Inclusive Residential Areas

– a report on a field trip to the Netherlands

Inkluderande bostadsområden – rapport från en studieresa till Nederländerna

Maria Kylin, Victoria Sjöstedt, Eva Kristensson, Lisa Norfall, Anna Robling, Bodil Dahlman

Swedish University of Agricultural Sciences, SLU
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Abstract

This report discusses seven residential areas in the Netherlands from the perspective of social inclusiveness – EVA Lanxmeer, Park Rosendaal, Bijlmermeer, Diagoon Housing, Spangen, Ypenburg and Java Island. The material was collected during a field trip to the Netherlands in spring 2020, as part of a Call for Ideas initiative from SLU Landscape. Jointly, we have compiled our experiences from the field trip in this publication, for inspirational use within educational settings.

Keywords: social inclusiveness, urban planning and design, housing, living environments, participation, urban strategies, bottom-up initiatives

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Abbreviations

SLU	Swedish University of Agricultural Sciences
LAPF	Department of Landscape Architecture, Planning and Management
SOL	Department of Urban and Rural Development

1. Introduction

Background

In 2007, 50% of the world's population was living in urban areas. It is estimated that in 2050, the population living in urban areas will exceed 68% (www.un.org). Housing accounts for a major part of the total building area in urban development and is, therefore, the single most important quantitative factor for implementing the goal of creating long-term sustainable cities. The organization and design of residential space are of utmost importance to study.

Inclusive residential areas can be defined and studied in several ways. An inclusive city is specified by UN-Habitat as one that promotes growth with equity. Equity is defined as a place where everyone, regardless of their economic means, gender, race, ethnicity, or religion, is enabled and empowered to fully participate in the social, economic and political opportunities that cities have to offer. Participatory planning and decision-making are at the heart of the inclusive city (www.unhabitat.org).

One aspect of inclusiveness is for planners and architects to advocate on behalf of stakeholders without economic viability. Public spaces, courtyards and green areas are all places important for a good everyday life. It is not always obvious that these types of public spaces are thoroughly considered when stakeholders with a strong drive for profit are in change, especially today when cities not only are getting denser in terms of population, but also more compact in their physical fabric. Good urban design of public spaces and green areas and courtyards can play a critical role in creating social inclusiveness for the everyday lives of the inhabitants (Kristensson, 2003; Nordström, 2014).

The study trip and its objectives

In February 2020, shortly before the big Covid 19 shutdown, six academic teachers made a study trip with the purpose to study new and old housing projects in the Netherlands to learn more about residential urban planning from the perspective of social inclusiveness. The Netherlands has a long tradition of urban planning with a focus on social and societal development with innovative approaches to resident

participation and capacity building. Examples of recent regeneration initiatives include, for instance, the transformation of Amsterdam Bijlmermeer and the development of EVA Lanxmeer living lab.

The objective of the study trip was twofold. First to acquire new knowledge for us teaching and researching in urban planning and design at the LAPF and SOL departments. Second to produce a publication to be used as teaching material in courses related to urban planning and design.

Approach

One of the important learning processes for architects is to study places of reference. To visit, observe and analyze places and areas are important learning activities throughout an architect's career. Analyzes and assessments in urban areas can be carried out in many ways. A special challenge is to assess and communicate qualitative values and to do quality assessments of space and urban areas. Factual and quantitative measurements, such as sqm/housing area, are easier to define and understand, but give a limited picture of a residential area's inclusive impact. In this report, we choose to make personal reflections on aspects of social inclusiveness, at different scale levels.

For landscape architects it is crucial to master many different scales. The overall scale is where, for instance, housing, vegetation or traffic are structured and organized. The organization of the green structure or infrastructure has a crucial impact on how places in a more detailed scale can be designed or used. The detailed design of a courtyard, for instance, is dependent on how buildings and traffic are structured, and affects, in turn, how we can live our everyday life. In this report, we try to shed light on connections between the overall scale and the more detailed scale and the way the different scales affect each other.

The residential areas visited during this study trip span from row houses, such as Diagoon Housing in Delft, to whole city areas such as Bijlmermeer in Amsterdam. We tried to grasp inclusive qualities both in a detailed scale in courtyards and in overall structural scales of the city. When we could find them, we used quantitative facts to describe the residential areas, such as sqm plan area and number of dwellings. We also make qualitative reflections on how the areas work as inclusive residential space. To describe the visited places, we use aerial photos, photos, plans and verbal descriptions.

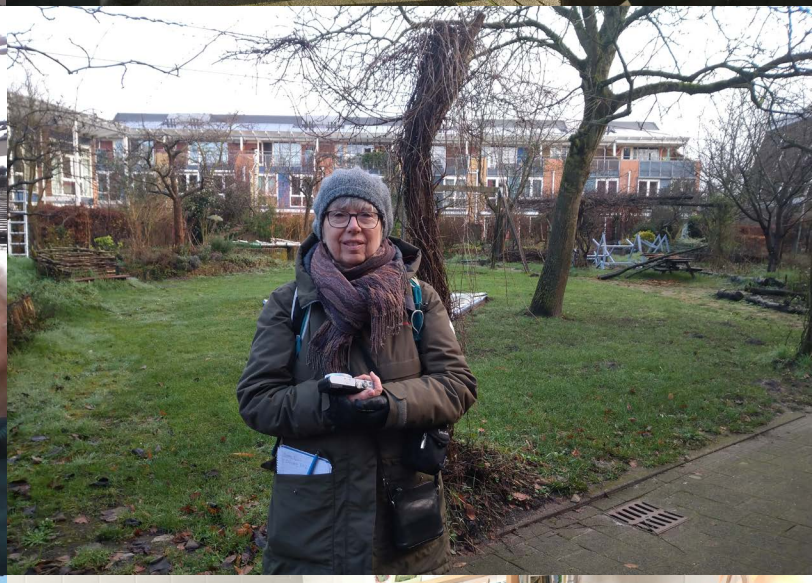
How to use this report

The report can be used as a guide to upcoming study trips and as inspiration and study material for teachers and students in courses dealing with urban planning at different scale levels.

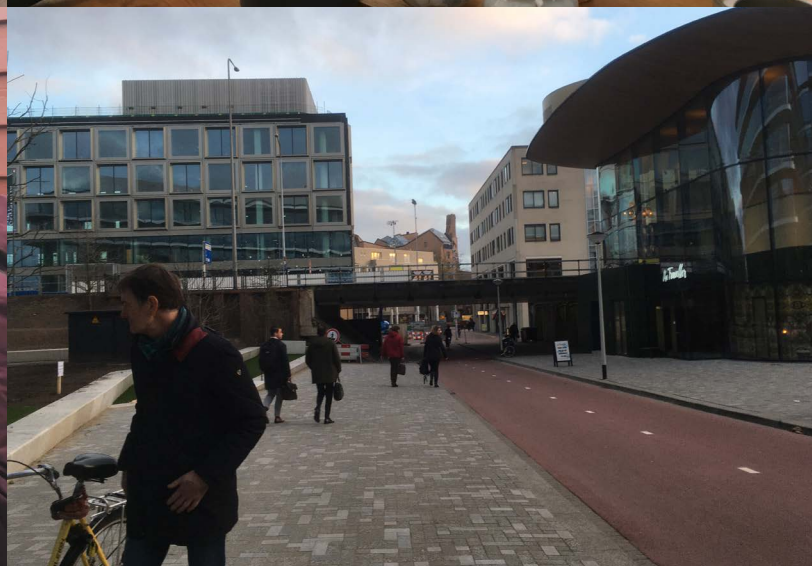
The report starts with an overall description of the actual study trip, and continues with descriptions of the seven visited residential areas. First the areas are described with the facts that we have been able to find, such as the overall size of the urban area, types of houses and structure of area. Second we make personal reflections on the areas, focusing in particular on social inclusiveness and the ways in which the areas are interesting to visit from a landscape architect's point of view.

We wrote this report jointly, but divided the task between us, each one of us writing about one area. The rhetoric and oratory are somewhat different in the separate descriptions of the areas. We chose to keep it that way to make the report vivacious. We hope you will enjoy reading the report and will become inspired by the different approaches represented by these areas!


Bijlmer ArenA




Botanical



2. The study trip, program places/logistics/guides

Participants

Teachers from SLU:
Maria Kylin, Victoria Sjöstedt, Eva Kristensson, Lisa Norfall, Anna Robling, Bodil Dahlman
Guides in Holland:
Victor Retel-Helmrich, the architect who organized the trip and also drove our minibus
Martin de Brouwer, the architect who joined us the first day
Marleen Kaptein, one of the initiators of the EVA-Lanxmeer living lab
Ruud van Soest, our guide in Bijlmermeer
Robert von der Nahmer, our guide in Delft
Aycgul Cil, Jan de Die, landscape architects who joined us the second day

Places/logistics

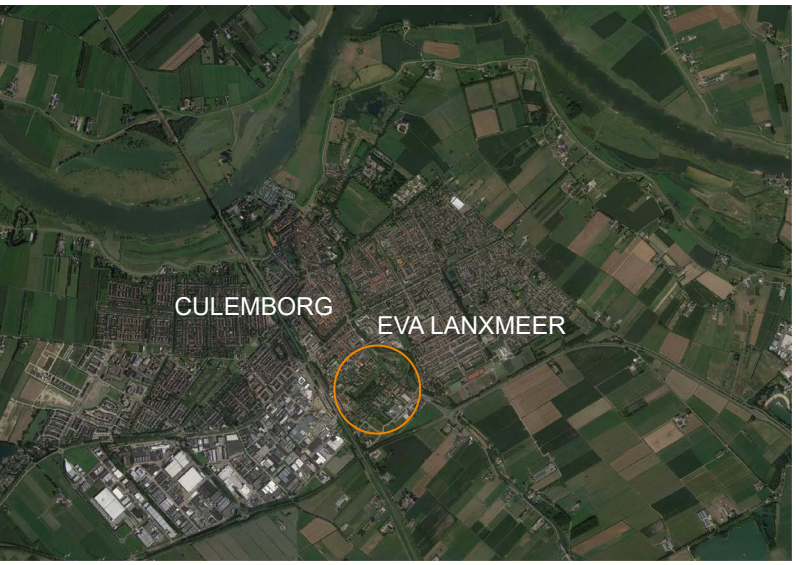
Tuesday 2020-02-04
19.00 We are picked up with a minibus by our guide Victor Retel-Helmrich in Schiphold. We go to our hotel in Woerden. Dinner in Woerden.

Wednesday 2020-02-05
8.30 Our guides, Victor Retel-Helmrich and Martin de Brower, join us at the hotel and we leave for Culemborg.
10.00 Visit to EVA Lanxmeer in Culemborg. Our guide, Marleen Kaptein, receives us in her home and shows us around in the area.
12.30-13.00 Lunch in Amersfoort with Victor Retel-Helmrich and Martin de Brouwer.
13.00-13.20 Quick visit to Park Rozendaal in Amersfoort.
15.00 We meet our guide Ruud van Soest in Bijlmermeer in Amsterdam. We rent bikes and take a 3 hour guided bike tour in the area.
18.00 Dinner at a restaurant in Bijlmermeer. Thank you and goodbye to Martin de Brouwer.

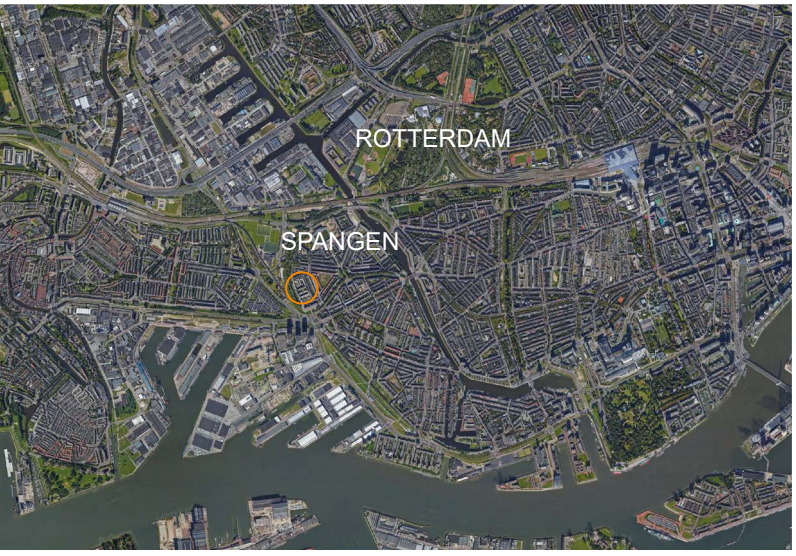
Thursday 2020-02-06
8.30 Victor Retel-Helmrich and Aycgul Cil meet us at the hotel. We leave for Delft.
10.00 Architect Robert von der Nahmer receives us in his home and tells us about the Diagoon Housing in Delft.
12.00 Visit to Spangen Quarters in Rotterdam where we meet our guide Jan de Die.
13.00 Lunch in Rotterdam with Victor Retel-Helmrich, Aycgul Cil and Jan de Die.
14.00 Visit to Ypenburg Waterwijk in Den Haag. We walk through the area for 2 hours.
18.00 Dinner in Delft with Victor Retel-Helmrich, Aycgul Cil and Jan de Die. Thank you and goodbye to Aycgul Cil and Jan de Die.

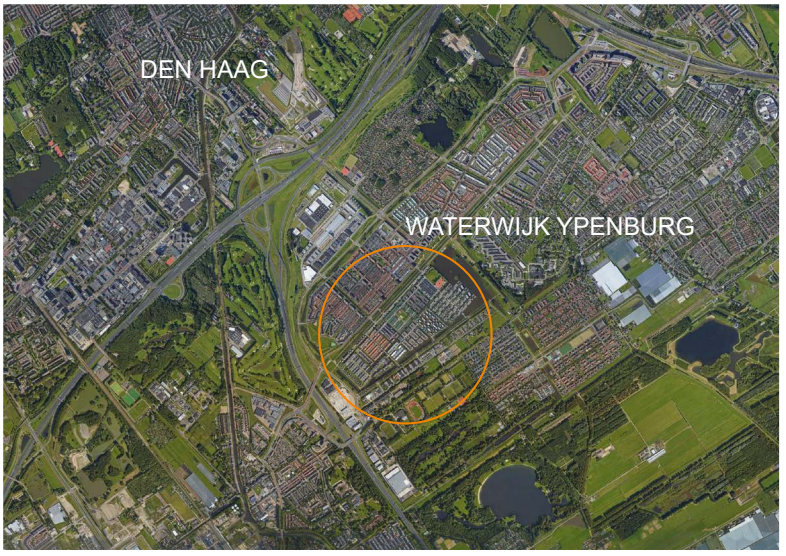
Friday 2020-02-07
8.30 Victor Retel-Helmrich joins us at the hotel and we leave for Amsterdam.
10.00 Visit to Java Island in Amsterdam.
12.30 We arrive at the central station in Amsterdam and leave for Schiphold. Thank you and goodbye to Victor Retel-Helmrich.

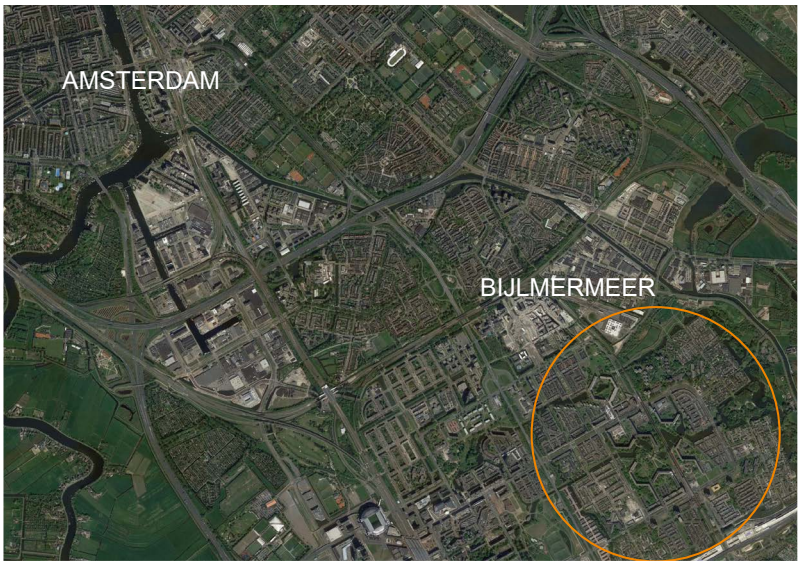
CASES, LOCATIONS


CULEMBORG
EVA LANXMEER


AMERSFOORT
PARK ROZENDAAL


ROTTERDAM
SPANGEN


DEN HAAG
WATERWIJK YPENBURG


AMSTERDAM
BIJLMERMEER


DELFT
DIAGOON HOUSING


JAVA ISLAND
AMSTERDAM

1:5000 (A4)

3. The seven residential areas

3.1. EVA Lanxmeer, Culemborg

Lisa Norfall

FACTS
Developed: Start 1995
Area: 24 hectares
Land use: The site was formerly used as farmland and for drinking water extraction. Part of the drinking water extraction area is still in use and part of the farmland is used for food production and education in the ecological urban farm.
Housing: 300 dwellings, both apartments and single family homes, approx. 20% low-end resale homes, 50% high-end resale homes, 30% rental homes
Business units: 40,000 m2 offices/business units
Facilities: Urban ecological farm, schools/preschools, information centre, wellness centre, congress centre, bars, restaurants, and a hotel

Introduction

The neighbourhood EVA Lanxmeer in the city of Culemborg is a socio-ecological housing district located near the Culemborg railway station. Lanxmeer consists of approximately 300 dwellings, an information centre, schools, and 40,000 m2 offices and business units. The project is a result of a bottom-up initiative, initiated in the mid-1990s by the EVA Foundation. The planning and development of the area is a result of a unique project model based on participatory planning and civic cooperation. The main goal with the EVA Lanxmeer-project was to find a more sustainable way of building housing in urban areas based on user involvement and collaboration in the design process.

We visited the area on a cold but sunny day in February 2020. During our visit we were guided by Marleen Kaptein, one of the original initiators and creative minds behind the EVA Lanxmeer project. Kaptein is also a resident of the area and our tour started in the calm and quiet living room of her home in Lanxmeer. Through

the large windows, we enjoyed Kaptein's small private backyard patio garden, overlooking the public common greenery and the protected water extraction area on the other side of a stormwater pond. After a thorough review of the philosophy of the EVA Foundation and the EVA project model, we went outside for a walk through the area, visiting the different types of courtyards, park areas, the orchard, schoolyards, streets, and businesses of Lanxmeer.

The EVA concept

The EVA Lanxmeer district in Culemborg is one of many innovative projects that started in the early 1990s as a result of the growing environmental awareness in Europe. The EVA Foundation was established in 1994 with the aim to contribute

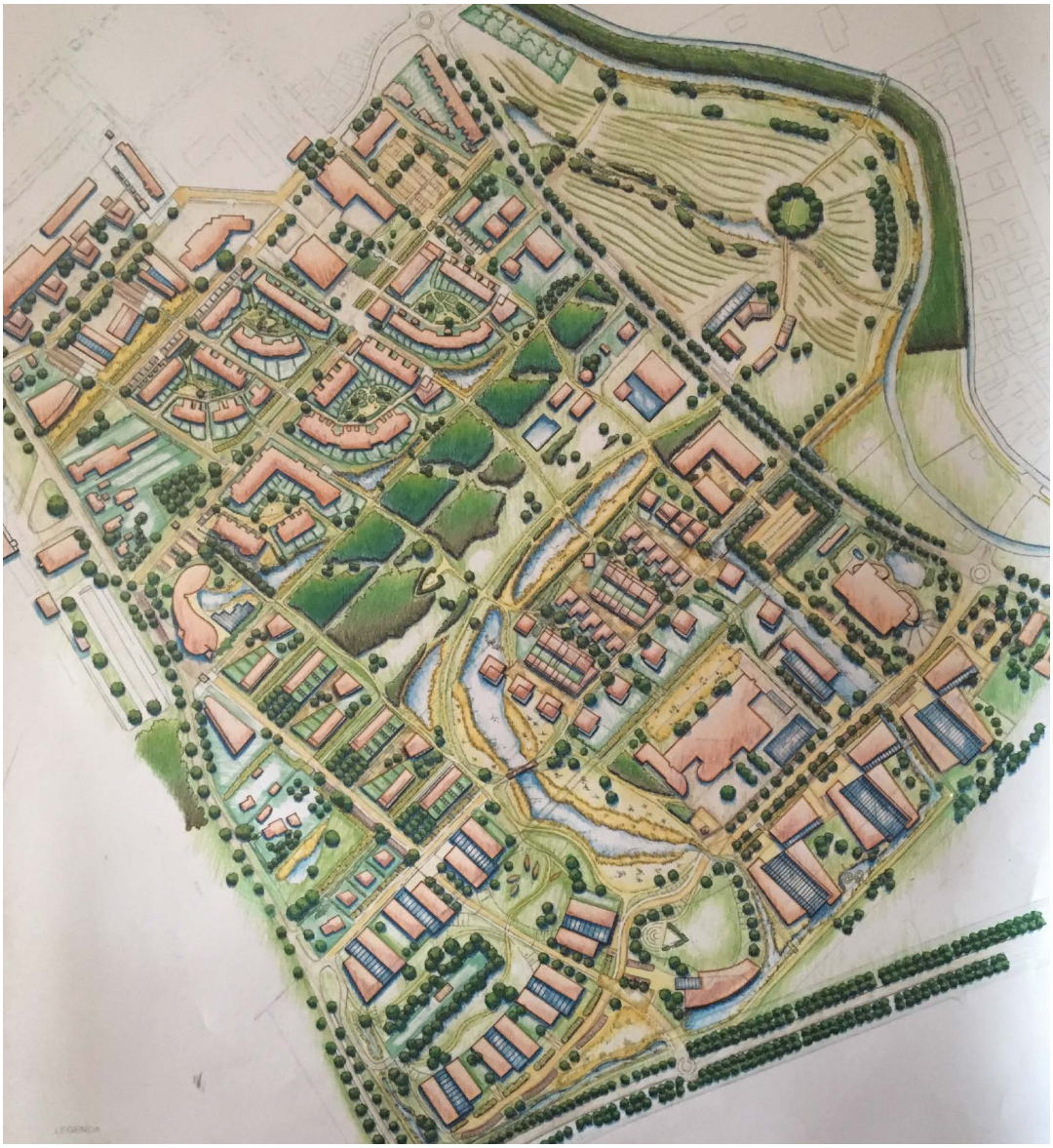


Figure 1. The original master plan of the EVA Lanxmeer district in Culemborg. The urban plan for Lanxmeer consists of different urban structures embedded in a green environment.

to the development of a sustainable and environmentally conscious society. The EVA Foundation aimed to create an ecological district for both residential and work use. The idea was to make it a living example of sustainable development based on interdisciplinary collaboration. The name EVA is an acronym of the Dutch words for *Ecologic Centre for Education*, *Information* and *Advice*. One of the main goals of the project was to create a neighbourhood where people are involved and can shape their own living environment. Another goal was that the solutions to environmental issues are visible and healthy ecosystems and more conscious lifestyles can be developed. The basic principles for the EVA Planning Concept are:

> The planning process starts with an inventory of the 'Genius Loci' - the existing qualities of the place that must be preserved and/or can be strengthened
>
> Aim to close material and energy cycles and to make natural cycles visible in the landscape
>
> Aim to bring local and organic food production back into the everyday life of all residents
>
> Aim for optimal connection between landscape elements and building architecture
>
> Aim for optimal embedding of sustainable water management and sustainable energy supply in the urban plan

In the planning stage, three elements formed the pillars of the future neighbourhood in Culemborg: 1) a planned minimum of 200 homes, apartments, and offices, 2) an organic urban farm for local food production and educational purposes, and 3) the establishment of the EVA Center for Integrated Ecology and Social Renewal. The project was carried out in close collaboration between the EVA Foundation, the municipality of Culemborg, the region, and the future residents. The aim of the co-production was to realize an ecological and sustainable residential area, in a joint commissioning with residents, in which residents have a large amount of influence on decisions concerning their own future living environment.

Concept: The Landscape

Lanxmeer is situated in a water extraction area, around an old orchard. An old meander of the river Lek has been dredged and is used for collecting rainwater and for recreational use. The initial impression of the site is of a lush, green, and modern housing area, well integrated into the surrounding landscape.

The landscape in Lanxmeer consists of a gradual transition from small private gardens into courtyards to larger park areas and recreational water management areas. In the master plan of the EVA Lanxmeer district, the landscape is divided into four zones depending on the type of use. The four zone-types are: zone 1) private areas in the immediate connection to buildings; zone 2) shared outdoor space (courtyards); zone 3) intensively used public space (park-like); zone 4) urban agriculture with educational and social functions. The different zone areas are not strictly separated with rigid barriers. Instead, elements that can both mark transitions and create connections are used as borders, such as water, footpaths, green areas, and hedges, creating a cohesive green network of different types of green areas, designed, used, and managed by the residents.

Houses in the northern parts of the district are arranged around courtyards. These commonly managed courtyards were lush and green, showing traces of everyday life. The character of the courtyards was a lot like a private garden, with plants, pergolas, seating etc. These environments showed signs of daily life and use; toys and garden supplies left out, left over wood laying in a pile, withered plants in a pot from last summer etc. Sometimes these environments were a bit messy and worn, but never neglected.

Close to one of the schools, we observed a group of schoolchildren playing by the water. The schoolyard consisted of a small open garden structure in the closest vicinity of the school building but the outdoor activities extended far beyond. No fences or strict borders were visible and the transition from schoolyard, park and street did not seem to bother the children or the teachers.

Figure 2. Figure 3. Views of some of the courtyards.


Figure 4. Figure 5. Views of the water landscape and the orchards.

The public space in Lanxmeer is maintained by the residents of the neighbourhood together with the local authorities. This unique collaboration also stimulates social unity, and the residents' commitment and involvement to the public space and increased biodiversity. A local organization called Terra Bella, consisting of local residents, coordinates the maintenance on behalf of the neighbourhood. The maintenance is planned together with officials from the municipality. Terra Bella writes a yearly maintenance plan to manage the work. Terra Bella also receives a part of the budget from the local government to finance the management of the area and keep the public spaces well maintained, reaching typical park standards.

Another important landscape aspect is the local stormwater design. Water is a key landscape element in the district, both through the previous and current land use as a water management area with the historic water tower as a landmark for the area but also with its innovative storm and freshwater systems. Clean rainwater from the roofs is collected via an enclosed piping system and led to retentions ponds to be processed together with the water from the pumping station in the water extraction area. Most of the smaller buildings in Lanxmeer, e.g. sheds and other ancillary buildings, have green roofs to prevent heavy rainwater flows. The more or less polluted street water is collected through an open storm water collecting system, where it is separated from the extraction zone for the water management area and instead infiltrated into the subsoil.

Concept: The housing

The plan for the EVA Lanxmeer neighbourhood has a wide variety of housing types. This variation is a result of the open planning process and thorough

investigation into the housing requirements of current and future residents. Demands from potential tenants and buyers were matched during the process. The initial plan included at least 200 homes, part of which are combined with office space, studios, and workshops. The intention was to carry out the construction of houses in 4 phases, adding approximately 50 housing units to the area per phase. Using this slow growth process meant that the knowledge and experience gained in each phase could be used in the following projects. In particular, for the application of different building systems, the use of sustainable building materials, energy and waste systems and various forms of commissioning and residents' influence. The phasing also resulted in a variety of differences in housing types, forms of participation and type of clients. Characteristics of the area include:

> All offices and business premises have been concentrated on the outer borders of the area.
>
> Limitations in available land – dense building. Businesses, houses and facilities like schools are built in three or more stories.
>
> Houses with playful design, making sustainability visible.

Concept: Infrastructure

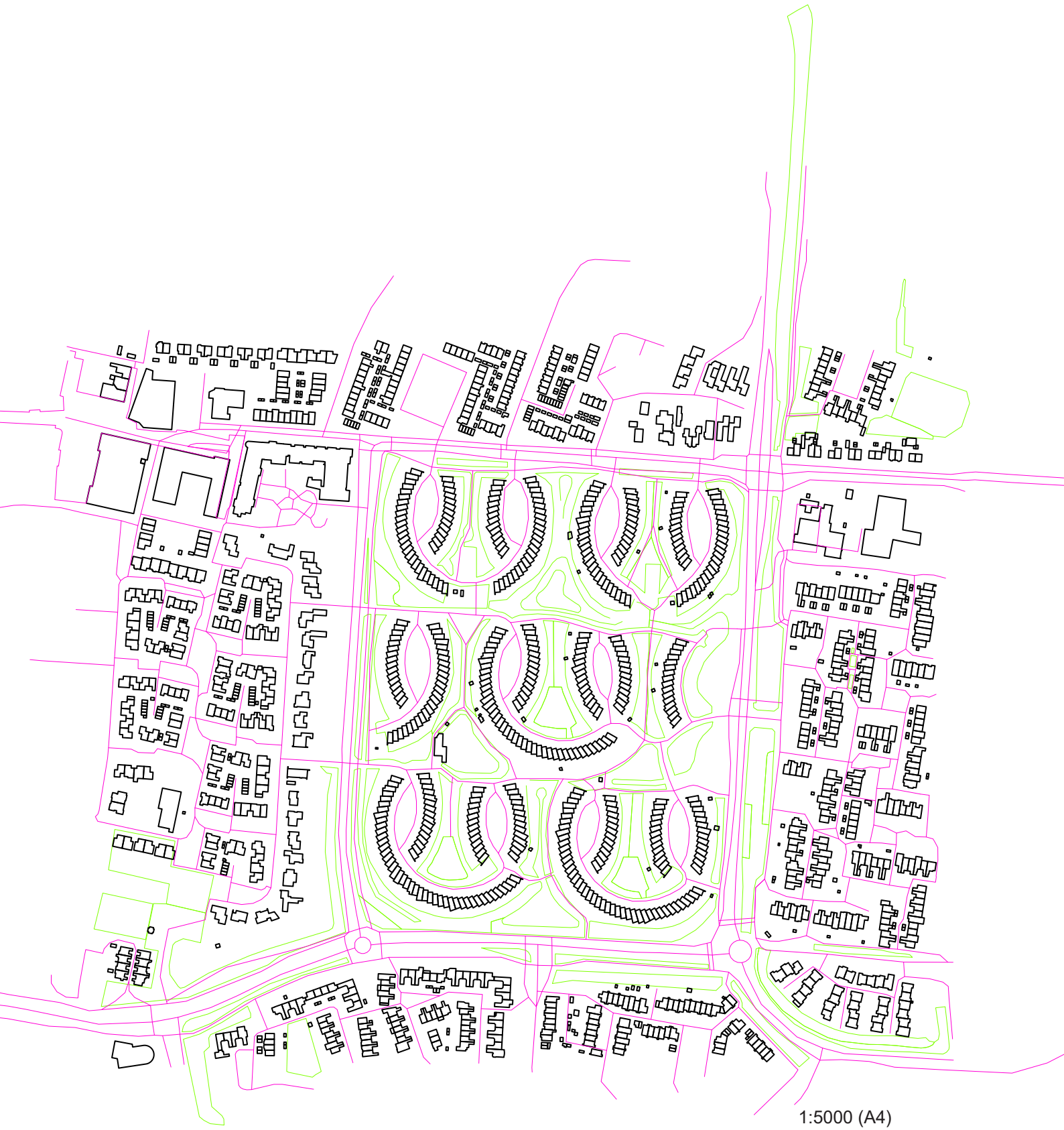
The master plan of the EVA Lanxmeer district contains a dense and fine-meshed network of footpaths, bicycle paths and narrow streets for easy pedestrian and bicycle access. The smaller footpaths are covered with dirt or gravel and the bike paths and streets have a variety of paving where different types of bricks, concrete slabs and asphalt are used. Many of the surfaces have permeable paving, to increase infiltration and reduce storm water runoff.

One of the goals of the master plan was to create an area with limited car traffic. The absence of car traffic is noticeable when walking through the area. The parking spaces are located along the edges of the area and the streets within the neighbourhood are mainly for pedestrians and bicycles. The houses are accessible by car only for loading/unloading and for emergency services. No through traffic is allowed in the area. The cars always need to go back the way they came in. The plan was worked out with a parking standard of one vehicle per planned home. This means that the streets are safe for other uses, such as pedestrians and bikes etc. Children are able to move safely on their own and the streets are accessible for play and for social interaction.

Figure 6. View of street and housing types in Lanxmeer. Figure 7. One of the car parking lots has recently been reconstructed with a roof of solar cells, an initiative from citizens in Lanxmeer funded by common funds.

Reflection

The EVA Lanxmeer district in Culemborg shows proof of how public participation can be used as an effective instrument toward the creation of more sustainable neighbourhoods. Through the integration of a diverse range of professionals and the involvement of different stakeholders and inhabitants, the project achieves a balance between different parts of sustainability, eco-efficiency, eco-friendly construction, and the socio-economic questions. The result is a beautiful, green, modern, and friendly neighbourhood, where cooperation, involvement and a sustainable lifestyle is the natural choice for every resident.



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3.2. Park Rozendaal, Amersfoort

Anna Robling

FACTS
Year of construction: 1971
Plan area: 15,6 hectares
Density: 31 dwellings/hectare
Number of dwellings: 476
Dwelling type: three-storey drive-in dwellings
Dwelling size: 143 m2
Urban designer: David Zuiderhoek
Architect: Henk Klunder
Landscape architect: Wim de Boer

Park Rozendaal near Leusden was built in the early 1970s according to the modernist tradition with large neighborhood units in a green, collective space. The plan for Park Rozendaal is based on a clear design with large overlapping circles of the same diameter. Segments of these circles form residential blocks of drive-in dwellings, i.e. a garage on the ground floor of the house. Where the circles overlap, residential courtyards are created surrounded by woonerf (living street), on this side you find the entrance to the houses (Zuiderhoek and Klunder, 2010). At the back of the buildings there are private gardens defined by hedges and shrubs. In Park Rozendaal it was decided that there would be no hard boundaries in the form of fences. The curved buildings are surrounded by a public park.

The architecture of the area is a fine example of structuralism. Boundaries and transitions between private and public areas are clearly defined. The housing blocks contain identical, three-storey, drive-in dwellings. The building line for each home is offset in relation to adjacent homes and creates a private zone closest to the entrance. From the entrance, you look out over a collective zone, woonerf and residential yard. The distance to the homes on the other side of the residential yard is up to 35m. Hedges and shrubs between individual plots and the park contribute to the green character of the area.

The neighbourhood includes public facilities such as a swimming pool, tennis and basketball courts and playgrounds that contribute to community solidarity. The tennis court and pool, however, are only available to the residents of the area. Several of the garages in the area are today used for small businesses.


Figure 1. A courtyard with a view into the residential yard in the middle. Figure 2. Cars parked around one of the courtyards.

The land in the district is owned by the municipality while the maintenance in the neighbourhood is arranged by the residents themselves. The Rozendaal Green Foundation was founded for this purpose. The board consists of the residents. Thus, the residents can be involved in and influence the maintenance.

Principles for Park Rozendaal

The woonerf works as the architectural link between the infrastructure and the green area (Zuiderhoek and Klunder, 2010). Groups of dwellings surround the residential area that is framed by its green surroundings as cul-de-sacs. All activities are gathered here: parked cars and children playing, front doors, etc. The lush green oasis on the entrance side of the homes is the domain for slow traffic and urban activities.

Reflection

We made only a short visit to Park Rozendaal but had time to experience the character of the neighbourhood. The main impression was a spacious, lush area with clear boundaries and transitions between private, semi-private, semi-public and public space. The curved buildings that surround the woonerf and residential yard create a community around each yard, a clear semi-private space.

Each home has a garage at the entrance but during our visit most driveways had cars in them and not in the garage. Either the residents own more than one car or the garage is used for something else. Cars were also parked around the courtyard in the middle, which meant that the visual impression was dominated by cars. The

residential yards were green with places for children to play and there were meeting places with seating for other visitors. Some of the yards looked small though, notched at the edge of parking lots and surrounded by cars. The park surrounding the buildings is public. The distance to the buildings and the lush greenery made the buildings just visible behind the trees and made us feel welcome to walk around without feeling that we were walking on someone's private space. The green demarcation between the private gardens and the park enhances the feeling of "houses placed in the park" where the park feels spacious. During our visit we met people who cycled and walked through the park. We also saw traces of play both in the residential yards and in the park, toys left behind, a tricycle, and a carpentry tree hut. This indicates that people feel secure that what they leave behind remains safe and that a commenced construction can be continued on the next day. It seems like a child friendly neighborhood. Children can use the woonerf and residential area adjacent to their own home, move freely in the park on the way to friends or activities and use the playground and the other common facilities.

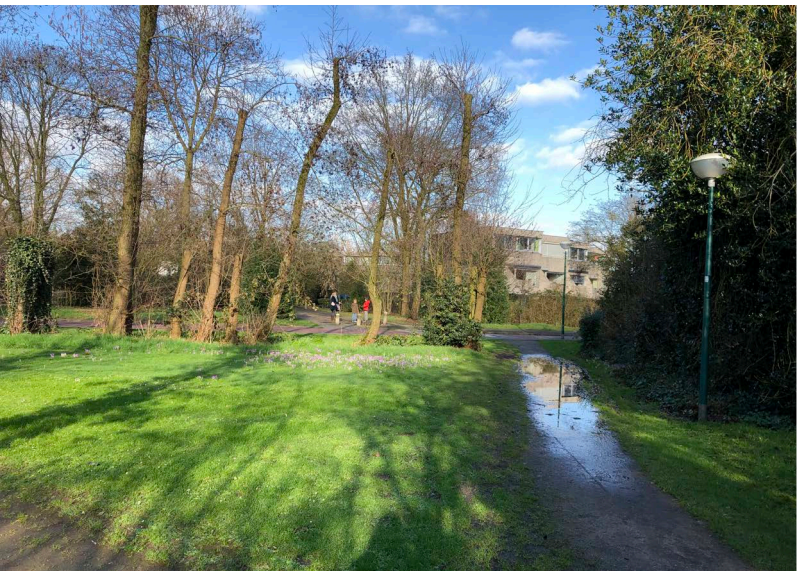
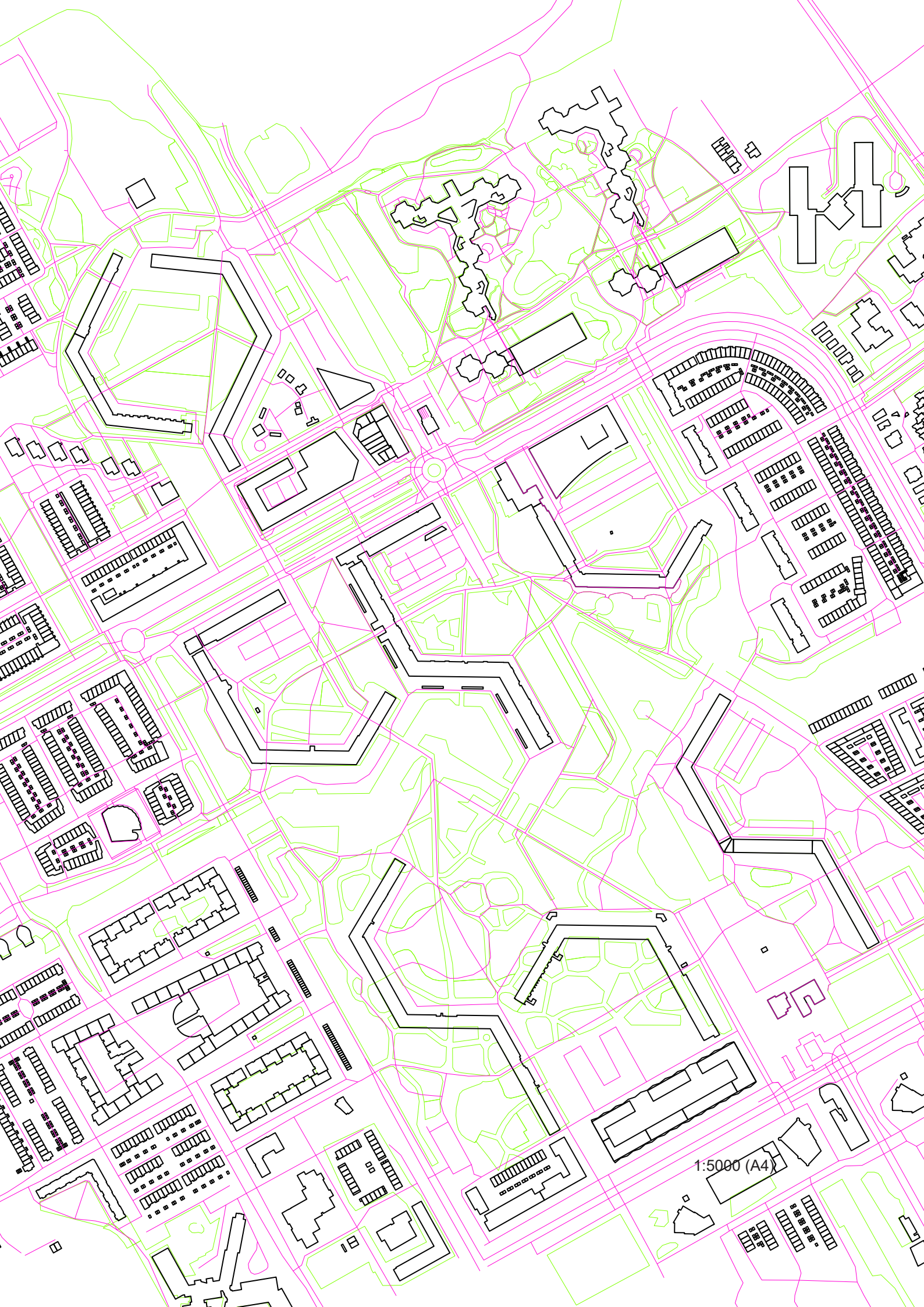


Figure 3. A walkway through the park. Figure 4. A carpentry tree hut in the park.

Figure 5. The public park, green and spacious with a pond.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3.3. Bijlmermeer, Amsterdam

Eva Kristensson

FACTS
Overall size: 724 hectares
The original high-rise building
Year of construction: 1966-1975
Architects: A team including Pi de Bruijn headed by Siegfried Nassuth
Number of dwellings: 13,500
Number of floors: 11 including the ground floor that was built for storage space
After renewal
Landscape architects (renewal): Karres en Brands landscape architecture and urbanism

---

Background and typology

Bijlmermeer, or 'Bijlmer' for short, is a suburban district in the southeast of Amsterdam. It was originally dominated by 31 huge building blocks, each with 300-500 dwellings in 11-storey high-rise houses with exterior corridors. As shown in the plan, the houses were placed in a hexagonal grid, the shape of a honeycomb, and situated in a park-like surrounding. The traffic-free green spaces were equipped with watercourses, footpaths, and play facilities. There were also some low-rise and medium rise neighbourhoods in Bijlmermeer but the high-rise buildings dominated.

Bijlmermeer is well known as an iconic large-scale housing estate, where the modernist ideas of urban design were realised. Bijlmermeer has also received a lot of attention for its history of social problems. Today it is probably best known for an extensive regeneration process. According to Frank Wassenberg, researcher at the Technical University of Delft, Bijlmermeer shares its history with many other large housing estates "across different countries" built in the 1960s and 1970s (Wassenberg, 2006, p. 191). In the Netherlands and other European countries, including Sweden, this was a period of peak housing production addressing a severe shortage of dwellings. In the beginning there was a high demand for these new and well-planned apartments but Bijlmermeer's position in the housing market deteriorated fast, and by 1985 a fourth of the flats were unoccupied (Wassenberg, 2006, p. 195). This meant a difficult financial situation for the housing associations. The empty apartments were allocated to people with few housing alternatives (Wassenberg, 2006, p. 194). Bijlmermeer became a socio-economically segregated area. Difficult circumstances forced the area into a downward spiral with an increase in crime, drugs, high unemployment, and lack of safety. The following quote by Wassenberg illustrates the severeness of the problems: "the Bijlmermeer

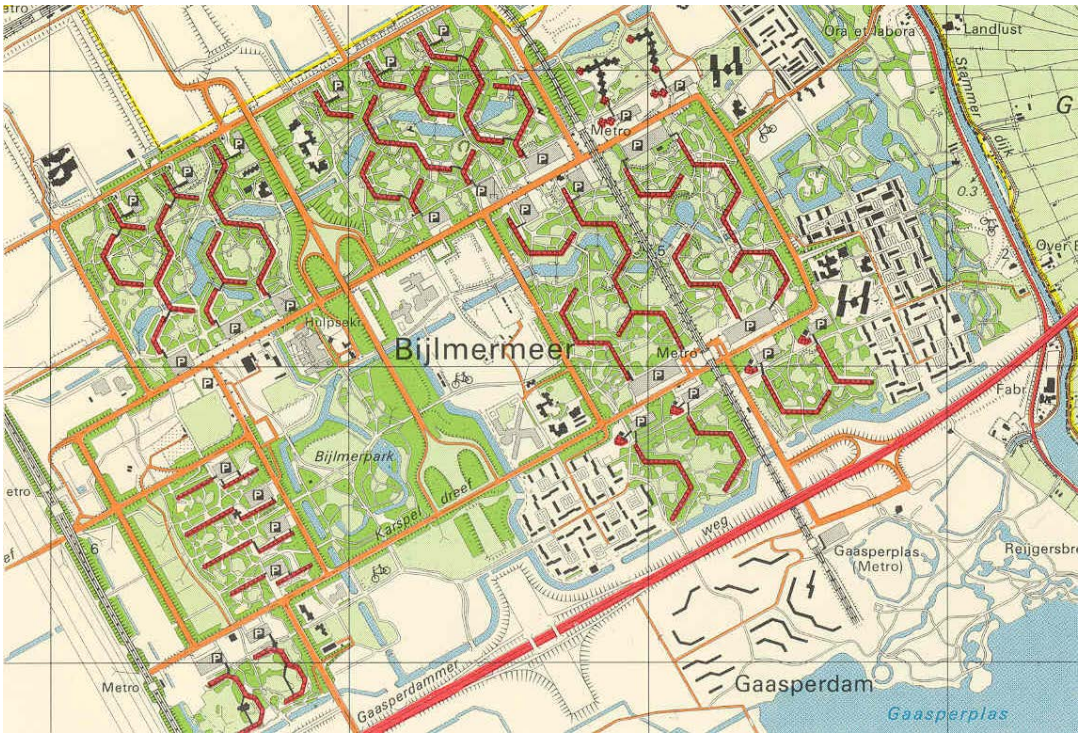


Figure 1. Bijlmermeer, the original plan. The plan shows the emblematic hexagonal grid of the original housing structure that dominated the area (The plan is downloaded from the website of Tower Renewal Partnership).

was considered to be the worst area in the country, containing all the problems in society, culminating in a very negative stigma" (Wassenberg, 2006, p. 194).

Process - the renewal of Bijlmermeer

The long-lasting rehabilitation program for Bijlmermeer started in the mid-70s with physical, social, and organizational measures. But, as the position for the apartments in the housing market remained weak, a decision was made to make more extensive structural changes. Between 1995 and 2010 about 50% of the 13, 500 flats in the high-rise buildings were demolished (Bijlmermeer Planning Office, 2014)! They were replaced with low-rise and single-family housing to offer a wider variety of housing types. This was indeed a radical solution and a great deal of the original and emblematic structure of the area is now gone. The part of the area where most of the remaining houses are located is considered as a Bijlmer museum showing the original urban concept.

The demolition of the high-rise blocks, together with the renovation of the remaining flats, was just one of many measures in the rehabilitation of the run-down area. The efforts covered not only the physical environment but a wide range of administrative and social aspects. Changes included repositioning of flats from social housing to owner-occupied homes, support to local businesses, renovation of

shopping centres and markets, developing health and sports facilities, resident's participation in the process and different ways to improve the socio-economic position of the population. The socio-economic renewal included education, work, and cultural life. Extra attention was paid to vulnerable groups of residents. Funds from the European Commission contributed to the financing of the socio-economic renewal.

Bijlmermeer was also strengthened by enhancing the surroundings, like opening the new Metro-line, the Ajax Amsterdam's ArenA, a stadium for football matches and music concerts, and a big shopping centre. Frank Wassenberg considers the measures utilised in Bijlmermeer as "the leading example of Dutch renewal policy, not only for the size of the operation, but primarily because of its integral approach" (Wassenberg, 2006, p. 191).

The green spaces

There are many aspects of the physical environment in Bijlmermeer that are particularly interesting for landscape architects, like the spatial pattern and the scale of the spaces in the original layout. The hexagonal courtyards are huge, 2-5 hectares in size (Ruff, 1987). The original design of the green areas is of special interest, reflecting a radically new approach to urban green space at that time, carried out by the Amsterdam Parks Department. According to the British landscape architect Alan Ruff, the new approach was a reaction to the uniformity of post-war suburban design and an often inhuman spatial scale (Ruff, 1987).

The new attitudes, the 'ecological landscapes' in Bijlmermeer, involved besides naturalistic ideals also a social concern for the residents and ideas of community participation (Ruff, 1987). Native plants and woodland plantings were used. According to Ruff the main objective for the selection of plants was "to achieve a natural woodland appearance in the shortest possible time", and the huge landscape park Amsterdam Forest (Amsterdamse Bos) planted as a woodland area in the 1930s was an inspiration for the designers (Ruff, 1987). These naturalistic ideas for urban green space attracted a great deal of attention abroad. In Sweden, the "nature-like vegetation" movement was launched and developed by landscape architect Roland Gustavsson at the University of Agricultural Sciences in Alnarp.

When I visited Bijlmermeer in the autumn of 1980s my main impression of the green spaces was an attractive lush greenery with an almost natural woodland appearance. When revisiting the place in February 2020 there was not much left of this image. According to the Bijlmermeer Planning Office, the removal of a great deal of trees and bushes was due to the need for better maintenance. The proper

Figure 2. The photo shows the original high-rise buildings in Bijlmermeer and the large green areas surrounding the houses (2020-02-02). Figure 3. The photo from September 1980 shows the green image of Bijlmermeer due to the initially extensive use of nature-like vegetation.

management needed for these extensive green areas was not applied. They also claimed that the residents perceived this urban forest to be unsafe and that there was a wish for greater variation in layout and use. Trees and bushes were thinned out and many trees were felled (Bijlmermeer Planning Office, 2014).

Reflections

Our guide on the bike tour in Bijlmer was *Ruud van Soest* from *Stadswandelkantoor* (City Walks Office), a small private enterprise in Amsterdam that organizes guided tours. He was a former resident of Bijlmermeer and described the place of today as a dynamic area where there have been profound changes and that the renewal of the site was based on an interesting formula. According to him the prominent features of this formula were to introduce mixed use, instead of monofunctional residential development, and the relocation of the centre of Bijlmermeer. But most noticeable is probably the extensive demolition of the characteristic high-rise buildings. The visual appearance of Bijlmermeer has changed to a far more varied cityscape.

Bijlmermeer of today reflects the paradigmatic change of ideals for urban design. The original intention was to eliminate the acute housing shortage in Europe in that era. It was planned as a "shining example of the high expectations and ideas of CIAM-planning" (Helleman and Wassenberg, 2004, p. 3). But the high expectations failed. The scale was enormous with 300-500 flats in each building block. The generous green park-like surroundings, intended as collective social space, were overrun by criminal activities and drug addicts and became unsafe spaces. Today the showpiece of modernism has to a large extent been disassembled

but is still interacting with new ideas of postmodern urbanism in a vital way. This brings a unique quality to the place and a pedagogic dimension for the visitor to the place.

Inclusion stands out as a clear objective in this extensive renewal process. An ambition has been to both enable old residents to remain in the area and to add new housing that could attract more middle-income and upper-income residents, to achieve a more balanced socio-economic composition. The tenure status is mixed. The number of controlled-rent housing and flats from the open market sector is about the same size. An ambition has also been to maintain the ethnic mix of the area. Today Bijlmermeer hosts people of over 150 nationalities (Wikipedia [2020-11-08]), which contributes to the dynamics of the area.

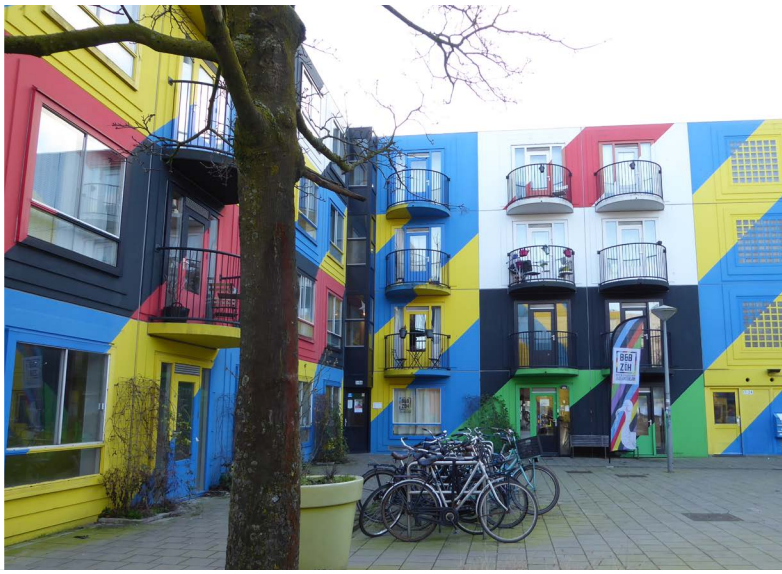
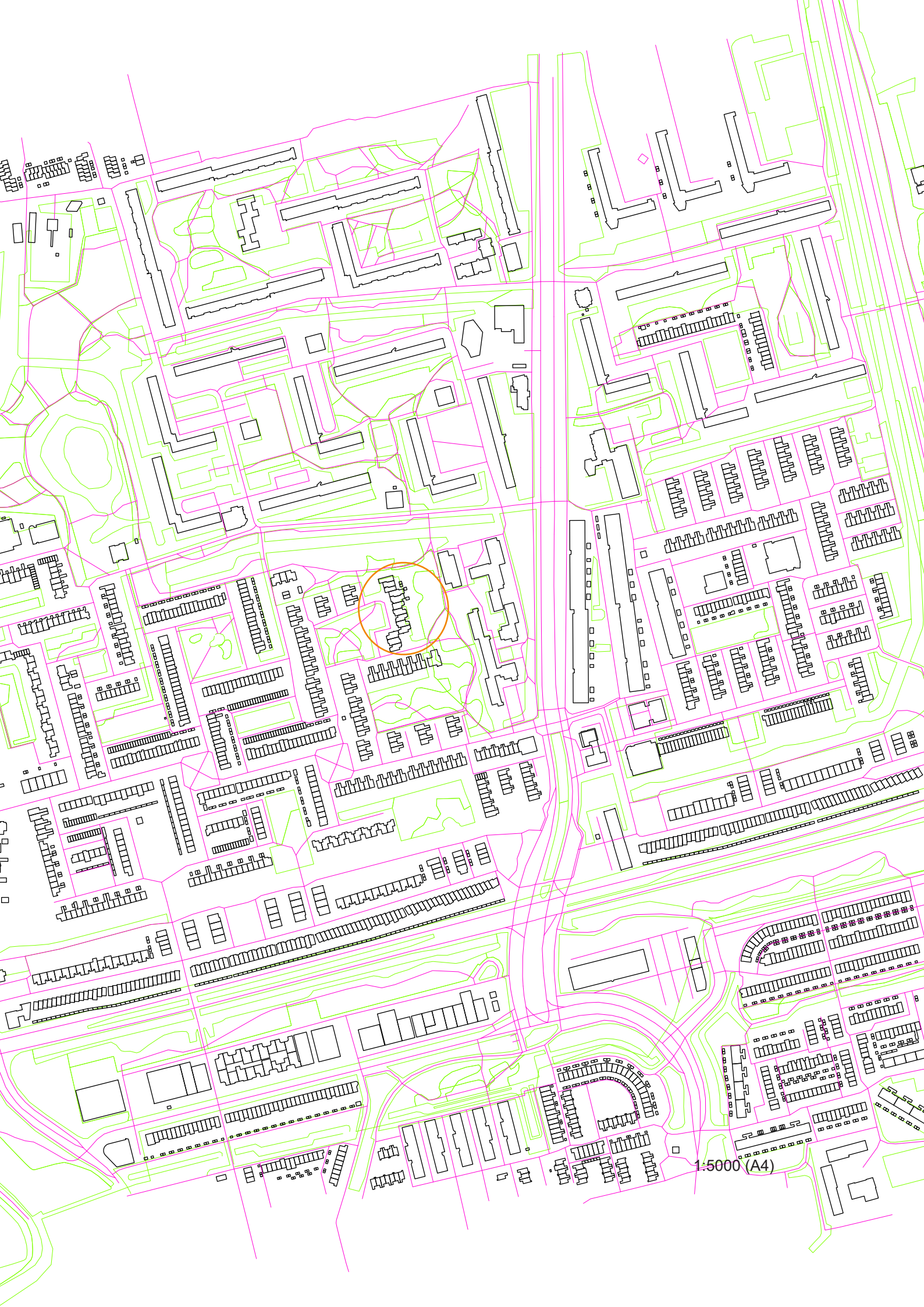


Figure 4. One of the renovated high-rise buildings (2020-02-02). Figure 5. Colour is one of the measures used to increase the visual diversity of the area. But it can also make you appreciate the more controlled facades of the original buildings.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3.4. Diagoon Housing, Delft

Victoria Sjöstedt

FACTS
Year of construction: 1970-1971 /1978-1983
Number of dwellings: 8
Dwelling size: ca 110 sqm
Architect: Herman Hertzberger

Intro

We visited the Diagoon Houses in Delft early in the morning. The eight dwellings, developed as experimental housing prototypes in the 1960s, are located next to a forest-like park with lush vegetation. We strolled in the park for a while, viewing the Diagoon Houses from a distance. The houses are arranged in clusters of three and five houses, with a later addition of a couple of houses on the northern side. The neighbourhood is calm, birds are singing, and the light is playing beautifully on the facades.

Architect Robert von der Nahmer welcomes us for a guided tour in his house, Diagoon House number 32, which he keeps in an original condition, almost like a museum. The entrance is carefully designed to support social exchange - there is a sheltered area at the front door, a low wall to sit on, and the front door is divided in two parts, giving an inviting impression with the upper part open and the lower part closed. We enter the building and climb the stairs to the living room by the atrium, which is the core of the house. The L-shaped floors are organized around the atrium in a sculptural manner, with natural light filtering in from the roof terrace above. We gather by the atrium. The spatial experience is impressive, and the building is very present in its untreated concrete masonry. “All houses differ from each other outside as well as inside”, Robert tells us. As we walk through the house, he gradually unpacks the ideas behind this prototype house.

Structuralism

The Diagoon Housing is an early work of Dutch architect Herman Hertzberger, one of the key architects in the Dutch structuralist movement of the 1960s and 1970s. Structuralism developed as a critique against the post-war, large scale standardized public housing schemes. Its key ideas relate to equality and the possibility for ordinary citizens to influence their living environment. The architects provide a framework/structure/skeleton for the residents to fill in, adapt and modify according to their needs and changing life situations.


Figure 1. Figure 2. Views from the park.

The idea behind the Diagoon Houses was to develop an affordable housing type for ordinary citizens, and at the same give the residents the possibility to influence their living environment. Not only the houses but also the street, were thought of as a skeleton, for the residents themselves to finish.

Urban development and experimental housing

The Diagoon Houses were based on plans for a residential area of 324 houses in Vaassen near Apeldorn in eastern Holland (1967) (www.diagoonwoningdelft.nl). This project, however, was never realized, since the developer, Bouwfonds, considered it to be too expensive to build. In the end only eight houses were built in the Buitenhof area in Delft (1970-1971), with financial support from the Foundation for Experimental Housing. The Ministry of Housing and Spatial Planning had established the Foundation for Experimental Housing (1968) to raise housing quality, and support innovative plans and projects experimenting with residential typologies and new living concepts. The Diagoon Houses can be seen as an experiment to come up with a prototype, from which to develop a variety of solutions (Hertzberger, 2001). The houses represent an experiment in urban planning, and the prototypes were to be repeated as a basis for creating varied urban development. This was a reaction at the time against the standardized, uniform residential environments of the post-war urban extensions.

User participation

Hertzberger was inspired by the participation movement and architectural solutions with user participation playing an important role in many of his projects (for example, Diagoon Houses in Delft (1967-1971), Montessorischool in Delft (1960-

1966), Centraal Beheer office in Apeldoorn (1969-1979)). An important influence was Dutch architect John Habraken, who wrote about the end of mass housing, and developed strategies for user participation in the building process (Habraken, 1972).

Hertzberger was interested in social perspectives. For the Diagoon Houses he experimented with collective appropriation of public space, to support social interaction in various ways. The houses originally had common roof terraces and common entrance yards, to encourage community engagement. The outdoor areas belonging to the different houses were not marked out. There were no fences or territorial demarcations, leaving these divisions for the residents themselves to negotiate and decide. Hertzberger also experimented with the paving in front of the Diagoon Houses. The area in front of the houses, paved with sidewalk tiles, was to be perceived as a part of the public space, encouraging spontaneous encounters and collaboration between residents, as the residents had the possibility to remove tiles to plant bushes and trees as they saw fit.

Polyvalence

The skeleton of the Diagoon Houses is made in concrete masonry with oversized beams and reinforced concrete slabs. The skeleton is not neutral, rather it is supportive, providing various spatial and functional points of departure for the residents to modify. The skeleton is unfinished and functionally undetermined, meant to stimulate creativity and give space to individual interpretations and associations. Thus, the houses are seen as polyvalent, as change in use is possible without change in structure. The residents can adapt their houses inside as well as outside. For instance, the residents can divide the floors as they like and decide the functions of each floor. There is also a built-in possibility to expand the house on

Figure 3. Entrance area to the street side with front gardens. Figure 4. Seating by the house.

both sides and on the terrace, using the space above the entrance area (possible to integrate into the house), and the balconies on the first and second floor (to add rooms). Hertzberger also experimented with the division between the main construction and an infill modular system. The residents could choose from pre-fabricated packages adapted to the frame structure, consisting of wooden cupboards, doors, and interior walls, assembled in a variety of combinations, and with the possibility to shift out and change.

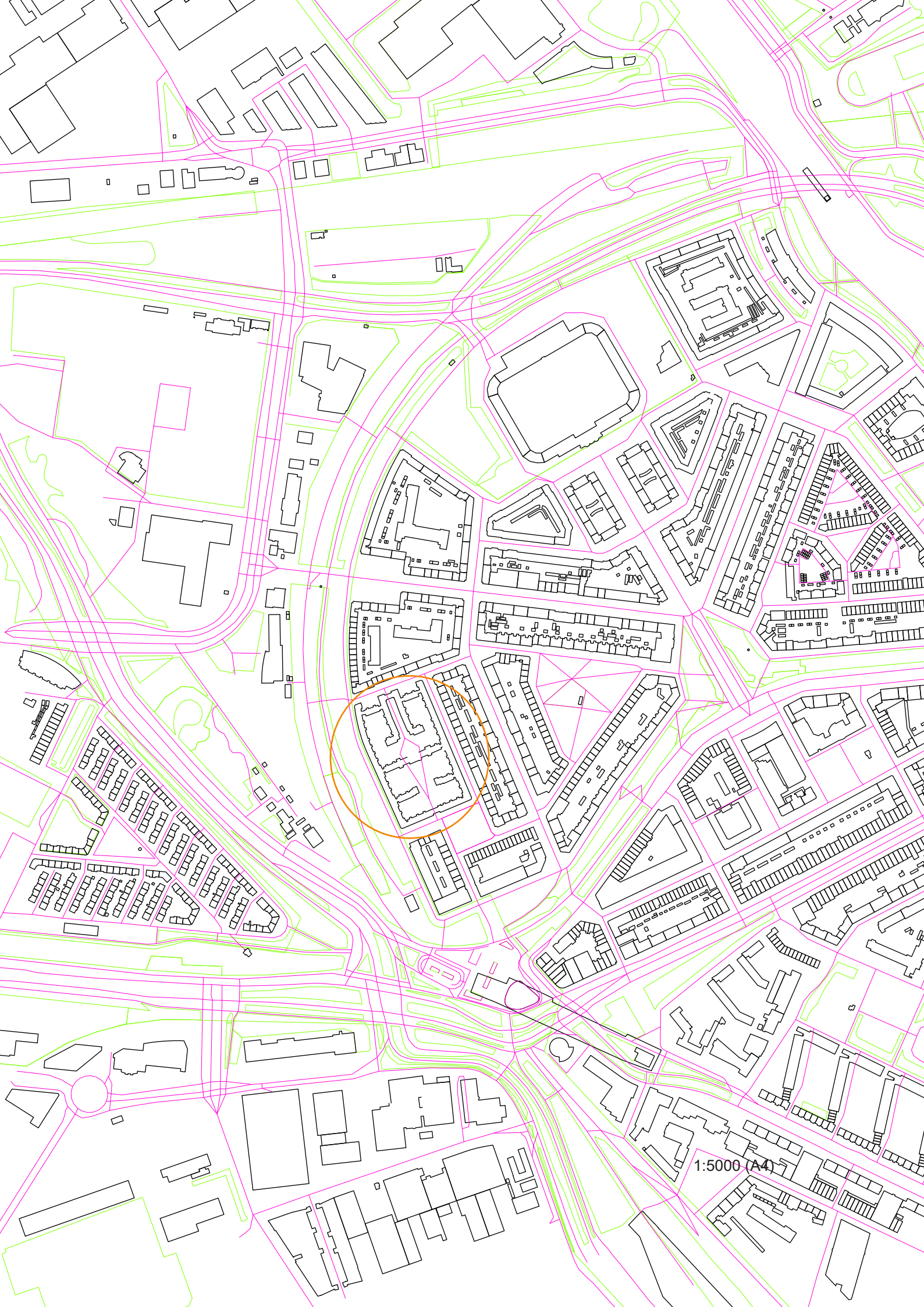
Critique

The Diagoon Houses are one of the first realized skeleton houses in the Netherlands. However, the idea to come up with an affordable alternative to the standard house and at the same time have a structure capable of adapting to change, turned out to be difficult to realize. The houses became very expensive. Furthermore, the simplicity of structuralism was not appreciated aesthetically by people in general. Interviews with residents living in the Diagoon Houses, carried out by the Foundation for Experimental Housing in 1975 and 1978, revealed many complaints about construction defects and poor workmanship (www.diagoonwoningdelft.nl). Today the houses have a very exclusive flair and all the common areas have become private.

Relevance today

What then can be the relevance of these ideas today in our search of inclusive residential space, affordable housing, and high quality public space? Perhaps the Diagoon Housing experiment reminds us of the importance of finding ways to make people engaged in their living environments and to encourage residents to expand their sphere of influence, and, thereby, contribute to improving the quality of public space. In the light of current initiatives in the Netherlands to meet housing demand, ideas such as polyvalent frameworks for residents to modify and finish, user participation and involvement, appear as valuable sources of inspiration. Given today´s standardized, fast paced, and cheap solutions for new housing, with little room for creativity and experimentation, paying attention to past experiments, and probing into possibilities to reintroduce experimentation within housing development, seem highly relevant indeed.

Figure 5.Our guide Robert von der Nahmer at the entrance of his house.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3.5. Spangen, Rotterdam

Bodil Dahlman

FACTS
Overall size: 1,25 hectares
Density: (211 dwellings/hectare original) 123 dwellings/hectare today
Area of green: 0,26 hectares
Year of construction: 1922
Architects: Michiel Brinkman
Number of dwellings: (264 original) 154 today
Dwelling size: (50 sqm original) various today
Number of floors: 4
Communal facilities: gallery and reception space (originally a bathhouse)

Intro

Dutch architect Michiel Brinkman designed the Justus van Effen complex in the early 1920s and it was completed in 1922. The block consists of four-story buildings with a total of 154 (originally 264) dwellings which enclose a big courtyard. Brinkman added a few houses inside the block to divide the courtyard into smaller units. A former bathhouse, now a gallery and reception space, is located in the middle inside the block.

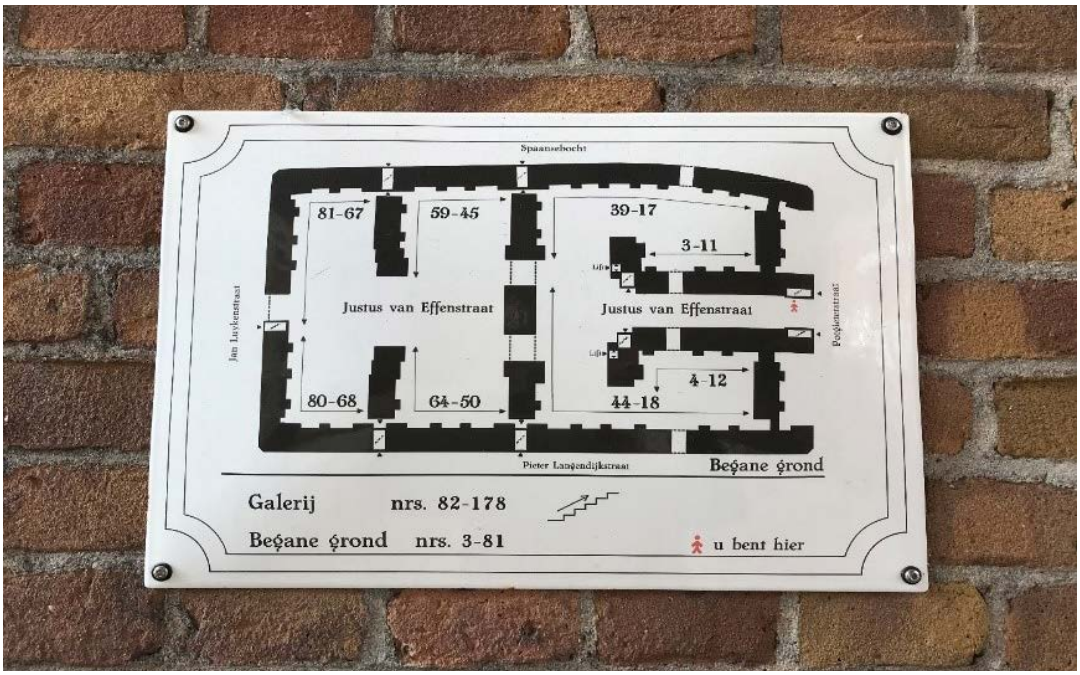


Figure 1. Map of the Spangen area.

In Brinkman's original design there were two types of dwellings which both measured 50m2 - single-floor apartments on the ground floor and two-story maisonettes. During the renovations in the 1980s and 2000s, the 264 small apartments were transformed into 154 dwellings in various sizes to meet today's demands for larger homes.

Typology

The architect behind the Justus van Effen complex, Michiel Brinkman, was an experienced Dutch architect with a background in designing factories, warehouses, and offices. When he was commissioned to design a residential area with social housing in Spangen, he brought some of his ideas from former projects into his van Effen design (www.knoll.com). In the Justus van Effen Complex, Brinkman combined the typologies of the perimeter block and the row house (www.wmf.org). Brinkman wanted to bring the feeling of unity in garden-villa development to an urban, four-story block (www.knoll.com). To achieve that, he oriented the houses towards the green courtyard instead of towards the busy street outside the block. He designed each dwelling so it was accessed directly from the courtyard or the elevated street.

The project is an example of early modernism where Brinkman combined the artisan tradition with modern era building design. As labour was cheap in the 1920s, it was possible to build a social housing project with buildings that show a subtle brick architecture and a high level of detail. The central bathhouse provided areas for bathing, laundry, and communal gatherings for children and adults, reflecting

Figure 2. The courtyard surrounded by four story buildings with a raised gallery. In the middle the former bathhouse. Figure 3. The former bathhouse today serves as a gallery and a reception space.

the modernist principle of the social value of collective life (www.wmf.org).

The Justus van Effen Complex is most famous for its 2,2-3,2 meters wide elevated street on the third floor. This raised walkway gallery creates a balance between the private and the collective and ties the entire complex together. The raised street is accessed either by staircases or by any of the two goods lifts. It used to be a delivery route for local bakers and milkmen, as well as a place to socialize. Nowadays there are no milkmen using the raised street but it still plays its role as a semi-private space for socialization.

Process/driving forces

The port city of Rotterdam was rapidly growing after the First World War (https://www.wmf.org). Rotterdam suffered from a shortage of housing and the level of sanitation was low. To improve the housing situation, the Dutch architect Michiel Brinkman was commissioned by the Municipal Housing Authority to design a residential area for the city's port workers (www.knoll.com).

As modern as the Justus van Effen complex was when built in the 1920s, with the collective bath and wash facilities in the middle, it became old and outdated fifty years later. Not only the complex but also the whole neighbourhood saw a period of disrepair starting in the 1970s (www.wmf.org).

In the 1980s, an unsuccessful renovation was carried out. The facades were painted in a white colour that was discoloured and stained after only a few years. Basic aluminium frames were fitted around the windows and the brickwork in the staircases was hidden behind tiles. During this period, the neighbourhood of Spangen became increasingly run-down and faced severe problems with increased crime (www.knoll.com).

After a period of decay in the 1980s and 1990s when Spangen had become rundown and dangerous, the owner Woonstad Rotterdam decided to restore the Justus van Effen complex in 2006 (www.wmf.org).

The restoration and preservation project was led by Molenaar and Co. architecten, Rotterdam; Hebly Theunissen architecten, Delft; and Michael van Gessel landscapes, Amsterdam (www.knoll.com). This time the approach was much more sensible and historical elements were conserved and highlighted (www.knoll.com). The preservation was completed in 2012. After the renovations in 2012, Woonstad, the owner of the complex, offered some of the units for sale, while others were kept as rentals (www.architecturalrecord.com). A few years later, in 2016, the project

was awarded the fifth citation of the World Monuments Fund/Knoll Modernism Prize. Part of the motivation reads as follows:

> In the context of Spangen, a neighborhood that has faced challenges in recent years, the choice to conserve and highlight the historic elements of the complex was fittingly radical. This is a large and monumental block, a determining urban entity. This is not discreet, capillary social housing— it is proud architecture. The restoration project re-affirms the value of collective life, one of the social principles of Modernism that holds enduring appeal (www.wmf.org).

Courtyards

Originally, Justus van Effenstraat cutting through the middle of the block was a public street for transport. Besides the street, the courtyard consisted of private vegetable gardens surrounded by hedges and a few small green spaces for collective use (www.michaelvangessel.com). The apartments on the upper floors used the raised gallery as their patios. The raised gallery had plant boxes, as well as balconies for drying clothes. It also served as a children's play area (www.architectureguide.nl). During the last restoration, the courtyard was completely redesigned. Large trees were planted and the small gardens in the courtyard were removed (www.michaelvangessel.com). To create good visibility and a sense of security, the ground floor area was left open. Elevated lawns were built to make the open courtyard more special yet clean (www.michaelvangessel.com). Most of the courtyards nowadays are common space but close to the facades and the entrances, a different paving pattern and bike stands indicate that it is an area that can be used privately by the residents.

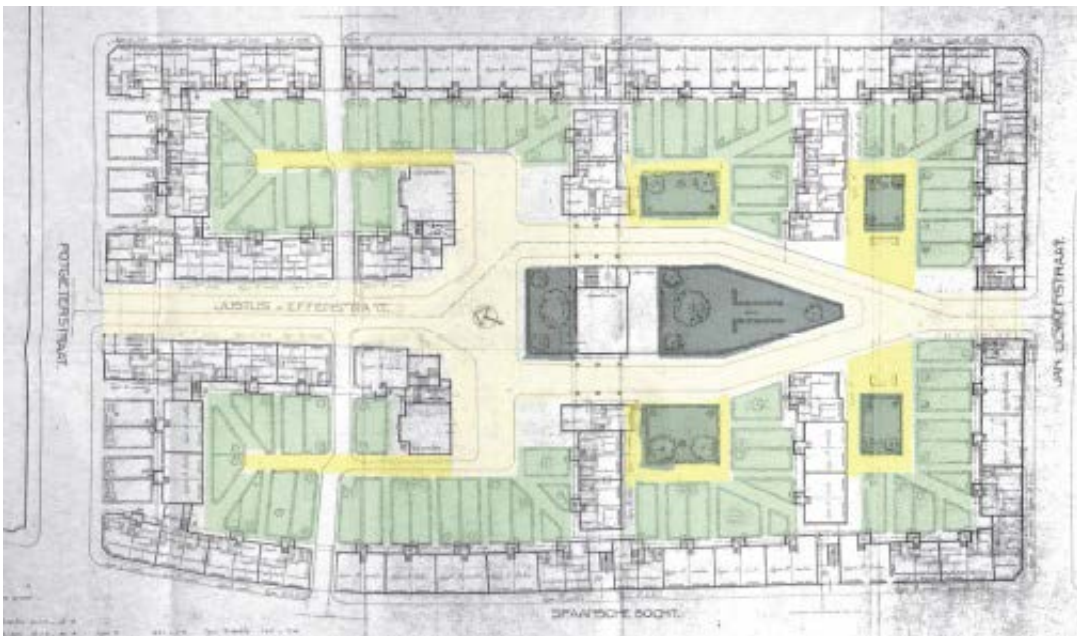


Figure 4. The plan shows the small gardens and the common outdoor spaces. (www.michaelvangessel.com)

Figure 5. Semiprivate space close to the facades. Figure 6. The courtyard seen from one of the side entrances. Even in February some plants show in the plant boxes on the elevated street. To the right one of the elevated lawns.

Reflections

Entering the Justus van Effen Complex is an experience. The monumental gateways in the closed block create curiosity and give the visitor a feeling of entering another world that is different and well separated from the streets outside. From the north, the inner street is a physically and visually closed space. No plants, benches, or signs of social life, just a bricked road. The former bathhouse is in the spotlight. With its chimney sticking up, together with the industrial influences in the architecture, this first gave me an uncomfortable association to the Second World War labour camps. Luckily, I kept going. Well inside the Justus van Effen complex the atmosphere changes. The enclosed courtyards have a homely feeling and are full of signs of social life like bikes, a variety of private benches, plants, pots, and toys. The people living here have taken the opportunity to expand their homes and create their own personal space outside their apartments. During the visit, we were not able to access the raised gallery but we were informed that informal patios were created up there as well. Residents feeling safe to leave private property outside can be a sign that theft and damage are not a big problem here anymore.

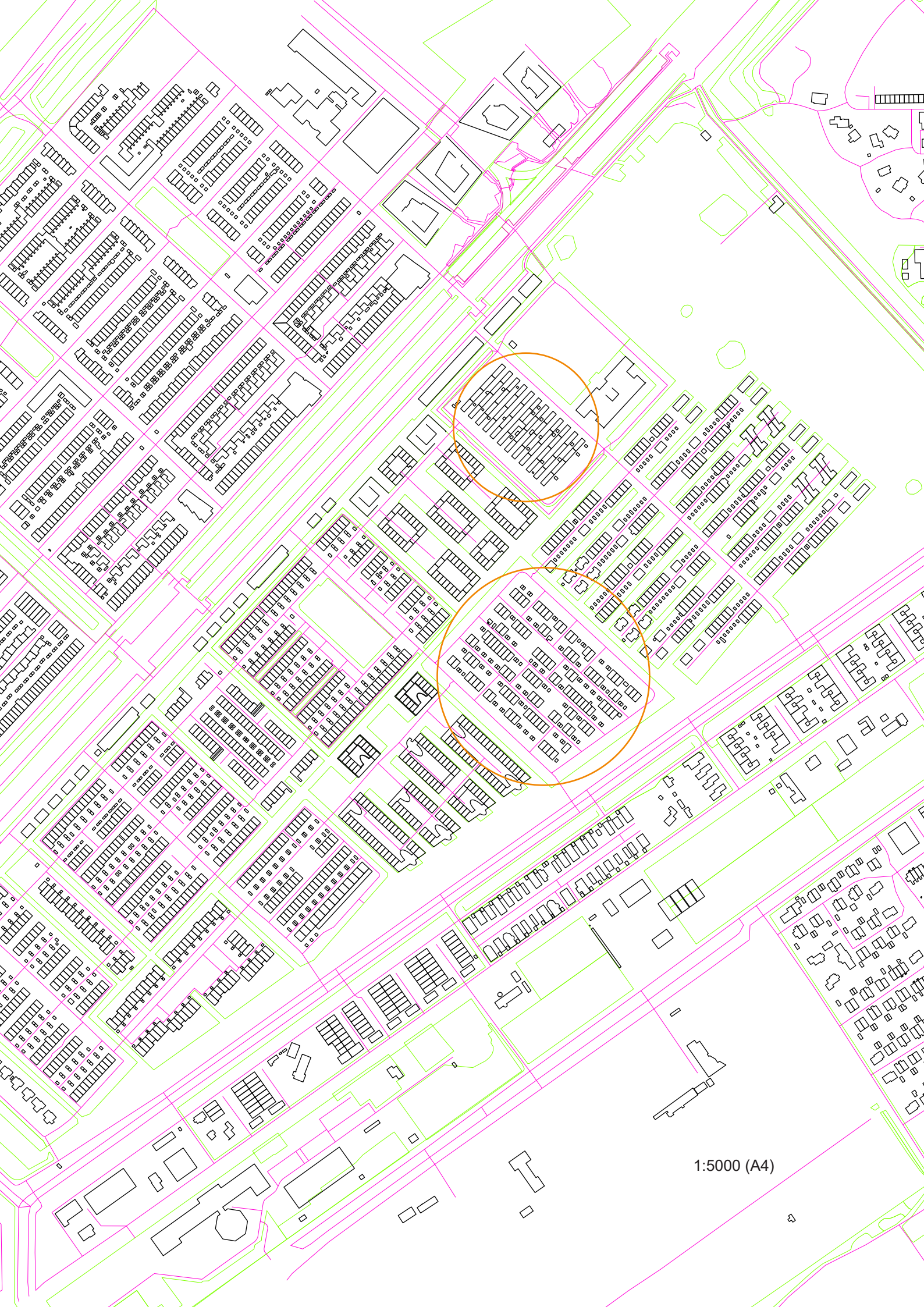
In the middle of the courtyard, there are elevated lawns that direct the residents to pass by their neighbours' apartments to enhance social interaction. The informal patios, both on the ground and upstairs on the raised gallery, prevent those who pass by from coming too close to the windows and make sure that the residents have their privacy as well. The elevated lawns may enhance social interaction when passing the courtyard. However, I think they do not contribute to other social perspectives such as child play, picnics etc. They are a bit tricky to access and

Figure 7. Entrance area to the Spangen quarters. Figure 8. Access gallery facing the inner courtyards. Figure 9. View from inside the Spangen area.

appear quite empty and uninviting. The grass itself looks more or less untouched without worn parts or other signs of usage, which I interpret, as they are not frequently used.

During almost one hundred years, the Justus van Effen Complex has been through periods of fresh modernity, decay, and renovations. In common with many other residential areas with social housing, Justus van Effen had a positive start and moving into the new, modern apartments was a privilege. When periods with lack of maintenance and decay followed later, the status of and social life in the area changed. Living here had become unpopular and unsafe. A development over time that often can be seen in housing areas that are built to provide better standards for the working class. The first attempt to renovate the complex in the 1980s, and thereby change the trend, failed as it was poorly done. In the second attempt to restore the Justus van Effen Complex, the architects aimed to bring back the original beauty and details on the outside and modernize the apartments on the inside. This time the renovation was carried out with care and attention to details and was awarded the prestigious 2016 World Monuments Fund/Knoll Modernism Prize.

Today there are both rentals and apartments for sale in Justus van Effen complex. A search on Google in March 2021 shows that a 85m2, two bedroom rental apartment, costs €949 per month. Compared to other rental apartments in Rotterdam, this is an affordable rent. That results in a socio-economic background mix, which has advantages, but when an iconic social housing project as Justus van Effen complex is partly privatized, it can also be seen as an example of gentrification.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3.6. Ypenburg Waterwijk, Den Haag

Maria Kylin

FACTS
Surface Waterwijk area (5 islands): 6 hectares
Number of houses in the Waterwijk area: 800
Surface Hagen Island: 33,500 sqm
Patio Island number of houses: 44
Hagen Island number of houses: 120
Year of construction: built in 2003-2005
Architect MVRDV, principal in charge Winy Maas

The Waterwijk area

The Waterwijk area consists of several islands grouped together, each island containing a different suburban typology. The architectural firm MVRDV developed the overall Waterwijk masterplan. In the continuing planning process three of the islands; Watervillas, the Hagen Island and the Patio Island, were also designed by MVRDV, but the rest of the islands were designed by different architects. Each island has its own "theme" and there is a large variety in ownership, housing costs, public areas, and ecological or green solutions. On the island of Watervillas, the exclusive big houses connected to the water offer a very different living environment compared to the island with low row houses for tenants.

Figure 1. Courtyard on one of the islands with row houses. Figure 2. A private garden on the Hagen Island.

The spatial organization for private, public or community activity differs greatly between the islands. According to the home page of MVRDV (www.mvrdv.nl/projects/152/ypenburg), there have also been different ecological measures. It is obvious while visiting the area that the different material for the houses, pavement and greenery give the islands a variety of frameworks for social life.

Water is the overall dominating feature in the Waterwijk area. On some of the islands, the individual houses connect to the water with docking possibilities and seating areas in direct connection to the water. The islands connect with each other through pathways and bridges.

We walked through several of the islands in this large development area. The Hagen Island is an experimental area containing social housing. According to the MVRDV homepage, 10 percent of a project's budget could be dedicated to experimentation, saving costs on one island, allowing for experimentation on another island.

Figure 3. Water is the overall dominating feature in the Waterwijk area. The islands are connected with pathways and bridges.

Figure 4. Closed private yards, parking outside the housing area. Figure 5. Very private, no public area except the street.

The Patio Island

The structure of the Patio Island is very introverted. A ring road surrounds four rows of houses, and the middle house of each row links to the street by a narrow passage. Each house has a separate rooftop unit positioned to prevent visual intrusion into and from neighbours. For a visitor there is no doubt what is public and private, as the boundary is marked with high walls.

When we walked through the Patio Island it was not obvious that this was a housing area. The impression was rather one of garages and/or an enclosed industrial area. There was no sign of life outside the walls, except the cars parked along this hostile walled street. Fortunately, the streets are relatively short and the sightline to the next street is reasonable.

The Hagen Island

In contrast to the Patio Island, the Hagen Island has an open urban structure with a centre that is totally free from cars. The Hagen Island, which in Dutch refers to "hedges" (the Hedge Island), was built within a relatively less expensive housing category. It was commissioned as social housing and the economic framework was very tight (www.mvrdv.nl/projects/155/hagen-island). To keep within the budget, one of the things the architects did was to build houses void of detail. All houses are built in one material, one type of door, no gutters and so on.

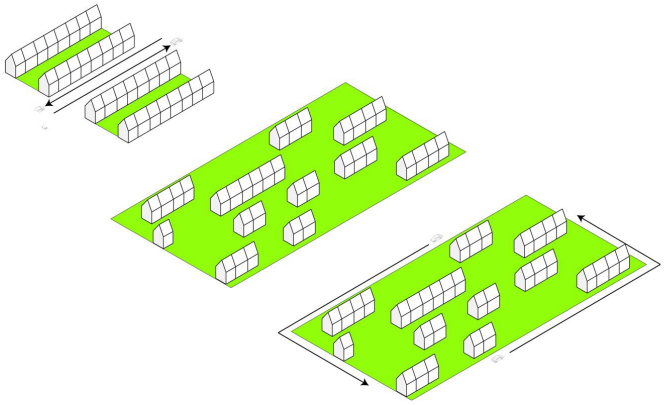

Figure 6. Hagen Island, picture from homepage MVRDV (www.mvrdv.nl/projects/155/hagen-island). Figure 7. From classical woonerf to "neo woonerf", picture from homepage MVRDV (www.mvrdv.nl/projects/155/hagen-island).

According to Van der Putt (2010) the Hagen Island is a "neo-woonerf" neighbourhood. It was developed in reaction to the Dutch government's *"Forth Memorandum on Spatial Planning Extra"* (shortly called the VINEX) where locations are designated by the government for new, large-scale housing construction. The standard VINEX layout in Hagen Island was changed to form something new and was designed in reaction to Holland having since the 1970s converted many living areas into "woonerf" (living street) areas. In the typical "woonerf" area, the rows of housing together form a central street where pedestrians are encouraged but the inhabitants can park their car in front of their house, while having a private garden on the backside of the house.

On the Hagen Island, the structure was altered and instead of the residential houses having a garden and a shed and park in front of their door, three to five plots were removed from the rows of housing, changing the strict front and back division. The streets are thus located on the outer edge of the neighbourhood and circle around the houses, leaving the inner centre free from cars.

The structure of the residential area on Hagen Island permits the "inside" to be free from cars. A network of narrow gravel paths and two smaller squares are only accessible to pedestrians. Walking around the neighbourhood, you pass both front doors and back gardens meandering between the almost 120 dwellings without hindrance from cars. This is an area where children can play safely and residents can meet and interact, and the parked car is kept outside the collective inner zone.

According to Van der Putt (2010) hedges were planted to separate the gardens, and the architect's intention was for these hedges to remain low and allow views over the hedges at eye level. The residents' need for privacy, however, has resulted in installation of higher fences to prevent people from looking in. This raises questions on how public areas are maintained and how communities handle the questions on how to supervise and maintain collective interests.

Reflections

Walking through the Waterwijk area is like taking a quick trip through different socio-economic realities - from the islands with luxurious private villas to the islands with low row houses for rent. It is interesting that these areas coexist with such proximity. One came to wonder if there was any social tension occurring at times? The spatial differences in access to private and/or public space is striking and easy to study. The Waterwijk district is well worth a visit. Several of us thought the houses on the Hagen Island resembled "Lego" houses. The lack of detail gives an interesting and striking architecture but when we came close to the houses the materials felt somewhat shoddy. The small public squares inside the Hagen Island were indeed very small and contained little play equipment. The "grass" on the squares was artificial AstroTurf. It is somewhat ironic that these small squares are called "Piazzas" on MVRDVs homepage.

Figure 8. All streets are located on the outer edge of the neighborhood. Figure 9. Two "piazzas" in the area with play equipment.


Figure 10. Figure 11. Hedges were planted to separate the gardens. Residents made modifications since more privacy was desired. Figure 12.One of the "piazzas" on the Hagen Island.


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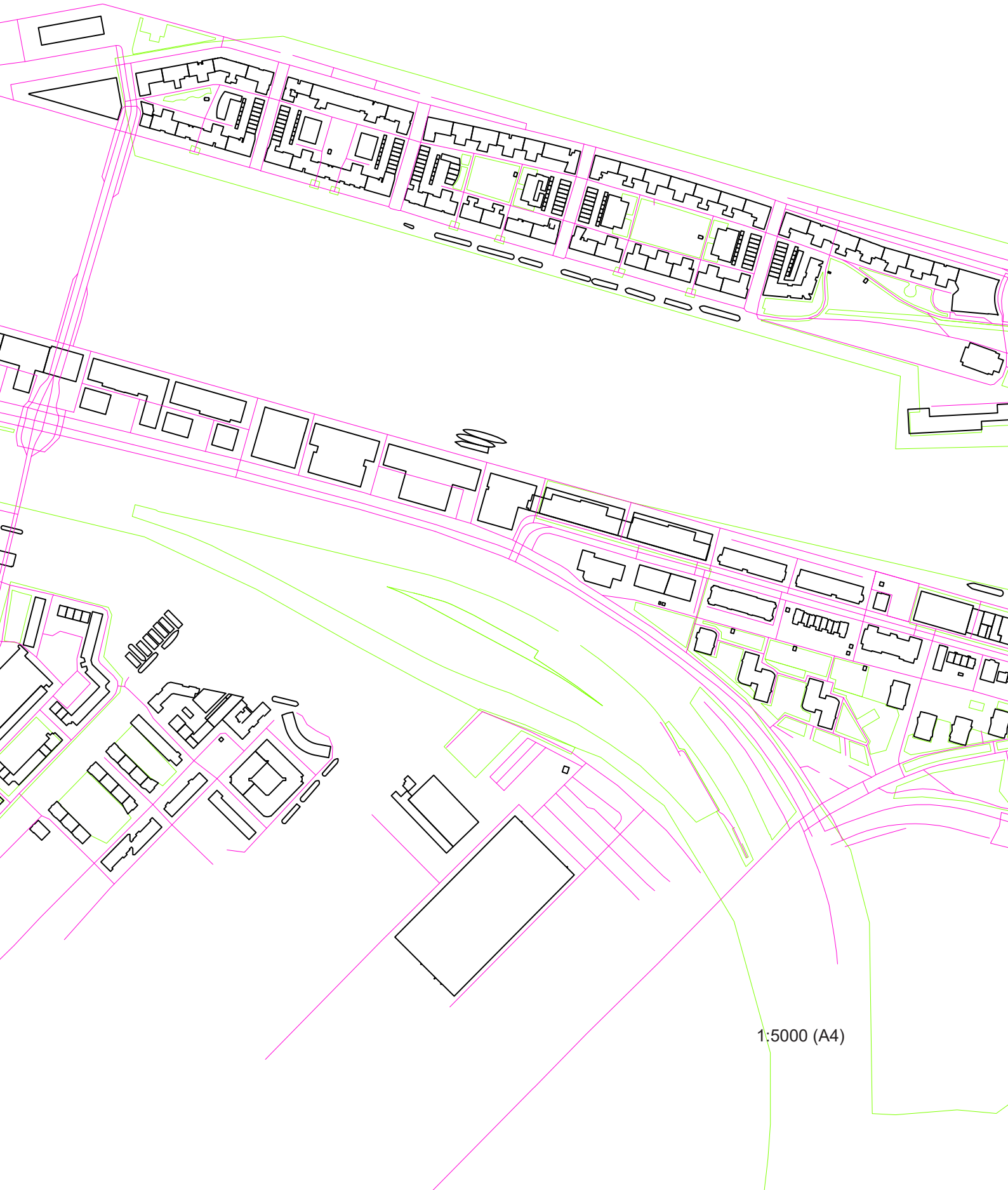

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3.7. Java Island, Amsterdam

Victoria Sjöstedt

FACTS
Years of construction: 1991-2000
Plan area: ca 130x1200m: 15,6 hectares
Density: ca 100 units/hectare
Number of dwellings: ca 1,300 apartments and houses
Number of dwelling types: A large variety of building types - quay buildings, canal buildings, palazzi
Client masterplan: Amsterdam planning department
Masterplanner: Sjoerd Soeters
Supervision: Ton Schaap (Amsterdam planning department), Jan de Waal (Amsterdam housing department)

Port activities

Java Island is a narrow peninsula in the IJ river, located close to Amsterdam's old city centre. This artificial island was built in 1900, on reclaimed land, as one of the docks in the Eastern Harbour District. Constructed for large ships, Java Island played an important role in the shipping of cargo between Indonesia and Europe. The island is 130m wide and 1200m long, with 14m wide quays to the north and south (Soeters, 2017). Steamships and large sailing ships docked along the quays. Cargo was stored in large warehouses on the island and transported by rail to European countries. After WWII, however, the Eastern Docklands became redundant. Port activities moved to Amsterdam's western harbour, which could accommodate larger ships. The area was left abandoned and in the 1970s squatters and artists started to move into the Java Island warehouses.

Urban transformation and the Atlas of Living

In the 1980s, the city of Amsterdam decided to transform the Eastern Harbour district into residential neighbourhoods. Plans were developed for the different parts of the Eastern Docklands – the KNSM Island, the Java Island, and Borneo Spoorenburg. In order to deal with the housing shortage, a target of 100 units per hectare was set for the whole area. For the Java Island, Amsterdam planning department (DRO) made design criteria covering building types and view lines (Soeters, 2017). To make the island accessible, DRO wanted to build 2 new bridges to the island, with access from the eastern side (Blauwehoofdbrug, tram access point) and western side (Jan Schaeferbrug/Schaefer Bridge connecting Javakade with Osterlijke Handelskade).

DRO also developed an Atlas of Living (Woonatlas), describing concepts of living with ideas about different dwelling types, number of occupants and gradients of collectivity and individuality (Soeters, 2017). Four developers and housing corporations were contracted by the DRO to participate in the development of the plans. The developers also contributed financing. With this as background, DRO invited three architectural firms to draw urban schemes for the Java Island – Geurst and Schultze, Sjoerd Soeters and Rudy Uytenhack. The urban scheme chosen was the one developed by Dutch planner and architect Sjoerd Soeters.

Water landscape

When the Soeters team started investigating the Java Island landscape, they realized that the quays of the island, which were 2m above sea level, created difficulty in relating to the surrounding water. “The water was an abstraction, the feeling of going to feed the ducks, the ultimate criterion for water in a residential environment, was completely lacking” (Soeters, 2017, p. 13).

A key source of inspiration for Soeters was Amsterdam’s historic city center, with its canals and rhythm of houses along the quays, reflecting the narrow plots of land. The Soeters team studied the aesthetics of the old Amsterdam houses and the rhythm expressed in colours and entrance areas, giving the urban fabric a lively character. Moving through the urban landscape of Amsterdam´s historic city centre, the Soeters team also realized how much the eye level difference, caused by the arched bridges over the canals, contributed to how one experienced the landscape. The arched bridges made the urban landscape of Amsterdam hilly. A raised position on a bridge enabled one to see far and deep into the landscape (Soeters, 2017).

In his scheme for Java Island, Soeters proposed to make 4 narrow canals, dividing the island into 5 sub islands, with arched bridges connecting the islands. Initially DRO was against this proposal, since they thought it was too much work and far too expensive to dig out canals. However, the developers, investors and housing corporations involved, liked the idea, and were willing to pay for this, in order to create variation and quality. So the quay sides towards the IJ river were broken up by the crossing canals, and linked by arched bridges, enabling shifts in eye level. The houses along the canals created the experience of getting close to the surrounding water.

Figure 1. Canal houses with access to the water.

Figure 2. Public area on the quay side. Figure 3. Canal houses with narrow lanes and connecting bridges.

Urban structure and mix of housing types

The plan for Java Island contains roughly 1,300 apartments and houses, with 30% of the apartments in the category of social housing (3 housing corporations were clients for the social housing part) (Soeters, 2017). The apartment buildings along the northern and southern quays are structured into 27m building blocks, each block divided into 5,4m bays, with a hint of the Amsterdam old city aesthetic. Within this structure the architects created a rich variety of unit layouts, ranging from small apartments to larger and more luxurious ones. To bring in enough sunlight to the courtyards, the building blocks on the southern side have 5-6 floors, while the building blocks facing the northern quay have 7-9 floors.

Based on the Woonatlas, the Soeters team identified different lifestyle groups. Each apartment house accommodates a specific lifestyle, for instance, elderly people, students, and families with kids, each have their own apartment house. The apartment houses are located randomly next to each other, in order to make people from different lifestyle groups meet in the public spaces – on the quays and in the courtyards.

Along the canals smaller sized individual canal houses were developed as 4 floor row houses. The canal houses were designed by young architectural firms, many with avant-garde solutions. Behind the canal houses, apartment blocks – palazzi – were developed, facing the inner courtyards, each with specific design characteristics.

The courtyards

Coming from the Jakarta Hotel, we walk along the windy Java quay on the southern side of the peninsula, passing the Jan Schaefersbrug, which has a nice bike/pedestrian connection to the city. When we stop at the quay, on the one side we experience the characteristic rhythm of the apartment houses, on the other side the impressive view of Amsterdam across the IJ waters. Houseboats line up the quay. We pass through a large opening in one of the apartment blocks and enter one of the courtyards. Each sub island has its own courtyard, and all courtyards differ from each other in terms of size and type of vegetation. Our guide, Victor Retel Helmrich, tells us that the courtyards have their names from Javanese places, from west to east – Tosarituin, Imogrituin, Taman Sapituin, Kratontuin, Bogortuin.

Imogrituin is a square shaped courtyard framed by trees and surrounded by the apartment blocks. The courtyard is well protected from the wind, the atmosphere is calm, and the openings in the apartment blocks frame fantastic views to the surrounding water. All housing has a view to the IJ river, except for housing facing the courtyards, our guide tells us. North of the courtyard is a bike and pedestrian path, connecting the sub islands. This path constitutes a lively passage, contributing to making the inner courtyards a safe place for children to play. The inner area of the Java Island is also free from cars. The Sumatrakade on the northern side of the peninsula, is the only access road for cars.

Figure 4. Inner courtyard, protected from wind, and safe for kids' play. Figure 5. Pedestrian and bike path connecting the courtyards on the different islands.

Following the pedestrian path, we cross the arched bridges over the canals, also named after rivers on Java in Indonesia, our guide tells us. We stop at Taman Sapituin, an oval shaped courtyard, a bit sunken, with soft grass surrounded by bushes with benches here and there. With large strides, we estimate the length and width of this courtyard, roughly to be 35x25m.

Strong steering

The success behind the Java Island development has a lot to do with strong steering. A supervising team was set up with Sjoerd Soeters (masterplanner), Ton Schaap (Amsterdam planning department) and Jan de Waal (Amsterdam housing department) (Soeters, 2017). This supervising team had frequent dialogues with the 5 different clients involved, the 10 architectural firms selected for the design of the apartment buildings along the quays, and the 20 young architectural firms invited to design the smaller canal houses. A number of architectural rules were set up, regarding materials and colours of the facades, building heights, and the treatment of plinths and roofs, in order to create an impression of a "unity in multitude" (Soeters, 2017). In each design phase there were presentations and discussions, the architects presented their designs for the supervising team and the clients. These meetings acted as valuable peer-learning occasions, with possibility to reflect and share experiences.

Figure 6. View from the Java quay.


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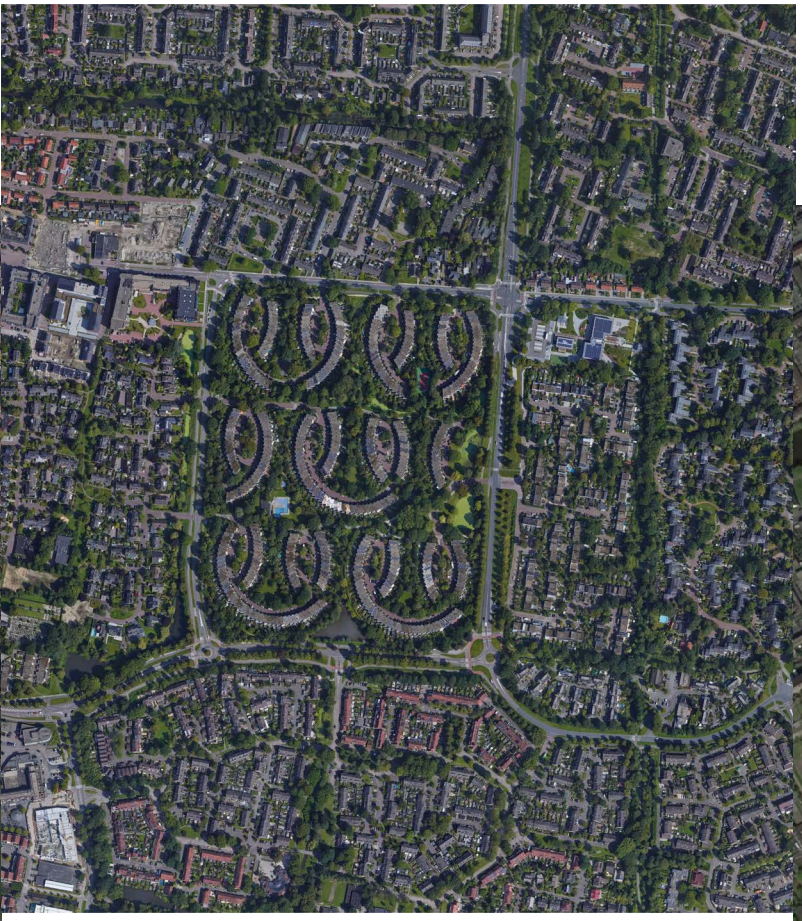
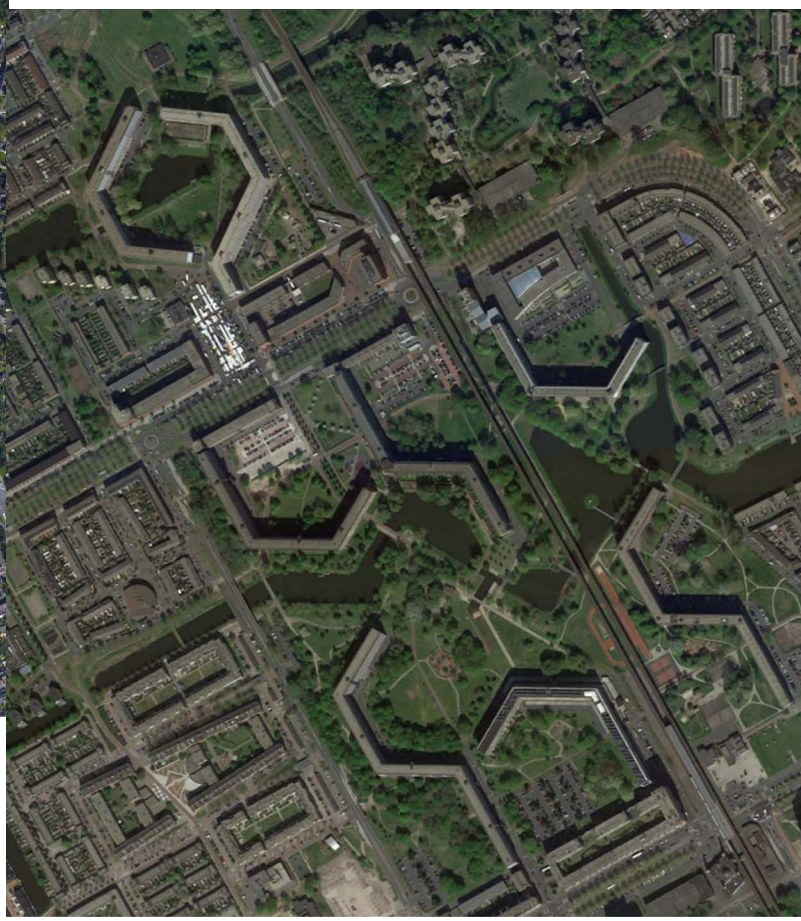
Scale comparisons

EVA LANXMEER, CULEMBORG



PARK ROZENDAAL, AMERSFOORT



BIJLMERMEER, AMSTERDAM

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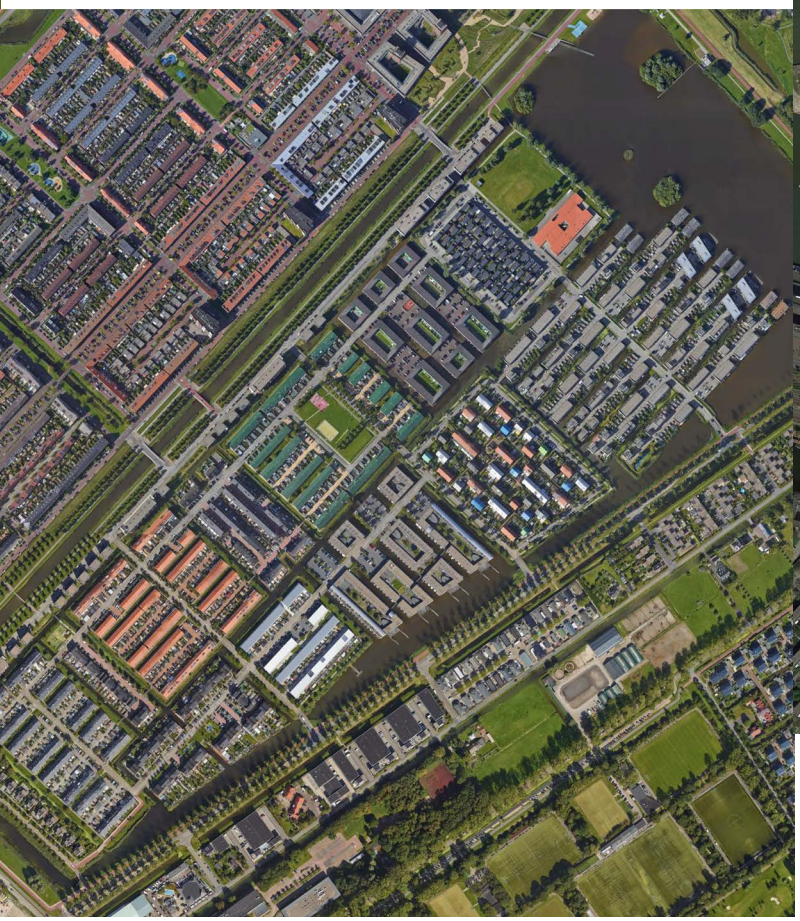
SPANGEN QUARTERS, ROTTERDAM

DIAGOON HOUSING, DELFT

JAVA EILAND, AMSTERDAM



YPENBURG, DEN HAAG

0 100 500m

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