly a part of The Capital Region of Denmark but after the Municipal Reform things were shifting and today The Municipality of Roskilde is assigned to Region Sealand. However Roskilde is still incorporated in Finger Plan 2007 as a part of the capital area.
The Municipality of Roskilde constitutes the former Municipality of Roskilde, the Municipality of Ramsø and the Municipality of Gundsø. Viby, situated in the former Ramsø Municipality, is thus assigned to following planning documents: Regional Plan 2005, Finger Plan 2007, Roskilde's Municipal Planning Strategy and Ramsø's Municipality Plan – and later Region Sealand's Regional Development Plan (2008), and Roskilde's Municipality Plan (2009).

Roskilde has appointed Viby the role as an alleviation town to Roskilde, which means that further city expansion in The Municipality of Roskilde shall be happening in Viby instead of Roskilde. Simultaneously the Danish Ministry of the Environment, in relation to Finger Plan 2007, is investigating the possibilities of an extension of the Roskilde finger to Ringsted and/or Holbæk. The station-town of Viby is located in connection to the railway section running from Copenhagen to Ringsted and will therefore in the future be part of the finger city structure, if the extension of the Roskilde finger is decided. (Miljøministeriet 2007, p. 28)

In the following pages three planning documents relevant for Viby's future have been unfolded and analysed to get an understanding of Viby's role in a larger regional scale, and the rationales that these strategies, influential on Viby, are based on. These are Finger Plan 2007, Roskilde's Municipal Planning Strategy and lastly a Vision for Viby, which has developed in correspondence between The Municipality of Roskilde and the Danish Ministry of the Environment.

FINGER PLAN 2007

The capital area of Greater Copenhagen holds unique possibilities but also unique challenges. It intersects a great number of small municipalities and creates the challenge of securing cooperation across the region – amongst the municipalities. Aiming at securing a strong capital, where the metropolitan area of Copenhagen is developed as a European metropolis and daily living and working place of the highest quality, Finger Plan 2007 was enacted on the 1st of July 2007. This marks a historical moment of the initial ideas rooted in the original Finger Plan of 1947, which has never been implemented as a legal directive until now, but nevertheless has created the foundation for the regional planning during the last 60 years. Finger Plan 2007 establishes the overall frame for the expansion of the capital, coordination of the urban development, infrastructures and green wedges within the capital area. Thus Finger Plan 2007 in fact withdraws some of the regulative responsibilities from the municipalities by imposing regional regulation of the open land, the infrastructure and town development.

The interplay between Finger Plan 2007 and the 34 municipalities´ planning will hence be crucial in the further development of the physical and functional qualities in the metropolitan area and in the development of the whole metropolitan area as a good place to live and work. This marks the importance of Finger Plan 2007 as a regional development structure. Here Finger Plan 2007 together with the Municipal Reform

presents an exciting time for planning issues in the greater Copenhagen region of Denmark, but also presents new challenges and difficulties for the new municipalities. Having new and untried responsibilities placed upon their shoulders, the question is how these municipalities can and should deal with planning in regard to their own needs, their neighbours and especially to the regional planning instrument of Finger Plan 2007.

Finger Plan 2007 is based upon the finger city structure proposed in 1947, as this city structure model has proven to be highly robust, adaptable towards changes in growth and towards changes within business, technology, prosperity and different living styles, which have been unfolding since the middle of the preceding century. It has furthermore created coherence between the overall functions of the city and traffic-related infrastructure, and furthermore created a cohesive green recreational landscape which expands all the way into the dense urban mass of the city. (Miljøministeriet 2007, p. 12)

In order to physically boost the metropolitan area to become a strong competitor in the global knowledge based economy, Finger Plan 2007 shall secure a sustainable development of the metropolitan area of Copenhagen. It aims at a holistic and environmentally sustainable planning, where the development benefits the entire country and a development which will secure a difference between urban and rural. One of the main tasks of the finger city structure is therefore to coordinate the city development with the traffic system, in order to obtain a city with quality and an effective environmentally sustainable transport pattern. Another main task of the metropolitan area is to coordinate the development of the recreational landscape of the city and the green structure. It implies green wedges and leisure landscapes between and across the finger city, which is imposed concurrently with the development of the city. (Miljøministeriet 2007, pp. 8)

To secure a fluent traffic related infrastructure, a station proximity principle is imposed. It aims at a densification of the cities around the stations to relieve the pressure on the main roads to Copenhagen and encourage the use of public transportation. The principle physically implies that larger workplaces, regional institutions and other large travelling destinations shall be located within a walking distance defined as 600 m from well functioning railway stations. Dense dwelling areas, smaller offices, local institutions, shops and low density dwellings shall, according to the principle, be localised in a radius of about 1000 to 1200 m from the stations. The planning of the cities shall therefore secure that there, in all parts of the finger city, are adequate, well placed development zones within proximity of stations, especially near strategic transportation hubs. These station proximity areas shall furthermore be developed with the aim of creating attractive localisation opportunities by creating attractive and exciting city environments with numerous city activities surrounding the stations. The principle thus reorganises the urban density around the transportation hubs of the city, in order to secure a fluent and

The Municipality of Roskilde is assigned to both the Regional Development Plan of Region Sealand as well as the National Planning Directive of Finger Plan 2007.

sufficient public transportation system, which shall relieve the pressure of the highways and create the basis for an environmentally sustainable future. (Miljøministeriet 2007, pp. 18)

The further expansion or sprawl of the metropolitan area of Copenhagen is regulated in Finger Plan 2007, by a classification system of the area into four categories; the palm, the city fingers, the green wedges and the remaining metropolitan area. In the palm, which is defined by the dense urban mass surrounding the historical city centre, no further expansion of the city is allowed, however the area entails great urban regeneration opportunities. The city fingers are the existing towns and a number of rural areas which the municipality can designate to new city zones. The green wedges may not be designated to city zones or utilised for leisure activities with an urban character. The remaining metropolitan area is the area outside the city ring and the area between the city fingers, which is not part of the green wedges. Here the municipal planning shall

secure that the city development will be of a local character and will happen in relation to municipal centres. These categories secure a controlled sprawl of the metropolitan area which follows the physical structure of the public transportation net, the urban areas and the rural areas proposed in Finger Plan 1947. (Miljøministeriet 2007, pp. 15)
Besides the categorisation and expansion restrictions, Finger Plan 2007 launches a further expansion of the metropolitan area by initiating an urban development of the Roskilde, Frederikssund and Køge fingers, where new fast track trains shall enable new inhabitants to dwell in the outskirts of the metropolitan area. (Miljøministeriet 2007, pp. 42)

The rationale in the Finger Plan 2007 is seemingly based in a dualistic world perception, where the nature and the urban are considered as contradictions. It is envisioned as an attempt to withhold a sharp and visible urban edge towards nature.
This could be due to the overall available planning instrument of the Danish Planning Act with the categorisation of land into urban and rural zones, which has been the only way to protect nature from urban sprawl. With this strict planning during the last 60 years, the capital area today holds unique values as a large landscape of recreation wedges into the denser part of Copenhagen, offering recreational closeness to the capital's citizens. Green wedges into the inner city secures the biodiversity of the Copenhagen region, which responds to an environmentally sustainable attitude towards planning, even though Finger Plan 2007 does not seem to render visible these ecological and recreational values and potentials attached to the green wedges. The Finger Plan 2007 primarily seems to revolve around sustainability regarding infrastructure and urban development, - how to make a logical and logistically rational planning development that considers an efficient traffic solution within the capital. How to perceive and make use of the qualities within the preserved open land is now up to the municipalities, and what they could take into consideration is the human scale within this finger city.

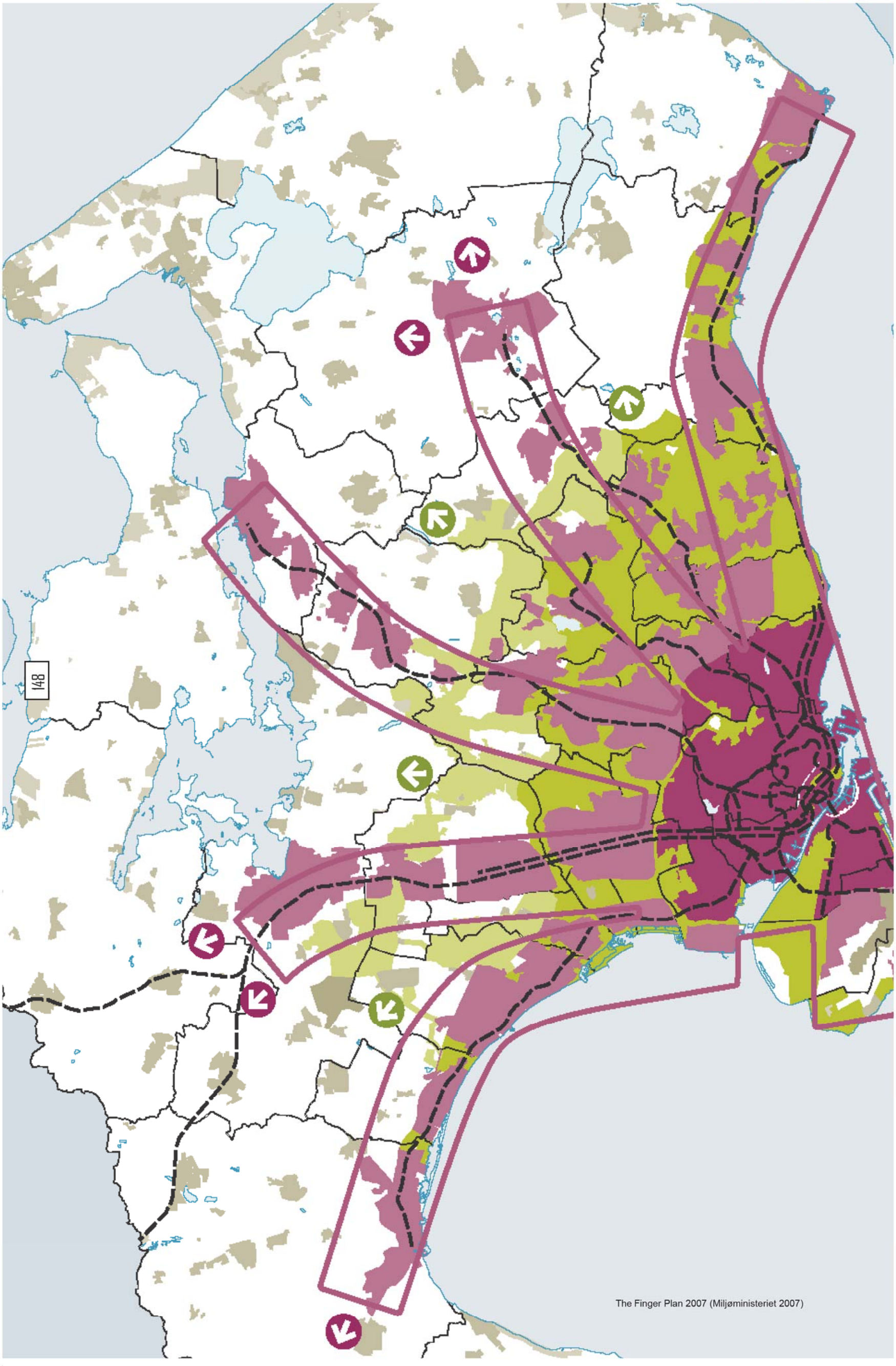
ROSKILDE´S MUNICIPAL PLANNING STRATEGY

As a consequence of the Municipal Reform and the tasks this involves, The Municipality of Roskilde has launched their Municipal Planning Strategy which pursues the municipality's responsibility of creating a wholesome planning strategy of both city and open land by incorporating an extensive analysis of nature potentials and protected nature based on data from Regional Plan 2005.

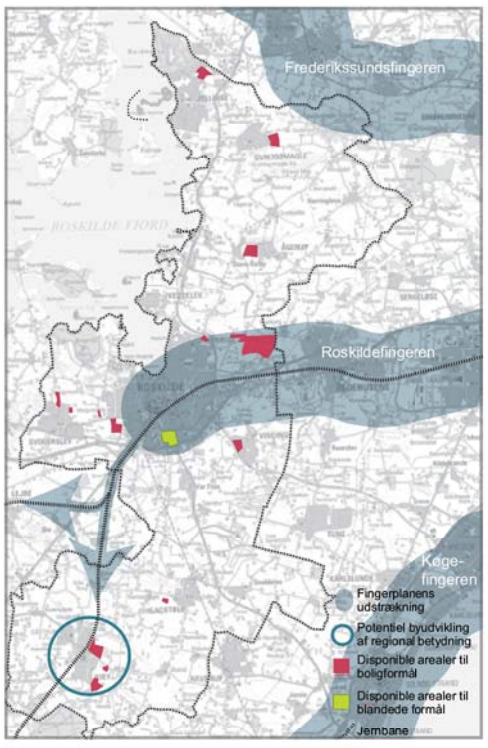
The rationale of the planning strategy envelopes the contemporary trends and values in society by casting a light on sustainability and the value of nature, and responds to the increasing attention to public health by signalizing the municipality as a place of numerous activities. Finally, it underscores the necessity of the development of knowledge based economy companies and experience economy, which economically shall sustain The Municipality of Roskilde in the future.

The Municipal Planning Strategy is separated into two parts, a vision perspective of Roskilde in 2030 and a more concrete part dealing with subjects such as the future role of the cities, urban regeneration, traffic, culture, open land and nature.

The vision is an idyllic narrative of the municipality viewed from the perspective of the black tern; a preserved bird attended by the Municipality of Roskilde, according the Danish Minister for the Environment, Connie Hedegaard. The story takes its starting point in Viby, signalizing the important role of Viby in the future aspect of the Municipality of Roskilde. It continues by describing the added value landscape of higher biodiversity and protected nature reservations, which shape the frame of a good place for both human and nature. It furthermore envisions a sustainable municipality with the major town Roskilde as the world's leading energy city, both regarding sustainable traffic solutions and creation of alternative energy and a place of countless activity opportunities for the wide span of inhabitants. The storyteller takes us to Roskilde University Centre and tells the story of the future centre of knowledge based economy, which is supported by the music branding strategy of Roskilde, which has the aim of attracting the creative class. The global and local connections are by the black tern signalized through the emphasising of the airport, public transport network and the numerous of recreational pathways. (Roskilde Kommune 2007a, p. 4)



The Finger Plan 2007 (Miljøministeriet 2007)



The future Finger expansion as shown in the Roskilde Planning Strategy(Roskilde Kommune 2007a)

The second part of the planning documents is the attempt to unfold the vision in concrete initiatives. The hierarchy between the towns in the Municipality of Roskilde is marked by the classification of the cities in four categories, the primary town, district town, local town and village. Roskilde city is defined as the primary city according to size, location, infrastructural connections and extensive offer of service functions. To avoid a further extension of Roskilde, it is intended that Viby and Jyllinge, defined by being district towns, shall supplement Roskilde as residential centres for future dwellers in the Municipality of Roskilde. The towns are strategically selected due to their geographically placement in connection to Roskilde and their existing service functions, infrastructures and town qualities. (Roskilde Kommune 2007a, p. 9)

The vision of a strong knowledge based company and more traditional business in the Municipality of Roskilde is achieved by creating good settings for entrepreneurs securing an ample and varied cultural life. It is implemented in the initiative of developing a central former industrial area, the Unicon site, as a settlement for creative knowledge to unfold in relation to an overall music theme. Additionally, it is intended to graft the experience economy by urging an interaction with cultural life, education, shopping, business sectors and tourists. (Roskilde Kommune 2007a, p. 17) The Municipality of Roskilde signalises a courtesy towards collaboration on a larger regional scale by 'grasping' the concept of the preserved black tern received by the Danish Ministry of the Environment and making use of it as the point of departure in the visionary essay. Hereby they furthermore prove a sustainable attitude towards the environment by proposing an extension of public transportation and improvement of cycle paths. Spare-time activities are furthermore to be extended in the communities, securing that all the inhabitants have close access to both indoor and outdoor activities. (Roskilde Kommune 2007a, p. 24)

Open land, nature and protection of cultural landscapes and villages are heavy parts in the planning strategy, which envisions that the new responsibility of the administration of open land is taken as a serious matter. Green areas surrounding the major city and the district cities are preserved and numerous of pathways, e.g. local pathways, regional pathways and interconnected nature pathways are established aiming at securing a present and easy accessible nature. Additionally, the planning strategy initiates the creation of cohesive nature areas to ameliorate the flora and fauna in the area and a co-operation with farms with animal husbandry is intended to let the animals naturally sustain these nature areas. Finally, it emphasises the necessity of preserving specific cultural environments. (Roskilde Kommune 2007a, p. 26)

On a more local scale the Municipality of Roskilde proposes a way to continue the regional vision for a sharp distinction between urban and nature. The municipality suggests a green ring around Roskilde as well as Jyllinge and Viby to secure a visual distinction as well as proximity to the nature for all citizens. This ring, however, reduces the possibilities for the expansion of Roskilde, which cast light on Viby as the town for future development. Negative or not, one can question if the Municipality of Roskilde impedes their own future visions by reducing possibilities for future expansion.

VISION FOR VIBY

The Danish Ministry of the Environment, in relation to Finger Plan 2007, is investigating the possibilities of an extension of the Roskilde finger, where spotlight is shed on Viby as a town with possibilities for further development. To initiate the development of Viby, the Municipality of Roskilde has engaged Svend Allan Jensen's architectural studio to create the vision of a future expansion of Viby.

The vision consists of three parts, analysis of existing potentials, scenarios and consequences of future extension, and physical drawings. The rationale of the Vision for Viby is to a great extent related to the station proximity principle regulated in the Finger Plan 2007. This clearly marksthat the vision is made out on the basic of the dialogue project with the Danish Ministry of the Environment.

The analysis reveals Viby as a station-town fused with an old village, Dåstrup, which together contain about 4360 inhabitants, where the main part dwell in Viby. The town is described as a bit sleepy, due to the lack of urban life in the station and shopping area. However, the area around the station and the old main street Søndergade is according to its architectural appearance and historical value considered worth preserving. The nature and surrounding landscape is in the vision rated as the major potential of Viby. (Roskilde Kommune 2007b, p. 3)

Four development scenarios are outlined to envision different ways of dealing with the town expansion. They all take their starting point in the station proximity principle, which is introduced as the main principle for city expansion and urban regeneration in relation to the finger city in Finger Plan 2007. This is implemented in Viby by placing high density residential structures and functions, which generate a lot of traffic, in a radius of 600 m from the train station. The further town extension is located in a radius of 1500m from the station, signalizing that the station proximity principle has determined the development areas of Viby. The four scenarios are respectively: maximum town/dense town with 9360 newcomers, medium densification with 6890 newcomers, densification by the station with 5620 newcomers and minimum town/station-town with 3410. The scenarios signalize a clear attitude towards the development of the city from an inside out perspective, where the first development step will be a densification of the central areas located on the west side of the station. The principle is however also rooted in the aim of occupying as little rural land as possible. (Roskilde Kommune 2007b, p. 7)

The future brand and identity of Viby shall therefore also be formed by the idea of the station-town, where the station is rendered visible as the spine of the town. The consequences of the development will be an increased demand for public institutions such as kindergartens and a school, which will be established in continuation with the extension of the town. Another demand caused by the town expansion will be an improvement of the infrastructural system in Viby, which currently is perceived as problematic. (Roskilde Kommune 2007b, p. 6)

It is the intention that the future development of the town shall happen in interplay with the recreational and green qualities of the town. A green town profile is secured by creating good access to the green areas surrounding the town, and establishing green corridors into the town. Additionally, the existing nature qualities shall be further improved by nature restoration and grafted with public activities for the inhabitants of Viby to enjoy the nature. According to investigations revealing that commuters cannot be defined as one type of people, a variety in residential offers shall be integrated in the future town structure and focus should be on creating an attractive inner town, with different shopping facilities and a varied span of sports activities should be applied in order to attract future residents. (Roskilde Kommune 200b, p. 9)

The future vision for Viby as an expanded commuter-town (Roskilde kommune 2007b).

CORRESPONDANCE BETWEEN THE PLANNING DOCUMENTS

The three documents are assigned to each other in a framework system, which opens up possibilities and closes others. Finger Plan 2007 sets the overall frame and regulations for the Municipality of Roskilde and thereby also for the station-town Viby, which to a great extent is visualised in the planning documents. However, it also reveals that the municipality has grasped the frame and elaborated on it, which in particular becomes obvious in the handling of urban vs. rural and the station proximity principle.

The station proximity principle presents a somehow rigorous and systematic approach to the planning of the metropolitan area, which has been criticised by several municipalities for being a barrier for the development of the business communities. In 2004 this resulted in a softening of the principle, where so-called amoeba demarcations were imposed, which gave them more room to manoeuvre according to the demarcation of the station proximity areas. However, the new amoeba principle is again overridden in Finger Plan 2007, because it this principle has proved not to promote the use of public transportation. New urban development in the metropolitan area shall therefore follow the station proximity principle, which the Municipality of Roskilde has attempted in their vision of an urban development in the station-town Viby with minor adjustments. The vision softens the station proximity principle by underlining that in some corresponding cities in Denmark a distance greater than 1000 m to the station is acceptable for the users of public transportation, thus suggesting building sites with a distance of 1500 m to the station.

The Municipality's proposal for a green ring around the town of Roskilde can be seen as a wide interpretation of the principle in Finger Plan 2007, which suggests a dense cohesive finger city structure with green wedges. Roskilde breaks this principle with the intention of preserving the green area between Roskilde and Hedehusene. In general Roskilde municipality proposes a more fractal and human scale system of nature vs. urban, where green corridors in Viby are secured on a much smaller scale, thereby taking the intentions in Finger Plan 2007 one step further.

The planning documents presented here are in a way a continuation of the historical development of Copenhagen, where the Municipal Reform and Finger Plan 2007 mark the most recent parts of the story and become a milestone in Danish planning history. With periods of major growth in the 60's and economic stagnation in the 80's, the planning documents have continuously been reflections of societal tendencies in Denmark. Finger Plan 2007 together with the new Municipal Reform can be perceived as building upon notions beginning in the 80's such as sustainability and a reduction of the urban dispersal into the countryside, but incorporate a new theme surrounding the notion of globalization. The national priority for the Greater Copenhagen has thus been stated as "ensuring that spatial planning strengthens the international competiveness." International competition is the main focus of the new millennium, and it is thought that by creating larger municipalities with greater responsibility, regional economic growth will be promoted and prepare Denmark to thrive in the heightened global competition. (Ministry of the Environment, p. 8)

In this view the development of the Finger Plan from its birth in 1947 to its 60th birthday has followed societal tendencies. The plan itself, however, still applies the idea of finger-shaped plan as a structuring principle for Copenhagen. Has this concept has not truly evolved throughout this time? Even though the Finger Plan has been adjusted several times since 1947, it still revolves around the two primary aspects, the interplay between public infrastructure and urban areas and the securing of the green wedges.
Here it should be mentioned that the Finger Plan has in fact been appointed as part of the Danish cultural heritage due to its, at the time, quite notorious and admired principles. The Finger Plan as a historical masterpiece is thus one of the reasons for its value to the country.
However, the premises of the original Finger Plan of 1947 have, due to the extensive expansion of the metropolitan area, demography and working structure, been changed radically during the last 60 years. The Finger Plan we know today is not based upon the same values as in 1947, although the initial structure of the plan remains the same. From being based on a garden city idea with minor communities along a railway line surrounded by nature, Copenhagen's sprawl has caught up with this idea, and the main goal of the station is now, as seen in the station proximity principle, now mainly focused on infrastructure and minimizing congestion in the city. The sprawl of the station-towns along the fingers has thus resulted in an absent nature for the primary part of inhabitants living in the inner urban masses of the city fingers.

The importance of the stations in Copenhagen's railway structure is especially interesting for Viby, which is highly dependant on its station to survive. Simultaneously, this station is also intensifies Viby as a purely residential town – as a sleepy town – which Roskilde intends to exploit by using Viby as an alleviation for their own lack of housing space. An exploitation as a perhaps direct result of the Municipal Reform, from Viby until a year ago being part of a rural municipality, the Municipality of Ramsø, to assuming its role as a satellite town by being situated in a greater urban structure in the Municipality of Roskilde.

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