

SCHEMATISCHE WER-
GAVE V.D. RELATIES
TUSSEN DE WOONGROEPEN
EN DE GEMEENSCH. RUIMTES
OP SEMI-OPENBAAR EN
OPENBAAR NIVEAU.

Centraal Wonen Delft

Evaluation of an Experimental Dutch Cohousing Project

Autor: Alex Kirschstein

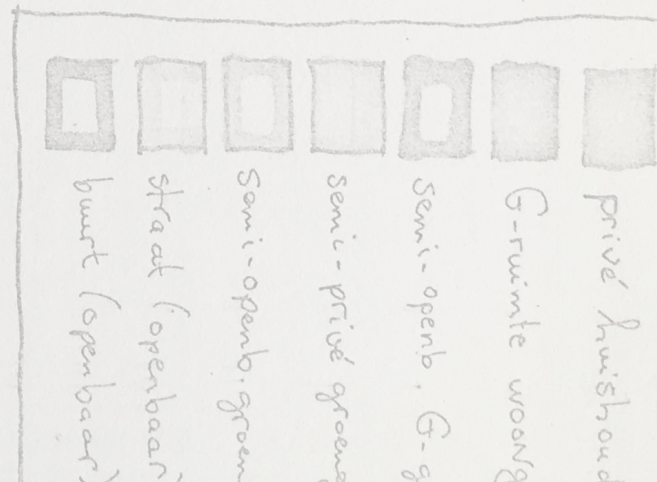
Student Number: 5362156

Tutor: Dan Baciu

Msc 2 History Thesis

Spring 2021

TU Delft



Contents

Abstract . . . . .	.5
Introduction . . . . .	.7
Part One: 1969-1981 . . . . .	.8
A new Model for Cohousing in the Netherlands	11
The Origins . . . . .	.11
The socio-spatial ambitions of Centraal Wonen. . . . .	.12
The Initiation of Centraal Wonen Delft	17
The First Community . . . . .	.17
A Spatial Concept for Collaborative Living . . . . .	.20
Designing the Clusters. . . . .	.23
Statial Diagram	26
Project Overview	28
Part Two: Spaces of Collaboration in Practice	34
Group Level	39
Semi-Private.	47
Living rooms . . . . .	.49
Kitchenettes . . . . .	.57
Cluster Gardens . . . . .	.59
Semi-Public	67
Public Space & Neighbourhood	75
Conclusion	80
Reference List . . . . .	.82

Abstract

Alternative forms of dwelling, and collaborative housing models in particular, are again gaining an increasing amount of interest in the architectural discourse. Although not a new topic, there is a noticeable lack of research on how existing cohousing projects, that were established decades ago, have developed in practice. Among other countries in northern Europe, the Netherlands experienced a rise of cohousing communities in the early nineteen-eighties, many of which still exist today. One example for this is the project of Centraal Wonen Delft, which was chosen as a case study for this thesis. Completed in 1981, it was part of a larger national movement called Centraal Wonen (CW) and was particularly experimental in its layout and spatial organization in the context of that time.

As society shifts continuously over time, the design intentions of CW Delft might no longer comply with the lifestyle of its residents forty years after completion. To test this hypothesis the author conducted interviews with multiple residents and two of the founders. Further, the results of qualitative research methods including field notes, observations and photographic documentation were compared to historical documents, such as blueprints and images. The results showed that, while many of the initial intentions of collaborative living do not match the outcomes observed today, CW Delft as a whole can yet be seen as a successful project that is home to a thriving and diverse community to this day.

The observations suggest that, together with its residents, the project was able to naturally evolve in time, particularly when the design of shared spaces was not too strongly attached to a certain ideology. On this basis, the design of spatial concepts in cohousing should consider a flexible approach that is not tied to specific social structures.

Introduction

Within the field of architectural research, collaborative housing models have been gaining an increasing amount of interest throughout the past years .

From an architects point of view, the development of a cohousing scheme relates just as much to the „design“ of a community as it does to developing of the building itself.

Therefore, it is of utmost importance for architects to truly understand how residents engage with spaces that are designed for collaborative living.

Although not a new concept, only little research has been done into existing cohousing projects. However, gaining a detailed understanding of the use of these spaces could potentially help to inform crucial design decisions needed for new cohousing developments.

In the context of the Netherlands the concept of cohousing first appeared in the early 1970s. The Centraal Wonen (CW) movement, in particular, aimed to provide alternative forms of living that challenged the household conventions of the nuclear family model. Centraal Wonen Delft, completed in the Tanthof district of Delft in 1981, was one of the first CW project to be realised in the Netherlands. It was planned as a formation of four clusters that are further organized to facilitate different levels of privacy and collectiveness. The collective spaces are therefore particularly interesting in terms of their spatial layout and integration within the building.

This research focuses on these collective spaces at CW Delft and investigates how the founders' intentions were translated into the buildings spatial design and social organization.

What patterns of use and spatial alterations can be observed after forty years of the project's initiation in the early 1970s until the present day?

Are the initial intentions of the CW movement still reflected in the spatial use of the collaborative spaces today? If not, what conclusions can be made about them?

This thesis is divided into two main parts. The first chapter provides a brief overview of the CW movement's history and explains their central goals and ambitions. Building upon this, the author provides insights into the initiation of Centraal Wonen Delft and how the project implemented a spatial concept as the basis for collaborative living.

The second chapter presents an in-depth analysis of the project's shared spaces. Here, the author reflects on the residents' spatial use in the present and in what way this relates to the initial intentions behind the project.

Besides analysing hard data such as the original blue prints and historical images the research is mainly based on qualitative research methods including interviews, field notes, observations and visual documentation through photography.

Part One: 1969-1981

N



Naar meer gemeenschappelijkheid



Figure 1:

Info-booklet about Cohousing in the Netherlands

... maar getukkig mee?
 een onderdeel van je
 zie mijn maatschap-
 nctie helemaal niet als
 sch. Ik zie evenmin in
 het apothekersvak door
 van de farmaceutische
 structureel onder-
 u zijn. Ik hoef helet
 et teruggeplaatst te
 i de categorie zuivere
 gebeoefenaars".
 s de Nederlandse far-

oud ijzer, alleen de chemische
 samenstelling verschilt wel-
 eens. Alle industrieën willen
 hun eigen tranquillizer op de
 markt brengen. De industrie zal
 stellig beweren: het ene genees-
 middel is niet zoals het andere.
 Dat komt haar commercieel van
 pas".

Vindt u het redelijk dat door
 de farmaceutische industrie ge-
 zegd wordt: de apothekers zullen

rekening druppels te maken
 dan enkele decennia terug. De
 vroegere apotheker slaagde er
 nooit in werkelijk steriele oog-
 druppels te maken. We zijn nu
 ook beter in staat een zelf te
 bereiden. De exceptioneel moei-
 lijke bereidingen doe ik zelf. Ik
 maak nog altijd steriele vaseli-
 nes. Ik steriliseer de tubes, ik
 flambeer met alcohol".

Dat maakt nog helemaal het
 oude vak van apotheker.

tro
 het
 fou
 fru
 we
 gez
 wa
 de
 zou
 V
 de
 me

Centraal Wonen met kater

eindelijk voor de ge-
 rouw met kinderen de
 de maatschappij open.

geschiedenis. Mevrouw
 Donk, getrouwd met
 die in het maatschap-
 k zit. Ze hebben vier
 le leeftijd van 4 tot 10
 r mevrouw Van den
 ft geen zin in thuis
 n de boel te doen. Ik
 ik trouwde voor de
 ian en ik vertik het
 door het huwelijk en
 en ineens helemaal te
 chakelen. Ook al ben
 vd en heb ik kinderen,
 ch een mens? Ze had
 w een systeem op ge-
 wee ochtenden bleef ze
 te poetsen, wassen en
 n de andere ochtenden
 eruit. Meefunctioneren
 dschappij, net zoals ze
 le klas deed.

nkt andere huismoe-
 schien vreemd in de
 ze, maar ik verlangde
 ns buiten mijn gezin
 De huishouding moet
 natuurlijk, maar wat
 leeft het?

maakt je alleen maar
 zit niets boeiends in.
 moeten alle moeders zo
 gebonden zijn, terwijl

in ieder huis dezelfde dingen
 gebeuren? In fabrieken doen ze
 alles zo efficiënt mogelijk, maar
 in de huishouding moet je alles
 zelf doen. Dat zat me niet lek-
 ker en zo is na lang praten het
 plan „Centraal Wonen" geboren.
 „Centraal Wonen" is een plan
 voor een woongemeenschap
 voor ongeveer honderd mensen:
 gezinnen, weduwen en wedu-
 naars, bejaarden, alleenstaan-
 den en ongehuwde moeders.
 Ieder heeft zijn eigen huis,
 maar gemeenschappelijk en in
 een centraal gebouw onderge-
 bracht zijn een keuken met een
 kok, een eetzaal, een crèche,
 studieruimten, gemeenschappel-
 ijke logeerkamers, die ook
 dienst kunnen doen als zieken-
 verblijf, een wasserette en een
 hobbyruimte. Dat was mijn
 idee. In België, Engeland en
 Zwitserland bestaan al van die
 gemeenschappen en die schijnen
 het bijzonder goed te doen. In
 ons land zijn pogingen in deze
 richting ondernomen in Assen
 en Haarlem, maar het is er nog
 niet uitgekomen zoals wij dat
 graag hadden gewild.

Wat zijn - behalve een grote
 re vrijheid voor de huisvrouw -
 de voordelen van „Centraal Wo-
 nen"?

„Vroeger was het zo dat de
 kinderen uit een gezin gingen
 trouwen en allebei in hun eigen
 stad of dorp bleven wonen. Een
 gevolg daarvan was een sterke
 familieband en een daaruit
 voortvloeiend onderling hulpbe-
 toon. Als de kinderen nu trou-
 wen, komen ze in een vreemde
 stad terecht, ergens in een flat
 met vreemde mensen om zich
 heen. De consequentie voor de



Mevr. van den Donk.

plaats MENS. Vrouwen zouden
 de politiek heel wat normaler
 kunnen maken. Maar dat is
 weer een ander hoofdstuk."

Mevrouw Van den Donk liet
 het niet bij gedachten alleen, ze
 plaatste in 1969 in verschillende
 weekbladen een oproep voor
 mensen die met haar mee wil-
 den doen. Binnen een half jaar
 had ze al meer dan tweehon-
 derd medestanders en begin
 1971 werd een vereniging opge-
 richt om het idee van „Centraal
 Wonen" verder uit te werken.
 Het ministerie van CRM was
 bereid voor een jaar een fullti-
 me functionaris te betalen, die

de
 gin
 jon
 Thi
 har
 dro
 net
 eet
 gel
 ner
 par
 zen
 aar
 we
 de
 sch
 ku
 der
 zor
 ma
 3
 afg
 pu
 Thi
 rin
 die
 kin
 ver
 ogt
 zo
 var
 in
 sta
 vrc
 ied
 ma
 de
 lan
 aar
 eer
 te
 Zo

den voorwaarde hier-
 ter de medewerking
 belanghebbende zelf.
 de belangrijkste han-
 die men hiervoor moet
 et eenvoudige tanden-
 let doel van tanden-
 het verwijderen van
 t op de tanden (pla-

Armbanden met subsidie

Figure 2: Lies van den Donk-van Dooremaal featured in "De Nieuwe Linie"

A new Model for Cohousing in the Netherlands

Every newly established movement is bound to the specific socio-political context of its time. The same applies to the Centraal Wonen movement, which could have not formed the way it did a decade earlier or later. It is imperative to gain a brief understanding of the general influences, in order to later focus on the case study itself.

The Origins

The late nineteen sixties marked an era of transformation in the Netherlands. In architecture, contemporary forms of dwellings were met with growing dissatisfaction, as large scale housing developments of the 1960s had lastingly changed the identity of Dutch settlements, which were often perceived quite negatively.

As a result, a growing number of people were looking for new alternatives of living. (De Vletter, 2004)

Simultaneously, core aspects of Dutch society, such as family structures, were questioned in their conventions. The most radical responses to this development presented themselves in the establishment of communes, which were also strongly associated with the politically-left student movement. (Toet, 2009)

In this context, Lies van den Donk-van Dooremaal, a school teacher and mother of four, was featured in an article for the progressive newspaper "De Nieuwe Linie", asking:

„Who designs a living unit with a central kitchen, a dining room, a laundry, a nursery, a study room, shared guest rooms, and above or around it own small living units for each family: a living room, somebedrooms, a tiny kitchenette, a shower and a toilet?“

(ACN, 2020)

Her ambition was to inspire the development of a housing model in which women were enabled work alongside running a household. She questioned why all mothers have to stay at home for housework, while the same things were happening in every house.

In the same newspaper article, she asks whether interested parties would like to register for a weekend. Her call for action was met with great response and a group formed, which organized nine sessions on weekends to come up with a concept to proceed with. These events mark the beginnings of Centraal Wonen. (Toet, 2009)

The socio-spatial ambitions of Centraal Wonen

The Centraal Wonen (CW) movement already had number of existing collaborative housing models to look toward to. The most widespread forms in the early 1970's were communes and the „Woengroepen“. In both concepts one housing unit is shared with one household. Although there were similarities in approach, the CW group was seeking a collaborative housing model that allowed for more autonomy and privacy.

Further, cohousing projects in Denmark were also seen as a role model. Among others, the concepts by Danish architect Jan Gudmand-Hoyer were particularly attractive to the group as they included solutions for more integrated common facilities and semi-private spaces, rather than solely a separate common house within a group of separate units. (Fromm and De Jong, 2020)

A sociologist, named Thissen, was hired to come up with a concept that should lay the basis for the first projects to be built. In their search for the best approach to organize social collaboration within a community, the movement split into two groups:

One that preferred to aim for a larger project with 100-150 people, open to everyone and therefore resulting in a highly diverse group of residents. They also hoped to benefit from efficiencies of scale within the community.

The other group advocated for an approach with a much smaller amount of people per project. Their intention was to bring around 10-20 like-minded adults together which would be more compatible and would, according to them, accomplish more

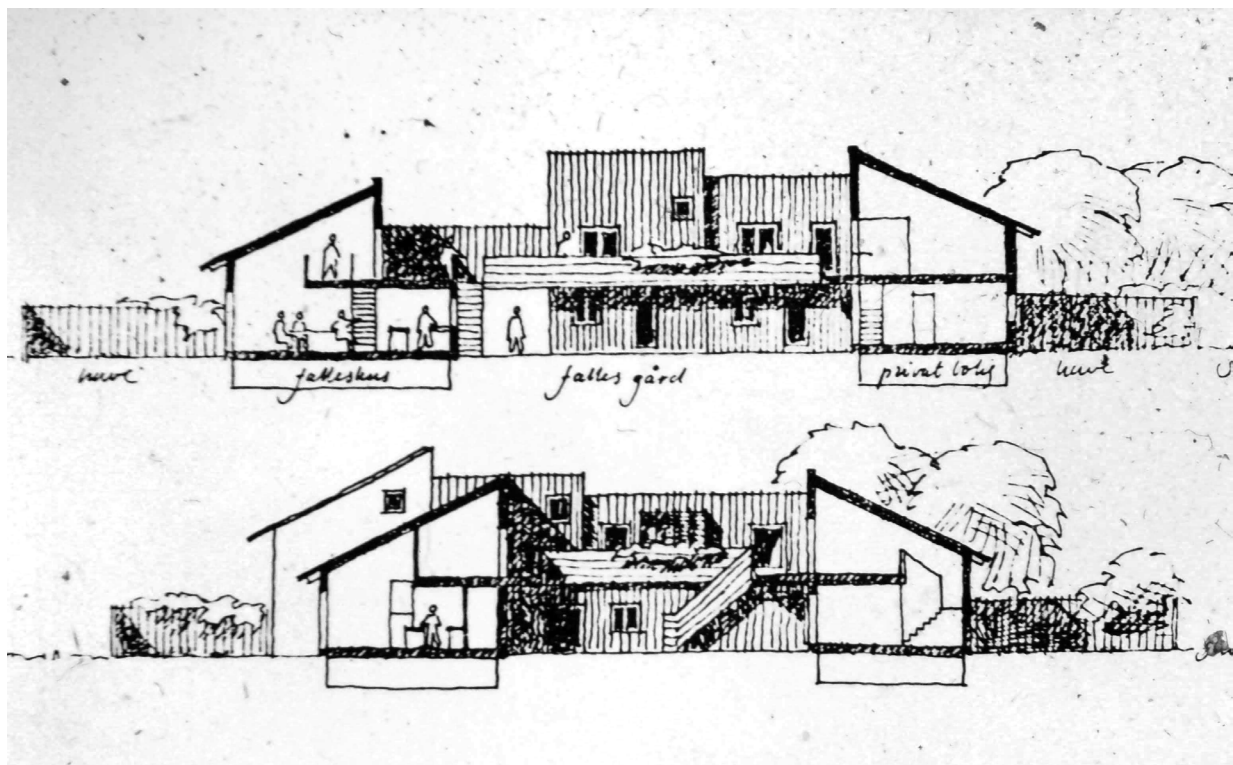


Figure 3: 'Tingarden', collaborative housing scheme in Herfølge, Denmark



Figure 4: Experimental Flats in Utrecht, 1968

as a community. (Fromm and De Jong, 2020)

As a compromise, and noted in the report's caption as „A realistic plan“, Thissen proposed a solution based on multiple cluster units. These would be made up of 50 houses of which 30 were to be independent units and 20 to be developed as cluster homes.

The idea behind these clusters was that they could be made up of four spheres of social and spatial organization: private (household), semi-private (small group of households), semi-public/common (all residents of the project), and public (for residents and outsiders). (Thissen, 1971)

Among others, an existing apartment complex close to Utrecht already had a similar spatial logic within its layout and was looked upon as a source of inspiration. It consisted of multiple apartment units that were grouped around a communal hall with an area of 60 m² for the residents to share. These halls were then deliberately used as a play area for children, space to play table tennis or other games, to share

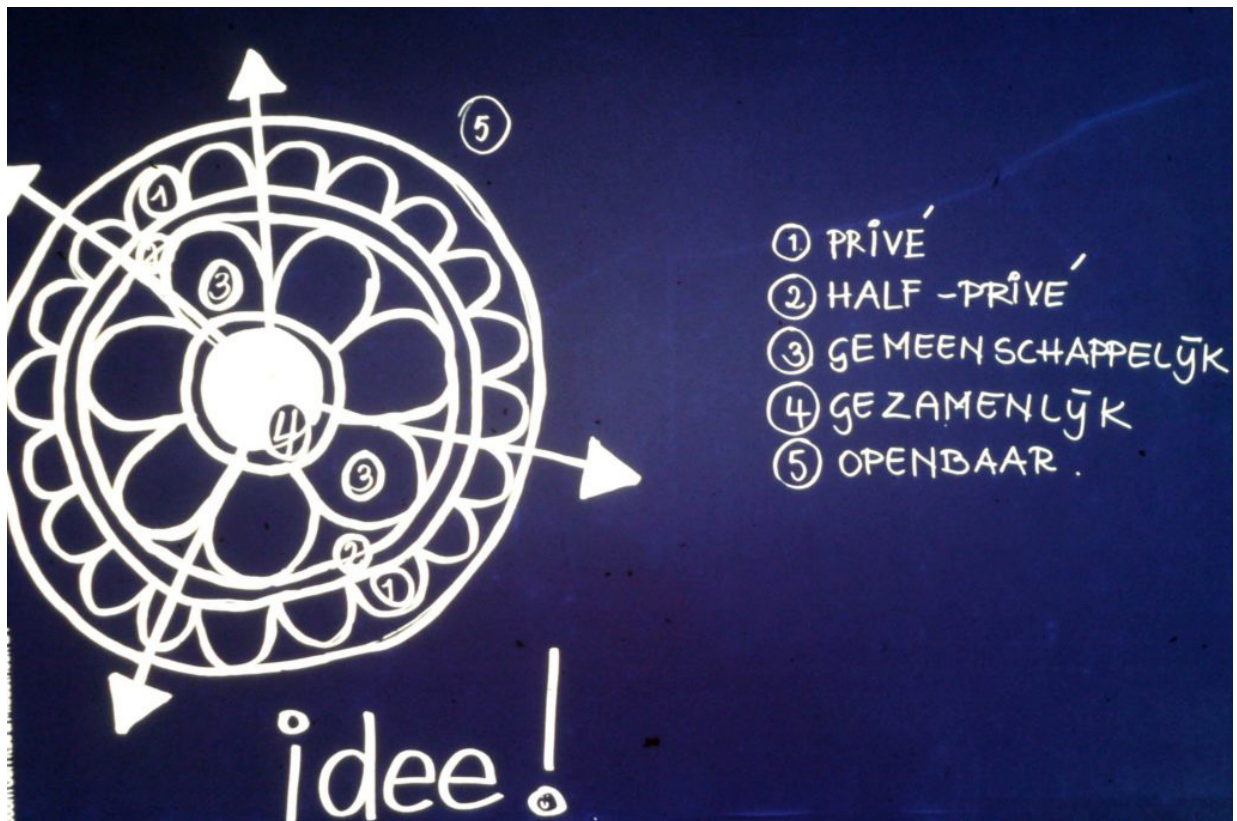


Figure 5: Schematic Drawing of the desired spatial relationship of households for a CW in Rotterdam

a meal or to throw a party. (Barzilay, 2018)

After one intensive year of study, carried out by the sociologist Thissen, five main intentions were formulated. These were meant to be seen as basic common ideas but not as a strict set of rules:

1. Central facilities are to be established, used, and managed by residents themselves
2. The responsibility of these facilities and for the general course of events in the housing project rests with the residents
3. participating persons and households retain their independence and freedom
4. there will be opportunities for meeting, sociability, and solidarity
5. as many social groups as possible must be represented

„The cluster model grew out of the pioneers’ aspiration to get the best of both worlds: a community with social diversity and built-in support of common facilities, but with the intimacy and flexibility of a small group.“

(Fromm and De Jong, 2020, p.43)



Figure 6: Street view of Centraal Wonen Delft in the 1980s

The Initiation of Centraal Wonen Delft

While the main movement of Centraal Wonen was developing strategies on how to turn their visions into an alternative form of housing, multiple subgroups appeared who wanted to realize their own projects. One of these groups established themselves in Delft around 1969. Their approach and most notable steps leading to the final project are described in the following chapter.

The First Community

The first initiators of the CW movement in Delft were a group of around 15 people that had grown gradually. Cor Langedijk, a sociologist, was one of these initiators and was later joined by further interested individuals, such as the journalist Lex Veldhoen. In 1973 the group was joined by Flip Krabbendam and Astrid Wiebenga, who at the time were architecture students in Delft and, apart from being interested in designing for such a residential community, also wanted to live this way themselves. (Krabbendam, 2013)

The participants came from different backgrounds but were all united by the ambition to establish a collective place of living, that presented an alternative to the conventional nuclear family. Lex Veldhoen, for example had previously lived in a Kibbutz in Israel. Together with Flip Krabbendam they also visited collective housing communities in Denmark in order to take home insights that could be applied to CW Delft.



Figure 7: community dinner in the early years of the project



Figure 8: Cohousing project in Seateddammen, Denmark

At the core of the project was also the wish to establish a form of living that reflected these individual's personal ideals, mainly based on ideas from the political left, such as social solidarity. (L. Velhoen, personal communication, March 10, 2021)

In contrast to other collaborative housing models, such as Seateddammen in Denmark that were viewed as a role model, CW Delft was realized for the social rental sector. This would assure accessibility to anyone, not only those who could afford to buy property. Besides that there was no Dutch bank that would have agreed to a loan for such an experimental project at that time anyway. (Krabbendam, 2013)

In the pre-planning phase this also meant that a lot of work was needed to convince the rather conservative housing association (COW) to allow unconventional building typology that was needed for the intended clusters. (L. Velhoen, personal communication, March 10, 2021)

Still, the group succeeded and managed to secure a site for their project in the south of Delft. The site was part of a residential district called Tanthof Ost, which, at the time, was a newly developed city expansion and is characterized by low rise buildings until this day.

The chosen site was not so much driven by any ideological thoughts but rather by the fact that this newly developed expansion of the city provided space for opportunity and was affordable. The city centre was not able to provide new space. (L. Velhoen, personal communication, March 10, 2021)



Figure 9: Polder landscape south of Delft before the urban expansion



Figure 10: Low-rise housing in the newly developed Tanthof-Ost

A Spatial Concept for Collaborative Living

Besides the general idea of the cluster housing model, as developed by the Centraal Wonen umbrella group in 1971, there was no handbook book to follow that would demonstrate how spaces should be designed for future residents.

Substantial questions were still open to debate for the subgroups that had formed to realize their own projects. What spaces should be shared collectively and how large would these be? Should the room layout reflect family structures within a cluster or would it be better if these boundaries dissolve, similar to a commune? How could the cluster arrangements stimulate interaction between subgroups and prevent the isolation of different groups? And also, how should the project engage with its surrounding neighbourhood? (Krabbendam, 2013)

To answer these questions Astrid Wiebenga and Flip Krabbendam set up a survey that was worked out together with the sociologist Cor Langedijk.

„The survey outcomes showed that the first level of communality should be a dining kitchen for groups of 8 to 12 people. These groups should be included in well-organized clusters of about 30 people, so that mutual contacts and the exchange of groups would remain possible. With a larger number, groups would perhaps close themselves off to ‘the rest’.“

(Krabbendam, 2013)

As a binding element within clusters the residents would share a garden, a small workshop and a washing machine room. In concept, this would allow frequent and casual contact between residents.

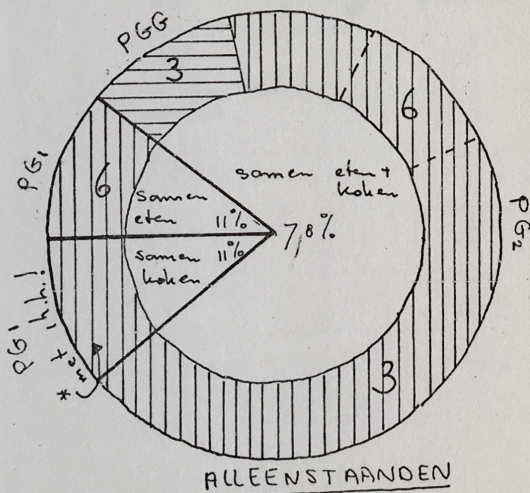
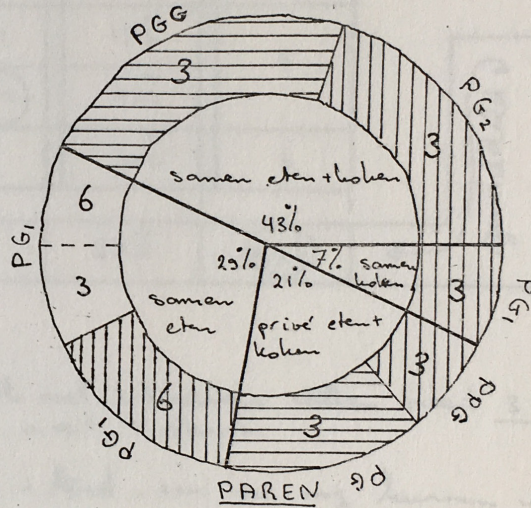
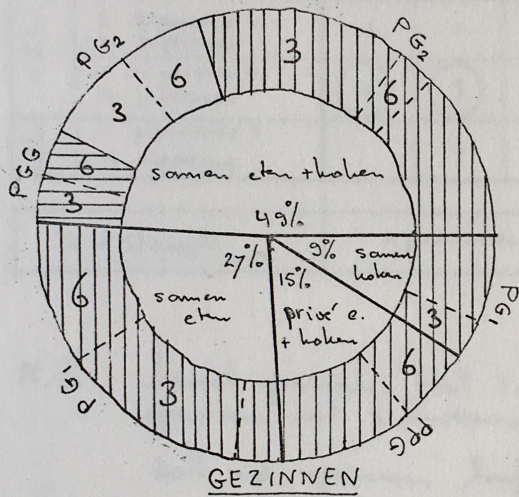
For the scale of the entire project with around 125 people, the survey participants also advocated for a cafe area where residents from different clusters could interact. Ideally not only between residents themselves but also with ‘outsiders’ from the neighbourhood. (Krabbendam, 2013)

ZITTEN, KOKEN, ETEN

vraag 2 en 3.

KOMBINATIE V. KOKEN EN ETEN
 EN WOVEN

	a) samen eten + koken		b) alleen samen eten		c) alleen samen koken		d) privé eten + koken		
	G	P	A	G	P	A	G	P	
eigen woonkamer + gem. ruimte	10	3	6	9	2	1	3	1	5
flexibele ruimte (of woonk. of gem. ruimte)	4			2					
geen eigen woonk., alleen gem. ruimte	2	3	1						2



- eigen woonkamer, + gem. ruimte met ... aant. huishouders.
- flexibele privé of gemeensch. ruimte(s), met ... h.h.
- geen eigen woonkamer, alleen gemeensch. ruimte(s), met ... h.h.

Figure 11: Excerpt of the original survey results



Figure 12: Sketch Model 1

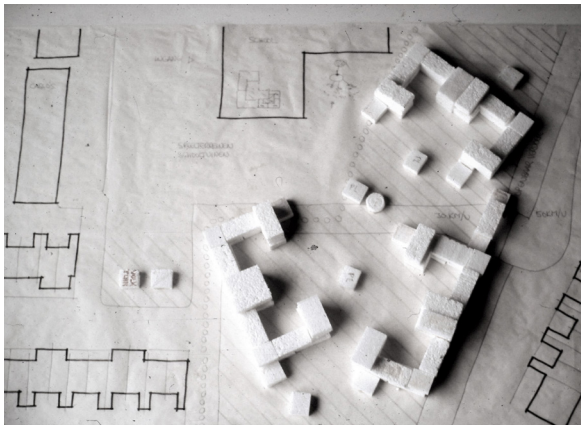


Figure 13: Sketch Model 2

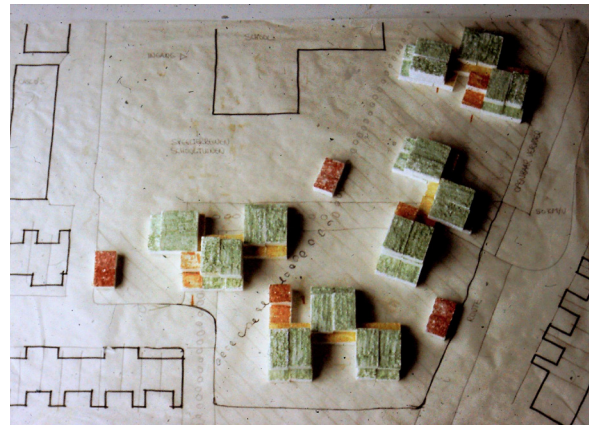


Figure 15: Sketch Model 3

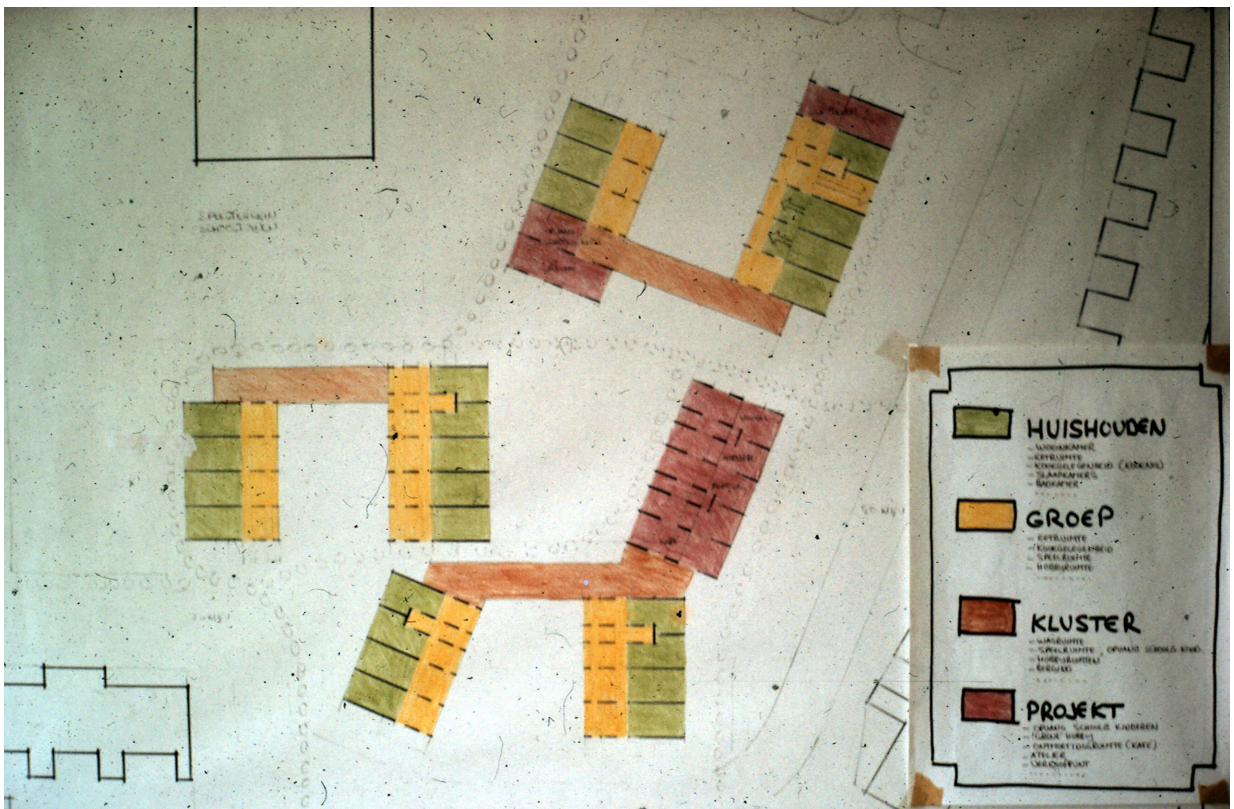


Figure 14: Sketch plans with different zones of privacy and collaboration

Designing the Clusters

As a next step, the CW group organized 'design weekends', in which all members were invited to translate their ambitions into spatial design concept. The outcomes revealed two very different approaches within the group. One followed the survey as much as possible, they planned for two groups per cluster unit and three clusters as the entire project (Model 1).

The other group did not aim to record anything specific, other than a large open shared space in between the housing units (Model 2).

For the scale of the common areas the group built a full size cluster-model at the Faculty of Architecture in Delft. Through this, the future residents were able to compare different sizes and types of shared space. (Krabbendam, 2013)

The sketch plan was made up of a still unspecified zone for private units and a zone for group rooms, including the dining kitchens for 8 to 12 people. Three of these kitchens formed a cluster, including a communal garden, a workshop space and a washing machine area. All clusters were grouped around a central square where the communal cafe would be located in a way that neighbors would also feel invited. A day-care center was also considered for contact with the neighborhood. (Krabbendam, 2013)



Figure 16: Cor Langedijk experimenting with the model



Figure 17: Model of shared spaces_scale 1:1

The group was then able to use the results of these meeting to draw out a first sketch plan of the building.

The green zone was intended for private spaces of which a resident or family could rent out multiple rooms at once. The idea was that a household could expand or get smaller according to changing needs. This would provide great flexibility and through this, spatial isolation of the families would be avoided.

Adjacent to the private spaces were the orange zones that represent the semi-private spaces to be shared with the rest of the cluster. In layout, these differed largely per cluster but would usually include a sort of living room, a small workshop spaces, and a laundry room.

The yellow zones in the plan mark the group kitchens. These would be shared by more or less eight people that would be categorised as "Woengroep".

In general, the clusters were intended for 2 to 4 group kitchens, which amounted to 20 to 40 residents.

Finally, the red zone would contain spaces to be shared between residents from all clusters, so the entire project. The envisioned spaces here included a so-called 'hard' hobby room (workshop with larger tools) and a 'soft' hobby room that could be used for yoga or workshops. Also part of the red zone and located at the central square of the complex the group planned a cafe that would be open to the public and therefore stimulate better integration with the neighbourhood.

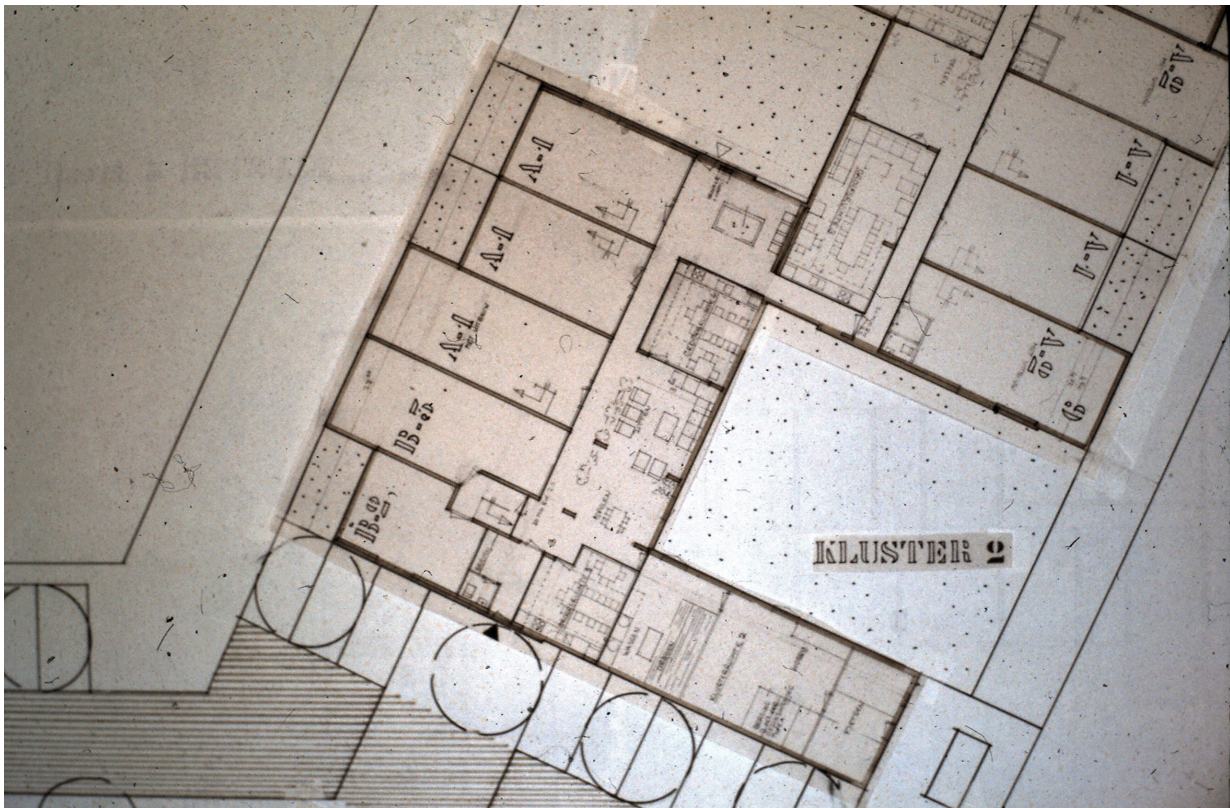


Figure 18: Sketch Plan of a Cluster

Although the CW Delft group was largely in control of how they wanted to design their spaces, the project had officially been commissioned to the architect Henk Klunder. Klunder, however, left the most important design decisions to the community and these could then begin to finalize their sketch design.

As a next step, the entire CW group was divided into four and each cluster was categorized by colour: green, blue, yellow, and red. The sub groups then chose their cluster of preference. The more detailed decisions, based on the agreed upon rough spatial logic, were then elaborated and discussed between themselves. For example, the cluster groups decided how large or small their group kitchens would be, if corridors would be wide or narrow, and if the building's structure should be extendable or not. As a result, the clusters differ largely in terms of their layout of shared spaces today. (Krabbendam, 2013)

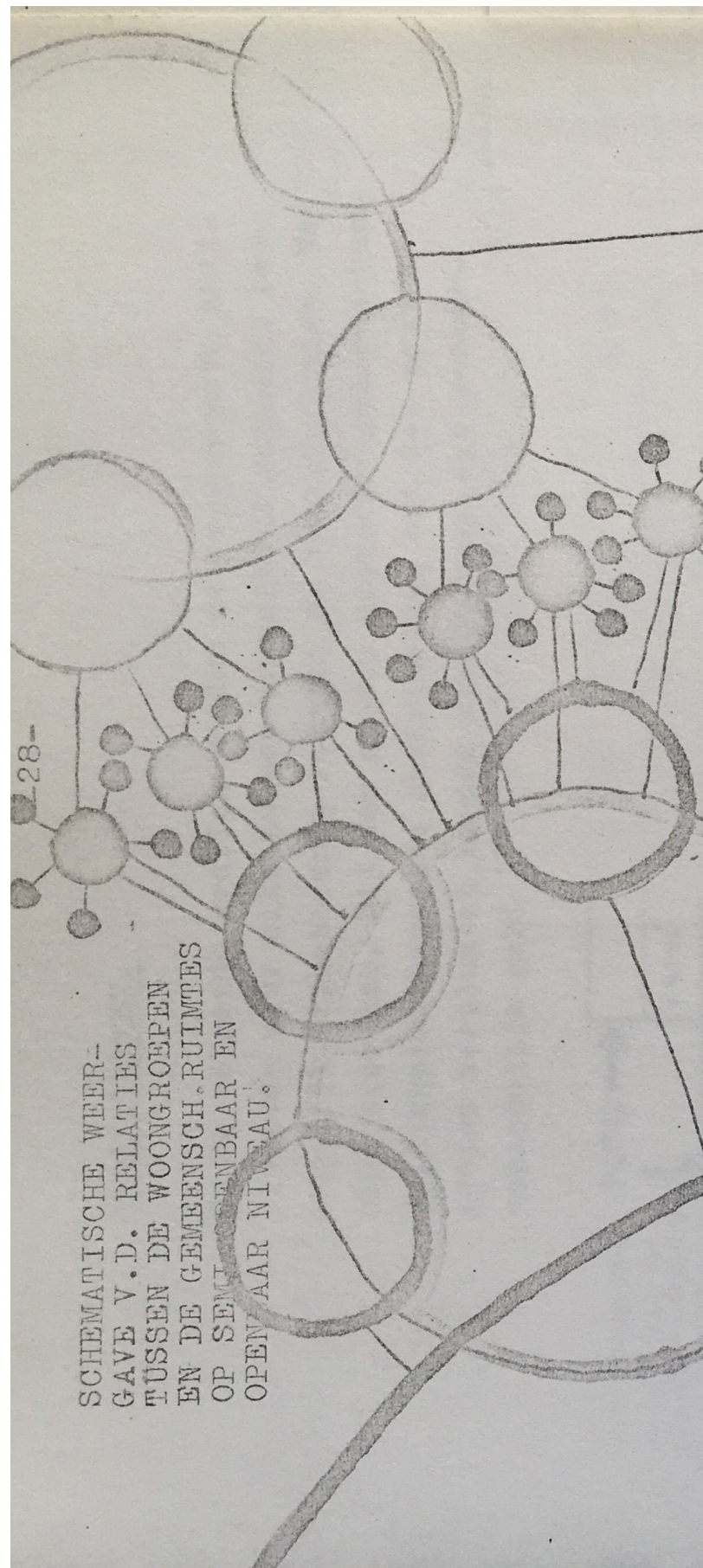
Spatial Diagram

The spatial concept, developed by the design groups was based on a diagram that was developed by Flip Krabbendam and Astrid Wiebenga as part of their final thesis at the architecture faculty.

It depicts a schematic illustration of relationships between "Woongroepen" (living groups), the communal spaces, and spaces on the semi-public and public level.

As this diagram laid the foundation for all following design decisions can be seen as a helpful tool to deeply understand the intentions behind the spatial layout CW Delft has today.

It was therefore used to structure part two of this thesis and to guide the reader through the analysis of spaces.



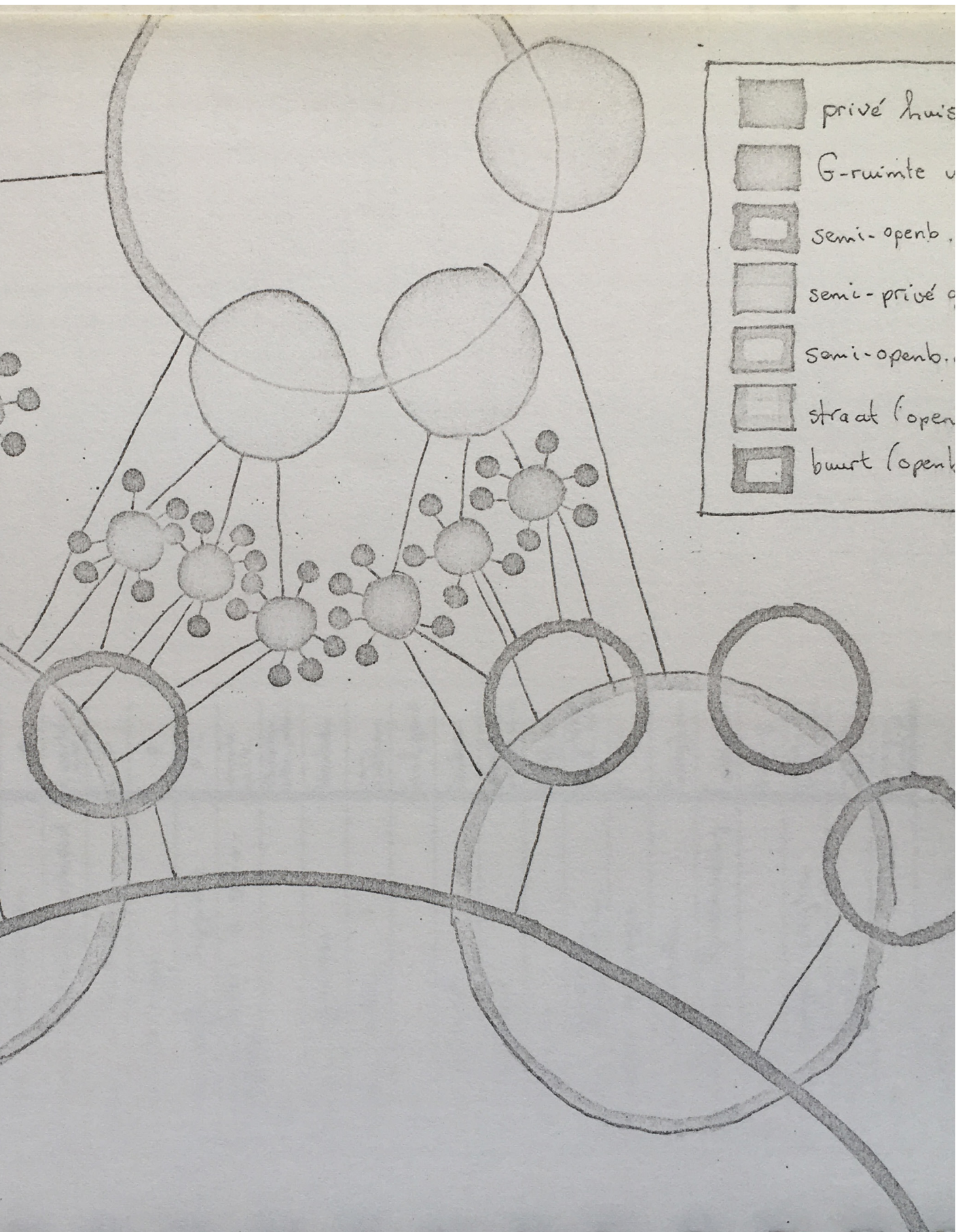


Figure 19: Abstraction of spatial relations at Centraal Wonen Delft


Project Overview

This plan shows the final ground floor layout of the four clusters. Each of which have their own garden, group kitchens (yellow), and shared living spaces (dark green). The main street, Fuutlaan, runs through the complex and integrates it into the traffic flow of the neighbourhood. Adjacent to it, and part of the blue cluster, are the “project rooms”. These include the hobby rooms, and the cafe and are open for everyone at Centraal Wonen Delft. The central square is surrounded by the yellow and blue cluster, which also facilitates an integrated, public path for pedestrians.

The plan demonstrates how each cluster differs subtly in its layout. While the green cluster, with two group kitchens (9,10) is planned in a condensed way, the yellow cluster is made up of four group kitchens with a long and slim communal space inbetween.

These two clusters are the main focus of this research and will be highlighted in the second part.

centraal wonen

+/-100 

fuutlaan

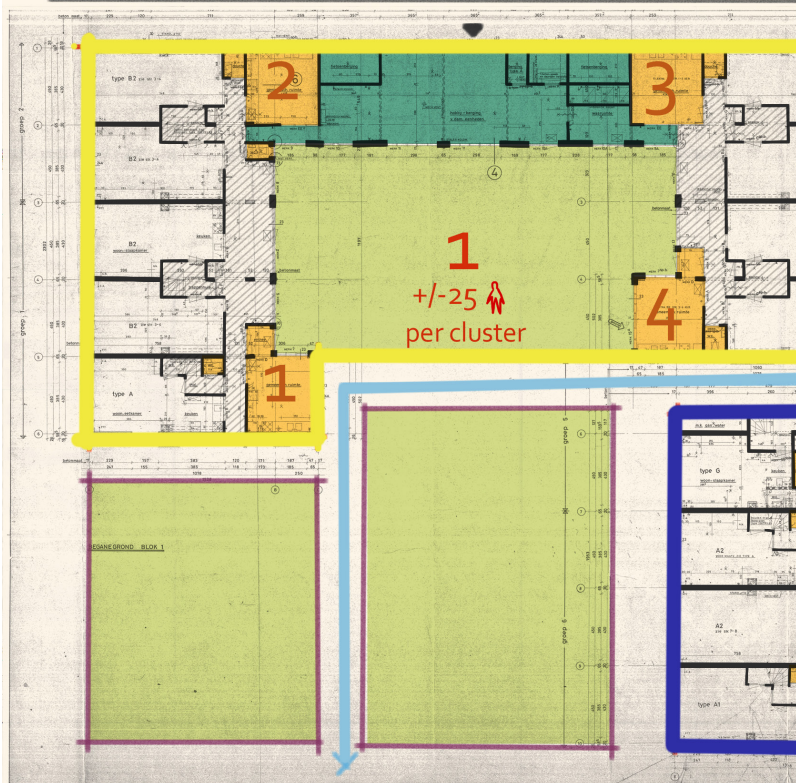




Figure 20: Plan of the four Clusters

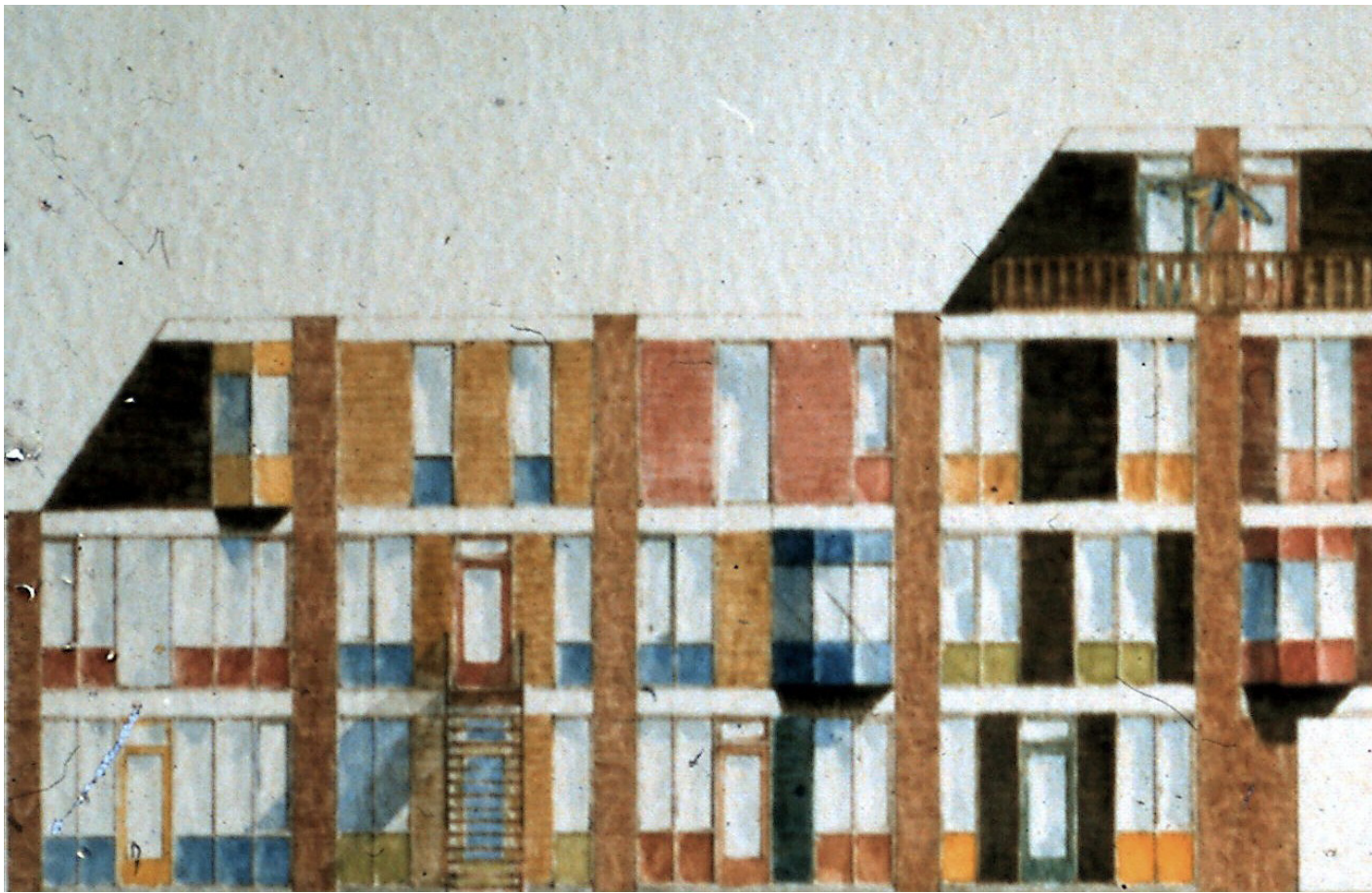




Figure 22: Model of the new facade design scheme based on the concept below

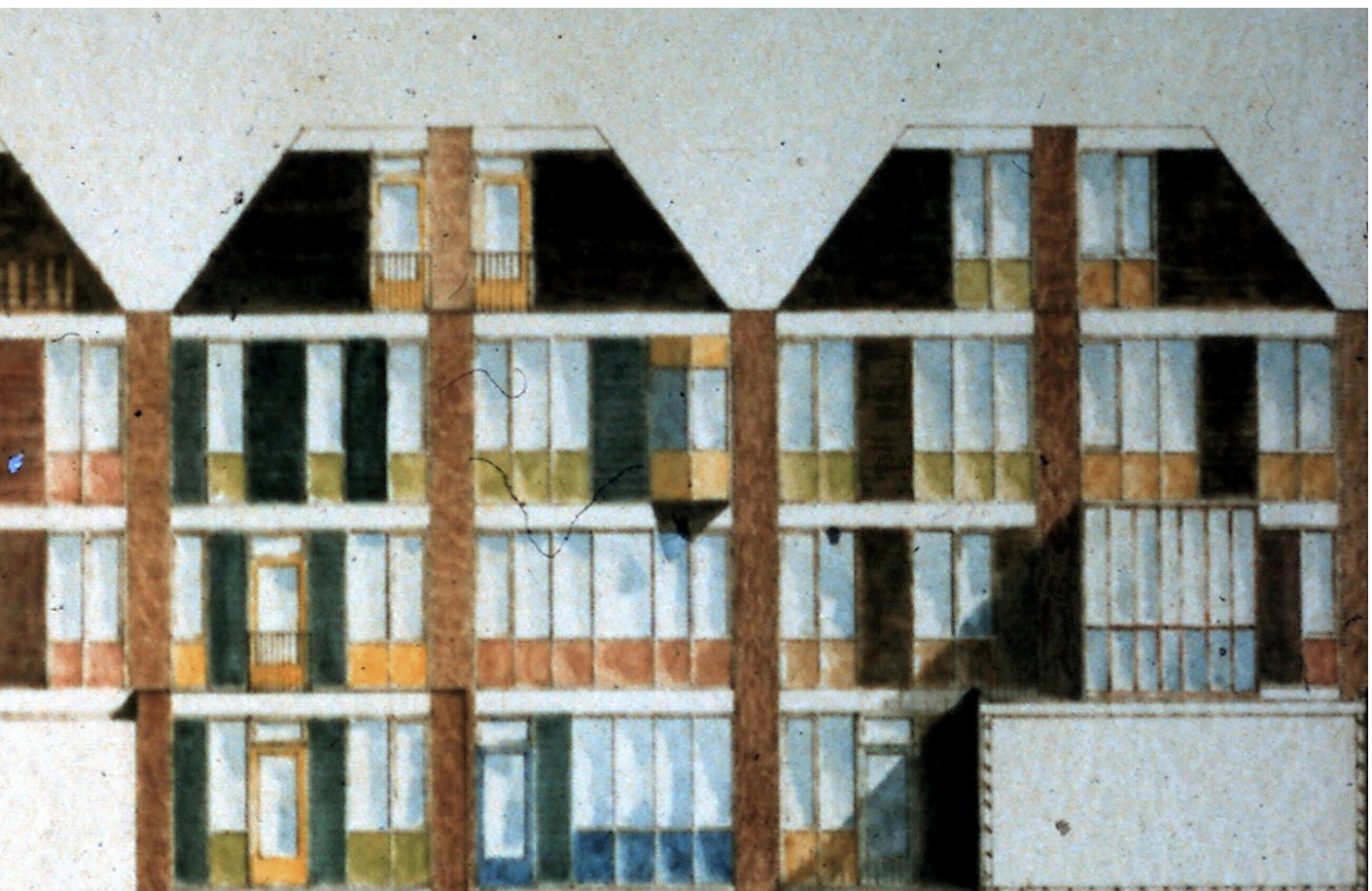


Figure 21: Concept for an adaptable facade





Figure 23: Image of the Blue Cluster

Part Two: Spaces of Collaboration in Practice



Figure 24: Image of residents in the early years of the project

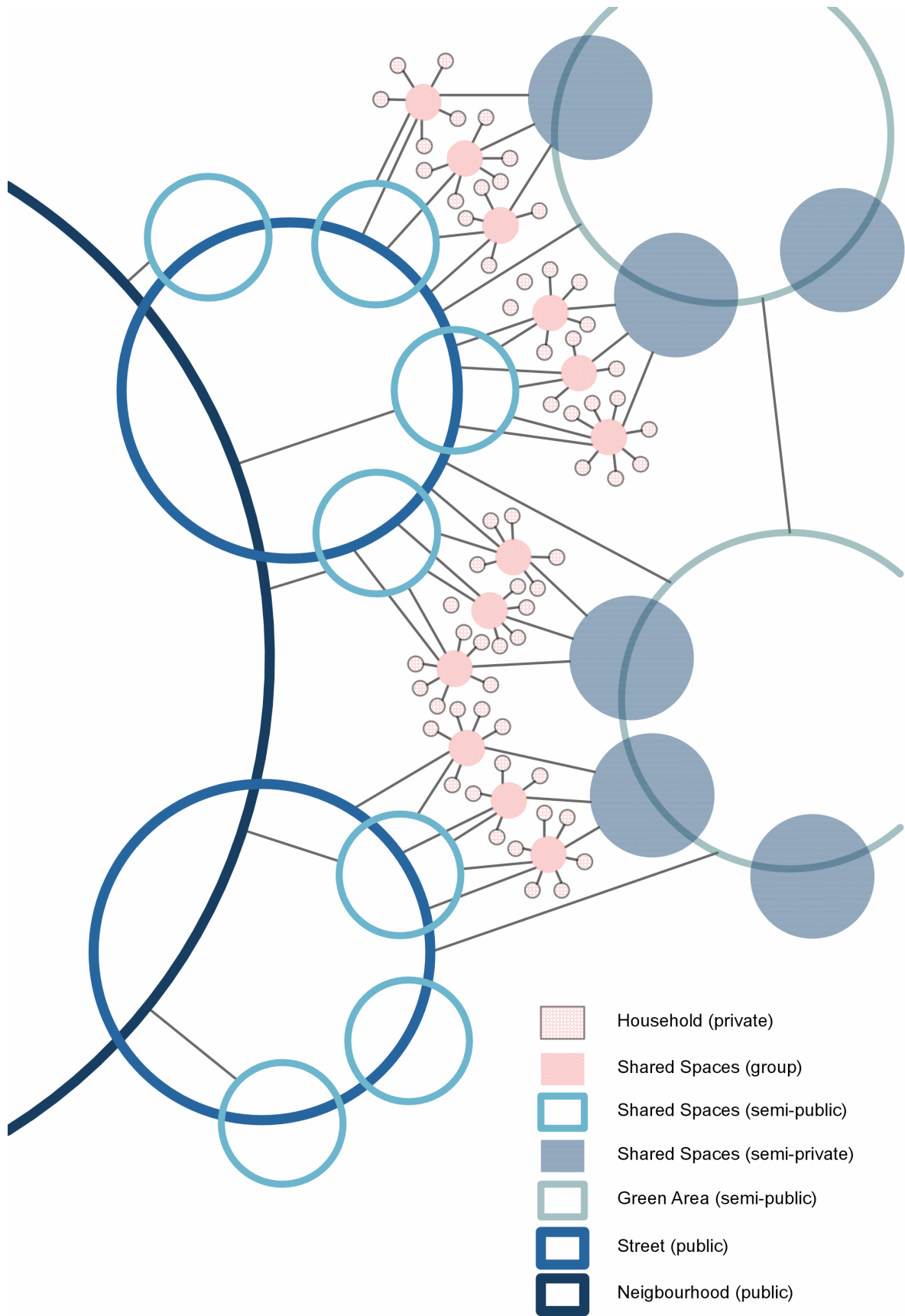


Figure 25: Adapted version of the spatial relations diagram

The previous chapter provided a brief overview about the temporal context and the social ambitions of the CW movement and further how these were incorporated into spatial logic of CW Delft.

This chapter focuses on the patterns of use based on evidence through field work – forty years after project completion. The scheme of spatial relationships (figure 25) was used as a theoretical framework to distinguish the shared spaces between public, semi-public, semi-private, and the group level.

During the research process, the author visited the case-study multiple times in order to gather evidence through resident interviews and photographic studies. The following analysis is a result of this process. An emphasis has been laid on observations from two of the four clusters, the „Green Cluster“ and the „Yellow Cluster“, as they differ largely in their layout.

For example, the initial group of the Green Cluster had planned a large living area inbetween the two group kitchens. In contrast, the first residents of the yellow cluster, who were more related to the “hippie-lifestyle”, thought a living room inbetween kitchens would not be necessary and instead planned a central area for activities for all cluster residents combined. (Resident 2, personal communication, April 8, 2021)



Figure 26: Spatial Relations: Group Level

Group Level

After the household level, the private sphere, the group level marks the closest level of collaboration within a cluster. Both in the yellow and green cluster, a 'woongroep' is made up of a size between seven 7 and 10 people, who each have their own group kitchen. However, the yellow cluster has four kitchens in total, while the green cluster only has two.

Intended as the main space of interaction for the living groups within a cluster, the group kitchens play an imperative role to stimulate cooperation and casual exchange between residents. As mentioned in part one of this thesis, the kitchens also relate strongly to the origins of the CW movement and their ambitions to share household tasks, such as cooking, within a community.

The spatial functions of group kitchens differ slightly between the yellow and green cluster. In the yellow cluster the kitchens need to function more like a mix of living room and kitchen at once. In contrast, the green cluster has a shared living room in between the two kitchens, which therefore serve less as a living space. This can be observed in the difference of furniture and was stated in personal communications with residents.

What differences can be observed between clusters and are the kitchens still used as intended?



Figure 27: Group Kitchen in the Green Cluster, empty



Figure 28: Group Kitchen in the Green Cluster, residents at dinner

One resident of the green cluster stated that his group kitchen is generally not used as much as he would have hoped. As one possible explanation for this, he noted that residents rent multiple private rooms within the cluster and have their own kitchenette. Therefore leading to less dependency on the group kitchen to prepare meals. (Resident1, personal communication, February 8, 2021)

In his blogpost about CW Delft, Flip Krabbendam states that the group kitchens generally function well, but mentions that problems between residents do occur every now and then. However, „It is no worse here than in a normal family.“ And residents also have the possibility to change kitchen groups within a cluster. According to Krabbendam , this option has been used regularly and has proven to be effective in preventing conflict. (Krabbendam, 2013)

This was confirmed in an interview with a resident: using the kitchen more often also means being more involved with the issues that occur within a house. This relates to different aspects of collaboration, such as the organization of household tasks, solving issues (e.g. internet connection problems), and, as in every household, dealing with conflicts between individuals. In a way it can therefore be more comfortable to engage less. (Resident, personal communication, February 8, 2021)

However, not using the group kitchens regularly can weaken the social structures within the cluster, and therefore also the sense of community – a core value of collaborative housing.

In an interview Lex Veldhoen, who is one of the co-founders and lived in the project for the first six years, gave a contrasting impression to that of the current resident. In the beginnings of the project it was common to sit at the table with eight adults and children on a daily basis. He even expressed that personally, he would have preferred eating in smaller groups. (Veldhoen)

Today, there are less families at CW Delft, which also changed the dynamics of shared dinners. The few families within a group have a different routine than other residents, as children need a regular schedule and would generally eat at different times. (Krabbendam Interview)



Figure 29: Group Kitchen in the Yellow Cluster, window to corridor



Figure 30: Group Kitchen in the Yellow Cluster, entrance

Has there been a continuous trend to less engagement? Not necessarily, as usage of the group kitchens also differ from time to time. While in 2019 only around two of the eight group members used the kitchen regularly, spatial engagement increased again one year later in 2020. The kitchen started to be used more collectively with three or more people that formed a „block“ for cooking and organising different activities together. (Resident 1, personal communication, February 8, 2021)

Although this was also a result of the COVID-19 pandemic, as more people stayed home to work, which further led to more shared meals together. Before so many started to work from home, residents would often arrive home tired from work, leading to less ambitions for social engagement. (Kabbendam and Hoyer 2021)

The kitchens in the yellow cluster have a different layout than those in the green cluster. They all have a sofa and small television and provide the space that would otherwise be dedicated to a living room, although the spaces are not significantly larger. The first residents of the cluster group imagined the kitchens only as a place for cooking and did therefore not plan in more space.

One resident remembers:

„When we came here, we spent a lot of time in this kitchen cooking, talking, and watching television. But the dynamics change. And after a few years, we spent less time together and people are a little bit more on their own.“ (Resident 2)

Another resident , who had only lived in the cluster for a year to the time of the interview, expressed that his 'woongroep' does cook a lot together and that the kitchen-living-room- hybrid actually works quite well. It was mentioned however, that reducing kitchen and living space into one also means that interaction with other kitchen groups is rather limited. (Resident 3)



Figure 31: Group Kitchen in the Green Cluster, residents preparing dinner



Figure 32: Group Kitchen in the Green Cluster, empty

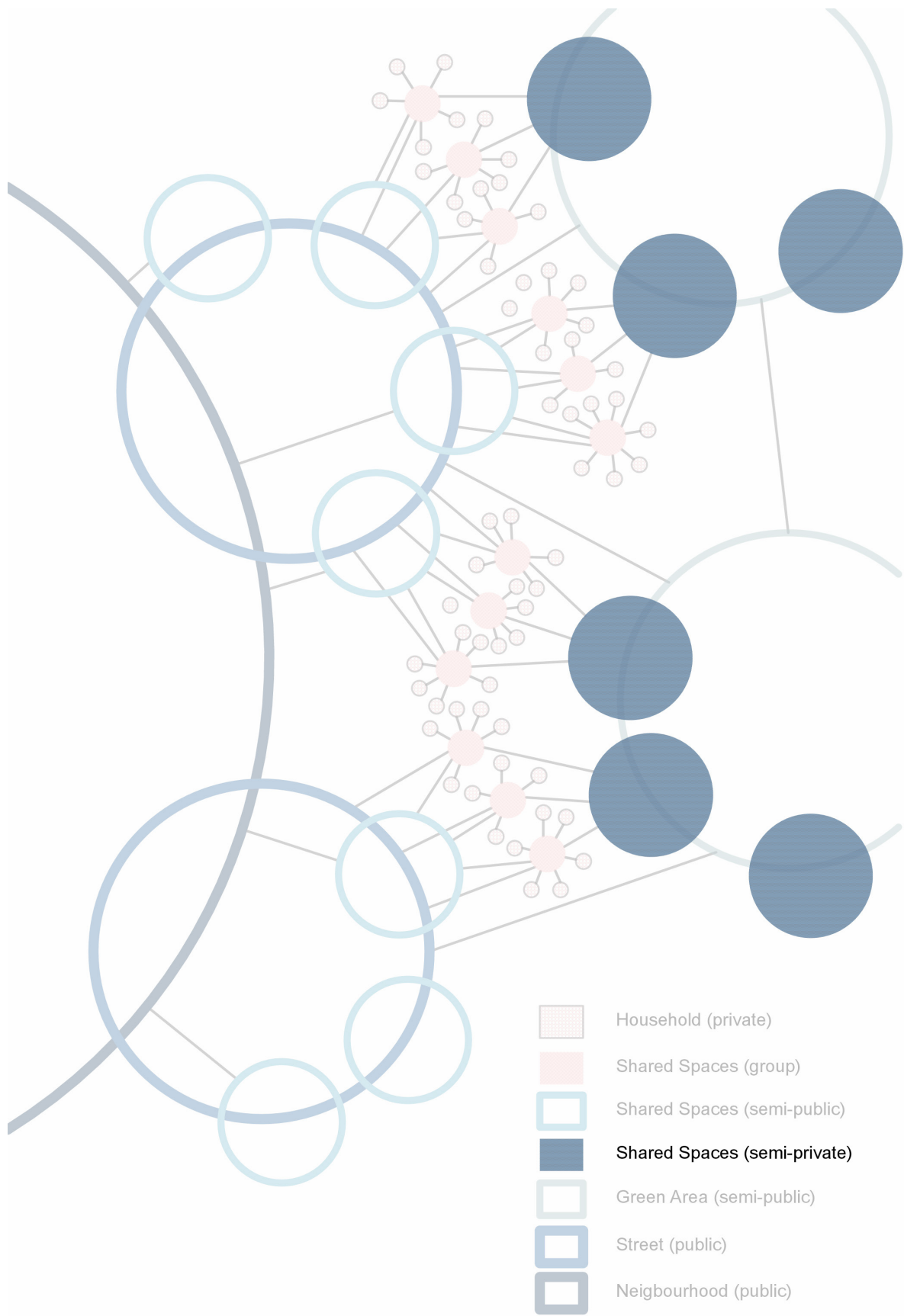


Figure 33: Spatial Relations: Semi-Private

Semi-Private

The semi-private spaces of the project are those within a cluster that are shared between each all kitchen groups - not with all of CWD's residents, but also not just for the separate "woongroepen". These include, living spaces inbetween kitchens, the kitchenettes next to the private rooms, storage and workshop areas, and the cluster gardens.

These spaces are where the separate 'woongroeps' dissolve and where the community on the cluster level can and was intended to interact with each other.



Figure 34: Residents of the Green Cluster celebrating „Día de los Muertos“

Living rooms

The living rooms were planned as flexible spaces to be used and adapted by the residents according to their wishes and needs. In comparison to the kitchens they did not have a specific function other than to provide a livable space to share.

Throughout the years, the living rooms have seen the most change concerning their spatial organisation. Veldhoen mentioned that in the green cluster, for example, residents tried out modular furniture, made from wooden blocks, so that the space could be adapted for different occasions. According to him, there were often discussions about how the living spaces could be improved and what functions they should have. (L. Velhoen, personal communication, March 10, 2021)

In terms of use, the green cluster's living room is rather a space for specific events and not used collectively on a daily basis.

„Usage of the living room depends on the connection in the community. Sometimes we organize some activities, we eat in the living room, sometimes we see movies, but that relies on the initiative of a person. If there's a moment that no one's doing anything, [then] no one's in the space.“ (Resident 1, personal communication, March 6, 2021)

As an example, the community comes together for birthdays here or to celebrate “Die de los Muertos” and the „Sinterklaas” party, where residents exchange presents. (Krabbendam and Hoyer, 2021)



Figure 35: Living Room in the Green Cluster



Figure 36: Empty corner in the living space of the Green Cluster



Figure 37: Living space of the Green Cluster

Apart from events like these, the living rooms do however stay relatively empty, partly because there are so many areas to meet. As shown in figure 36, one corner of the living room is currently not even used at all:

„[...] even the corner that we have, behind the last kitchen, is really useless now. We're trying to find a use for that, because the space was connected to the red cluster, but they closed the door.“ (Resident 1, personal communication, March 6, 2021)

One aspect that applies to both the green and the yellow cluster is that, until around 2010, their living rooms were often used by the groups to watch TV together. With the rise of internet media, and scheduled TV shows becoming less relevant for the individuals, this aspect is now less relevant and merely relates back to movie nights.

In addition, the internet connection in the green cluster's living room is not stable, which further leads to less spatial engagement, as internet-related media cannot be used. Overlapping interests of space can also be seen as an issue that discourages the individual use of the collective space. An example for this is the pool table, used by some to play games, and others as a surface to place objects like the DJ equipment of one resident. (Resident 1, personal communication, March 6, 2021)

„We had a space in between the two kitchens and we intended it to function as a general room where people would stay. But that didn't happen so much because I think it was too open, to diffuse, with people coming in and out.“

(L. Velhoen, personal communication, March 10, 2021)

According to Veldhoen, residents would rather eat in their kitchens and not in the living room. And further, residents often also have their own living room, so they would retreat there after the group had spent time together in the kitchen. Besides allowing for more privacy, this also meant less time was spent together in the common areas. (L. Velhoen, personal communication, March 10, 2021)

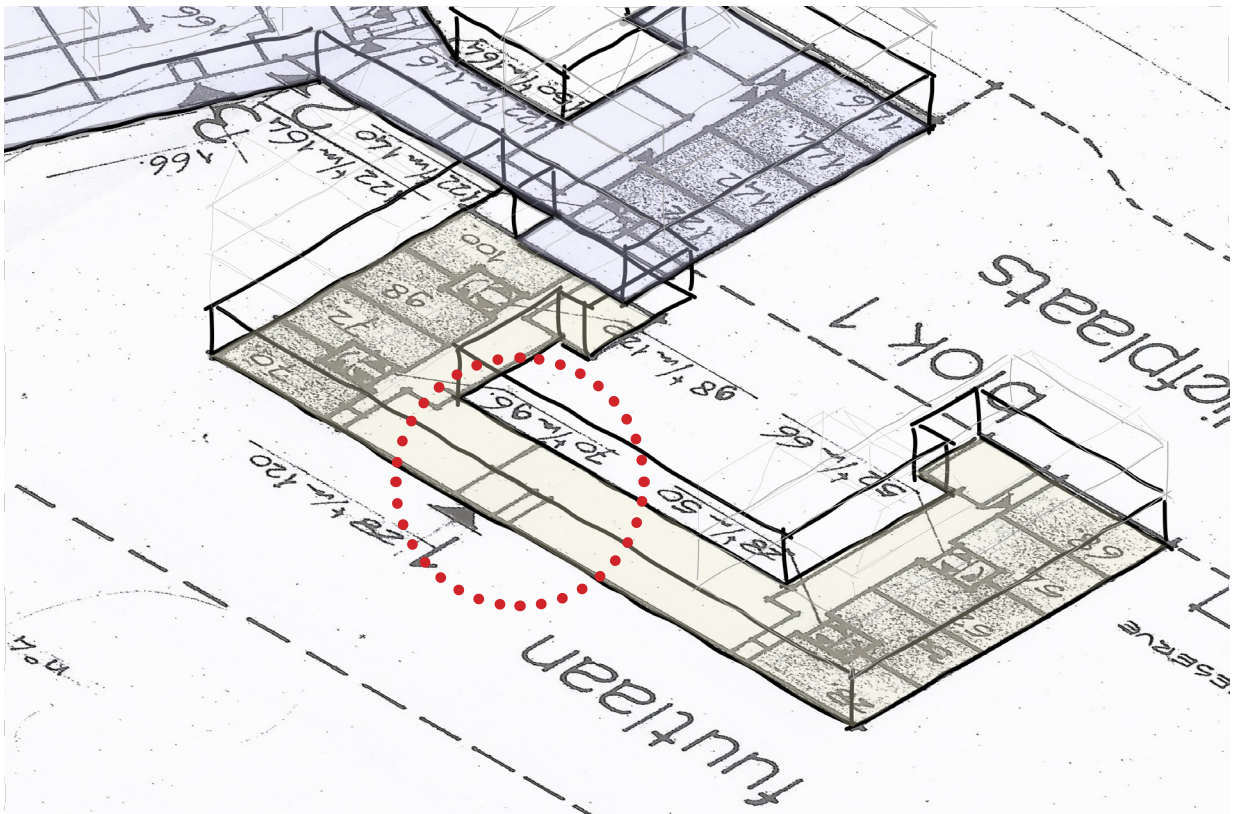


Figure 38: Location of living space and entrance of the yellow cluster



Figure 39: objects accumulation in the yellow cluster



Figure 40: Communal space of the Yellow cluster

Within the yellow cluster the semi-private spaces are very differently organized. Most likely, the initiators did not imagine that these spaces would be perceived as just a transition space so it was always cold here. After a few years the residents didn't really use it anymore and started to change it.

The space dedicated for bicycle storage was too small however, so it was extended. In return the cluster room got even smaller. Perceived as an unusable space, residents find it as a bit too big for just being a corridor, but too small for being a functional space to spend time in. This then leads to "stuff" being deposited there. (Resident 2, personal communication, April 8, 2021)

A resident of the yellow cluster expressed:

„I like for example the living room that you have in the green cluster a bit more, sometimes it is a bit hard to find some good common space to be with your housemates, for example.“

(Resident 3, personal communication, April 8, 2021)

Interestingly, the living spaces in the yellow cluster changed most throughout the years. One could argue that this is the case because there was never an ideal solution to be found. Once there was a little sofa with an armchair and TV, later the residents placed a pool table and kicker. Other times, when in transition, stuff just accumulated when people were moving in and out of the cluster.



Figure 41: large corridor/living space of the yellow cluster (1)



Figure 42: large corridor/living space of the yellow cluster (2)

Moreover, it is interesting to note that, because of their different layouts, the COVID-19 pandemic had very different effects on the living space use in the yellow and green cluster.

In the green cluster the corona pandemic had a positive effect on the social and spatial engagement in the living rooms, as people spent more time working from home and therefore introduced new vitality to the spaces. (Krabbendam and Hoyer, 2021)

In the yellow cluster, however, where the main living spaces are integrated into the group kitchens, the engagement in space decreased drastically, as those who had their own kitchenettes, did not use the group kitchens anymore to prevent unnecessary physical contact. (Resident 2, personal communication, April 8, 2021)



Figure 43: Kitchenette in the Green Cluster

Kitchenettes

The kitchenettes are usually shared by two or three residents that rent rooms on the same floor. They are located in the transition zone from the staircases to the private rooms. In an interview it was stated that the most frequent interactions and casual conversations take place exactly in these places. Too small to be used for daily cooking, the kitchenettes are most suitable to prepare a coffee and have a conversation with the closest neighbours.

In compare to the larger shared spaces, the kitchenettes and staircases provide a more intimate setting with fewer different people to come into contact with, bringing a lot of life into these parts of the clusters.

However, some residents even have their own self-built kitchenettes in the private rooms, this does therefore not apply to the experience of all residents.

Sometimes the kitchenettes are also used to prepare meals more privately, which on the one hand enables residents to be more flexible, on the other hand this weakens the link between members of a “woongroup” that would usually meet when cooking together.



Figure 44: Garden of the Yellow Cluster with self-built hot tub

Cluster Gardens

The gardens in the center of each cluster represent the outdoor collective space. They are used very differently, depending on the individuals' interest. Some people do not use it much at all, while others have ambitious plans to modify, add and transform the garden, but must first communicate their intentions with the rest of the group. The proportions and size of the garden were seen as proportionate to the size of the cluster. (Resident 1, personal communication, March 6, 2021)

One difference to the other semi-private spaces is that the usability of the garden is strongly related to seasons and weather conditions. Further, the garden and seasons seem to have an influence on the general sense of community within the clusters. As mentioned by a resident from the yellow cluster, everyone is more to themselves in winter, but as soon as temperatures rise "then everybody gets out and we start living together in the garden itself". (Resident 2, personal communication, April 8, 2021)

One could argue that the cluster gardens are the best spaces to get together and actually engage in group activities. A trace of this can be observed by the amount of seating opportunities that were established. In the yellow cluster's garden a hot tub was built collectively:

„You can see our hot tub on the edge of the garden, some people built it together a few years ago and it is really appreciated.“ (Resident 2)

Furthermore, the gardens received special attention during the corona pandemic, and got a new dynamic as this was the only place all of the cluster's residents could all gather with a safety distance from each other. More people started to get involved and took initiative. Plants were cut back, the chicken were fenced in and got a little self built coop. The terrace was renewed with bricks that had laid in the garden for a long time. (Krabbendam and Hoyer, 2021)



Figure 45: Garden of the Green Cluster



Figure 46: A meeting of the Green Cluster held in their garden during the Corona pandemic



Figure 47: Projects being realized in the cluster garden



Figure 49: Seating areas in the Green Cluster



Figure 48: collective barbeque in the Green Cluster



Figure 50: seating area in the yellow cluster's garden



Figure 52: a child's sand pit in the yellow cluster



Figure 51: View to the yellow cluster's garden

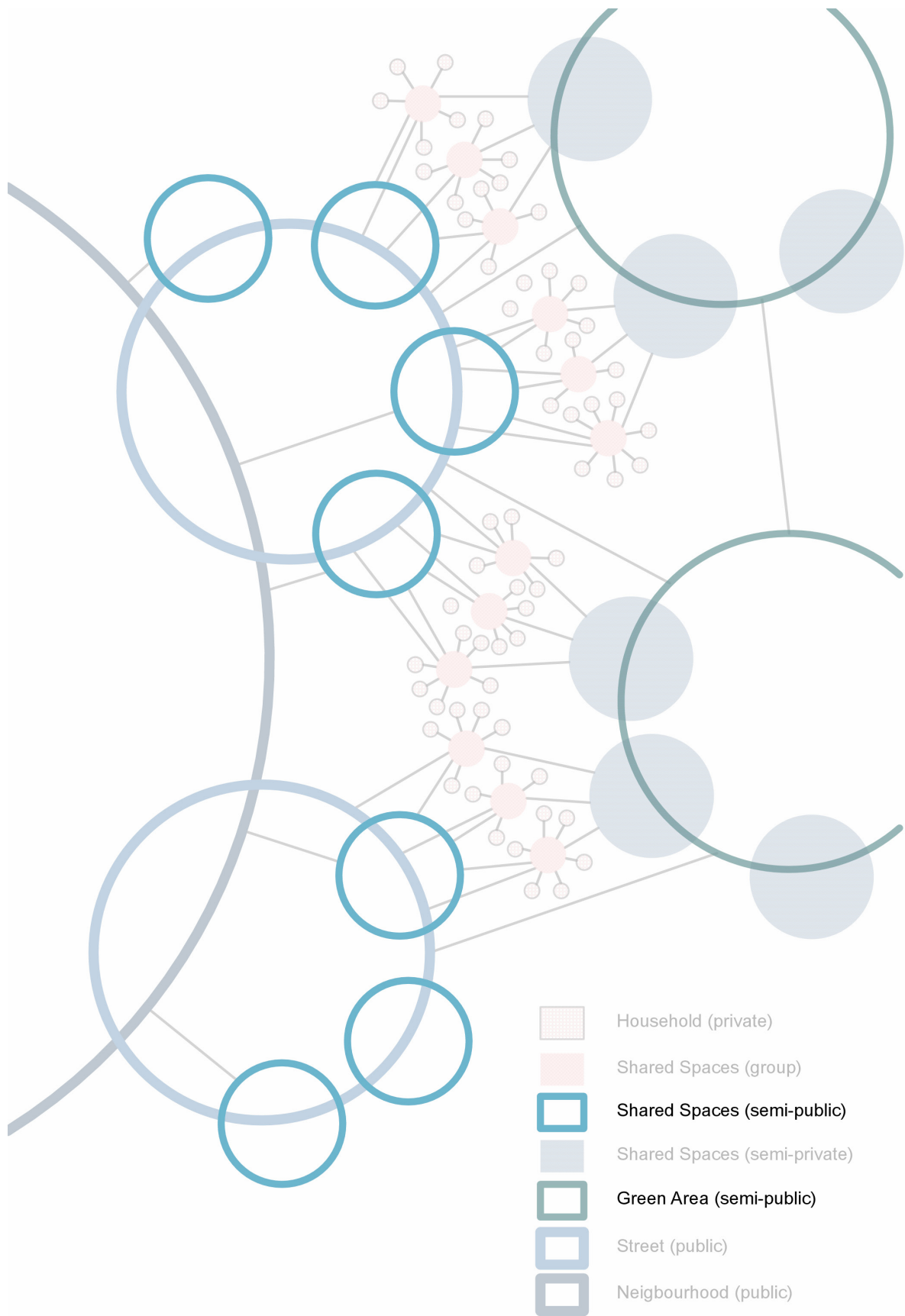


Figure 53: Spatial Relations: Semi-Public

Semi-Public

Intended as the binding element to be shared between residents from all four clusters, the „project spaces“ represent the central meeting point of the CW community. They are made up of a bar room, a ‚hard‘ and a ‚soft‘ hobby room, and an additional garden to grow vegetables. These spaces mark the semi-public sphere of the project.

The workshop space (hard hobby room) is currently used for pottery by a resident that is also a ceramic artist. The „soft“ hobby room was once partly rented out to a physical therapist that received patients there. The community decided to not continue with this, as more space for personal use was requested.



Figure 54. Shared Vegetable garden

The vegetable garden is widely used and all members of the different clusters have equal opportunity to make use of a patch themselves. In practise, of course, those who are immediately next to it do use it much more than residents of the clusters located further away. (Resident 2, personal communication, April 8, 2021)

When asked about the shared grow garden, that is next to the yellow and blue cluster, one resident from the green cluster mentioned that he never uses it, as it is too far away. (Resident 1, personal communication, March 6, 2021)



Figure 55: Bar/Cafe space



Figure 56: Bar at night

Besides catering the needs of some individuals, it was important for the initiators that the project spaces could bring together people from all clusters. However, one of the interviewed residents, who to the time had lived in the green cluster for nearly four years, said that he has not often come into contact with residents from the other clusters and that, for him, the shared project spaces have not largely contributed to more social exchange. (Resident 1, personal communication, March 6, 2021)

Lex Veldhoen stated how he remembers the project spaces in the first years of CW Delft:

„I think I had expected more, but I did not know how or what I expected. I thought there would be more contacts between the people of the clusters or the different groups. It was a combination of things actually. Partly, I had expected that more would be happening on the total [project] level, but I also noticed that I myself didn't always have so much enthusiasm to go there, like energy and time.“

(L. Velhoen, personal communication, March 10, 2021)



Figure 57: Residents of all clusters coming together for an event



Figure 59: An event in the 1990s



Figure 60: Exhibition at the Project

In his experience the group level functioned best and the cluster level a little bit less well. The community level, however, was hard to grasp.

„ I didn't feel much contact with people from the yellow and blue cluster, a little bit with the red [one] because it was close. And another big disadvantage for me was the road was going through the complex. It was intended for more integration but in the end... Well, that makes [the space] more a public domain.“

(L. Velhoen, personal communication, March 10, 2021)

Similar to the living rooms, the activation of these spaces often relies on a certain occasion or a person's initiative. The community organizes birthday celebrations, workshops, dance classes, yoga courses, group meetings, and since the corona pandemic it has also proven to be a suitable space for gatherings with more people, as the spaces are larger.



Figure 61: „Soft' hobby room for residents of all clusters

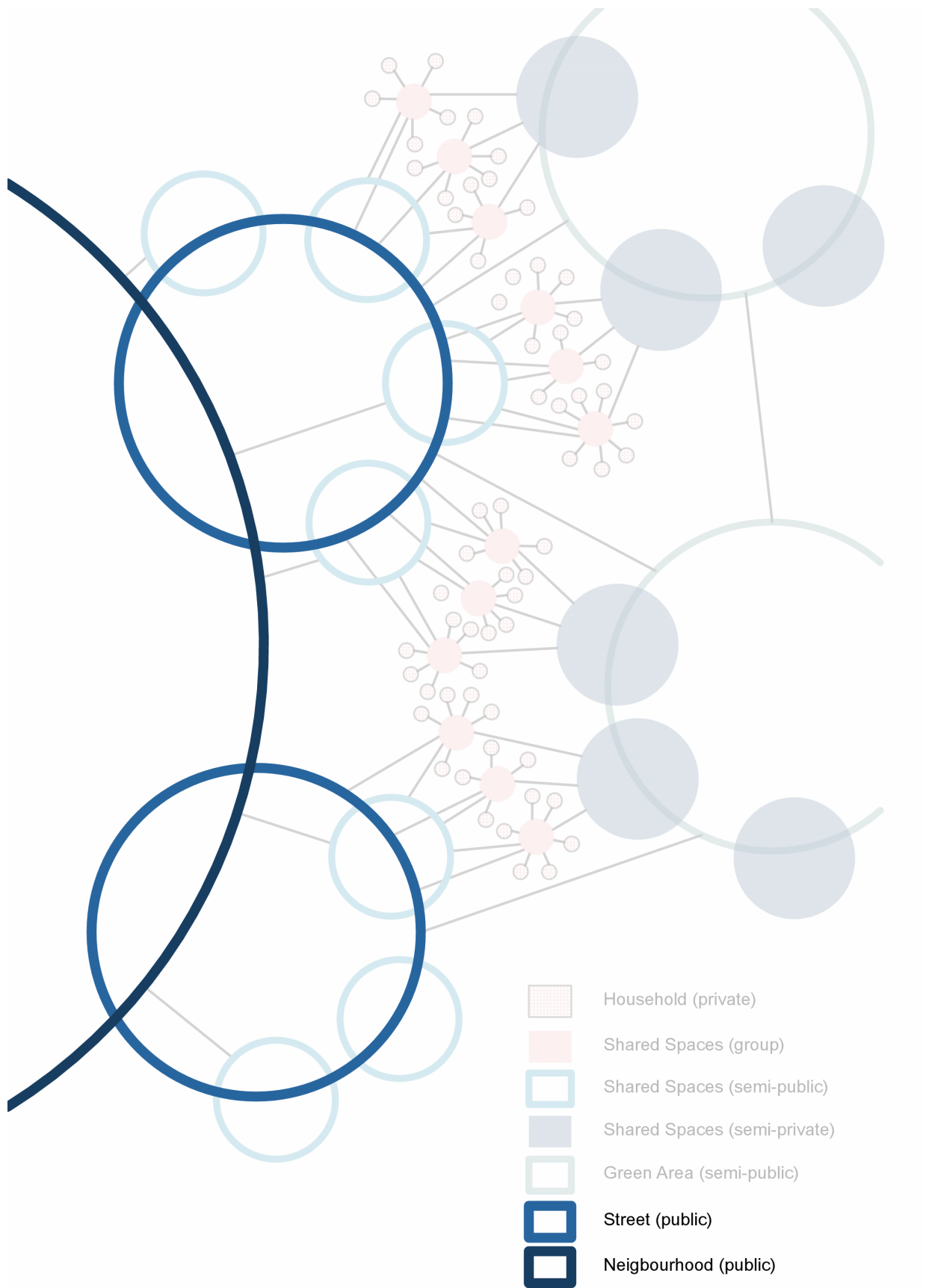


Figure 62: Spatial Relations: Public

Public Space & Neighbourhood

A good connection to the neighbourhood was seen as an important consideration during the design phase. The cafe was planned to invite 'outsiders' and the street and foot paths were introduced to allow the neighbours to pass through the project. These spaces, together with the central square next to the blue cluster belong to the public sphere.

Just as today, the community generally felt positively about living in a low-rise settlement when they moved into the project. However, their neighbourhood was largely inhabited by residents that lived along a more traditional family model - so in stark contrast to themselves. This made the integration a lot more difficult from the beginning on. Veldhoen remembers that the group really tried to integrate themselves as much as possible but sometimes even felt some hostility against them, because people did not understand their way of living and also had "no clear idea what was going on "there". (L. Velhoen, personal communication, March 10, 2021)

This has also had an effect on use of the cafe, which has not been used the community had hoped it would be:

"[...] local residents are hardly seen here. Perhaps the street life in a suburb like the Tanthof is not lively enough for this ... if the street is not inhabited, then the chance that local residents will walk into the cafe is small. And no initiatives are being developed from the residents to bring in 'the neighborhood' ... they have apparently accepted the isolation."
(Krabbendam 2013)



Figure 63: Entrance of Yellow Cluster towards the public street

The main street that runs through the clusters was also intended as a feature to integrate the clusters into their surroundings. While that may be the case in plan, it is mainly cars that pass by. In the interview, Lex Veldhoen expressed that he had perceived the road as a physical barrier between the clusters when he lived there, and by that limiting interaction between the residents of the clusters.

Nonetheless, the project does often receive guests, such as friends, relatives, acquaintances and the residents' partners, etc. The project is therefore not socially isolated in itself but just not more socially integrated within the neighbourhood than other projects.

Apart from that, the community does try to engage with their neighbours through occasional street parties in summer. In 2020 they also provided space for a polling station of the national elections in one of their larger shared activity spaces. This has helped to bring the neighbours together. (Resident 2, personal communication, April 8, 2021)



Figure 64: Public access route through the project



Figure 65: Central Square in between the clusters



Figure 66: Summer Party on the main square



Figure 67: Barbeque at the main square

Conclusion

In the first chapters of this research, the aim was to gain an understanding on how the Centraal Wonen movement developed in its temporal context and where their intentions originated. Further, it was discussed how the founders of Centraal Wonen Delft picked up on these intentions and translated the theoretical approach into physical spaces.

The following part investigated in what way these spaces are currently used by residents and if this matches the original ideas of the CW movement and those of the CW Delft founding group, more specifically.

Through visual research, resident interviews and literature review, the second part presented an analysis and comparison of two contrasting clusters to identify possible reasons why spaces are being used differently. An abstract diagram of spatial relationships, which was developed in the project's planning phase, was used to highlight how these spaces relate to each other.

It has become evident that the perception of spaces differs largely depending on the individuals' experiences. Certain generalizations can however be made about the usage patterns of common spaces:

Shared meals and dinners of a living group were one of the key ambitions for the founders. Although these kitchens are still how they were planned at the time, regular meals together can not be taken for granted just because the spatial and social organisation from the original plans suggest so.

Including multiple community spaces that could be used flexibly by residents seems like a positive aspect at first sight. However, too many shared spaces to choose from lead to a certain overall emptiness, which can undermine the collective feeling of the community. This for example, is the case if residents have access to multiple kitchens at once; some in the private rooms, the kitchenettes in the transit areas, and the group kitchens in the shared spaces.

Also, living spaces in transition areas that are not planned to certain comfort standards (e.g. drafts) will not be accepted in the long term and will most likely be neglected over time.

In general the cluster level with around 25 people works well, however shared spaces in a central location should be provided to enable a link between residents - transitional spaces, such as hallways that separate groups from each other should be avoided. Stimulating interaction between residents of all different clusters in total is difficult overall.

Although not technically a space in the building, the gardens have been described as the most ideal spaces for collaborative living, but these are subject to seasonal changes. This in return has an impact on the community dynamics, that peak in summer and are often minimal in winter.

The location of a cohousing project largely determines if it is actually possible to integrate the neighbourhood into the community. In a calm neighbourhood like Tanthof, Delft there are not enough pedestrians that stroll by, who would spontaneously visit the cafe to interact with the project's residents.

Multiple statements mentioned a higher community engagement in the past. One could therefore assume that residents nowadays prioritise personal space more than at the initiation of the project. Further, it becomes evident that spaces alone do not build a sense of community or guarantee adequate use. Community engagement is often rather driven by the initiative of individuals and this fluctuates with time.

At this point it is important to mention that many of the findings are focused on the spaces' defaults and how certain areas work differently than initially anticipated. This was also noticeable during the interviews as it is always easier to mention faults than to acknowledge the positive aspects of everyday life in the project. Nonetheless, after forty years of existence, the project of Centraal Wonen Delft is still an attractive place for people to live in. This is the case, even though no major „updates“ of the building have been undertaken and the social context has changed substantially in time.

While some residents criticise certain aspects about their home and community, it is a place where people from different backgrounds and ages live together and collaborate successfully.

The Centraal Wonen movement began with the ambition to advance emancipation and to provide individuals with an alternative form of living. While it has become the norm in Dutch society that women are enabled to work and are no longer expected to stay home, Centraal Wonen Delft is able to house a community where collaboration is evident in every space.

Reference List

- Barzilay, M. (2018). *EX 68–019 Utrecht, Experimentele Flats. Experimentele Woningbouw '68-'80 Revisited*. <https://www.experimentelewoningbouw.nl/portfolio/ex-68-019-utrecht-overvecht-noord/>
- De Vletter, M. (2004). *De kritiese jaren zeventig: Architectuur en stedenbouw in Nederland 1968-1982*. Rotterdam: NAI Uitgevers.
- Fromm, D. and De Jong, E. (2020) *Cluster Cohousing Revisited*. Berkeley and Rotterdam: Social + Design Press.
- Krabbendam, F. (2013). *Centraal Wonen Delft*. Retrieved February 13, 2021, from <http://www.flipkrabbendam.nl/cat8.php?pid=60&p=&search=>
- Krabbendam, F. and Hoyer, A. (2021, February 12). *COVID19 & Collaborative Housing #4 - Corona in Centraalwonen Delft*. Retrieved February 22, 2021, from <https://co-lab-research.net/author/darinkaczischke/>
- Krabbendam, F. (2020). *Gemeenschappelijk wonen: Centraal Wonen in Tanthof te Delft*. De Architect. Retrieved from: www.dearchitect.nl/architectuur/blog/2020/02/bloggemeenschappelijk-wonen-centraal-wonen-in-tanthof-te-delft-101236668 .
- Thissen, M.H. (1971). *Centraal Wonen in 1971. Een verslag van waarneming, begeleiding en onderzoek over een jaar uit een aktie proces*. Unpublished.
- Toet, H. (2009). *Centraal Wonen 40 Jahr geleden!*. *Gewoon Anders*, 32(105). <http://www.gemeenschappelijkwonen.nl/ga/ga105.pdf>
- PPD Zuid-Holland. (1976). *Naar meer gemeenschappelijkheid in het wonen*. PPD Zuid-Holland.

Large parts of this research were undertaken through interviews and personal communication with residents and founders.

List of Figures

Figure 01	Info-booklet about Cohousing in the Netherlands Source: PPD Zuid-Holland	9
Figure 02	Lies van den Donk-van Dooremaal featured in “De Nieuwe Linie” Source: Delpher. “NRC Handelsblad 13-05-1972”. 2016. Retrieved from: https://www.delpher.nl/nl/kranten/view?coll=ddd&identifier=KBNRC01:000032324:mpeg21:a0208//www.delpher.nl/nl/kranten/view?coll=ddd&identifier=KBNRC01:000032324:mpeg21:a0208	10
Figure 03	‘Tingarden’, collaborative housing scheme in Herfølge, Denmark Source: Flip Krabbendam	12
Figure 04	Experimental Flats in Utrecht, 1968 Source: https://www.experimentelewoningbouw.nl/wp-content/uploads/2016/11/68018_plg.jpg	13
Figure 05	Schematic Drawing of the desired spatial relationship of households for a CW in Rotterdam Source: Flip Krabbendam	14
Figure 06	Street view of Centraal Wonen Delft in the 1980s Source: Flip Krabbendam	16
Figure 07	community dinner in the early years of the project Source: Flip Krabbendam	17
Figure 08	Cohousing project in Seattendammen, Denmark	18
Figure 09	Polder landscape south of Delft before the urban expansion	19
Figure 10	Low-rise housing in the newly developed Tanthof-Ost	19
Figure 11	Excerpt of the original survey results Source: Flip Krabbendam	21
Figure 12	Sketch Model 2 Source: Flip Krabbendam	22
Figure 13	Sketch Model 1 Source: Flip Krabbendam	22
Figure 14	Sketch plans with different zones of privacy and collaboration Source: Flip Krabbendam	22
Figure 15	Sketch Model 3 Source: Flip Krabbendam	22
Figure 16	Cor Langedijk experimenting with the model Source: Flip Krabbendam	23
Figure 17	Model of shared spaces_scale 1:1 Source: Flip Krabbendam	24
Figure 18	Sketch Plan of a Cluster Source: Flip Krabbendam	25
Figure 19	Abstraction of spatial relations at Centraal Wonen Delft Source: Flip Krabbendam	27
Figure 20	Plan of the four Clusters	29
Figure 21	Model of the new facade design scheme based on the concept below Source: Flip Krabbendam	31
Figure 22	Concept for an adaptable facade Source: Flip Krabbendam	31

Figure 23	Image of the Blue Cluster Source: Flip Krabbendam	33
Figure 24	Image of residents in the early years of the project Source: Flip Krabbendam	35
Figure 25	Adapted version of the spatial relations diagramm	36
Figure 26	Spatial Relations: Group Level	38
Figure 27	Group Kitchen in the Green Cluster, residents at dinner Source: Flip Krabbendam	40
Figure 28	Group Kitchen in the Green Cluster, empty	40
Figure 29	Group Kitchen in the Yellow Cluster, window to corridor	42
Figure 30	Group Kitchen in the Yellow Cluster, entrance	42
Figure 31	Group Kitchen in the Green Cluster, residents preparing dinner	44
Figure 32	Group Kitchen in the Green Cluster, empty	45
Figure 33	Spatial Relations: Semi-Private	46
Figure 34	Resiidents of the Green Cluster celebrating „Dia de los Muertos“ Source: Flip Krabbendam	48
Figure 35	Living Room in the Green Cluster	49
Figure 36	Empt corner in the living space of the Green Cluster	50
Figure 37	Living space of the Green Cluster	50
Figure 38	Location of living space and entrance of the yellow cluster	52
Figure 39	objects accumulation in the yellow cluster	52
Figure 40	Communal space of the Yellow cluster	53
Figure 41	large corridor/living space of the yellow cluster (1)	54
Figure 42	large corridor/living space of the yellow cluster (2)	54
Figure 43	Kitchenette in the Green Cluster	56
Figure 44	Garden of the Yellow Cluster with self-built hot tub	58
Figure 45	Garden of the Green Cluster	60
Figure 46	A meeting of the Green Cluster held in their garden during the Corona pandemic Source: Flip Krabbendam	61
Figure 47	Projects being realized in the clsuter garden	62
Figure 48	Seating areas in the Green Cluster	63
Figure 49	collective barbeque in the Green Cluster Source: Flip Krabbendam	63
Figure 50	seating area in the yellow cluster’s garden	64
Figure 51	a child’s sand pit in the yellow cluster	65
Figure 52	View to the yellow cluster’s garden	65
Figure 53	Spatial Relations: Semi-Public	66
Figure 54	Shared Vegetable garden	68

Figure 55	Bar/Cafe space	70
Figure 56	Bar at night Source: Flip Krabbendam	70
Figure 57	Residents of all clusters coming together for an event	71
Figure 58	Source: Flip Krabbendam	71
Figure 59	An event in the 1990s Source: Flip Krabbendam	72
Figure 60	Exhibition at the Project Source: Flip Krabbendam	72
Figure 61	„Soft‘ hobby room for residents of all clusters	73
Figure 62	Spatial Relations: Public	74
Figure 63	Entrance of Yellow Cluster towards the public street	76
Figure 64	Public access route through the project	77
Figure 65	Central Square in between the clusters	78
Figure 66	Summer Party on the main square Source: Flip Krabbendam	79
Figure 67	Barbeque at the main square Source: Flip Krabbendam	79

All images are the work of the author if not stated otherwise.



Autor: Alex Kirschstein
Student Number: 5362156
Tutor: Dan Baciu

Msc 2_History Thesis
Spring 2021
TU Delft

