

thesis plan (P2)

A GREEN-BLUE SYSTEM
FOR A BETTER RELATION
BETWEEN CITY, REGION
AND ITS INHABITANTS

case gouda

COLOPHON

THESIS PLAN (P2 REPORT)

A green-blue system for a better relation
between city, region and its inhabitants

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CHAPTER 1

INTRODUCTION

1.1 PERSONAL MOTIVATION

For almost my whole life I lived in Gouda and to me it always felt like a quite far-removed urban area from larger cities of Utrecht, Rotterdam and The Hague. While Utrecht still seems relatively distant to me, I find it interesting that the influences of The Hague and Rotterdam are more and more visible in Gouda. When looking at current plans I see that the city will soon be added to the metropolitan urban field of the Randstad. I find it very fascinating what kind of role Gouda can play during and after this transition, because apart from some smaller urban developments, time stood still in the city regarding larger scale expansions or urban transformations. To me it seems like there is a big opportunity for the city. A more general topic that fascinates me is the revitalization or transformation of the built environment. Perfecting the current city to make it more sustainable and more attractive for the current inhabitants instead of only expanding more and more. It motivates me is that it is very likely that during my graduation project I have to deal with already existing structures in the current city.

1.2 WHAT IS THIS PROJECT ABOUT?

This graduation project will focus at the city of Gouda which is located in the middle of the Dutch metropolitan region of the Randstad. The Randstad is a poly-centric urban system consisting of many middle-sized cities, holding many typical Dutch landscapes and has a quite well organized infrastructural system. Since the last two decades a new kind of urbanity is rising within the Randstad. Slowly this metropolitan region is turning into a patchwork of small developments, resulting to a divided landscape and fragmented urbanity. A leading spatial structure is missing, which, in combination with the current decentral planning methods, resulted in in an complex urban sprawl. This has consequences for its liveability, but also economically the region is under pressure and not keeping up with other metropolitan regions in the world.

This problematique around the spatially interconnected metropolis has also a large chance to effect the city of Gouda.

Soon, this city will adjoin this urban carpet of the Randstad. This will give new kind threats to city, but also maybe some new opportunities.

The landscape becomes more and more difficult to reach, while the homogenous urban sprawl is getting larger. But what could help resolve this problem? The studies of Dramstad, Olson & Forman (1996), Tummers & Tummers-Zuurmond (2000), Pötz & Bleuzé (2012) and Laeremans & Braaksmas (2014) state that the missing element within a metropolitan region like the Randstad is an overall urban morphological structure: an interconnecting park-system or green-blue network, composed of

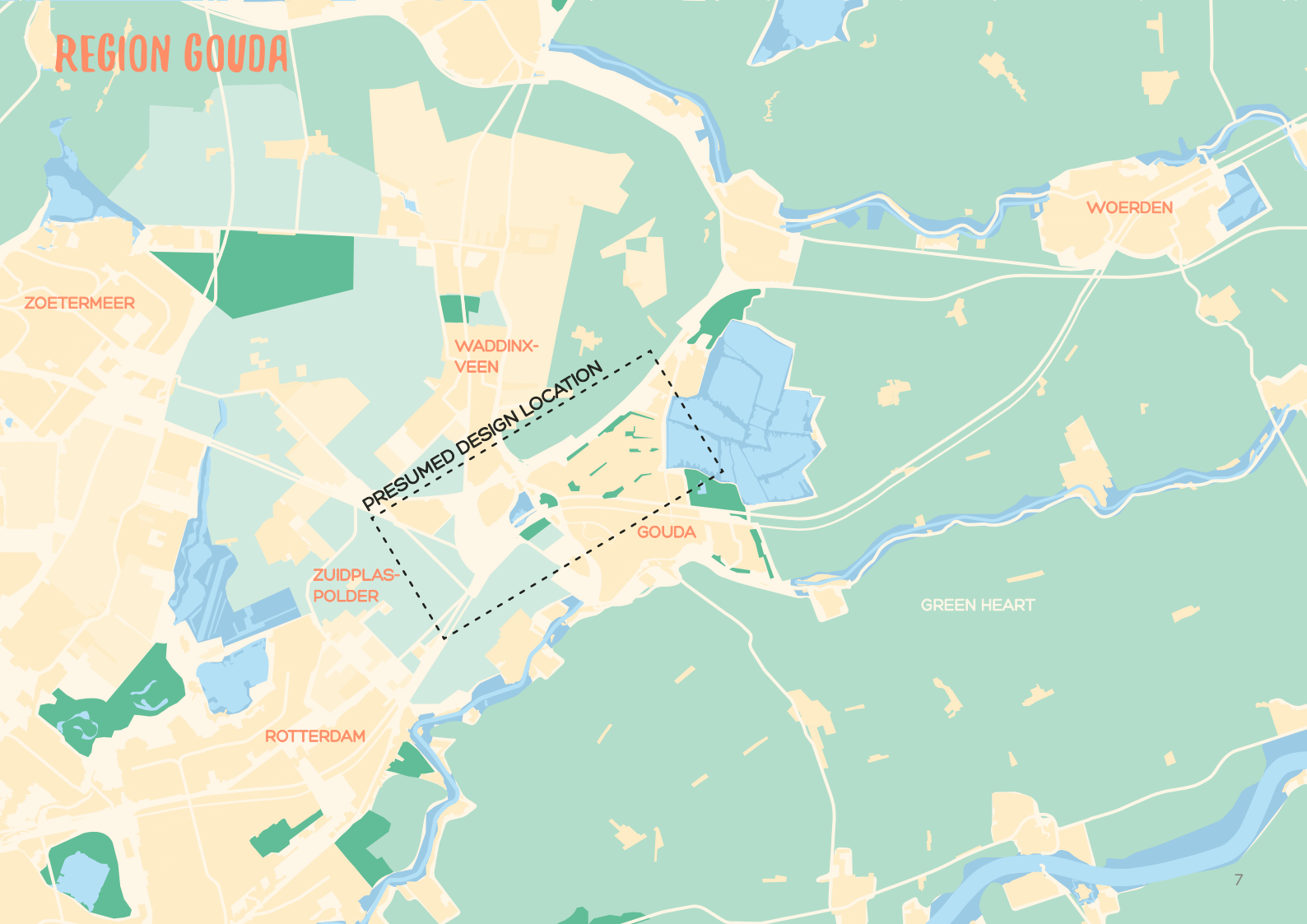
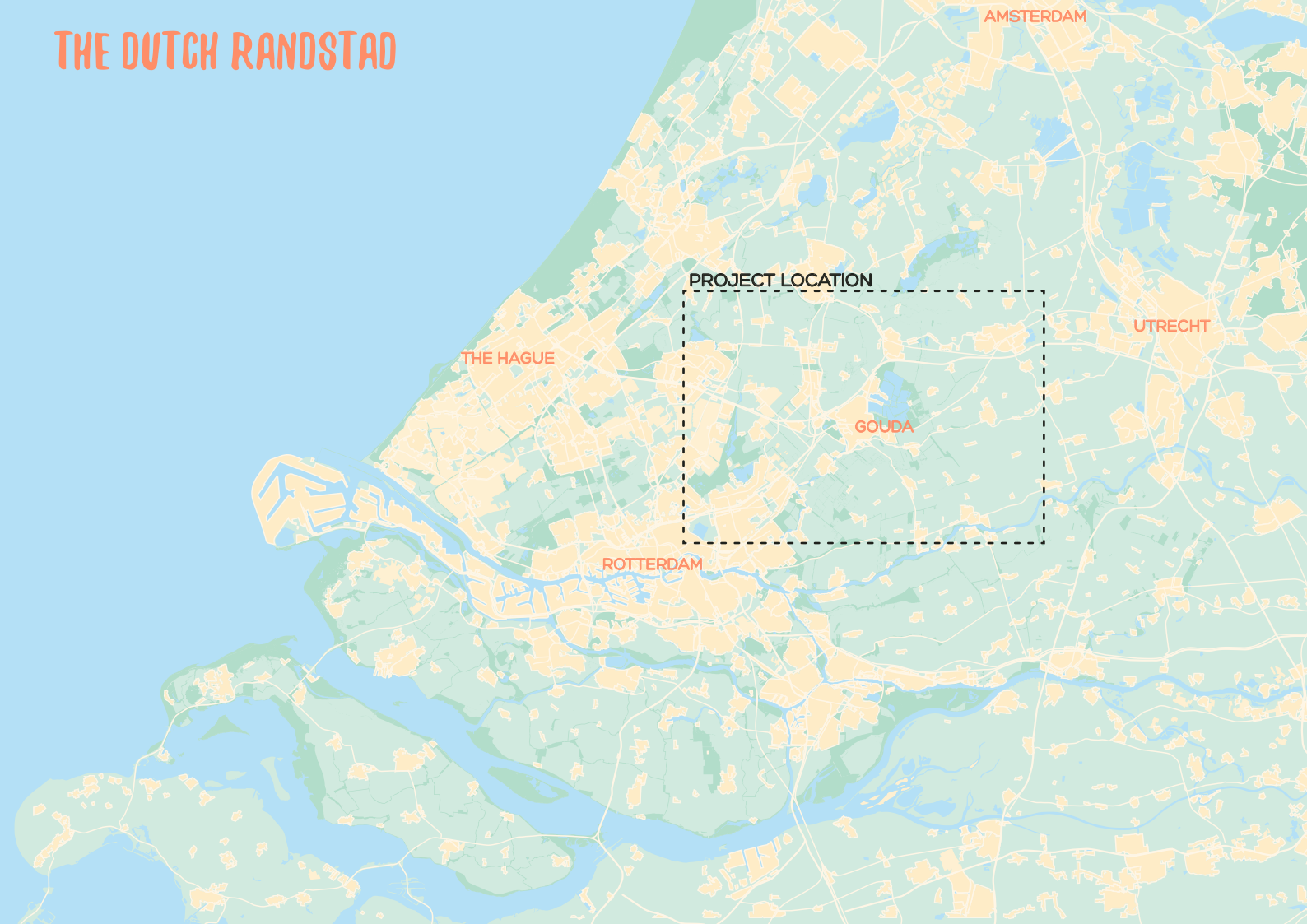
unbuilt lands, parks, rivers and landscapes. Recent regional visions like 'Randstad 2040' (2008) by VROM, 'Verstedelijingsstrategie' (2008) by the Zuidvleugel and 'Visie Ruimte en Mobiliteit' (2014) by the Province of Zuid-Holland also try to adapt these ideas. My personal vision is that this spatial structuring principle will be resolution for the problematique in the Randstad and the city of Gouda. But why exactly do cities need to be better integrated into a green-blue system? How does this spatial system needs to be configured in Gouda? Which elements of the Randstad could be used for this system? It are several questions that will be studied further within this graduation project.

The next chapter of this thesis plan will describe the context and problem field of this project. There will be explained some general information about the urban development of the Randstad (2.1) and the city of Gouda (2.2), together with the expected direction in the future. After this the main issues regarding the fragmented developments occurring in the Randstad are introduced (2.3), whereafter will be revealed what consequences this has for the city of Gouda (2.4). The chapter will end with an idea of what is possible missing in both scales (2.5).

This leads to chapter three, where the problem statement, aim and research questions will be defined.

In chapter four the methodology for answering these questions will be explained with help of several schemes. The thesis plan will be ended with the position paper.

THE DUTCH RANDSTAD



1.3 THEORETICAL FRAMEWORK

This graduation project is based on the **critique** of how the current **urban developments** (urban sprawl) takes place in the **Randstad**, coming from people like Buursink, Geuze, Heynen and Neutelings.

The research in this project around modern day **lifestyles**, their behaviour and the theme of **liveability** in general are based on the literature of d'Acci, Fishman, Friedman & Miller, Ouwehand and Reijndorp & Pilet.

The spatial principle of the **green-blue system**, an urban tool that likely will be the resolution for the problem statement is based on theories of Dramstad & Olson, Pötz & Bleuzé and Tummers & Tummers-Zuurmond.

Almost all of these theories come from experts out of the fields of (landscape) urbanism, social geography and spatial planning. Most ideas found for this graduation project are also strongly related to the visions of several regional governments such as the Ministry of Housing, Spatial Planning and Environment, Province of Zuid-Holland, Bestuurlijk Platform Zuidvleugel and the municipalities of Gouda and Zuidplas.

1.4 RELEVANCE

SCIENTIFIC RELEVANCE

There is much academic discussion going on in how to search for a balance between urbanity and open space, as regions like the Randstad are becoming a patchwork of unrelated urban areas. The edges of cities adjoin each other more and more and the open space in-between them becomes non-existent or unclear. It leads to a divided landscape and a fragmented urban region. But at the same time this open landscape is also getting more needed in a large chaotic metropolitan region


This topic will soon play a huge role for the city of Gouda, as the planning movement of developing in fragmented urban areas is still going on and is now reaching this city. It could be a perfect case study to research this issue further. It is a typical '60s-'70s planned area, with many outdated urban structures and barrier-like elements, which are many of in other areas in the Randstad. Should a city like this be more integrated in an overall spatial system of the region? And how could this be done properly?

The outcome of this project can add up to the discussion in how to deal with these kind of urban areas and what the benefits could be for the metropolitan region as a whole.

SOCIAL RELEVANCE

For the inhabitants of Gouda the massive developments in the west can lead to many opportunities, but when not handled correctly, also to threats. Gouda was for a long time a city in the middle of the Green Heart, but now, the open landscape is getting much more scarce. It is getting more important for the people to have accessible connections from the urban area to the open landscape. but Gouda is situated with her backsides towards the outside world.

It is getting more relevant that cities need to profile themselves in the aspects they are unique in together with a strong interconnection with the metropolitan region they are located in. Gouda is not the only city that is very introverted, many neighbourhoods/cities in the Randstad from the same time period look exactly the same and nowadays everything needs to be 'open' and 'interconnected'. People who can afford it will move to the newer neighbourhoods outside the city, which are fitting more to their needs. This could lead to segregation to (certain parts of) Gouda or other cities.



CHAPTER 2
PROBLEM FIELD
& CONTEXT

2.1 THE METROPOLITAN REGION OF THE RANDSTAD

WHAT IS THE RANDSTAD?

The metropolitan region of the Randstad, also known as the Deltametropool, is a ring-shaped compilation of medium-sized cities situated in the middle-west of the Netherlands. It is often described as a typical polycentric urban system, an urban region which grew from more than one urban node. In contrast there is the monocentric urban system, which expands out of only one strong city or node, like the conurbations of London and Paris (Musterd & Van Zelm, 2000). The largest urban nodes within the Randstad are the four main cities of Amsterdam, Rotterdam, The Hague (Dutch: Den Haag) and Utrecht. In the middle of the ring-shaped Randstad one can find the Green Heart (Dutch: Groene Hart), a relatively open area which holds typically Dutch landscapes like the polders and peat lakes. Within the Randstad there are also some sub-metropolitan regions: in the South the Zuidvleugel, where the cities of Rotterdam, The Hague, Dordrecht and Leiden are part of and in the North the Noordvleugel, which holds cities like Amsterdam, Almere and Haarlem. The region of Utrecht is also sometimes mentioned as part of the region of the Noordvleugel (VROM, 2008).

URBAN CONCEPT OF THE '60s: URBANIZATION IN SMALLER CITIES

The first large scale urban plans for the Randstad as a whole were made during the sixties of the last century. The government of the Netherlands was expecting a large growth of the population of the Randstad, so they composed in several policy documents, like in the 'Ontwikkelingsschema Westen des Lands 1980' (1958) and 'Tweede nota' (1966), in how and where urban extensions needed to take place till the year 2000. In these documents they proposed to focus the new urbanisation in smaller cities and satellite towns instead of extending the big cities of Amsterdam, Rotterdam, The Hague and Utrecht. The government wanted to avoid to become a complex metropolitan area like London or most of the larger American cities. The Randstad needed to become a place where people could work and live close to the green open landscape. Therefore new developments were primarily focused around smaller cities that were at least ten to twenty kilometres away from the bigger cities (Van der Cammen & De Klerk, 2003). Gouda was for example such a city. These 'satellite cities' needed to become at the one hand self-supporting: residents were supposed to work, shop and spend their free time in these cities. At the other hand these satellite cities were, combined with other satellite or bigger cities nearby, part of a larger conurbation (VROM, 1966).

URBAN CONCEPT OF THE '80s: ATTENTION TO THE LARGER CITIES AGAIN

The realization of plans from the '60s had somewhat different results than firstly intended. Firstly because many people had their home in the satellite city, but most of them still worked in the large cities they



fig. 2.1a: The urban areas of the Randstad.



fig. 2.1b: The Green Heart is situated the middle of the Randstad.



fig. 2.1c: The Randstad is a polycentric urban system and is grown from several urban nodes.



fig. 2.1.d: Handsketch of the metropolitan region of the Randstad. The sub-region of the Zuidvleugel, consisting of cities like Rotterdam, The Hague, Dordrecht and Leiden, has grown to a complex, almost contiguous, urbanity.

moved from. These movements resulted in many traffic jams all over the Randstad. Secondly, the shortage of green, suburban neighbourhoods in the larger cities resulted in a massive depopulation of young families. Amsterdam, Rotterdam, Den Haag and Utrecht became less and less popular. If nothing happened it could become the downfall for these larger cities, so the government decided to create a new urban policy for the Randstad.

The first thoughts were displayed in the 'Verstedelijgingsnota' (1976) but a few years later shown in the more detailed plan called 'Structuurschets stedelijke gebieden' (1983). Here, the government states that future urbanization should mostly take place in or close to the large cities of Rotterdam, The Hague, Amsterdam and Utrecht. This is also the reason why after eighties no new urban extensions have been planned for the city of Gouda: it didn't fit into the national policy, it was too far away from The Hague and Rotterdam. Unlike cities like Capelle a/d IJssel and Zoetermeer, which also kept growing after the eighties.

CURRENT URBAN CONCEPT

The urban policy from the '80s of expanding in and around the larger cities instead of the satellite cities had been in the last 35 years very similar, most VINEX-locations for example were also situated next to one of the four larger cities. Since the turn of the 21th century new ideas for the Randstad are rising however. The international competition between metropolitan regions around the world is increasing. This globalization led to that at international scale regions are competing each other about international headquarters, financial districts, tourism and highly talented knowledge workers. For this reason the current policy aims to enlarge the agglomeration-power of the Randstad and envisions the metropolitan region or sub-regions like the Zuidvleugel as coherent urban structures. For the sake that cities like Amsterdam and Rotterdam are, when individually compared to other international cities, not more than small towns (VROM, 2008; Bestuurlijk Platform Zuidvleugel, 2008; Province of Zuid-Holland, 2015).

The city of Gouda didn't get any important new tasks within these visions, but in its near environment there are appointed some important areas that need to be maintained or developed. The unique polder landscape of Krimpenerwaard and peat lakes of Reeuwijkse Plassen are for example seen as high quality landscapes within the Zuidvleugel that have to be maintained. The rapidly growing greenport of Oostland and ornamental horticultural area around Boskoop are also appointed as important economical areas which need to get much growing potentials. One also sees that the Zuidplaspolder, a polder area to the west of Gouda, is one of the last 'empty' areas within the Zuidvleugel that could be developed to new working and residential areas, including uncommon very low dense environments in the higher segment. This Zuidplaspolder is for the metropolitan region therefore seen an area with much importance. For a more detailed overview of the developments in the Zuidplaspolder see chapter 2.2.

fig. 2.1.d: Expansions in the Zuidvleugel of the Randstad built from 1970-1990: only extending the smaller cities.



fig. 2.1.g: Gouda's role from 1970-1990: suburban satellite city

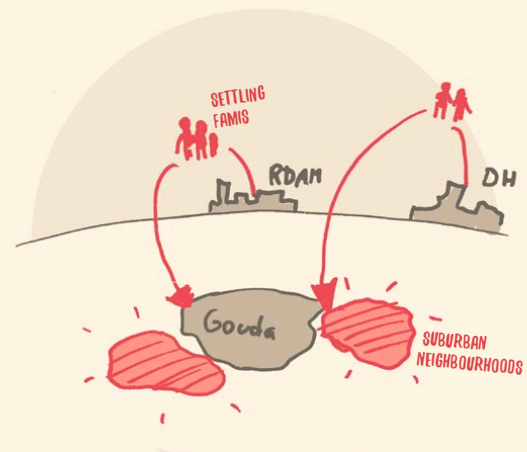


fig. 2.1.e: Expansions in the Zuidvleugel of the Randstad built from 1990-2010, focusing on the larger cities again.



fig. 2.1.f: Expansions in the Zuidvleugel of the Randstad planned currently: aiming for one interconnected agglomeration.



fig. 2.1.h: Gouda's role from 1990 onwards: no larger regional task.

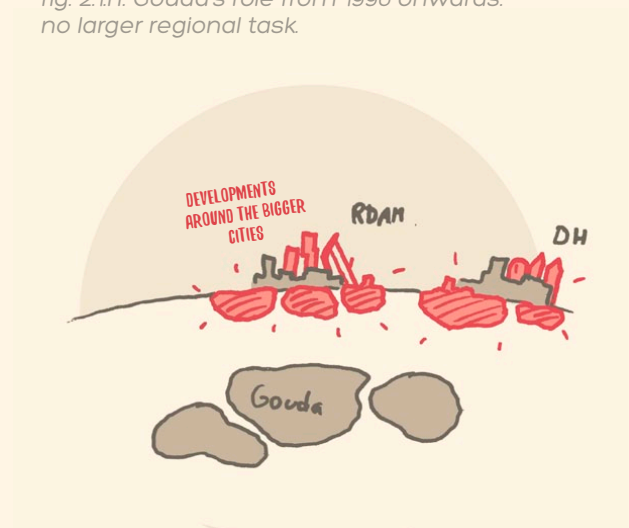
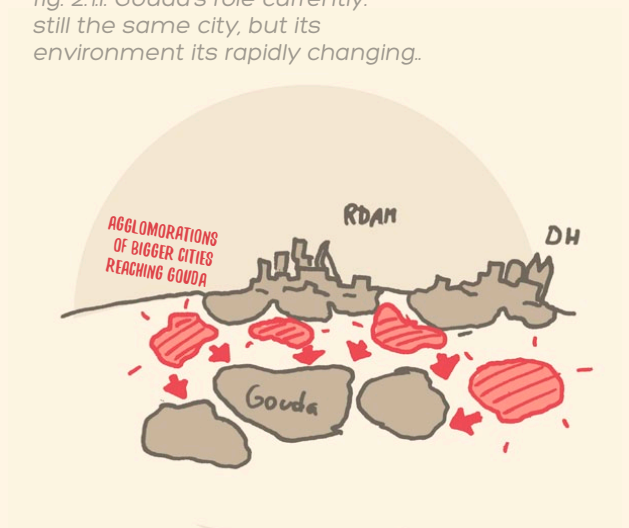


fig. 2.1.i: Gouda's role currently: still the same city, but its environment its rapidly changing.

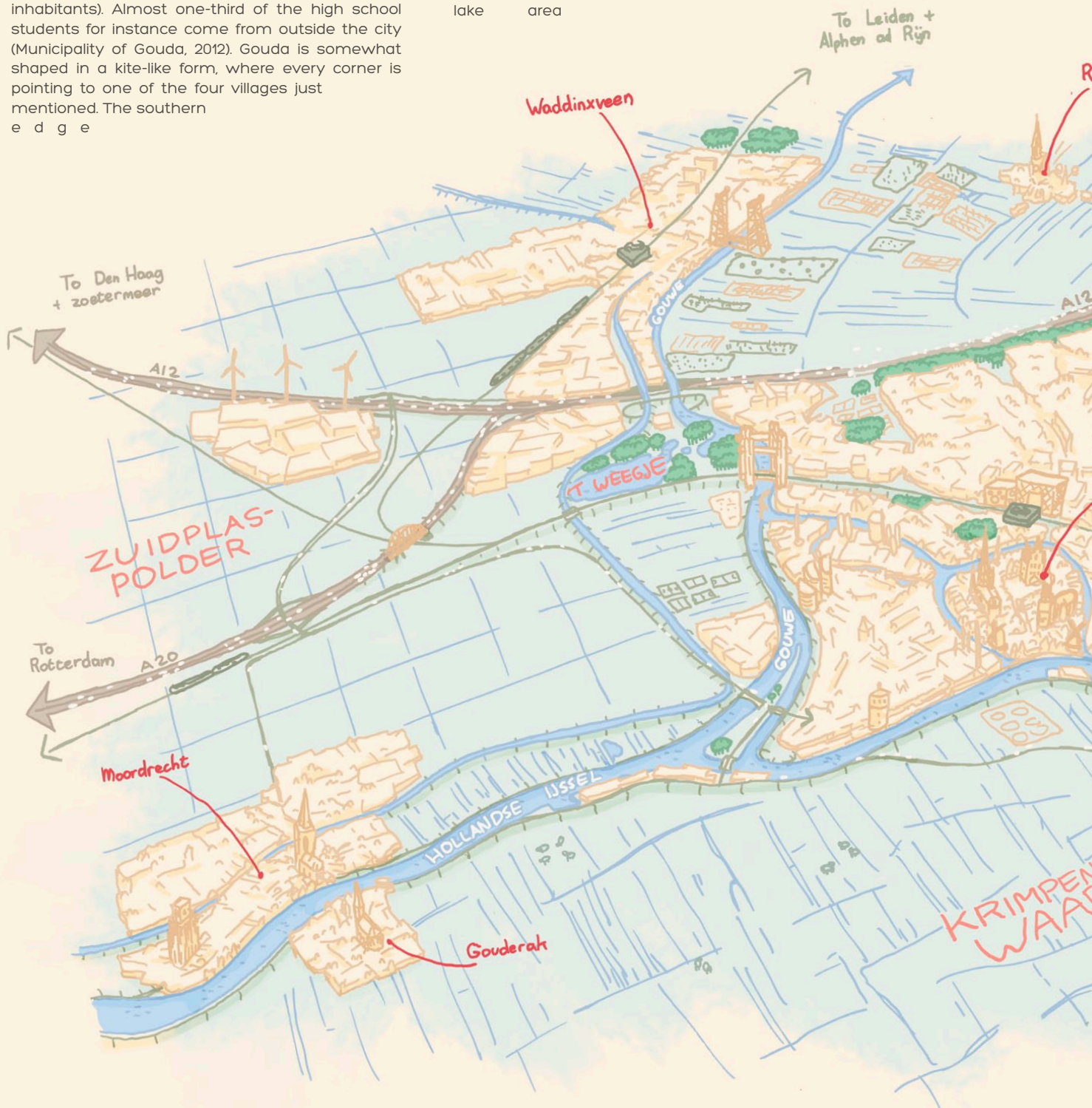


2.2 THE REGION OF GOUDA & THE ZUIDPLASPOLDER

WHAT IS GOUDA?

The city of Gouda is located in the middle of the Randstad and at the edge of the Groene Hart. According to the statistics of CBS in 2015 the city holds 71.149 inhabitants and serves a regional function for villages nearby like Waddinxveen (25.000 inhabitants), Reeuwijk (10.000 inhabitants), Moordrecht (8.000 inhabitants) and Haastrecht (4.500 inhabitants). Almost one-third of the high school students for instance come from outside the city (Municipality of Gouda, 2012). Gouda is somewhat shaped in a kite-like form, where every corner is pointing to one of the four villages just mentioned. The southern

edge of the city is defined by the river Hollandse IJssel with at the other side the large polder landscape of Krimpenerwaard and the western edge is characterized by the canal Gouwe with at the other side the Zuidplaspolder. In the north of Gouda one can find the national highway A12 and in the east the lake area



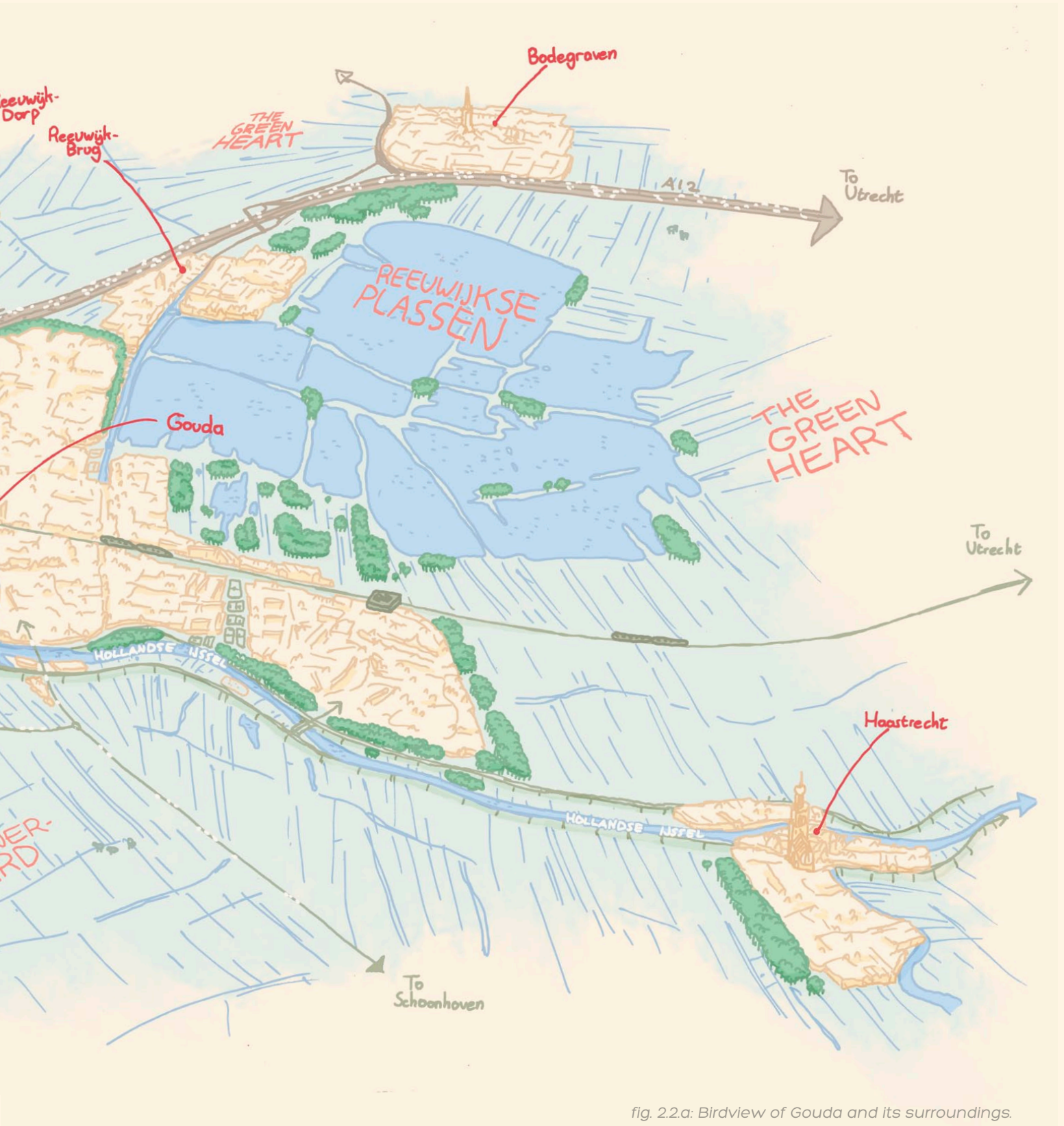


fig. 2.2a: Birdview of Gouda and its surroundings.

Reeuwijkse Plassen. The city centre is located in the in the lower middle of Gouda along the Hollandse IJssel and has recently won the title of 'best middle-sized city centre of the Netherlands 2015-2017' (Platform binnenstadsmanagement, 2015). Shopping mall Bloemendaal in the north of the city is with 65 stores the largest shopping mall of Gouda's region.

URBAN CONCEPT OF GOUDA

The current urban form of Gouda mainly originated from urban plans and visions from the late sixties and early seventies. During this time the city of Gouda was marked by the national government as a 'satellite city', a town where urbanization needed to take place instead of expanding the larger cities like Rotterdam and Den Haag. In Gouda there was still enough space to accommodate new family-friendly dwellings close to the green open space, in contrast with the busy, noisy atmosphere in the larger cities. In their policy document: 'Gouda 2000' (1969), the municipality of Gouda planned four possible locations around the current city to expand, which in total would accommodate around 31.000-58.000 new inhabitants for the next thirty years.

Similar that Gouda was planned to be a self-supporting city at the scale of the Randstad, the new neighbourhoods of the city also were planned to become for most part reliant on their own. The new inhabitants would according to the planners follow a traditional lifestyle: they would have a really close relationship with the place they lived in. Here is where their daily life would take place and where they would meet people, shop and spent their free time. These neighbourhoods also had their own sub-centre, whereas older neighbourhoods were particularly focused on the old city centre. The neighbourhoods also were planned to be surrounded by parks and recreational functions. As a result the new expansions have an introverted character and are somewhat separated from the already older parts of Gouda. Functionalist urbanism was still the main planning method in 1969 so the programs of living, working, recreation and traffic were strictly separated from each other in the urban vision. They became 'islands' in the city. The areas that were zoned for industry and offices were situated in the western part of the city, close to the highway and waterways. Roughly from 1970-1980 the first urban expansion was built: Bloemendaal. Afterwards from 1980-1990 the expansion Goverwelle.

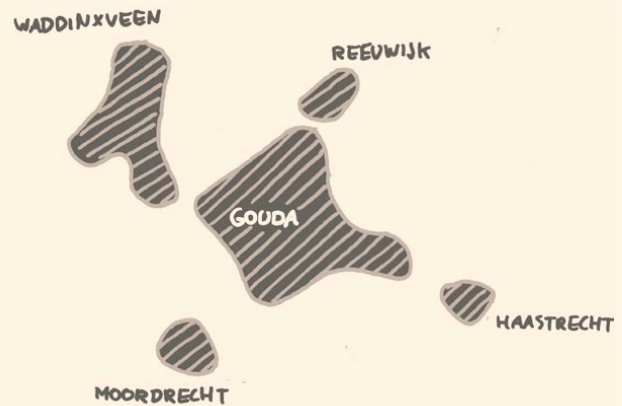


fig. 2.2.b: Every corner of Gouda is pointing to one of the surrounding villages. Together they contain almost 120.000 inhabitants.



fig. 2.2.c: The edges of Gouda are defined by two rivers, a highway and a peat-lake area.

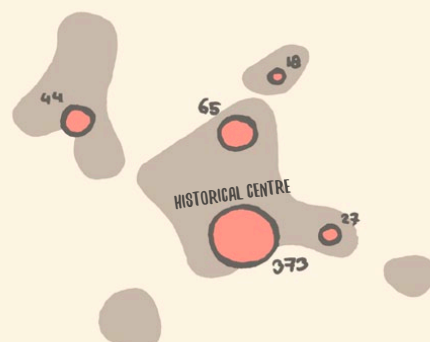


fig. 2.2.d: The historical centre of Gouda holds the most amount of shops. But in the north of the city and in Waddinxveen there are also large shopping areas.

fig. 2.2.e: Urban shape of Gouda before the suburban expansions (1970)

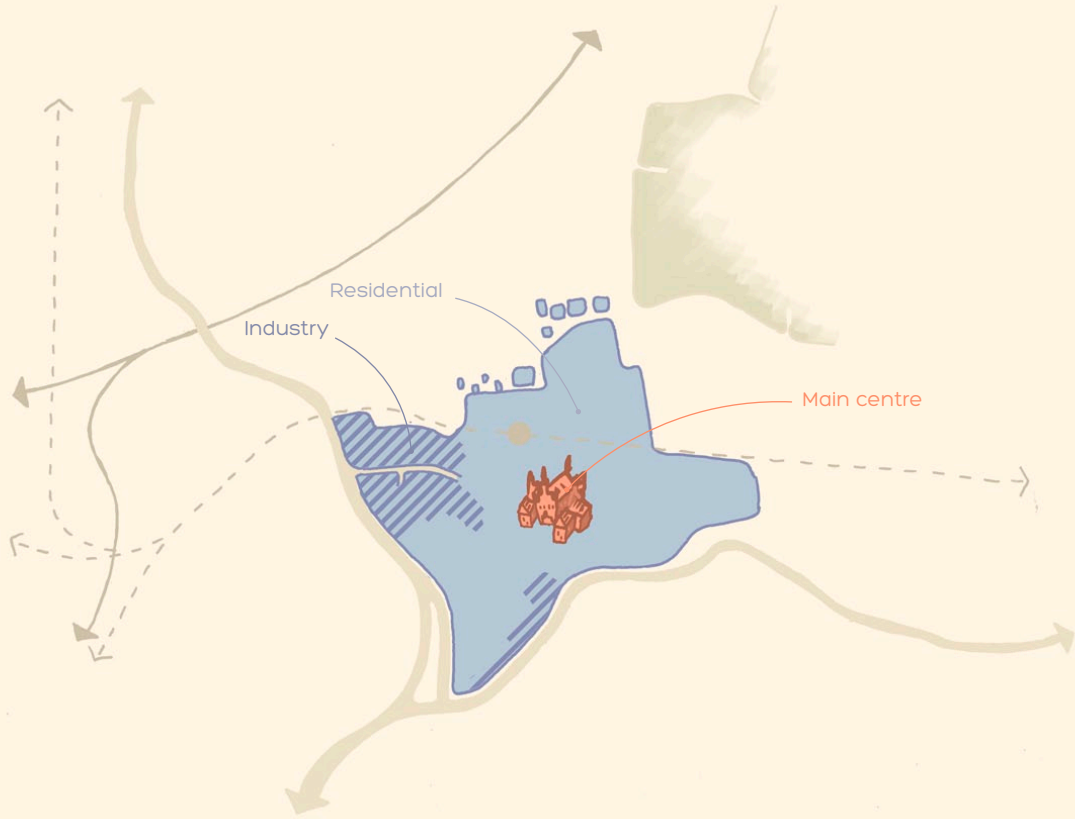
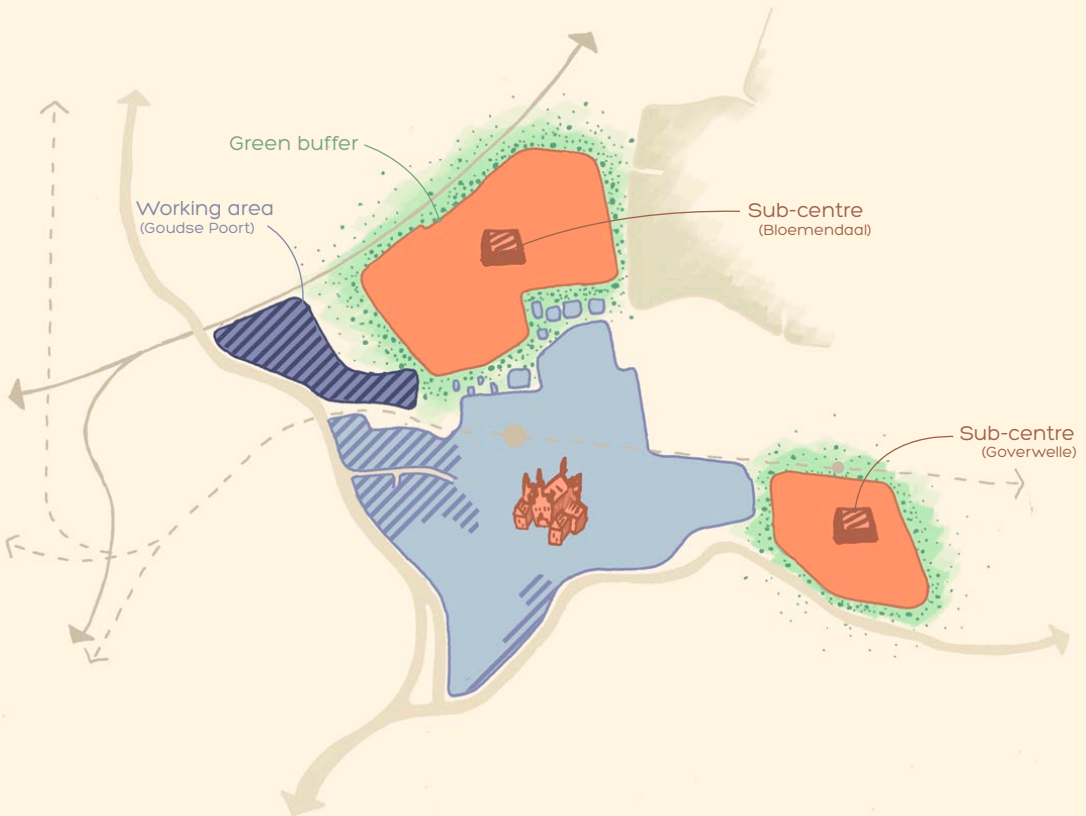


fig. 2.2.f: Urban shape of Gouda after the suburban expansions. (1990)



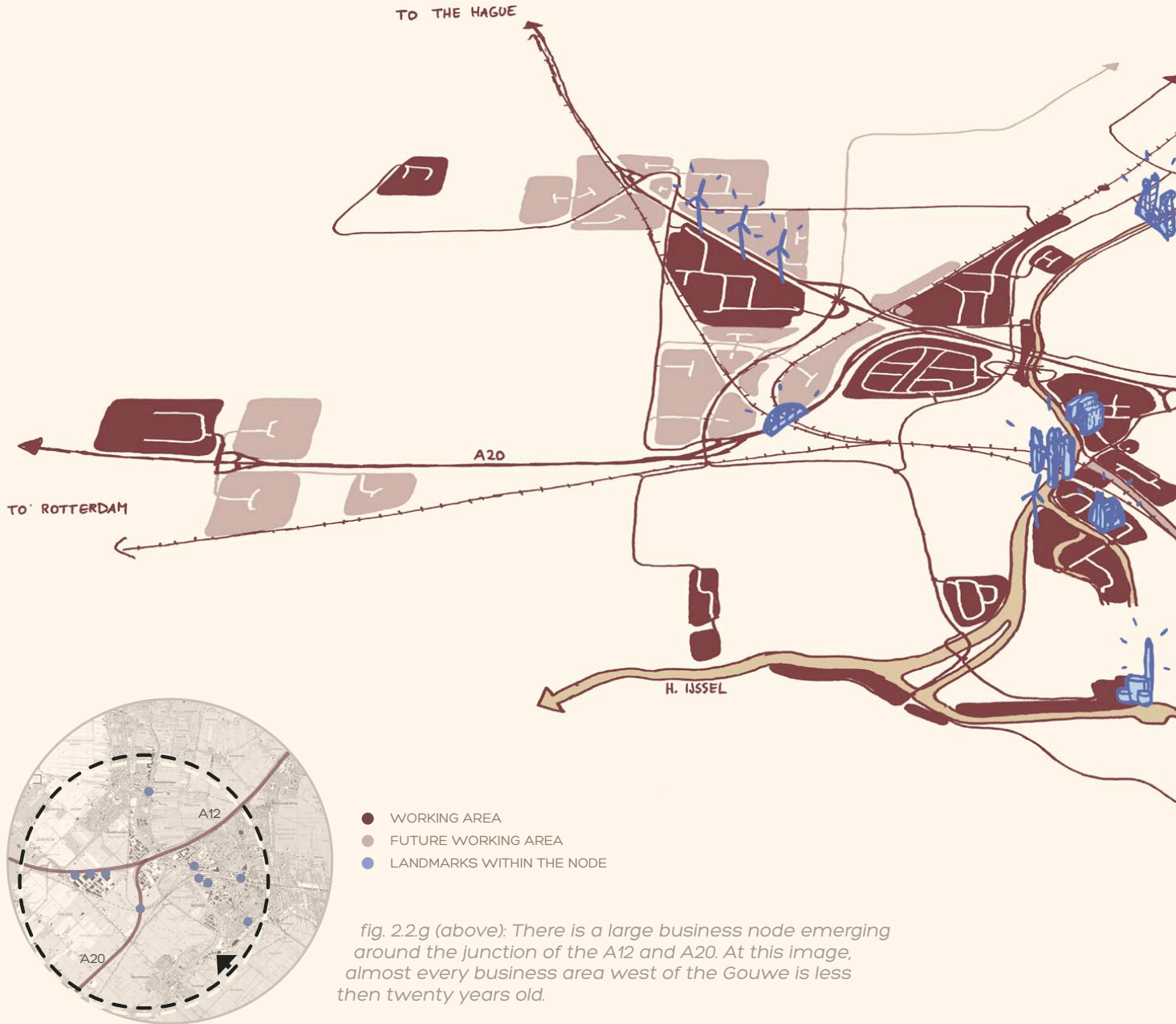


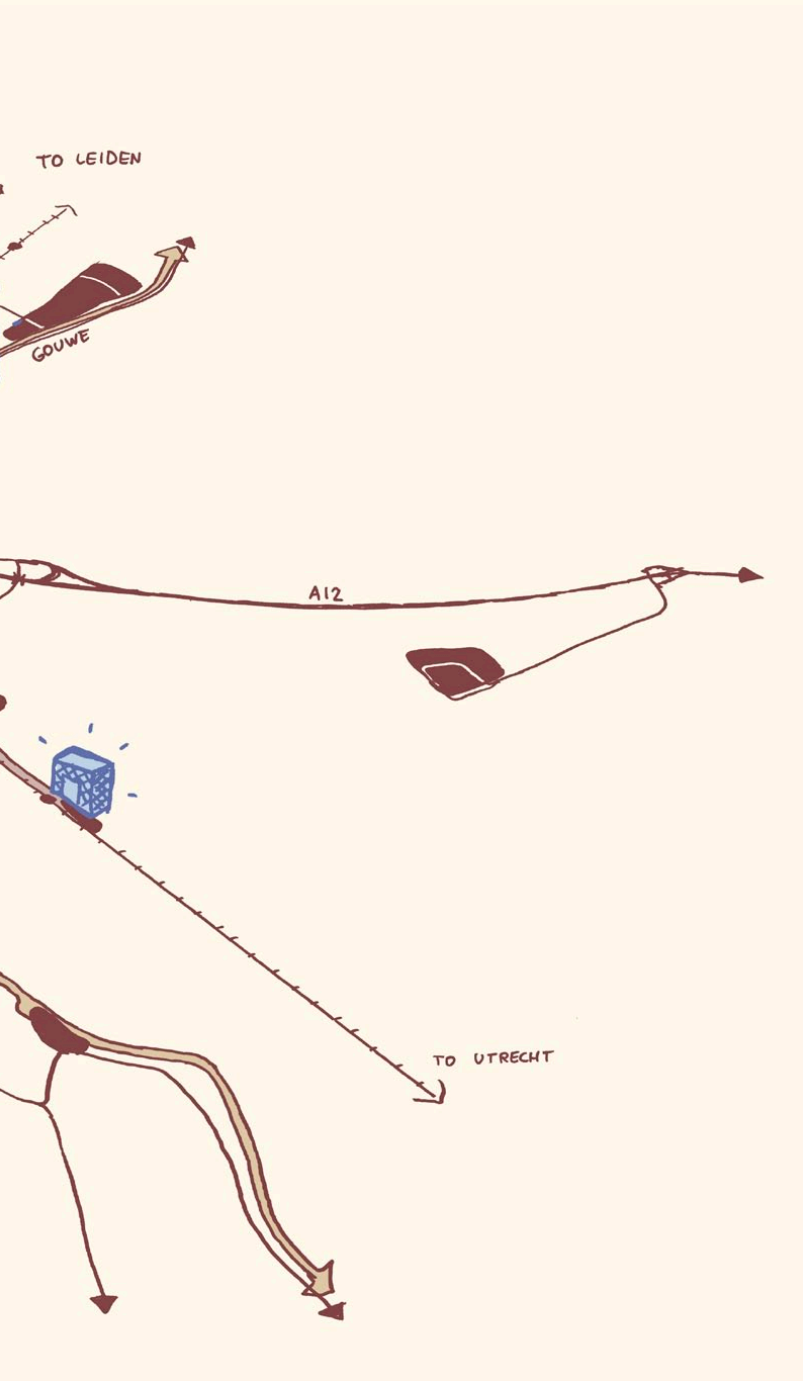
fig. 2.2.h (below): Comparison in size of current urban areas and future developments.

GOUDA
Residential areas



BUSINESS NODE A12-A20
Business park areas



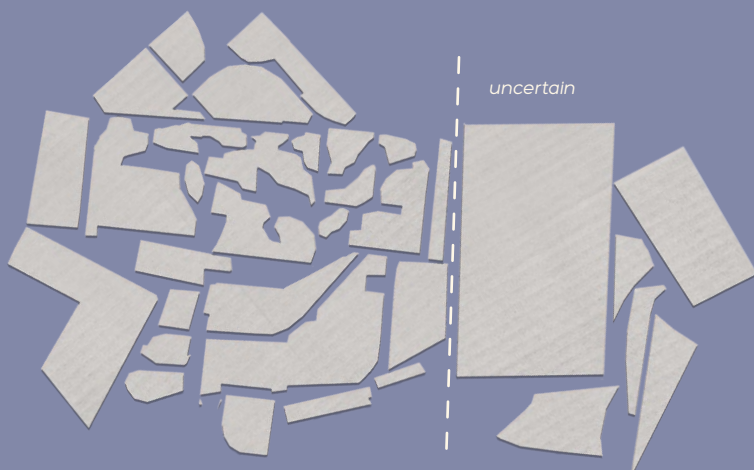


DEVELOPMENTS IN THE ZUIDPLASPOLDER

Because the urbanization of the Randstad shifted around the eighties from the satellite locations to the larger cities, but also the fact that Gouda was situated within the protected area of the Groene Hart, there were not really large scale projects developed in the city after 1990. The agglomeration of Rotterdam however still kept growing. While in the '60s the urban fabric of Rotterdam was roughly 15 km away from Gouda, in the current situation this is less than 4 km. Within this small distance, in an area called Zuidplaspolder, are now many new developments planned or already going on. The Zuidplaspolder itself, also known as the 'RZG driehoek' (Triangle of Rotterdam, Zoetermeer and Gouda), is one of the last possible locations within the Zuidvleugel of the Randstad where large scale urban expansions still can take place. Together with the fact it is centrally located within the Randstad it is programmed with functions which couldn't anymore be located somewhere else in the Zuidvleugel, like very low density neighbourhoods and greenhouse areas with related logistic parks. The surrounding municipalities of Gouda and Waddinxveen also planned new expansions in this area: respectively Westergouwe and Triangel.

The first plans for the Zuidplaspolder originated in 2004 (VROM, 2004), but because of the financial crisis in 2007, the appeal to develop new large scale living and working locations decreased and the plan for the Zuidplaspolder became an uncertainty. Around 2012 however, the municipalities and the Zuidvleugel saw the possibilities for the area again and started developing it, now at a half-paced speed than firstly intended (Municipality of Zuidplas, 2012; Province of Zuid-Holland, 2013). With all the plans for this area combined, the aim for the year 2030 is to build 13.900 new dwellings, 60 ha greenhouse area, 334 ha business area (where 218 ha is related to the greenhouses) and 400 ha nature and green. Currently the realization of the new expansions of Gouda and Waddinxveen already started, the greenhouse and logistical areas along the highway A12 also grow at rapidly speed and large infrastructural project like the 'Moordrechtboog' are being built. The developments of sub-areas 'Het Nieuwe Midden' and 'Gouweknoop' are still uncertain and, for now, are planned after the timespan of 2030.

DEVELOPMENTS ZUIDPLASPOLDER
Planned residential areas



BUSINESS NODE A12-A20
Planned business park areas

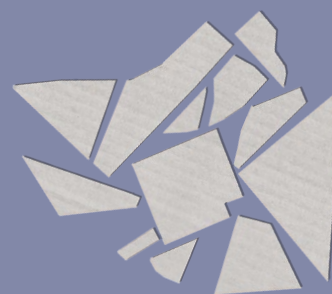


fig. 2.2.d: Almost empty Zuidplaspolder (1990)



fig. 2.2.e: First signs of urbanization in the Zuidplaspolder (2015)



Project information:

<p>1 T SUYT</p> <p>WHAT: 80 dwellings</p> <p>WHEN: 2015-2020</p> <p>STATUS: almost completed</p>	<p>2 GLASPAREL+</p> <p>WHAT: greenhouse & logistic area (130 ha)</p> <p>WHEN: 2015-2020</p> <p>STATUS: construction about to / just started</p>	<p>3 KNIBBELWEG-O. & SWANLA DR.</p> <p>WHAT: greenhouse & logistic area</p> <p>WHEN: 2015-2025</p> <p>STATUS: construction about to / just started</p>	<p>4 ZEVENHUIZEN-ZUID</p> <p>WHAT: 1.200 dwellings</p> <p>WHEN: 2015-2030</p> <p>STATUS: first building phase initiated</p>	<p>5 MOERKAPELLE</p> <p>WHAT: 800 dwellings</p> <p>WHEN: 2015-2030</p> <p>STATUS: first building phase initiated</p>	<p>6 DE BRINKHORST</p> <p>WHAT: 320 dwellings</p> <p>WHEN: 2015-2025</p> <p>STATUS: construction about to / just started</p>	<p>7</p> <p>WHAT: 3.500-4000 dwellings</p> <p>WHEN: 2015-2030</p> <p>STATUS: first building phase initiated</p>
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fig. 2.2.f. Already initiated projects & projects at short term planning phase (2015-2030)

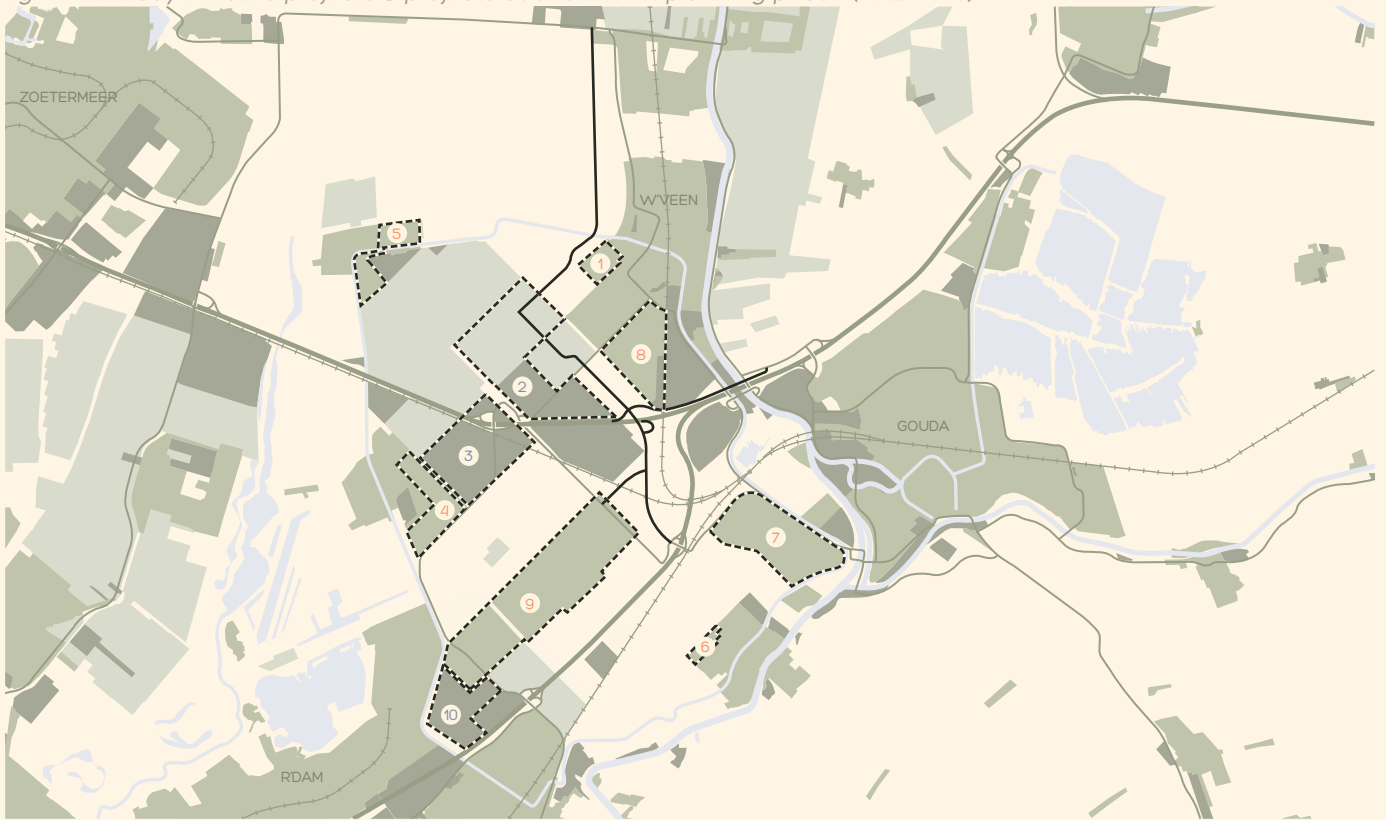
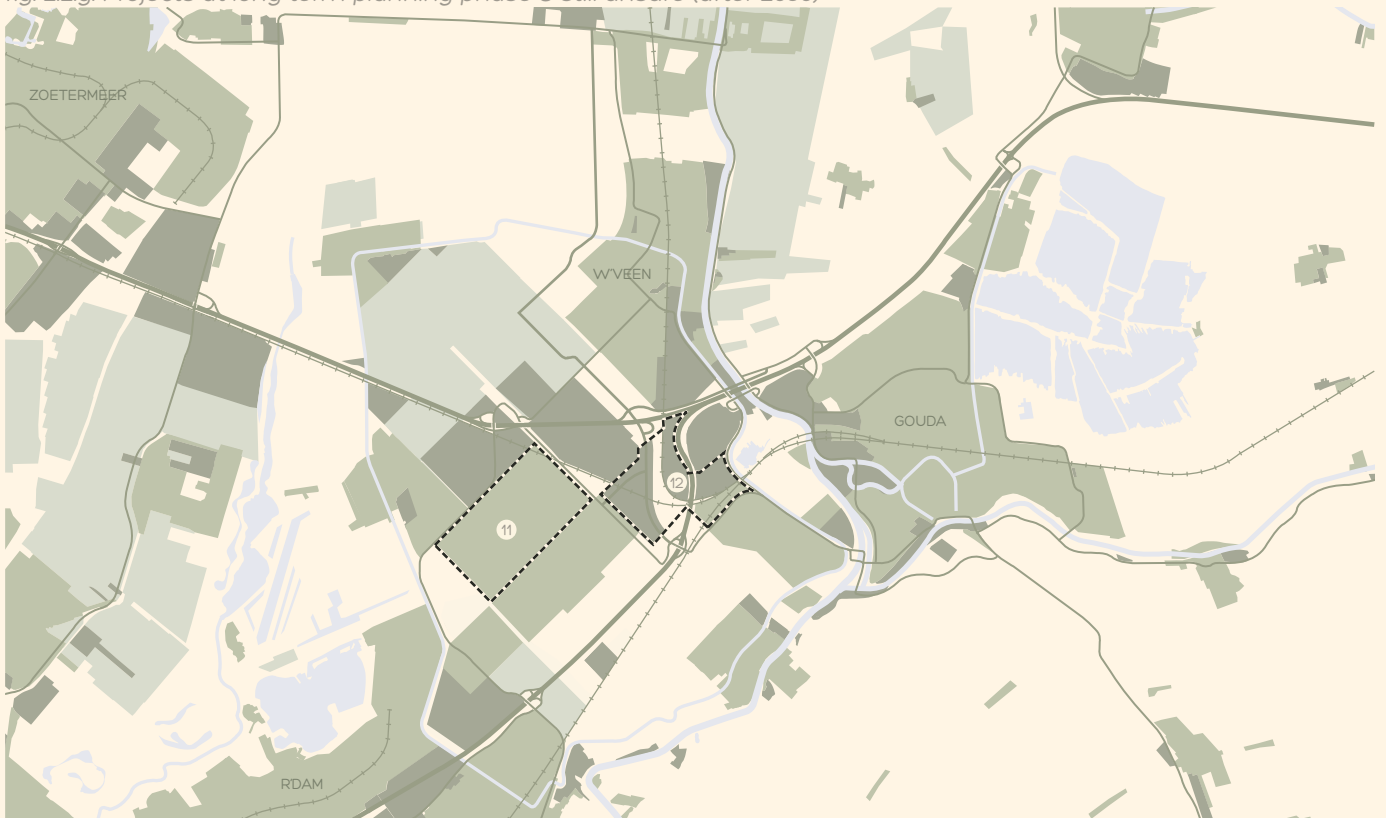


fig. 2.2.g. Projects at long term planning phase & still unsure (after 2030)



8 TRIANGEL	9 RODE WATERPAREL & NIEUWERKERK-N.	10 NIEUWERKERK-NOORD	11 RINGVAARTDORP & HET NIEUWE MIDDEN	12 GOUWEKNOOP
WHAT: 2.900 dwellings & offices	WHAT: 3.100 dwellings	WHAT: business park & greenhouse area	WHAT: +10.000 dwellings	WHAT: +1.000 dwellings, centre functions & offices
WHEN: 2015-2030	WHEN: 2020-2030	WHEN: 2020-2030	WHEN: after 2030	WHEN: after 2030
STATUS: first building phase initiated	STATUS: planning phase / still has to start	STATUS: planning phase / still has to start	STATUS: uncertain	STATUS: uncertain

- RESIDENTIAL AREA
- WORKING AREA
- GREENHOUSES + HORTICULTURE
- WATER
- MAIN ROAD

2.3 THE INCOHERENT AND FRAGMENTED RANDSTAD

Chapter 2.1 explained that urban visions for the Randstad from the last several years aim to strengthen the agglomeration-power of the region, so it could compete with international regions outside of the Netherlands. Unfortunately the Randstad is not really keeping up with other metropolitan regions in the world. Many planners blame this of the more complex polycentric character of the Randstad: there is not one strong metropolitan midpoint like the urban structure of Paris and London, but it is a collection of many middle-sized cities. For too long the cities within the Randstad were competing with each other and spreading their economic centres, instead of forming strong interrelated urban systems to compete at international scale (PBL, 2015).

This problem is seen by many planners and has gotten much attention in recent visions and policies, but clear decisions for the future are still hard to be found (VROM, 2008; Bestuurlijk Platform Zuidvleugel, 2008; Province of Zuid-Holland, 2014). On the contrary, While clear urban planning decisions in the last half of the 20th century were first mostly made at national scale, currently these tasks shifted to smaller parties like the municipalities, housing companies and private developers. This approach of 'bottom-up planning' has its advantages in uncertain times like now, as costs are quite low and the process is relatively short and easier to organise. But this decentralized planning structure also leads to an uncontrolled growth of fragmented and homogenous urban areas, where many municipalities try to attract the same kind of target groups, focus on the same kind of identities and are aiming on similar economies (Buursink, 2012). Who is responsible for the collective urban elements within this patchwork of unrelated developments? A structuring element which also adds value to the metropolitan region as a whole? Is this uncontrolled growth a natural response to the changing lifestyle of its inhabitants, or are they looking for a whole other kind of urbanity? The

following paragraphs will explain three main issues which are occurring due this problematique.

I. THE RANDSTAD IS ECONOMICALLY PASSED BY OTHER INTERNATIONAL REGIONS

Like just said, in comparison with other metropolitan regions the Randstad as a whole does not avail itself as an area with a strong identity, which has impact at its economy at world scale. The decentralized planning structure of the last years in the Randstad led to that many municipalities try to attract the same kind of target groups, focus on the same kind of identities and are aiming on similar economies. Municipalities didn't look further than their borders and built the same kind of furnishing malls, business parks, retro-style residential areas and office locations (Derksen, van Hoorn, Lörzing & Tennekes, 2007).

"While other international regions are improving to distinguish themselves, the Randstad and in particular the Zuidvleugel the diversity of living, working and recreational areas is decreasing."

Many studies, such as the one done by PBL in 2015, show that these small focused projects do not create good conditions for attracting international businesses and highly talented knowledge workers: they are looking for metropolitan regions with a strong identity and larger scale qualitative environment. While other international regions are improving to distinguish themselves, the Randstad and in particular the Zuidvleugel the diversity of living, working and recreational areas is decreasing. This has consequences as the region of the Randstad is lowering at the international list of strong economical international regions (VROM, 2008; PBL, 2015). A more coherent urban structure, where the innovative industries,

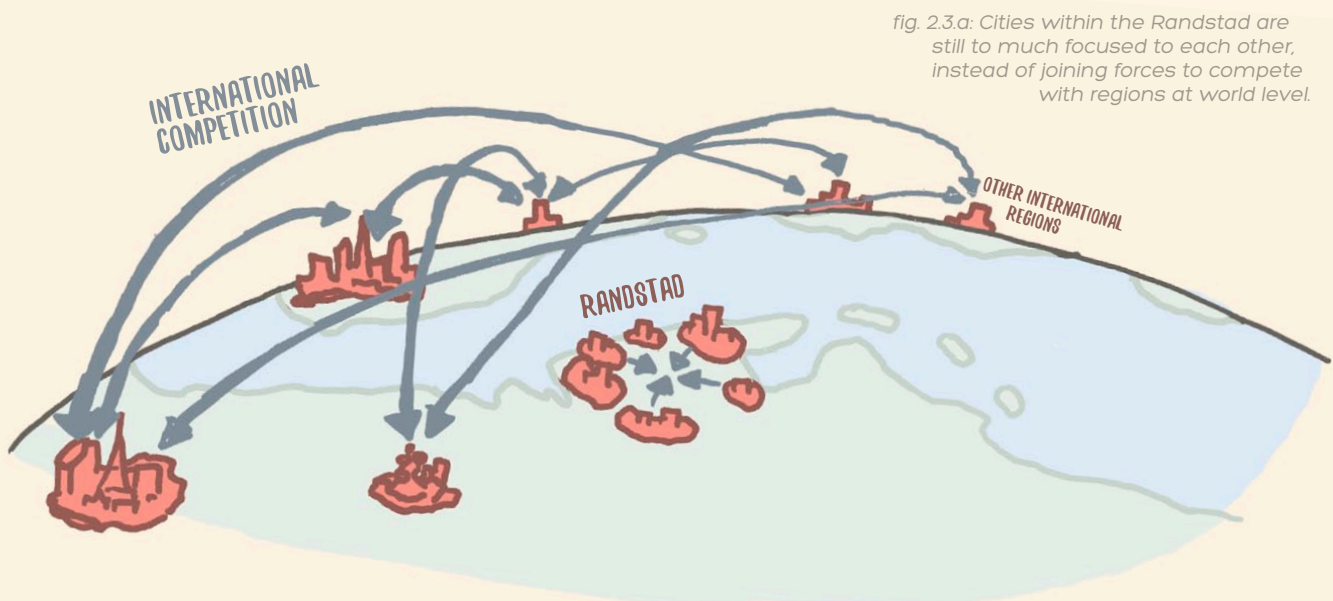


fig. 2.3.a: Cities within the Randstad are still too much focused to each other, instead of joining forces to compete with regions at world level.

economical sectors, qualitative landscapes and sectors with talented people already present in the Randstad are joining forces, would give the Randstad more economical benefits.

II. PEOPLE BEHAVE DIFFERENTLY NOWADAYS, THE TRADITIONAL CITY IS OUTDATED

The lifestyle of people all over the world progressively individualizes and people are sharing less and less the same interests with each other (see also 2.4). The traditional concept of the city, a place where almost everyone shared the same kind of facilities and where the daily life of one single household would take place, is getting less relevant with every year. But many recent projects are still developed as extension of the city nearby, expanding the city from the inside to the outside, instead of also seeing the need of the development at a regional or (inter) national level and connecting it to structures at larger scale (Tummers & Tummers-Zuurmond, 2000; Suurenbroek, 2007).

In the late '60s and '70s the lifestyle of most residents of the Randstad was quite traditional: having the ideal of owning an ordinary single-family house of 100m² with private front- and back garden, situated in a calm and peaceful environment and having their daily amenities, like schools, shopping centres and churches all situated close to their homes. Most households existed out of four family members with the mom as housewife, the dad as money earner and their two or more kids. Mom and the kids were bonded to their neighbourhood, the dad worked at the other side of town or in another city. The physical appearance of the urban environment was also built according to the tastes and behaviour of this 'average joe': in the centre of the neighbourhood the daily amenities, at the boundaries the main access-roads with the less kid-friendly facilities. There was a clear hierarchic system of city, city districts, neighbourhoods and local communities. Working areas and infrastructure were strictly separated and hidden from the living quarters to conserve the quietness (Reijndorp & Pilet, 1998).

But as time passed, the lifestyle of people also changed. There wasn't one clear 'common' household anymore. At average people got more free time and money to spend. There were more moments for them to distinguish themselves from others next to work and house management and their tastes became more differentiated.

Besides that people's behaviour got more individualized, they also got more mobile in general. In the '60s and '70s not every household had their own car and if they had it was mostly used for travelling to and from work. Daily amenities had to be close to home. Now, the group of households that has two or even three cars is rapidly increasing. The car is not anymore only used for work, but also for travelling to friends and family, the supermarket, sporting and recreational areas and so on. Such facilities therefore don't have to be located at central positions in the city or neighbourhood anymore. As long as they are accessible, they could be situated anywhere of the urban system of the Randstad. From a highly urban area in the middle of the city to a peripheral business district along the highway (Derksen et al, 2007).

Is then the traditional way of city-expansion, in combination with the decentralized planning system, how it should be? Because more and more inhabitants of the Randstad compose their own 'city' together. They assemble the 'fragments' of where they work, sleep, shop and recreate into their own ideal living environment. Neutelings mentioned this phenomenon in 1989 when studying the city of Den Haag. He described that the Randstad should not anymore read be read a collection of cities, but as a carpet of spatial-functional fragments. In this carpet metropolis, Den Haag is for example not a city anymore, but a collage of some specific spatial-functional fragments. Urban extensions in the Randstad should no longer be seen as open land that needs to be built, but as transforming the current spatial-functions attributes of a fragment into a fragment with new spatial-functional attributes. Within this transformation-process is also needed to look why it is necessary for the carpet metropolis as a whole, if the aim is to create a more coherent urban region (Neutelings, 1989).

"The traditional concept of the city: a place where everyone shares the same kind of facilities and where the daily life of one single household takes place, is getting less relevant."

In the US this phenomenon of the loss of the traditional city already took place much earlier. In 1965 Friedman and Miller already described that modern urbanization was not anymore focused at one single physical entity (the traditional city) but at a number of centres connected by flows of people, goods, money and information. They called the spatial concept of this large scale area holding many interrelated networks of economic and social activities 'the urban field'. Fishman added that in this urban field, urbanization is also no longer organized around one or more centres, but that the house is the new centre, where every household determines for itself which structures within the urban field are useful and which are not (Musterd & van Zelm, 2001). Should the Randstad then maybe not be more coherent structured as it is now? The daily system of current society is more and more looking for relationships with the metropolitan region and less with the city they live in. The new urbanity is an urbanity without a city (Reijndorp & Pilet, 1998).

III. THE LANDSCAPE IS THREATENED, WHICH COULD LEAD TO WORSE LIVEABILITY AND ECOLOGY

When comparing the current shape of the Green Heart of the one from a few decades ago, one can see that this open landscape is much smaller and more fragmented. This is also the case with other relatively large open areas within the Randstad like Midden Delfland and Hoekse Waard. Certain open landscapes, like the one between Delft, Zoetermeer, Gouda and Rotterdam, even disappeared completely: what is left is a patchwork landscape of greenhouses, low-rise residential areas, recreational zones and business parks. A fragmented world without any overall leading spatial pattern.

An divided park system like that does not work either ecologically or for the people according to Dramstad, Olson and Forman. To create a

1970



fig. 2.3.b: Fifty years ago. Urbanization organized around the city centre. People were more bonded to the city they lived in.



2015

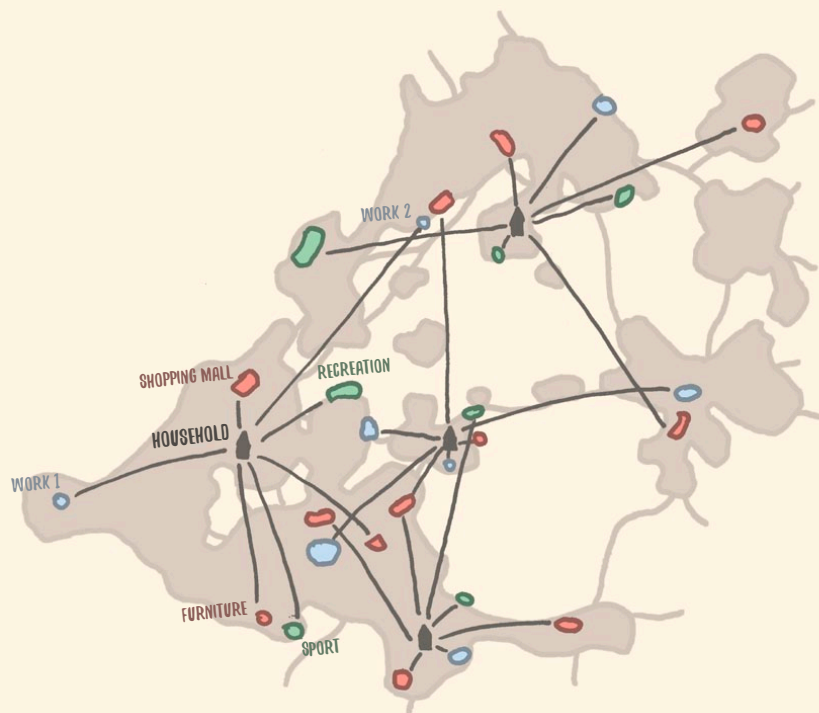


fig. 2.3.c: Now. Urbanization organized around the household itself. People assemble their own 'city' together.

sustainable environment within the region, a more overall landscape system is needed. A spatial pattern which controls movements, flows and changes. This will create an ecology of large heterogeneous areas, landscapes, regions and portions thereof which weaves land, water, nature and people together (Dramstad, Olson & Forman, 1996). Like mentioned a few paragraphs earlier, most urban projects within the Randstad were and still are developed as outer expansions of the city. New urban areas are 'plugged' into the internal system of the city, most of the time a motorway, instead of also looking for possible connections with its surrounding landscape and larger open environment. Many residential and business areas that have been built the last decades are closed off with barrier-like areas, such as recreational areas, water storages, sporting parks and sound-barriers. They are fragmented and hard to cross, both for people and for wildlife. A continuity of spatial structures that connect the urban area with the open lands is lacking, which make the landscape very difficult to reach for many people living in the Randstad (Laeremans & Braaksma, 2014). So the problem is not only that there is not enough open green land in the Randstad, it is also not interrelated and accessible enough from out of the urban area.

This continuity of landscapes, parks and other green areas is not only important for the people and wildlife, also the micro-climate in the city will benefit from it. It is expected that the temperature due climate-change will be higher in the Netherlands and this will be combined with longer periods of rain and drought. Together with the fact that the amount of paved surface is only expanding in metropolitan areas, could lead to many problems within the city like polluted air, floods and urban heat island-effects. A coherent system of green areas can reduce this heat-problem and absorb water after heavy rainfall. Vegetation, water surfaces and the shade of trees can cool urban areas down during hot days, but also draw in fresh air from outlying areas. This results into an improved air quality within the city, which has direct impact on public health. Nowadays the Netherlands is one of the most polluted areas in Europe regarding air quality. Green and water surfaces also increase the urban retention capacity, which allows fluctuations in water levels and make other drainage needs less needed (Pötz & Bleuzé, 2012).

So to repeat the three main issues occurring in the Randstad right now: firstly, the Randstad is economically in comparison with other international regions not doing that well. Most developments are spread in small particles all over the region. These residential areas, business parks and glasshouse areas are more or less the same and do not give the Randstad as a whole a strong identity or high qualitative

fig. 2.3.e: The open landscape within the Randstad is shrinking and getting more fragmented. This has also several consequences for the inner urban areas.

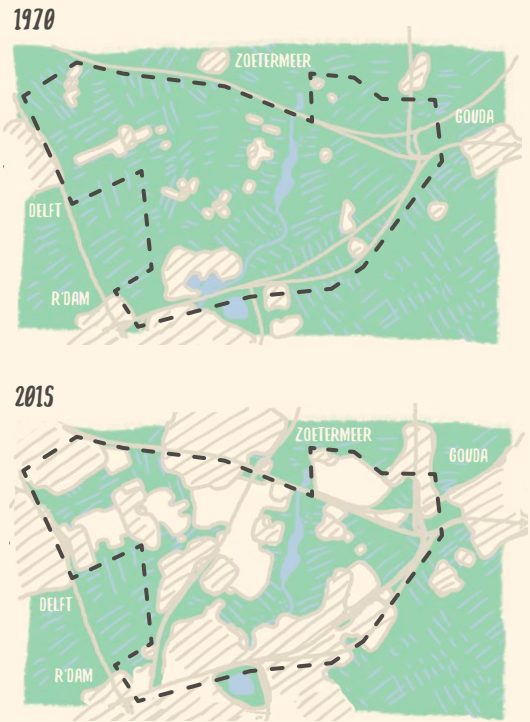
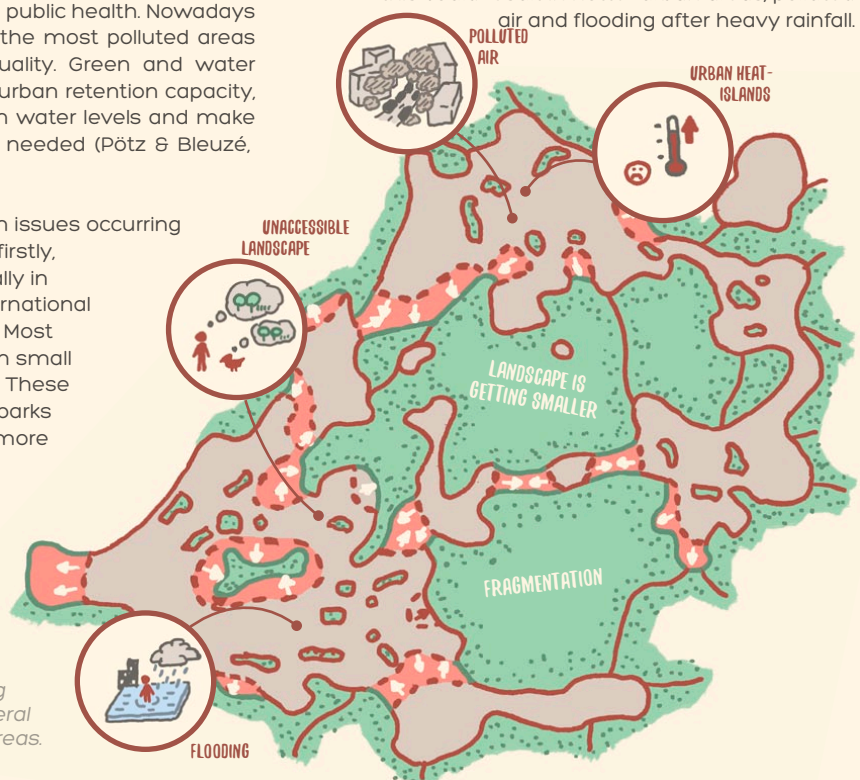


fig. 2.3.d: Loss of open area inbetween Gouda, Delft, Zoetermeer and R'dam

status. This makes it hard to attract international headquarters and related talented knowledge workers. Secondly, the social behaviour of residents of the Randstad is changing. The new urbanity for them is an urbanity without a city, they have more differentiated needs and getting more mobile. But many projects are still developed as extension of the traditional city, instead of also seeing the need for it at larger scale. Lastly, the open landscape within the Randstad is shrinking and getting more divided. This leads to a less attractive and accessible green environment for wildlife and the people. Along with the upcoming climate-change, this could result in hotter urban areas, polluted air and flooding after heavy rainfall.

2.4 THE RISK OF SEGREGATION IN GOUDA

In the '60s and '70s Gouda had a task for the Randstad to deliver large amounts of green living environments for the Randstad. This resulted into the neighbourhoods of Bloemendaal and Goverwelle. With these expansions Gouda had grown to a medium-sized city of roughly 71.000 inhabitants and when around the development of large new residential areas shifted towards the bigger cities, the city remained morphologically more or less the same (see also 2.2).

But the socio-economic context has changed during the last fifty years, as explained in chapter 2.3. The behaviour of many people within the Randstad became more diverse and their mobility patterns less predictable. They do not use the city in a traditional way anymore and assemble from several 'fragments' in the whole urban field of the Randstad their own personal living environment. What was not explained yet is that these changes in behaviour also have consequences for what type of neighbourhoods are nowadays most popular and what threats this can give for the liveability of the scale of Gouda.

"The development of residential areas in and around the Zuidplaspolder could eventually lead to segregation within the older neighbourhoods of Gouda."

LIVING ENVIRONMENT IN GOUDA OUTDATED?

As explained in the chapter before, in the fifty years ago the living-ideal of most residents of the Randstad was to live in green and kid-friendly environments, far away from the busy city-life and having their daily amenities concentrated and not far from their home. The average household was larger than it is now, in 1971 53% of the households had one or more kids (PBL, 2013). This is also why owning a single-family house of 100m2 with private front- and back garden was very popular (Reijndorp & Pilet, 1998). The urban plans for Bloemendaal and Goverwelle were also shaped to the preferences of people had during time period. It are self-reliant city-quarters, each with their own sub-centre and morphologically separated from the rest of Gouda and its surroundings by heavy motorways, canals, industrial functions and green buffer zones.

But currently this is for most people not the ideal living environment anymore. The group of people

MOVEMENTS 1970-1990

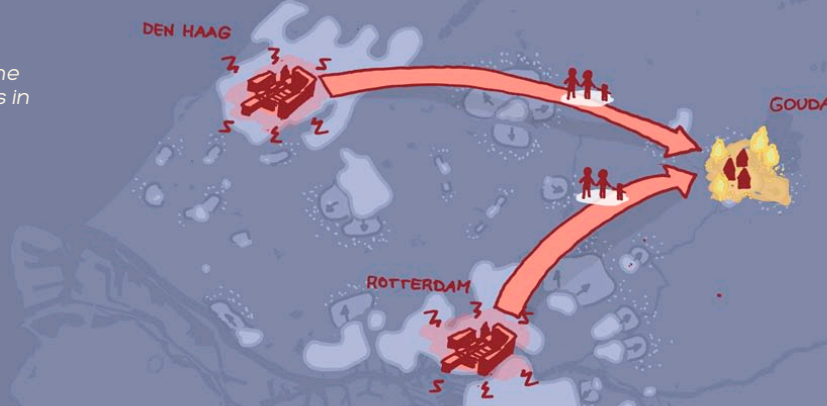


fig. 2.4a: Situation a few decades ago.

wanting to live in green and kid-friendly environment is still existing, but their versatile and more intriguing lifestyle is desiring for a place that they can identify with (Hagendijk, 2015; PBL, 2014; PBL, 2015). Analogous suburban areas found in most satellite cities, like the neighbourhoods of Bloemendaal and Goverwelle in Gouda, are therefore getting less popular by current establishing households. Nowadays more and more people want to live in or close to bigger cities like Utrecht and Rotterdam. In highly urban areas with many characteristic buildings, qualitative public spaces and cultural places like museums, theatres and nightlife venues. The renewal projects from the past decades made these areas also attractive again for the middle and higher class and if they want to still live in more kid-friendly, low-priced place they could live in a VINEX-suburbs (large scale urban extensions built from 1995-2015), which are still very close by the bustling areas and good connected to the motorway network of the Randstad.

MOVEMENTS 1970-1990

fig. 2.4b: Many people left the busy, less kid-friendly areas in the bigger cities to Gouda.



MOVEMENTS HAPPENING NOW



fig. 2.4.c: Situation which could be seen today.

"The barrier-like elements between the current city of Gouda and its surroundings could strengthen this phenomenon of isolation."

more to the lifestyle of the middle- and high-class Randstad resident. This resulted into that the older neighbourhoods went down in the local hierarchy of neighbourhoods and became more unpopular. The liveability ratings decreased.

When we look the past, this phenomenon also took place in Gouda. As the (then new) urban expansions of Bloemendaal and Goverwelle indirectly turned out to give many social problems to older post-war neighbourhoods in the city: Korte Akkeren and Oosterwei. Many wealthy middle-class residents left Korte Akkeren and Oosterwei, because they thought these older neighbourhoods didn't anymore fit to their lifestyle and there was a better alternative close by. These new neighbourhoods had safe environments for children, shopping malls, buildings with human scale characteristics and a good connectivity to the infrastructural system, Korte Akkeren and Oosterwei were lacking these aspects. The lower social classes had no other choice then to stay. These concentrations of unemployed and low educated people, let too many social problems in these neighbourhoods (Ouweland, 2008). In Gouda this growing amount of social problems and unsafety in these neighbourhoods during this last decade had to be resolved with many urban renewal projects, but when looking today the people in these places are still less happy compared with the people in other neighbourhoods (BZK, 2015).

It has also grown more common to have varying relationships during your life and not directly 'settle' after getting a relationship. Less people also decide to take children: In 2010 for example only 28% of the households had children (PBL, 2014). Also, the fact that a large part of the Dutch population is aging results into many small households, only existing out of one or two people. All by all this means that a single-family home is getting less logical for most households: it is too large, expensive and regularly located in an area where they cannot easy meet new people with the same kind of interests. Today's residential environments does not match the demand anymore (Musterd & van Zelm, 2001; Bestuurlijk Platform Zuidvleugel, 2008). There is not really a quantitative housing shortage, as the population in the Netherlands is stagnating, but the amount of households is still increasing. A growing amount of people is looking for smaller and more flexible ways of living.

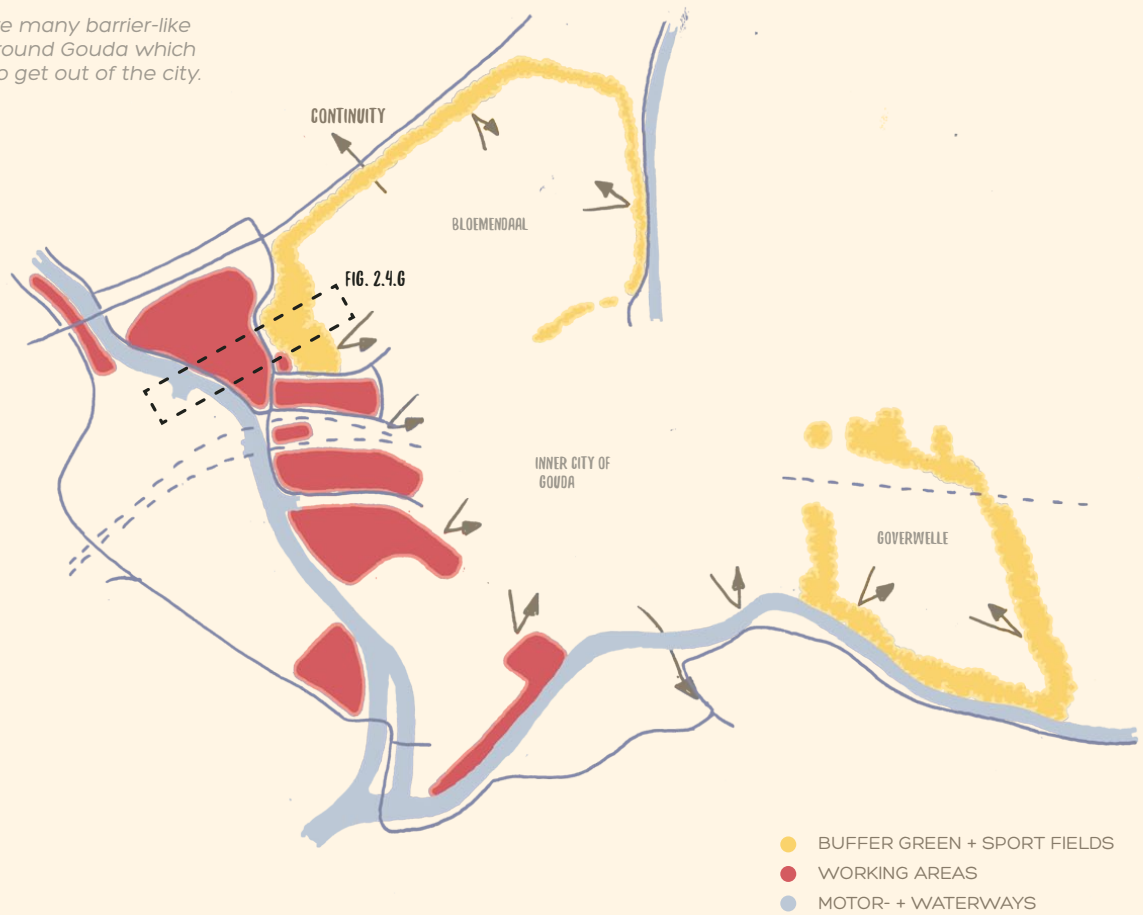
THE CONSEQUENCES OF NEW DEVELOPMENTS FOR THE CURRENT CITY

That is also why the developments of large scale residential areas to the west of Gouda can have huge impact on the current life of the city. A study done by the PBL in 2010 shows that the development of the recent VINEX-suburbs resulted into a higher segregation (separation of two groups in different neighbourhoods, most of the time paired with negative consequences for the liveability) in the older neighbourhoods of the same city. This was proven most clearly in the urban extensions of Ypenburg (Den Haag) and Leidsche Rijn (Utrecht), where the large urban extensions had the most effects on the demographic structure of already built environment. The newer VINEX-suburbs fitted

So could the development of the residential areas in and around the Zuidplaspolder eventually lead to segregation within the older neighbourhoods of Gouda, like Bloemendaal and Goverwelle? One could say, learning from the previous two examples of the development of the introverted VINEX-suburbs in Utrecht and The Hague and '60s and '70s neighbourhoods in Gouda, that there is a huge chance it could also occur over here.

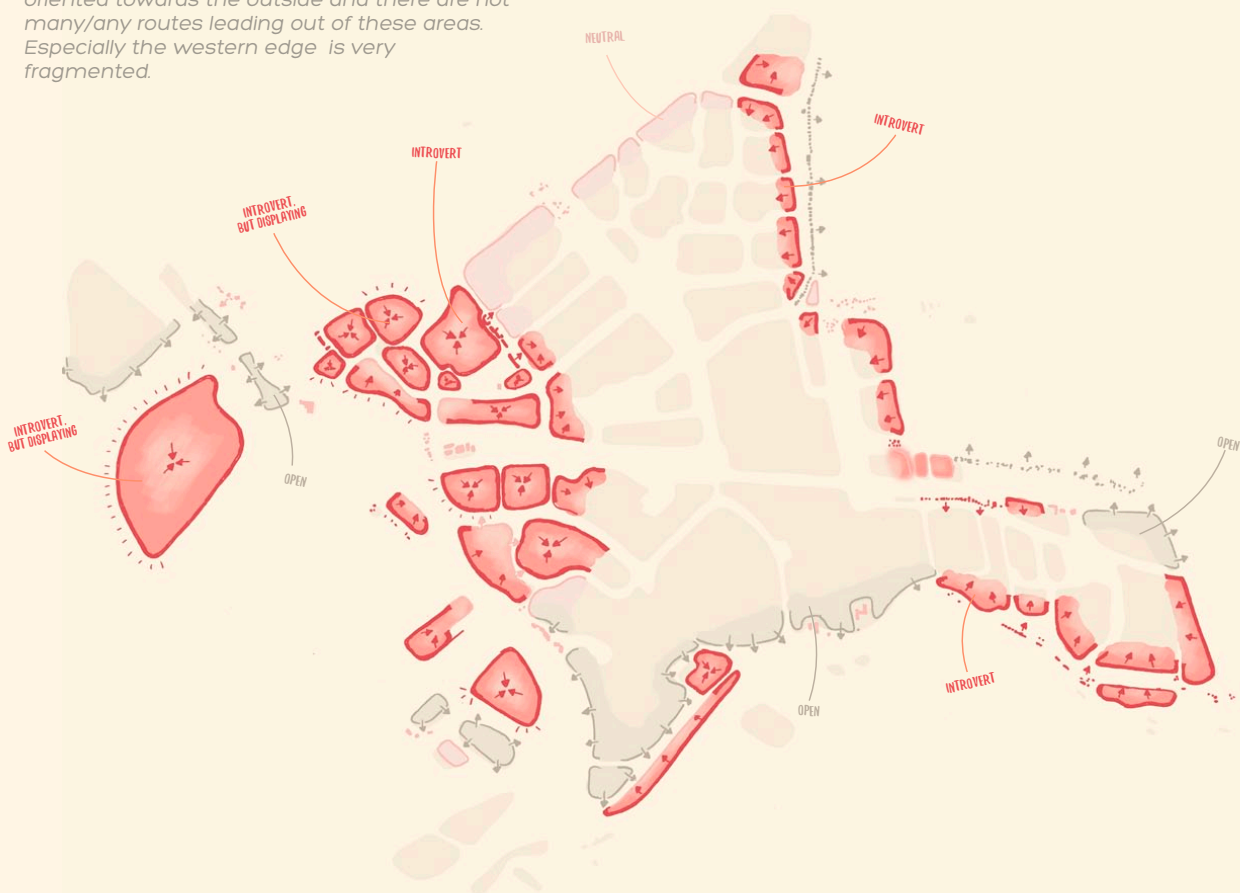
This phenomenon will be even more strengthened by the fact that there are many barrier-like elements between the current city of Gouda and its surroundings. Firstly there are the green buffer zones around the neighbourhoods. They give the neighbourhoods a green look, which is nice, but they also act as an obstacle to get out of the city. The second barrier-like element is the grid of infrastructure that surrounds the neighbourhoods. Not only the motorways are problematic here, also the waterways in the south and west act as a strong border between the city and its environment. The third element that strengthens introverted character of Gouda is the working area in the west. Which is characterized by their large scaled buildings and impassable public space. One or more of these barrier-like elements can be found in every city edge of Gouda, but a bundle of all three of them can be found at the western border of the city. Unfortunately, this is also the side where the urban field of the Randstad will soon meet the city of Gouda.

fig. 2.4d: There are many barrier-like elements around Gouda which make it hard to get out of the city.



- BUFFER GREEN + SPORT FIELDS
- WORKING AREAS
- MOTOR- + WATERWAYS

fig. 2.4e: Most edges of the city have introverted characteristics. This means the fronts of the buildings are not oriented towards the outside and there are not many/any routes leading out of these areas. Especially the western edge is very fragmented.



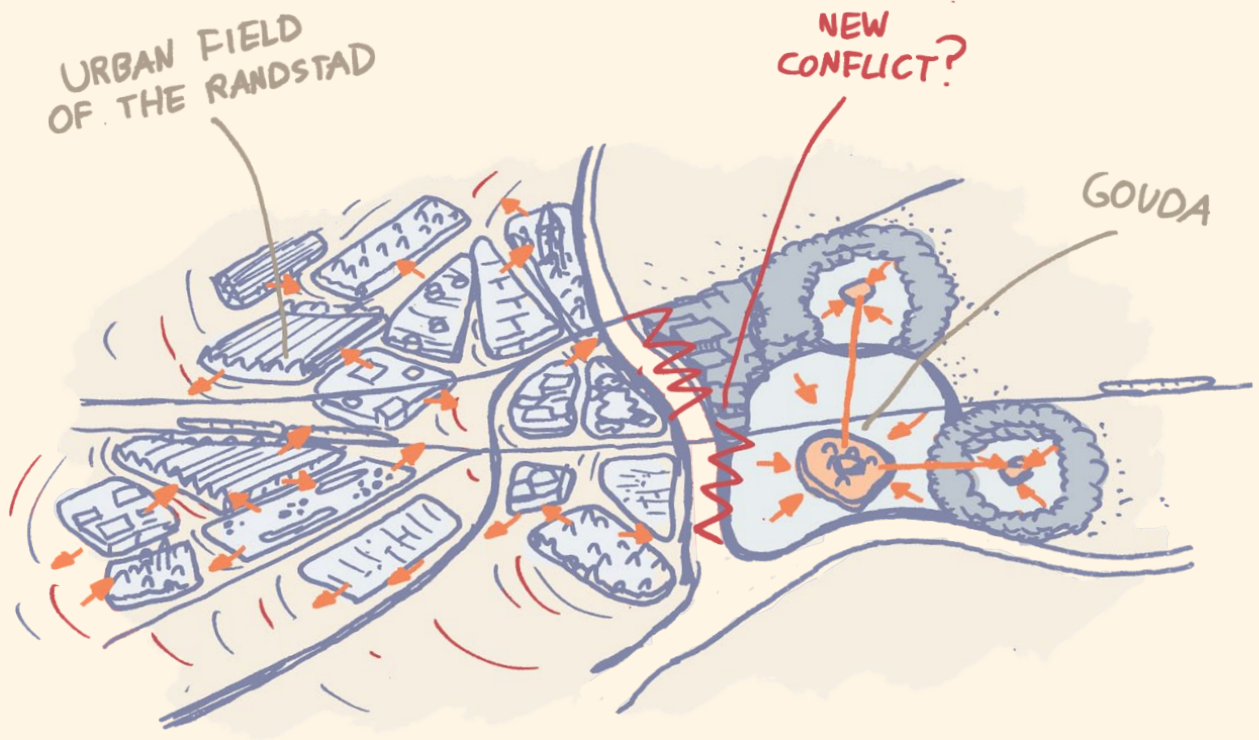
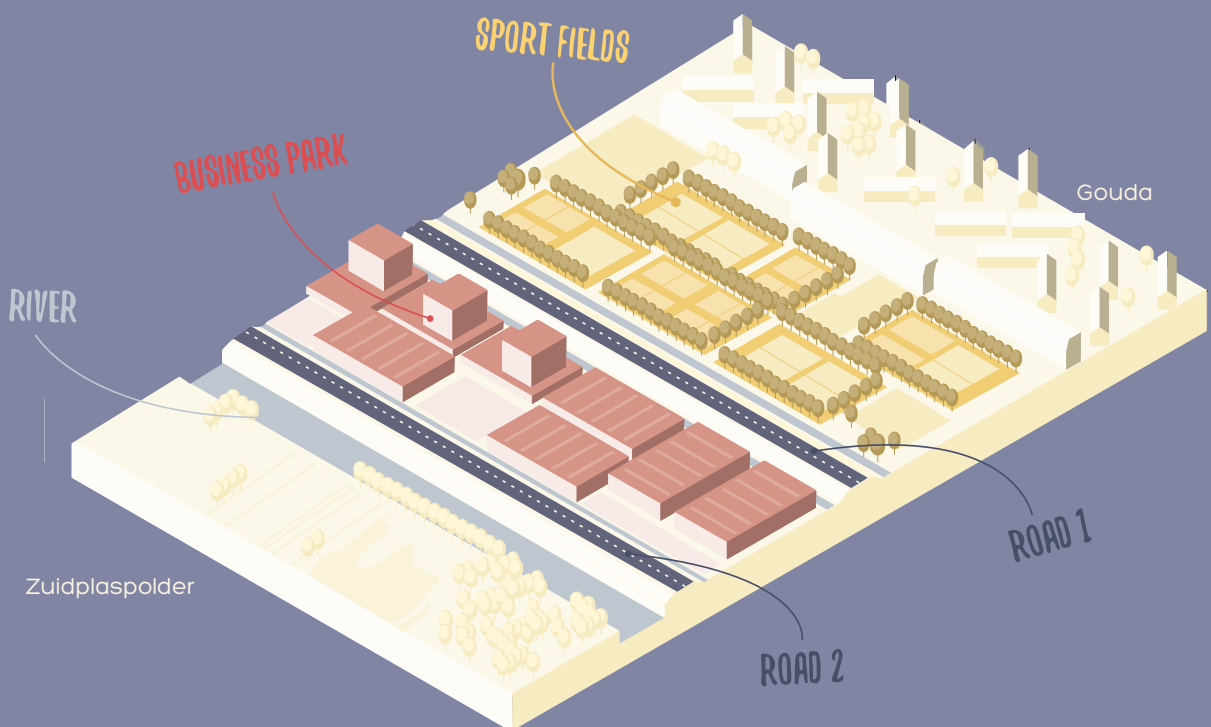


fig. 24f: The incoherent patchwork of the Randstad is reaching the introverted city of Gouda soon. What could happen?

fig. 24g: A more detailed part of the current western edge of Gouda, which is consisting of many barrier-like elements. See its location at fig. 24d.



2.5 VISION, A GREEN-BLUE SYSTEM FOR A BETTER URBANITY

There are some issues rising within the Randstad, and this also has consequences for Gouda. Firstly the region is economically not doing that well compared to other international regions. Secondly, The daily system of the current residents is more and more looking for relationships with the metropolitan region and less with the city they live in. And thirdly, the open landscape is getting shrinking and getting more divided, which has bad consequences for the regional liveability, ecology and sustainability (chapter 2.3).

Yet, most projects are still developed as a spatially unconnected particle in patchwork of urban fragments. This will soon play a huge role for the city of Gouda. Here, the large scale developments west of the city will tie Gouda together to the massive fragmented urban fabric of the Randstad. Obviously, when the city is part of this patchwork metropolis it will share the same problems as the metropolitan region as a whole. But, on top of that: the developments of large new residential areas near Gouda could also lead to segregation of the older neighbourhoods of the city. Which are only strengthened more by the fact that there are many barrier-like areas between these two places (chapter 2.4). What could help resolve this problem?

The studies of Dramstad, Olson & Forman (1996), Tummers & Tummers-Zuurmond (2000), Pötz & Bleuzé (2012) and Laeremans & Braaksma (2014) state that the missing element within a metropolitan region like the Randstad is an overall urban morphological structure: an interconnecting park-system or green-blue network. Recent regional visions like 'Randstad 2040' (2008) by VROM, 'Verstedelijkingsstrategie' (2008) by the Zuidvleugel and 'Visie Ruimte en Mobiliteit' (2014) by the Province of Zuid-Holland also try to adapt these ideas. But how does this spatial structuring principle work?

FUNCTIONAL SYSTEM VS SPATIAL SYSTEM

Before the principle of the green-blue network will be explained, it has to be stated that there is already a coherent urban system present in the Randstad, but its nature is mostly technical. It is the infrastructural network, consisting out of elements like highways, railways and canals: the functional urban system. In the Randstad this system is quite well organized and most places within the urban field are perfectly connected to this system. But the weak part is that this network purely functional and the spatial and visual component is lacking (Heynen, 1990). This system is most of the time located along the backsides of urban areas or behind sound barriers and buffer areas. It is only made to go as fast as possible from point A to point B and give the user, aside from road signs, hardly a clue where he is.

Many people prefer to use the car over using the bike and accommodating a purely functional system would result into an attractive living environment one would say, but certain behaviours could also (indirectly) lead to negative influences to the city or the people themselves. For instance because their habits produce pollution, trigger segregation, stimulate crime, urban sprawl or activate stress. Therefore in urban planning it could sometimes be better to avoid these behaviours instead of encourage them. (D' Acci, 2013) Of course these functional systems are needed, but spatial urban systems, such as a green-blue network, are at least as important (Province of Zuid-Holland, 2014; Pötz & Bleuzé, 2012; Bestuurlijk Platform Zuidvleugel, 2010; Tummers & Tummers-Zuurmond, 2000; Dramstad, Olson & Forman, 1996).

WHY IS THIS PRINCIPLE A GOOD RESOLUTION?

A green-blue system is composed of unbuilt lands, parks, rivers and landscapes (Tummers & Tummers-Zuurmond, 2000). It is a spatial pattern composed out of three types of elements: patches (which could be parks), corridors (like a river) and matrix (for example a forested landscape) (Dramstad, Olson & Forman, 1996).

A green-blue system could help resolve the problems which rise along the upcoming fragmented urban sprawl within the Randstad and its consequences for the liveability. Firstly, open

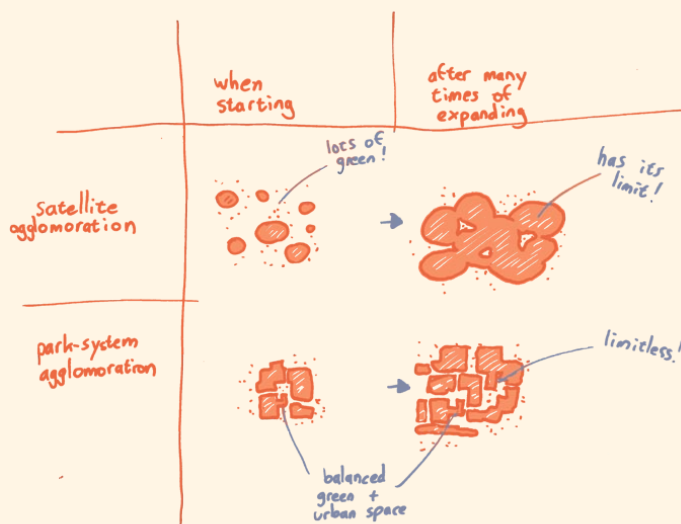


fig. 2.5.a: There is a certain limit in how the Randstad grew last century. It began as a few little red dots in a large green open area, but if this constellation of satellite cities expands to a metropolitan scale it could end up as red urban field with only a few 'islands' of open landscape left. According to the Tummers & Tummers-Zuurmond (2000) we should take an example to the metropolitan areas in the United States, where urban structure and green open space are expanding along to each other.

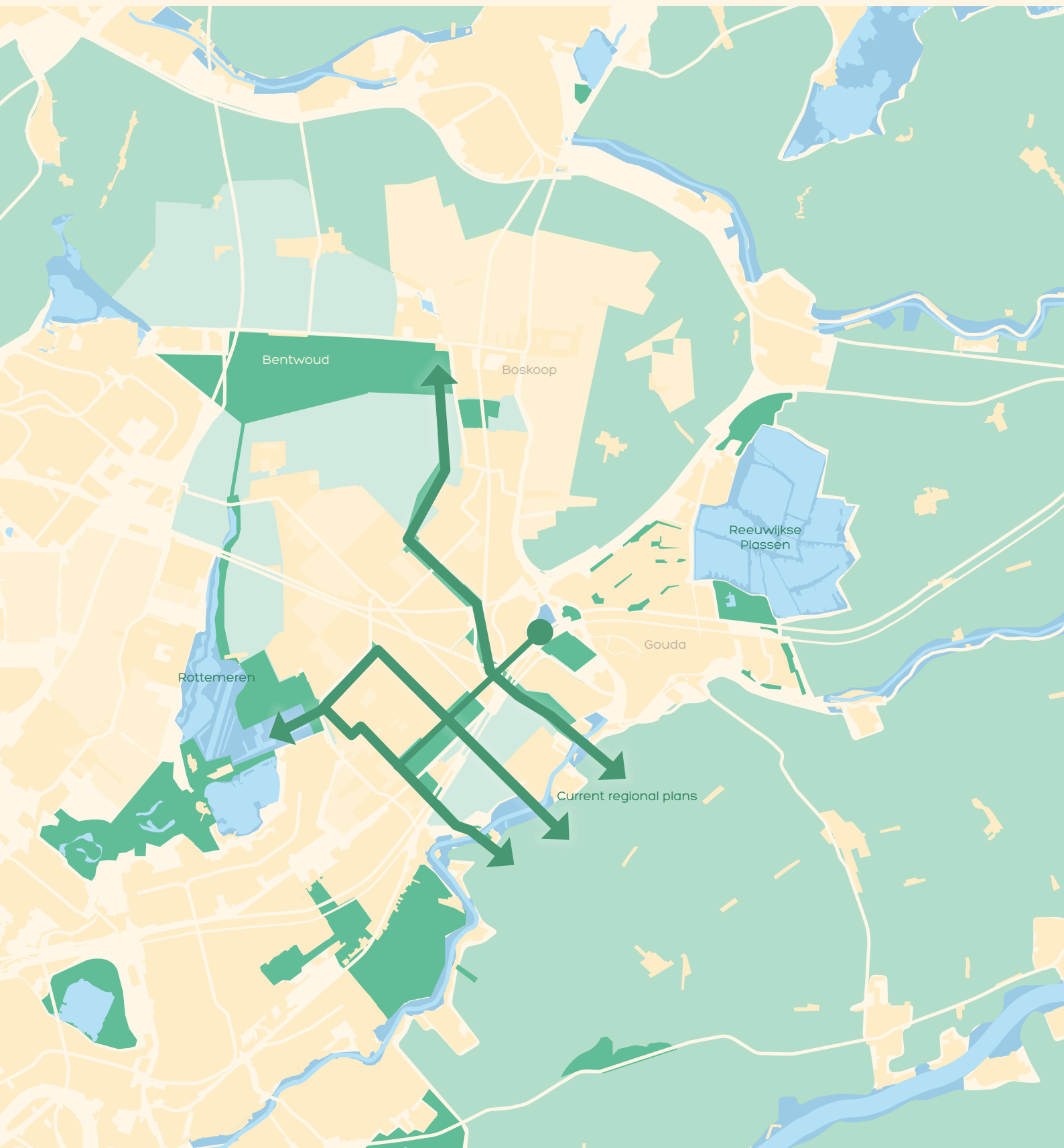


fig. 25.b: Current plans for the region do not integrate the city of Gouda with a green-blue system, but are even in such manner shaped that there develop new kind of barrier-like elements.

spaces help orientate our way-finding. It defines the shape of a metropolitan region and lets its residents better understand reading the complex urbanity (Tummers & Tummers-Zuurmond, 2000).

Secondly, they help giving identity to the urban area. The landscape in and around the Randstad is quite unique and varied. When blending it more into the urban fabric, its unique features could also give more identity to the now homogenous areas. Now, most neighbourhoods in satellite cities kind of look the same and are acting very introverted against their surroundings. An integration with a green-blue network could change that, especially when revealing and strengthening the historical aspects hidden under metropolitan patchwork. It could give the fragmented areas more their own identity, which makes the monotonous 'outdated' areas also attractive again for establishing businesses the middle- and higher classes (Province of Zuid-Holland, 2014; Pötz & Bleuzé, 2012; Bestuurlijk Platform Zuidvleugel, 2008; VROM, 2008).

Thirdly, a better spatial and social connectivity: a green-blue system strings together the open spaces into a multifunctional inner landscape with the potential of connecting the surrounding urban areas (Tummers & Tummers-Zuurmond, 2000). They make the landscape and recreational areas more accessible from the urban areas, which is important because more the need for recreational activities is still increasing within the Randstad (Province of Zuid-Holland, 2014). It is also one of the only areas where different kind of lifestyles could

see and meet each other. It has the potential to socially blend people with each other and prevents them from isolate themselves. It helps avoiding the chance of segregation. (Pötz & Bleuzé, 2012)

And lastly, it helps increase the quality of life. Now, almost 40% of the Dutch inhabitants is living in a neighbourhood which is lacking qualitative green areas (Pötz & Bleuzé, 2012). In the Randstad this percentage is likely higher. Several studies show that the nearness of qualitative parks and landscapes lead to a better appreciation of the living environment by its inhabitants (Laeremans & Braaksma, 2014; VROM, 2008).

HYPOTHESIS

The structuring principle of the green-blue system could help resolve the problems around Gouda and the metropolitan region as a whole. Cities and other individual areas within the metropolitan region should to be better integrated into this spatial system, to increase their liveability and help prevent segregation. At larger scale, this system of unbuilt lands, parks, rivers and landscapes, could also give the region a potential economical boost and climate-proof and sustainable structure.

As Gouda is about to be adjoin the fragmented patchwork of the Randstad, but also the fact that the city is a good example of typical '60s-70s planned area, with many outdated urban structures and barrier-like elements, it could be very useful for the liveability to integrate into certain part of the city with the green-blue system.



fig. 2.5.c: Hypothesis: Gouda should be connected with the an overall green-blue network



fig. 25.d: Now, within Gouda the green-blue system is not very coherent and potential connection to its surrounding landscapes unused..

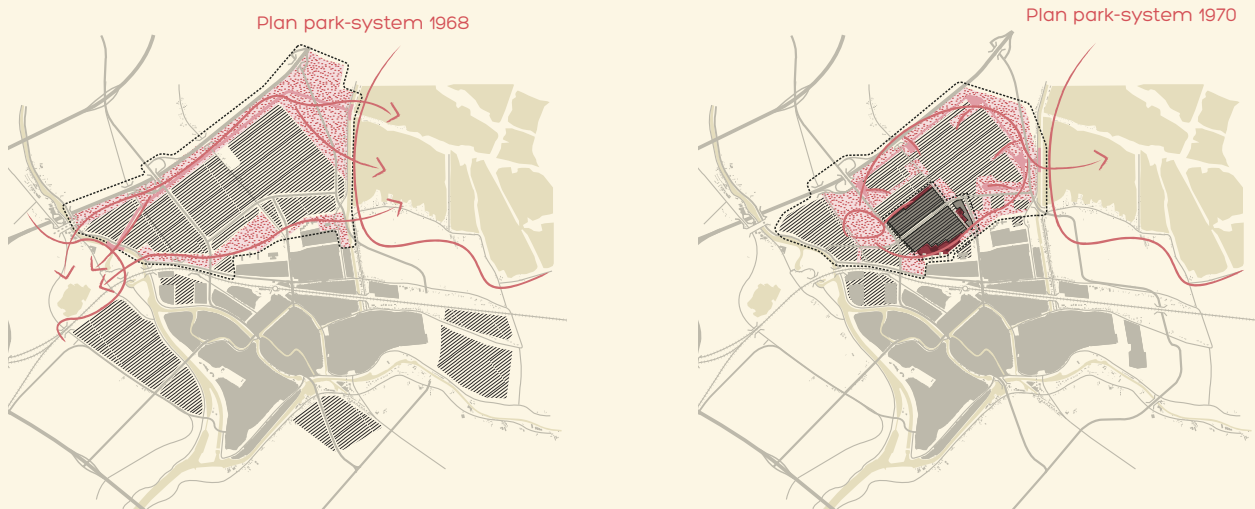



fig. 25.e: ...that is because othe original plans for the park structure were only partly developed. It is a sequence of half-made plans.



CHAPTER 3
**RESEARCH
FRAMEWORK**

3.1 PROBLEM STATEMENT

Large areas of the Randstad become a patchwork of unrelated small developments. The edges of cities adjoin each other more and more and the open space in-between them becomes non-existent or unclear. It leads to a divided landscape and fragmented urban area. This has consequences for the economical position of the metropolitan region, its liveability and the ecological system.

This problematique around the spatially interconnected metropolis has a large chance to effect the city of Gouda. This city was for long time morphological autonomous from the rest

of the Randstad. But with the developments in and around the Zuidplaspolder, the conurbation of Rotterdam and The Hague will adjoin the edge of Gouda. Learning from other cases were large scale developments socially separated the city, but also the fact that the urbanity of the Randstad is a patchwork of unrelated fragments and Gouda itself is an introverted city with many 'outdated' urban structures and barrier-like elements, could lead to the segregation of large parts of the city. The liveability of the inhabitants of Gouda is in danger.

3.2 AIM

According to my hypothesis, the structuring principle of the green-blue system could help resolve the problems around Gouda and the metropolitan region as a whole. Cities and other individual areas within the metropolitan region should be better integrated into this spatial system, to increase their liveability and help prevent segregation. At larger scale, this system of unbuilt lands, parks, rivers and landscapes, could also give the region a potential economical boost and climate-proof and sustainable structure.

As Gouda is about to be adjoin the fragmented patchwork of the Randstad, but also the fact that the city is a good example of typical '60s-70s planned area, with many outdated urban structures and barrier-like elements, it could be very interesting to see with what kind of spatial configurations a city like this could be better integrated into this green-blue system, and therefore increase its liveability.

CURRENT SITUATION



THREAT



AIM



3.3 MAIN RESEARCH QUESTION

*"What **spatial configurations** will allow Gouda to be better integrated into the **green-blue system** of the metropolitan region of the Randstad and so create a better **liveability** for its inhabitants and the metropolitan region as a whole?"*

(could be changed when hypothesis is proven wrong):

3.4 SUB RESEARCH QUESTIONS

The main research question can not be answered directly. More evidence needs to be found to prove (or disprove) that cities need to be better integrated into a green-blue system for a better liveability. There also need to be studied some example project which used certain spatial configurations to link them with this green-blue system.

The current spatial integration of Gouda also need to be researched to better understand what is wrong and what the potentials of the city are. There

needs to be researched how the current spatial system has developed the way it is. Just as the current urban strengths, weaknesses, opportunities and threats of the city and other related scales have to be found. It is also necessary to know which parties are involved in a project like this and what their individual wishes are.

SUB RESEARCH QUESTIONS
(need to be answered to answer the main research question):



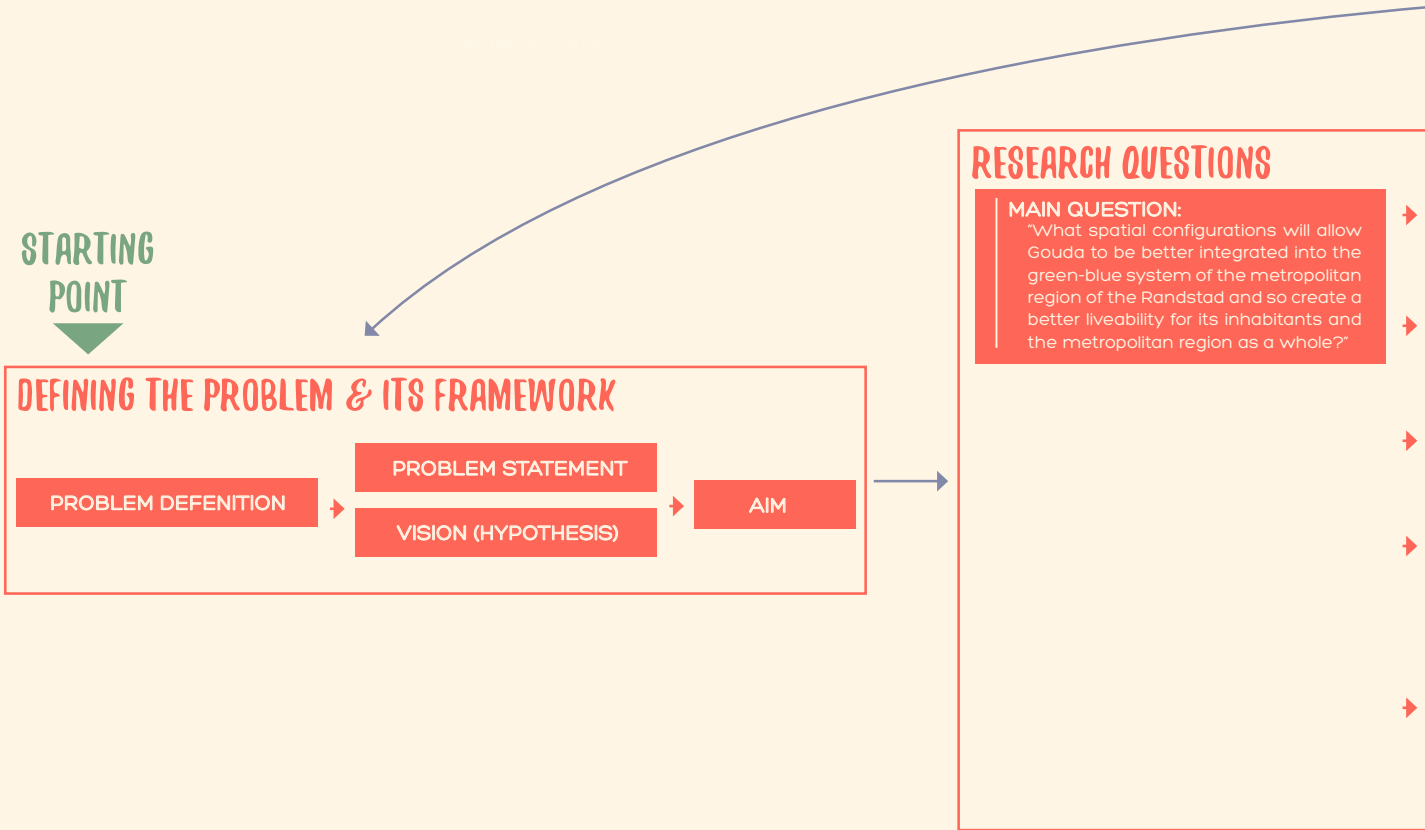


CHAPTER 4

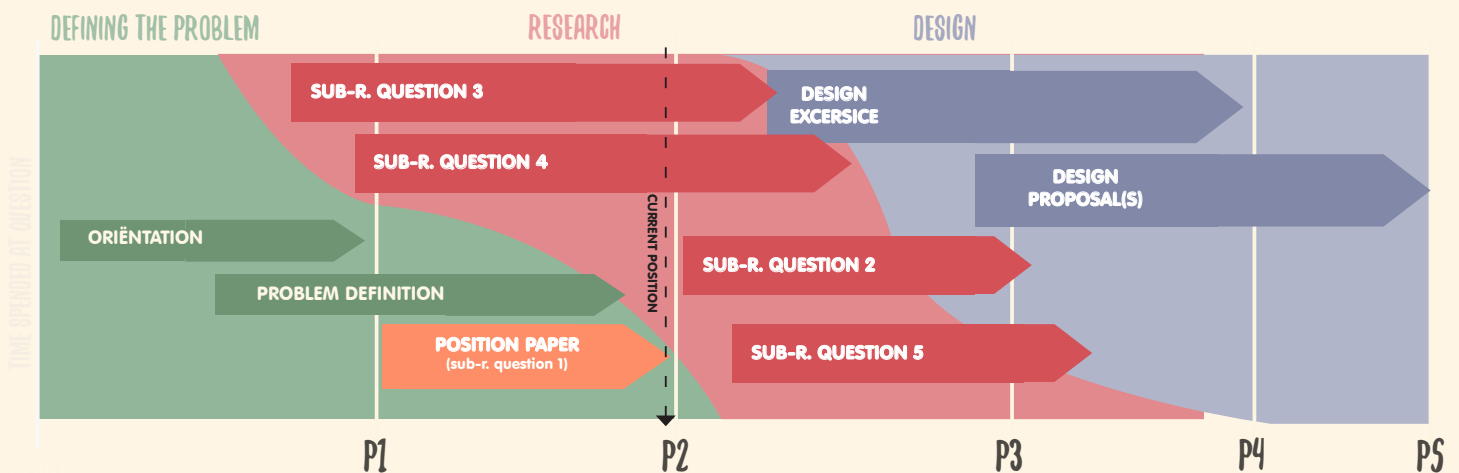
METHODOLOGY

4.1 RESEARCH APPROACH

APPROACH SCHEME:



4.2 TIME SCHEDULE



REFLECT/ REDEFINE

Is it still related to the main problem? Or do the questions need to be redefined?

SUB QUESTION 1:

"Why do cities need to be better integrated into a green-blue system to create a better liveability for them and the region?"

SUB QUESTION 2:

"What spatial configurations are used in cities comparable to Gouda to integrate them into a green-blue system?"

SUB QUESTION 3:

"In which manner is Gouda currently integrated into the green-blue system of the Randstad and how did this situation form?"

SUB QUESTION 4:

"What urban strenghts, weaknesses, opportunities and threats can be found in Gouda and other relevant scales that help/hinder the city to be better integrated into the green-blue system?"

SUB QUESTION 5:

"Who are involved into creating a new spatial configuration that allows Gouda to be better integrated into the green-blue system of the metropolitan region and what are their (quantitative) wishes?"

FINDINGS

FINDINGS

FINDINGS

FINDINGS

FINDINGS

DESIGN EXERCISE

RESEARCH BY DESIGN

Translating the results from the research-questions into design excercises.

COMPONENT 1

COMPONENT 2

COMPONENT 3

ETC

REFLECTING

DESIGN PROPOSAL(S)

VERSION 1

VERSION 2

VERSION 3

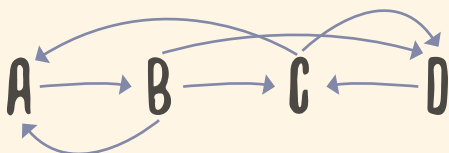
ETC...

FINISH

NOT A PROGRESS LIKE THIS:



BUT A PROGRESS LIKE THIS:



4.3 RESEARCH METHODS

SUB QUESTION 1:

"Why do cities need to be better integrated into a green-blue system to create a better liveability for them and the region?"

HOW TO BE ANSWERED:

- LITERATURE STUDY
 - > sources: books, documents and websites related to the importance of green-blue systems for the liveability.
- WRITING A POSITION PAPER
 - > sources: findings of the literature study.

AIM:

- To confirm if my hypothesis is right (if not, re-evaluate).
- Get more insight about this topic and the urgency of why it needs to be solved
- To gather argumentation and support for my topic so it can be more scientific relevant

PRESUMED CURRENT PROGRESS:

70%-80%

SUB QUESTION 4:

"What urban strenghts, weaknesses, opportunities and threats can be found in Gouda and other relevant scales that help/hinder the city to be better integrated into the green-blue system?"

HOW TO BE ANSWERED:

- MAPPING / ANALYTICAL DRAWING
 - > sources: maps, studies & (policy) documents which are showing the spatial structure and social + economical statistics of Gouda and other relevant scales.
- OBSERVATION
 - > sources: fieldwork done during/after several visits to the area.

AIM:

- To obtain a SWOT-overview of the spatial structure of this location.
- Apply these results and the conclusions of the 'sub question 3' in a confrontation-matrix and make potential relations/strategies visible.

PRESUMED CURRENT PROGRESS:

20%-30%

DESIGN PROPOSAL:

"What spatial configurations will allow Gouda to be better integrated into the green-blue system of the metropolitan region of the Randstad and so create a better liveability for its inhabitants and the metropolitan region as a whole?"

HOW TO BE ANSWERED:

The design proposal will be started if (some parts) of the other sub-questions have been solved. This is however not the final step, but more like a testing method to see if the findings from the other questions can be used or more needs to be researched. This method is called design by research.

SUB QUESTION 2:

"What spatial configurations are used in cities comparable to Gouda to integrate them into a green-blue system?"

HOW TO BE ANSWERED:

- CASE STUDY
 - > sources: comparable projects in the Netherlands and abroad which solved this problem of a lacking green-blue system (or didn't succeed). Found in literature, websites, or visiting these places and making analytical drawings.

AIM:

- When this case study has been done I have a list of good and bad elements in what to do in this kind of areas. This can help in making a design.

PRESUMED CURRENT PROGRESS:

5%-10%

SUB QUESTION 3:

"In which manner is Gouda currently integrated into the green-blue system of the Randstad and how did this situation form?"

HOW TO BE ANSWERED:

- MAPPING / ANALYTICAL DRAWING
 - > source: (historical) maps & policy documents which are showing the development of the area.
- LITERATURE REVIEW
 - > sources: books, (policy) documents and websites which show the 'ideas/trends through history of this area and the related scales'.

AIM:

- To investigate how the problem formed through time.
- To get more insight which different meanings this area had and now are forgotten or maybe still remained in fragments.

PRESUMED CURRENT PROGRESS:

30%-50%

SUB QUESTION 5:

"Who are involved into creating a new spatial configuration that allows Gouda to be better integrated into the green-blue system of the metropolitan region and what are their (quantitative) wishes?"

HOW TO BE ANSWERED:

- LITERATURE STUDY
 - > sources: policy documents, studies and websites related to this theme. Current trends in the housing- and office-market

AIM:

- To get a more realistic (feasible) plan.

PRESUMED CURRENT PROGRESS:

0%

LITERATURE

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Position paper, P2

“A green-blue system for a better relation between city, region and its inhabitants”

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Graduation Project MSc4

Delft University of Technology, Department of Urbanism

January 2016

Abstract – This paper aims to understand why a green-blue system is an unmissable spatial tool for a liveable metropolitan region. A green-blue system is composed of unbuilt lands, parks, rivers and landscapes. The Randstad is becoming a patchwork of interrelated small developments, leading to a divided landscape and many fragmented urban areas, only connected with each other via infrastructural systems which are purely functional and the spatial and visual component is lacking. This could lead to a decreasing liveability in the region and risk of segregation in the more traditional neighbourhoods. Green-blue systems could help resolve the problems which rise along with this kind urban sprawl. They help giving identity to the more homogenous urban areas, which makes them attractive again for establishing businesses and the middle- and higher classes. They also give more potential to socially blend people with each other and helps preventing the chance of segregation. This leads to a better liveable urbanity at scale of the metropolitan region and the smaller city.

Introduction

Since the last two decades a new kind of urbanity is rising within the Randstad. Slowly this metropolitan region is turning into a patchwork metropolis, consisting out of many uncoherent urban fragments. This has consequences for its liveability, but also economically the region is under pressure and not keeping up with other metropolitan regions in the world. Most current visions and studies blame the complex polycentric character of the Randstad: for too long the cities within the Randstad were competing with each other, focussing on their own small developments which lead to a spreading of the same kind of quantitative projects, instead of forming strong interrelated urban systems to achieve collective more qualitative goals and corresponding to the changed lifestyle of people and compete at international scale (VROM, 2008; Bestuurlijk Platform Zuidvleugel, 2008; Province of Zuid-Holland, 2014; PBL, 2015). One spatial tool to create more coherency within the region and thereby improve the liveability, is to connect all its different urban areas, landscapes, cities and business nodes with a green-blue system (Dramstad, Olson & Forman, 1996; Tummers & Tummers-Zuurmond, 2000; Pötzt & Bleuzé, 2012; Laeremans & Braaksma, 2014).

But why exactly do cities need to be better integrated into a green-blue system to create a better liveability? And why is this liveability in the Randstad and its cities under pressure?

After a short introduction of the Randstad this paper will explain the conflict between the changing lifestyle of the inhabitants of the Randstad versus the way the metropolitan region develops. After this, the case of Gouda will be used to describe the consequences of this dilemma. Lastly, the structuring principle of the green-blue system will be introduced and it will be illustrated why this system could help resolving this problematique.

1.1 The Randstad and the current decentralized planning structure

The metropolitan region of the Randstad, is a ring-shaped compilation of medium-sized cities situated in the middle-west of the Netherlands. It is often described as a typical polycentric urban system, an urban region which grew from more than one urban node. In contrast there is the monocentric urban system, which expands out of only one strong city or node, like the conurbations of London and Paris (Musterd & Van Zelm, 2000). The largest urban nodes within the Randstad are the four main cities of Amsterdam, Rotterdam, The Hague and Utrecht. In the middle of the ring-shaped metropolis one can find the Green Heart, a relatively open area which holds typically Dutch landscapes like the polders and peat lakes. Within the Randstad there are also some sub-metropolitan regions: in the South the Zuidvleugel, where the cities of Rotterdam, The Hague, Dordrecht and Leiden are part of and in the North the Noordvleugel, which holds cities like Amsterdam, Utrecht, Almere and Haarlem.

While clear urban planning decisions in the last half of the 20th century were first mostly made at national scale, currently these tasks shifted to smaller parties like the

municipalities, housing companies and private developers. This approach of 'bottom-up planning' has its advantages in uncertain times like now, as costs are quite low and the process is relatively short and easier to organise. But this decentralized planning structure also leads to an uncontrolled growth of fragmented and homogenous urban areas, where many municipalities try to attract the same kind of target groups, focus on the same kind of identities and are aiming on similar economies (Buursink, 2012). Who is responsible for the collective urban elements within this patchwork of unrelated developments? A structuring element which also adds value to the metropolitan region as a whole? Is this uncontrolled growth a natural response to the changing lifestyle of its inhabitants, or are they looking for a whole other kind of urbanity?

1.2 Changing lifestyles, composing your own living environment

In the late '60s and '70s the lifestyle of most residents of the Randstad was quite traditional: having the ideal of owning an ordinary single-family house of 100m² with private front- and back garden, situated in a calm and peaceful environment and having their daily amenities, like schools, shopping centres and churches all situated close to their homes. Most households existed out of the mom as housewife, the dad as money earner and two or more kids. Mom and the kids were bonded to their neighbourhood, the dad worked at the other side of town or in another city. The physical appearance of the urban environment built in the last half of the 20th century, was also designed according to the tastes and behaviour of this 'average joe': in the centre of the neighbourhood the daily amenities, at the boundaries the main access-roads with the less kid-friendly facilities. There was a clear hierarchic system of city, city districts, neighbourhoods and local communities. Working areas and infrastructure were strictly separated and hidden from the living quarters to conserve the quietness (Reijndorp & Pilet, 1998).

But as time passed, the lifestyle of people also changed. There wasn't one clear 'common' household anymore. At average people got more free time and money to spend. There were more moments for them to distinguish themselves from others next to work and house management and their tastes became more differentiated. Besides that, people's behaviour got more individualized, they also got more mobile in general. In the '60s and '70s not every household had their own car and if they had it was mostly used for travelling to and from work. Daily amenities had to be close to home. Now, the group of households that has two or even three cars in rapidly increasing. The car is not anymore only used for work, but also for travelling to friends and family, the supermarket, sporting and recreational areas and so on. Such facilities therefore don't have to be located at central positions in the city or neighbourhood anymore. As long as they are accessible, they could be situated anywhere of the urban system of the Randstad. From a highly urban area in the middle of the city to a peripheral business district along the highway (Reijndorp & Pilet, 1998; Derksen, van Hoorn, Lörzing & Tennekes, 2007; PBL, 2013).

1.3 The city is not relevant anymore

One could say that the inhabitants of the Randstad compose their own 'city' together: they assemble the 'fragments' of where they work, sleep, shop and recreate into their own ideal living environment. Neutelings mentioned this phenomenon in 1989 when studying the city of Den Haag. He described that the Randstad should not anymore be read a collection of cities, but as a carpet of spatial-functional fragments. In this carpet metropolis, The Hague is for example not a city anymore, but a collage of some specific spatial-functional fragments. Urban extensions in the Randstad should therefore no longer be seen as open land that needs to be built, but as transforming the current spatial-functions attributes of a fragment into a fragment with new spatial-functional attributes. Within this transformation-process is also needed to look why it is necessary for the carpet metropolis as a whole, if the aim is to create a stronger urban region (Neutelings, 1989).

In the US this phenomenon of the loss of the traditional city already took place much earlier. In 1965 Friedman and Miller already described that modern urbanization was not anymore focused at one single physical entity (the traditional city) but at a number of centres connected by flows of people, goods, money and information. They called the spatial concept of this large scale area holding many interrelated networks of economic and social activities 'the urban field'. Fishman added that in this urban field, urbanization is also no longer organized around one or more centres, but that the house is the new centre, where every household determines for itself which structures within the urban field are useful and which are not (Musterd & van Zelm, 2001). The daily system of current society is more and more looking for relationships with the metropolitan region and less with the city they live in. The new urbanity is an urbanity without a city (Reijndorp & Pilet, 1998).

1.4 The risk of the current way of developing

But as said earlier, today most municipalities still do not look further than their borders and built the same kind of furnishing malls, business parks, retro-style residential areas and office locations. Focussing on similar identities and attracting the same kind of target groups. Firstly building the quantitative component of their urban plan, where after they find out that due economic reasons the most qualitative parts (like an interconnecting park or cultural sub-centre) have to be left out. This leads to an uncontrolled growth of fragmented and homogenous areas. The Randstad becomes a patchwork of interrelated small developments. Municipalities also still see their expansions in a traditional way: an expansion of their city, building from the inside to the outside (Suurenbroek, 2007). A few decades ago, when most individual cities in the Randstad were spatially more autonomous, this traditional way of growing seemed the most practical way to expand. Spatially, cities were then not that complex and had a more hierarchic structure. The newest expansions weren't that far situated from the city centre and could easier be integrated with system of the inner city. The large amount open space around the city gave the inhabitant a sense of place and orientation within the larger region (Tummers & Tummers-Zuurmond, 2000).

But as the cities grew more and more, planners saw this planning concept had a certain limit. Many cities in the Randstad are now not spatially autonomous anymore. Their edges adjoin each other. The open space in-between them is non-existent or unclear. Large parts of the region became a cloudy form of urbanity, an urban sprawl of peripheral areas. Too far away from the inner city to be part of the city, but at the same time also not an added value for the metropolis as a whole. The decentralized planning method could even speed up this phenomenon (Buursink, 2012). As very flexible planning policies allows many small developments to be built, risking an uncontrolled growth of introverted urban fragments within the Randstad. There needs to be a better balance between these more flexible urban planning tools and the more overall steering elements coming from regional hand.

This growth also leads to a shrinking and more divided open landscape. When comparing the current shape of the Green Heart of the one from a few decades ago, one can see that this open landscape is much smaller and more fragmented. This is also the case with other relatively large open areas within the Randstad like Midden-Delfland and certain open landscapes, like the one between Delft, Zoetermeer, Gouda and Rotterdam, almost disappeared completely.

A divided landscape like that makes a metropolitan region vulnerable and has negative impact on the liveability according to the studies of Dramstad, Olson and Forman (1996), Tummers & Tummers-Zuurmond (2000) and Pötz & Bleuzé (2012). An overall landscape system, which weaves land, water, nature and people together is necessary to create a strong and liveable urban region. But in the Randstad it is only getting harder to reach the open space, a certain continuity is missing of its not accessible enough (Laeremans & Braaksma, 2014).

2. Could this lead to segregation? Case Gouda

The problematique around the interconnected patchwork metropolis will soon play a huge role for the city of Gouda. This middle-sized city is located at the inner edge of the Randstad and holds around 71.000 inhabitants (CBS, 2015). Its current urban form mainly originated from urban plans and visions from the late '60s and '70s, when it was marked by the national government as a 'satellite city', a town where urbanization needed to take place instead of expanding the larger cities like Rotterdam and Den Haag (Municipality of Gouda, 1969). It was the time period of a more common traditional lifestyle and in Gouda this resulted into the suburban neighbourhoods of Bloemendaal and Goverwelle. The plans of these neighbourhoods were shaped according to the preferences of this lifestyle. It are self-reliant city-quarters, each with their own sub-centre and while good connected to the older parts of the city, still somewhat morphologically separated from the rest of Gouda and its surroundings, when looking at the heavy motorways, canals, industrial functions and green buffer zones.

Within the spatial structure of the Randstad, Gouda was for a long time autonomous. The edge of the closest big city, Rotterdam, was during the late '60s roughly 15 km away

from Gouda. However, as the agglomeration of Rotterdam kept expanding, this situation changed and currently the edges of both cities are less than 5 km situated from each other. Within this small distance, one can find the Zuidplaspolder, where now many new developments are planned or even already started. The first plans for the Zuidplaspolder originated in 2004 (VROM, 2004) and contained projects which were quite unique and had a potential added value at the scale of the Randstad. So was there a highly urban interconnecting city-quarter at an intersection of public transport, motorways, the current city of Gouda and the canal. There also was planned a very lowly-densed residential, employing the unique features of its landscape, focusing at an international target group whose numbers a now very little presented in the Randstad. But mainly because of the financial crisis in 2007, the appeal to develop new large scale living and working locations decreased and the plan for the Zuidplaspolder became an uncertainty. Around 2012 however, it was decided to develop the area again, but now within a more 'bottom-up' like approach. Every municipality is now developing small particles of similar retro-style residential areas and grey glasshouse/logistic areas. The more unique projects just described, which had a potential to give added value to the Randstad, were once again scrapped (Province of Zuid-Holland, 2013; Municipality of Zuidplas, 2012). One of the last open areas within the southern part of the Randstad is now again slowly shrinking and soon the urban fabric of Gouda will join the extensive patchwork metropolis. But other than losing again some open green space and one of the last potentials to create a coherent part of the region, what else could this mean for the current city of Gouda?

A study done by the PBL in 2010 shows that the development of the recent VINEX-suburbs (large scale urban areas built from 1995-2015, very often strictly separated from the older urban areas) resulted into a higher segregation (separation of two groups in different neighbourhoods, most of the time paired with negative consequences for the liveability) in the older neighbourhoods of the same city. This was proven most clearly in the urban extensions of Ypenburg (Den Haag) and Leidsche Rijn (Utrecht), where the large urban extensions had the most effects on the demographic structure of already built environment. The newer VINEX-suburbs fitted more to the lifestyle of the middle- and high-class Randstad resident. This resulted into that the older neighbourhoods went down in the local hierarchy of neighbourhoods and became more unpopular. The liveability ratings decreased.

When we look the past, this phenomenon also took place in Gouda. As the (then new) urban expansions of Bloemendaal and Goverwelle indirectly turned out to give many social problems to older post-war neighbourhoods in the city: Korte Akkeren and Oosterwei. Many wealthy middle-class residents left Korte Akkeren and Oosterwei, because they thought these older neighbourhoods didn't anymore fit to their lifestyle and there was a better alternative close by. These new neighbourhoods had safe environments for children, shopping malls, buildings with human scale characteristics and a good connectivity to the infrastructural system, Korte Akkeren and Oosterwei were lacking these

aspects. The lower social classes had no other choice then to stay. These concentrations of unemployed and low educated people, let too many social problems in these neighbourhoods (Ouweland, 2008). In Gouda this growing amount of social problems and unsafety in these neighbourhoods during this last decade had to be resolved with many urban renewal projects, but when looking today the people in these places are still less happy compared with the people in other neighbourhoods (BZK, 2015).

So could the development of the residential areas in and around the Zuidplaspolder eventually lead to segregation within the older neighbourhoods of Gouda, like Bloemendaal and Goverwelle? One could say, learning from the previous two examples of the development of the introverted VINEX-suburbs in Utrecht and The Hague and '60s and '70s neighbourhoods in Gouda, that there is a huge chance it could also occur over here.

3.1 Looking for solutions: introducing the green-blue network

The inhabitants of the Randstad are changing in behaviour and looking for other ways to use the urban field. The concept of the traditional city is getting less relevant. Yet, most projects are still developed as a spatially unconnected particle in patchwork of urban fragments. This has consequences for the liveability, as the landscape becomes harder to reach, the homogenous urban sprawl is getting larger and triggers a threat of segregation in the already 'outdated' urban fragments. What could help resolve this problem?

The studies of Dramstad, Olson & Forman (1996), Tummers & Tummers-Zuurmond (2000), Pötz & Bleuzé (2012) and Laeremans & Braaksma (2014) state that the missing element within a metropolitan region like the Randstad is an overall urban morphological structure: an interconnecting park-system or green-blue network. Recent regional visions like 'Randstad 2040' (2008) by VROM, 'Verstedelijingsstrategie' (2008) by the Zuidvleugel and 'Visie Ruimte en Mobiliteit' (2014) by the Province of Zuid-Holland also try to adapt these ideas. But how does this spatial structuring principle work?

Before the principle of the green-blue network will be explained, it has to be stated that there is already a coherent urban system present in the Randstad, but its nature is mostly technical. It is the infrastructural network, consisting out of elements like highways, railways and canals: the functional urban system. In the Randstad this system is quite well organized and most places within the urban field are perfectly connected to this system. But the weak part is that this network purely functional and the spatial and visual component is lacking (Heynen, 1990). This system is most of the time located along the backsides of urban areas or behind sound barriers and buffer areas. It is only made to go as fast as possible from point A to point B and give the user, aside from road signs, hardly a clue where he is.

Many people prefer to use the car over using the bike and accommodating a purely functional system would result into an attractive living environment one would say, but certain

behaviours could also (indirectly) lead to negative influences to the city or the people themselves. For instance because their habits produce pollution, trigger segregation, stimulate crime, urban sprawl or activate stress. Therefore in urban planning it could sometimes be better to avoid these behaviours instead of encourage them. (D' Acci, 2013) Of course these functional systems are needed, but spatial urban systems, such as a green-blue network, are at least as important (Province of Zuid-Holland, 2014; Pötz & Bleuzé, 2012; Bestuurlijk Platform Zuidvleugel, 2010; Tummers & Tummers-Zuurmond, 2000; Dramstad, Olson & Forman, 1996).

3.2 How green-blue systems could help resolve the problems

A green-blue system is composed of unbuilt lands, parks, rivers and landscapes (Tummers & Tummers-Zuurmond, 2000). It is a spatial pattern composed out of three types of elements: patches (which could be parks), corridors (like a river) and matrix (for example a forested landscape) (Dramstad, Olson & Forman, 1996).

A green-blue system could help resolve the problems which rise along the upcoming fragmented urban sprawl within the Randstad and its consequences for the liveability. Firstly, open spaces help orientate our way-finding. It defines the shape of a metropolitan region and lets its residents better understand reading the complex urbanity (Tummers & Tummers-Zuurmond, 2000).

Secondly, they help giving identity to the urban area. The landscape in and around the Randstad is quite unique and varied. When blending it more into the urban fabric, its unique features could also give more identity to the now homogenous areas. Now, most neighbourhoods in satellite cities kind of look the same and are acting very introverted against their surroundings. An integration with a green-blue network could change that, especially when revealing and strengthening the historical aspects hidden under metropolitan patchwork. It could give the fragmented areas more their own identity, which makes the monotonous 'outdated' areas also attractive again for establishing businesses the middle- and higher classes (Province of Zuid-Holland, 2014; Pötz & Bleuzé, 2012; Bestuurlijk Platform Zuidvleugel, 2008; VROM, 2008).

Thirdly, a better spatial and social connectivity: a green-blue system strings together the open spaces into a multifunctional inner landscape with the potential of connecting the surrounding urban areas (Tummers & Tummers-Zuurmond, 2000). They make the landscape and recreational areas more accessible from the urban areas, which is important because more the need for recreational activities is still increasing within the Randstad (Province of Zuid-Holland, 2014). It is also one of the only areas where different kind of lifestyles could see and meet each other. It has the potential to socially blend people with each other and prevents them from isolate themselves. It helps avoiding the chance of segregation. (Pötz & Bleuzé, 2012)

And lastly, it helps increase the quality of life. Now, almost 40% of the Dutch inhabitants is living in a neighbourhood which is lacking qualitative green areas (Pötz & Bleuzé,

2012). In the Randstad this percentage is likely higher. Several studies show that the nearness of qualitative parks and landscapes lead to a better appreciation of the living environment by its inhabitants (Laeremans & Braaksma, 2014; VROM, 2008).

Conclusion

The liveability within the Randstad is under pressure. The daily system of current society is more and more looking for relationships with the metropolitan region and less with the city they live in. But in the meantime the Randstad becomes a patchwork of interrelated small developments. The edges of cities adjoin each other more and more. The open space in-between them becomes non-existent or unclear. It leads to a divided landscape and the fragmented urban areas could strengthen the threat of segregation in the already 'outdated' urban fragments.

Cities and other individual areas within the metropolitan region should to be better integrated into a green-blue system. This spatial system, composed of unbuilt lands, parks, rivers and landscapes, could help resolve the problems which rise along with this kind urban sprawl. It defines the shape of a metropolitan region and lets its residents better understand reading its complex urbanity. They help giving identity to the more homogenous urban areas, which makes them attractive again for establishing businesses and the middle- and higher classes. It gives more potential to socially blend people with each other and helps preventing the chance of segregation. All by all, it leads to a better appreciation of the living environment of the people. At the scale of the Randstad, but also for the residents of small cities like Gouda.

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