

# TO BE OR NOT TO BE

Housing for terminal homeless people

S. AUGUSTIN



## **Colophon**

*To be or not to be - Housing for homeless terminal people*

Graduation Thesis  
April 2020

### **Author**

Name	Sigwela Augustin
Student number	4215575

### **Technical University of Delft**

Master track	Msc Urbanism & Architecture Building Sciences
Graduation studio	Explore Lab
Design mentor	ir. Engbert van der Zaag
Research mentor	ir.drs. Luc Willekens
Building technology mentor	ir. Sjap Holst
Graduation Committee	ir. Huib Plomp

*All images are created by the author, unless otherwise noted*

*'He looks through me as if I am a ghost and in that moment I realize that losing my home has propelled me into a world of invisibility, a world where I am seen but not seen and heard but not heard. A sense of worthlessness consumes me, causing me to slip into a deep depression [. . .] It is comforting to be around people who can relate to my situation. Their company restores the hope I thought was lost. I find a 'home' among them and, though it is only a figurative home, it shields me from the ridicule and shame of those who choose to ignore me' -*

(Rennels and Purnell, 2017, p. 492)

## PREFACE

This master thesis is the result of a six-month graduation research at the Technical University of Delft. As an architecture student, I have conducted my research in the graduation studio Explore Lab.

This project is close to my heart as it reflects my love and passion for social engagement, healthcare and architectural design. To me, architecture is not merely a means of creative thinking, designing and building. Nor, should it be a profession in which designers solely boast or strive to be a 'starchitect' to stroke their inner ego's. Ofcourse, opinions and ambitions may differ. However, we should never forget that the architectural profession truly means: *to design for others*. Thus, not only facilitating the physical built environment but also the non-physical needs of the users: *their happiness and satisfaction*.

In light of this, personal creativity and conceptions should sometimes be subdued in order to meet the wishes and needs of others. Thus, an important skill of being a designer is to stay humble. By saying this, I do not imply that one's personal beliefs or ambitions should be thrown in the bin entirely. I advocate that first and foremost, designers should seek the interests of those whom he/she designs for. Then, through creative thinking designers should seek for a balance between efficiency, functionality and aesthetics.

In my design project I strived to achieve the above notions. This by designing houses for homeless people suffering from chronic mental and physical illnesses. With my graduation project I hope to contribute to the discourse of homelessness by redefining shelter design and showing how shelters can be designed in a more efficient way with respect to the social identity and human dignity of the homeless.

Sigwela Augustin,  
Delft, 2019

## MANIFESTO

Illnesses and death are part of our daily lives. Even though one can argue whether death should have been part of life in the first place. Society addresses these unfortunate aspects of life by means of spirituality, science and healthcare.

The inevitability of disease and death also affected me personally. In 2015 my uncle died from a rare auto-immune disease of which recovery was not plausible. His quality of life diminished from the very moment he was diagnosed with the syndrome of CREST. Family gatherings, grocery shopping, regular car drives or daily restroom visits had become unbearable. Although palliative care ensured physical pain relieve, the mental pain was a constant burden. As his quality of life diminished, the feeling of defeat increased. To ease the ongoing mental and physical agony my uncle declared a cease-fire. The thought of mental and physical deliberation by means of death entered his soul and the decision was made: *'It is enough. Life is to joyful to feel defeated all the time'*. Thus, at the age of 60 he decided to call it a quits by means of euthanasia. This ruthless and incurable disease destroyed my uncle's dependence, human dignity, mental stability and physical freedom.

### *May 20 - 'A day not to forget'*

Ordinary family gatherings of the Augustin family are typically full of joy, loudness and laughter. In this instance however, the family gathering was shadowed by a curtain of silence, soft whispers, sporadic laughter, restoration, tears and acceptance. Knowing that at exactly 12.00 pm the doctor would fulfil the wishes of my uncle by inserting the needle of 'relieve and peace' (in his mind), I withdrawn in a nearby park. Why? Merely because I did not want to view the exhale of his last breath. . .

Little did I know, the seeds of my graduation theme were planted. My uncle had the privilege of dying in a home environment. He was surrounded by family and experienced a great deal of love when battling his disease. Prior to his death he expressed his appreciation to everyone and addressed how grateful he was with the great deal of love, social and physical support he received through the years. This personal experience affected me deeply and triggered my inner design passion. Therefore, I asked myself the following questions:

- "How would one feel, when he/she has no family, no home environment and a terminal disease?";
- "As a designer, how can I contribute in relieving mental and physical suffering by means of architecture?"

With these two questions in mind, my graduation journey started.

# I. THEORETICAL FRAMEWORK

Summary	10
<b>0. TO BE OR NOT TO BE</b>	<b>14</b>
0.0 Architecture and society	16
0.1 Relevance	21
0.2 Hypothesis	22
0.3 Research question	22
0.4 Bookmark	23
0.5 Methodology	25
<b>1. HOME IS WHERE THE HEART IS</b>	<b>30</b>
1.1 The phenomenon of home	31
1.1.1. Home as order	31
1.1.2. Home as identity	33
1.2 What is well-being?	34
1.2.1. The connection of home and well-being	35
<b>2. THE POWER OF CARING</b>	<b>38</b>
2.1 The Homeless- Who are they?	39
2.1.1. Complex care needs	39
2.1.2. Palliative care and well-being	40
2.2 The Dutch welfare state	41
2.2.1. Social work in ancient times	42
2.2.2. Social care and healthcare provision	44
2.2.3. The Welfare triangle	45

## **II. ARCHITECTURAL FRAMEWORK**

<b>3.</b>	<b>MENTAL HEALTH AND ARCHITECTURE</b>	<b>48</b>
3.1	The phenomenon of stress	51
3.1.1.	What causes stress?	51
3.1.2.	How can stress affect the body and mind?	52
<b>4.</b>	<b>DUTCH SHELTER DESIGN</b>	<b>56</b>
4.1	Stressed spaces	57
4.2	Stigma	60
4.3	Security	76
4.4	Sensorial stimulation	90
4.5	Environmental experience	104
<b>5.</b>	<b>CONCLUSION</b>	<b>114</b>
5.1	Evidence-Based-Design toolkit	117
5.2	Discussion	122
5.3	Recommendations	123
	References	126
	Appendices	134
A.1.	Evidence-Based-Design checklist	135
A.2.	Interviews / Guided tours	142



## SUMMARY

People share a deep-seated need for *a sense of home*. It is an intangible, psychological and sociological need that is projected on, and connected to the built environment (Rennels & Purnell, 2017; Dovey, 1985).

Many people in western societies meet their *sense of home* through traditional housing. Yet, there is a small marginalized group of homeless people whom are unable to do so. Many suffer from severe physical and mental health diseases, which makes it even more challenging to maintain a stable life. Dutch policymakers provide shelters to assist those in need, but these accommodations do not positively affect the well-being of the homeless. In addition, many shelters fail to facilitate the wish of homeless people of dying in the shelter (Klop et al., 2018).

The aim of this research is to redefine shelter design so to improve the mental well-being of homeless people. This, by learning lessons from psycho-supportive design approaches in the healthcare environment. Therefore, the main question of this research is:

*'Which architectural elements in the care environment have a positive effect on the well-being of homeless [terminal] people with chronic mental health problems?'*

The above question is answered through literature review and case study analysis. From the results, several spatial-design components have been extracted and categorized into problems and solutions concerning the theoretical themes of:

- *Stigma;*
- *Security;*
- *Sensorial stimulation;*
- *Environmental experience.*

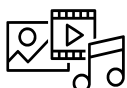
The results showed that **privacy, daylight and access to nature** are the three most crucial design elements that positively improve one's mental well-being. Additional spatial-design components have been summarized in four conclusive EBD guidelines (see page 11). The best results for positive mental health outcomes are achieved when all four guidelines - in all three scales - are considered in the architectural design of shelters.

As the issue of homelessness is not yet solved and the number of patients with complex care needs increase, the Netherlands is in desperate need of more assisted and affordable housing. Architects, urban planners and developers whom are interested in new development projects are encouraged to use the EBD principles in the design process of newly built shelters.



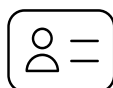
**Guideline 1**

*The design ensures:*  
'Safety, privacy and control'



**Guideline 2**

*The design balance:*  
'Visual and acoustic stimulation'



**Guideline 3**

*The design reduces:*  
'Severe stigmatization and enhances positive social identities'



**Guideline 4**

*The design provides:*  
'a healthy and desirable environment which help to stabilize mental health'

**Scale 1. Urban context**

- A green environment in an inner city or outer city area;
- Public transportation within 0-5 minutes walking/biking distance;
- Public amenities and care services in the near vicinity on 0-10 minutes walking/biking distance.

**Scale 2. Building**

- The exterior should mimic residential architectural features;
- Dynamic and clear routing in the building with exterior sightlines;
- Visible and openly designed care stations to show the collaborative process of care.

**Scale 3. Interior and spaces**

- A large and welcoming entrance;
- Dynamic and clear routing in the building with exterior sightlines;
- Stimulation of social interaction by creating various seating possibilities;
- Closable spaces to maintain privacy;
- The interior must contain inviting and warm colors, materials and comfortable furniture.





# THEORETICAL FRAMEWORK

# INTRODUCTION

## TO BE OR NOT TO BE

People share a deep-seated need for a sense of home (Rennels & Purnell, 2017). It is the root of human authentic existence and an intangible psychological and sociological phenomenon (Dovey, 1985). This emotional and cognitive sense of home is a concept from which our life is oriented and directed. It is therefore a primary and dynamic psycho-social connection between an individual and the physical environment (Vycinas, 1961).

# Door gebrek aan woningen en geld zijn gemeenten niet meer in staat dakloosheid te bestrijden

Door een toenemend gebrek aan woningen en geld voor begeleiding zijn de grote gemeenten niet meer in staat de dakloosheid effectief te bestrijden. In onder meer Amsterdam, Utrecht en Nijmegen barst de nachtopvang uit haar voegen. 'De hele keten is vastgelopen', waarschuwt een Utrechtse wethouder.

'Wonen met begeleiding staat centraal in de aanpak van dakloosheid', reageert Blokhuis nu op de noodkreet van de zorginstellingen en gemeenten. Een belangrijk deel van de oplossing ligt in meer woonruimte en goede schuldhulpverlening. 'Dat kan ik niet alleen regelen. Ook Binnenlandse Zaken en Sociale Zaken hebben hier een grote verantwoordelijkheid. Samen moeten we de schouders eronder zetten en deze doelgroep centraal stellen.'

Fig. 1 - News post homeless shelters (Volkskrant, 2020)

## 0.0. Architecture and Society

Architects have the role to address societal issues and to look for spatial solutions. In the Netherlands there is an urgency with regards to the growing number of homeless people and the severe housing shortage. As addressed by Rogiers (2018) the Netherlands presents itself as a welfare state, while in fact this is not really the case. Recent outcries of citizens, housing corporations and healthcare organisations seemingly prove this, as important accommodations and care services are lacking.

In his research called *a sense of home* Rogiers (2018) mentions that the home-environment of Dutch homeless people is defined by various neighbourhood amenities. In fact, their bedrooms, kitchens and bathrooms are scattered throughout the city as a fragmented network. As not enough rooms are available in the city centre, homeless people need to divert to places outside the city which causes stress, anxiety and physical problems. Rogiers (2018) therefore initiated a bottom-up solution to address the housing shortage and created cardboard sleeping rooms in unused spaces in the city of Amsterdam.

Although this initiative is an intriguing and positive step in the right direction, it still does not address another issue that this target group also faces, namely the issue of fragmented care. With regards to this, top-down initiative is obligated as healthcare provision is a universal human right (United Nations, 2020). Therefore, this research focusses on the societal issue of homelessness, Dutch healthcare and the architectural impact on well-being of shelter design.

*'Health facilities, goods and services must be accessible to all, especially the most vulnerable or marginalized sections of the population'*

(The United Nations, 2020)



Fig. 2 - Cardboard sleeping room Amsterdam (Picture taken by Rogiers, 2018)





Fig. 3 - Homeless shelter - The Hague (Omroep West, 2018)



Fig. 4 - Nightshelter William Booth House - Rotterdam (Leger des Heils, 2018)

# Wel een baan, maar geen woning: alarm om groei nieuwe groep daklozen

De daklozenopvang zit overvol. Niet alleen met drugsverslaafden en psychiatrische patiënten, maar ook met zogenoemde 'economisch daklozen'. Deze snel groeiende groep bestaat uit mensen die door een scheiding of verlies van hun baan op straat belanden. De Regenboog Groep, betrokken bij de daklozenopvang in Amsterdam, doet daarom een noodoproep om nieuwe verhuurders te vinden.

In het project Onder de Pannen brengt de Regenboog Groep daklozen tijdelijk onder bij mensen die een kamer beschikbaar hebben. De afgelopen jaren zijn er in Amsterdam 160 daklozen op die manier geholpen, maar nu is er dringende behoefte aan woonruimte voor nog eens veertig mensen.

“**Het is fijn als je weet dat je morgen, overmorgen en over twee weken gewoon een plek hebt om te wonen en slapen.**

— Donovan, 31 jaar

De 31-jarige Donovan is een van de daklozen die via Onder de Pannen een kamer vond. Hij kwam op straat te staan door financiële problemen. "Ik heb een jaar lang op verschillende plekken gewoond, af en toe een nachtje bij een vriend, een tante, in de nachtopvang en in het passantenhotel. Maar dat is helemaal geen plek voor mij. Daar zitten mensen met verslavingen, mensen die psychische problemen hebben, die niet werken. Ik werkte gewoon."

Fig. 5 - News post homeless shelter (NOS, 2019)

## 0.1 Relevance

The phenomenon of home is often tied to the built environment – a traditional house, place or a building. Today the sense of home is often *'distorted and perverted'*. It is unjustly viewed and used as a synonym for the term house. A term which refers to a physical, tangible and measurable object that easily can be exchanged. A sense of home however is unexchangeable and an emotional connection between people and specific objects in the built environment (Dovey, 1985). In this research *'home'* and *'house'* are therefore viewed as two distinctive terms. Additionally, *'homelessness'* and *'housing shortage'* are equally distinguished as separate matters.

Homelessness is not solely a mere fact of material loss and accommodation deficiency. It also means severe stigmatization and exclusion from social life. Aspects which are inseparably connected to one's psycho-social well-being. In society most people *'choose to avert their eyes and ears'* from homelessness, especially when their own need for a house is met (Rennels & Purnell, 2017, p. 492). This however is a senseless and risky attitude as becomes evident when viewing some of the immediate causes of homelessness (see fig. 6). Undoubtedly, one could argue that these circumstances can easily happen to everyone in society. Including those whom shape the policies, interventions and places in which these services are implemented and offered. As life is unpredictable, this research encourages people to reflect upon the following important question: *"Where would I like to live when at one point, I might lose everything - My house, sense of home, human dignity and social identity?"*



Fig. 6 - Causes of homelessness (Kruize, de Muijnck & Schoonbeek, 2019, p. 54)

### Why do people become homeless?

People could become homeless due to unforeseen circumstances in life such as: an economic crisis, a divorce, the death of a spouse, domestic violence, natural disasters or mental health problems (drug addiction mainly becomes the coping strategy to ease psychiatric problems)

Homeless people struggle with these kinds of aspects in life. Most people in western welfare states meet their existential needs through traditional housing, but some people in these welfare states do not have the brick or mortar to do so. To make things worse, how should one cope with the additional burden of a chronic terminal disease?

Dutch governmental bodies, health insurance instances, hospital boards, patients and designers all wonder how they should deal with the increasing number of people with high complex care needs, shortages of qualified personnel, the lack of accommodation and ever-changing future needs within healthcare.

## 0.2 Hypothesis

Homeless people with high complex care needs often have long and traumatic experiences of loss. This has a major impact on the way they deal with illnesses and death (De Veer, 2017). Dutch policymakers may provide shelters to accommodate those in need, but these places do not positively affect the well-being of the homeless. Current Dutch homeless shelters are often provided and designed in a bureaucratic and institutionalized manner. Out of pure efficiency instead of sympathy. Thus, resulting in accommodation that seemingly disciplines rather than assisting those in need (Bourgois & Schonberg, 2009). Moreover, many homeless shelters fail to facilitate the wish of homeless terminal people of dying in the shelter. Therefore, care professionals stress that increased cross-collaboration is needed to fulfil this wish and that the palliative care needs and preferences of homeless people should be considered (Klop et al., 2018). Rennels and Purnell (2017) agree and actively encourage city officials, urban planners and architects to enter the discourse of homelessness. Not by working *against* those without homes, but by working *with* them in urban renewal projects (Pattillo, 2013).

## 0.3 Research Question

Existing research on psycho-spatial relations between humans and the physical environment has addressed that the physical environment can be vital for good health (e.g. physical, psychological, emotional, spiritual and social health). These psycho-supportive approaches are generally implemented in healthcare environments only. However, the emotional accounts of homeless people show that social care environments could also benefit from these approaches. Therefore, the main purpose of this research is to redefine shelter design in order to improve the well-being of the homeless. Moreover, this research aims to humanize homeless people by recognizing their need for a sense of home and their expressed wish of dying in a homelike environment: a physical place in which their psycho-social needs are met. This research therefore contributes to our understanding of homelessness by addressing the importance of healthcare assistance and improved living conditions for those in need, especially in the final phase of their lives.

The main question in this research is:

**‘Which architectural elements in the care environment have a positive effect on the well-being of homeless [terminal] people with chronic mental health problems?’**

The following eight subquestions are formulated in order to answer the above question:

> What is the phenomenon of <u>home</u> and how is it connected to <u>well-being</u> ?;	
> How are homeless people cared for in the <u>Dutch welfare state</u> ?;	
> What is the phenomenon of <u>stress</u> and how does it affect the body and mind?;	
> Which measures for <u>security and privacy</u> need to be taken?;	
> Which measures reduce <u>stigmatization</u> and enhance a <u>home-like environment</u> ?;	 
> Which measures regarding <u>sensorial stimulation</u> should be considered?	 
> How should the <u>connecting outdoor space</u> contribute?	 
> How should <u>social interaction</u> be supported?	

## 0.4 Bookmark

### Part I. Theoretical Framework

#### *Home is where the heart is*

The first chapter of this research extends our knowledge on homelessness by elaborating on the phenomenon of home. Moreover, it describes what well-being is and how it relates to the concept of home.

#### *The power of caring*

The second chapter sheds light on homeless people by addressing their life challenges, complex care needs and the provision of care in the Dutch welfare state. Additionally, this chapter advances our understanding of end-of-life care by describing how the well-being of terminally ill people is guaranteed in the final phase of their life.

## Part II. Architectural Framework

### *Mental health and architecture*

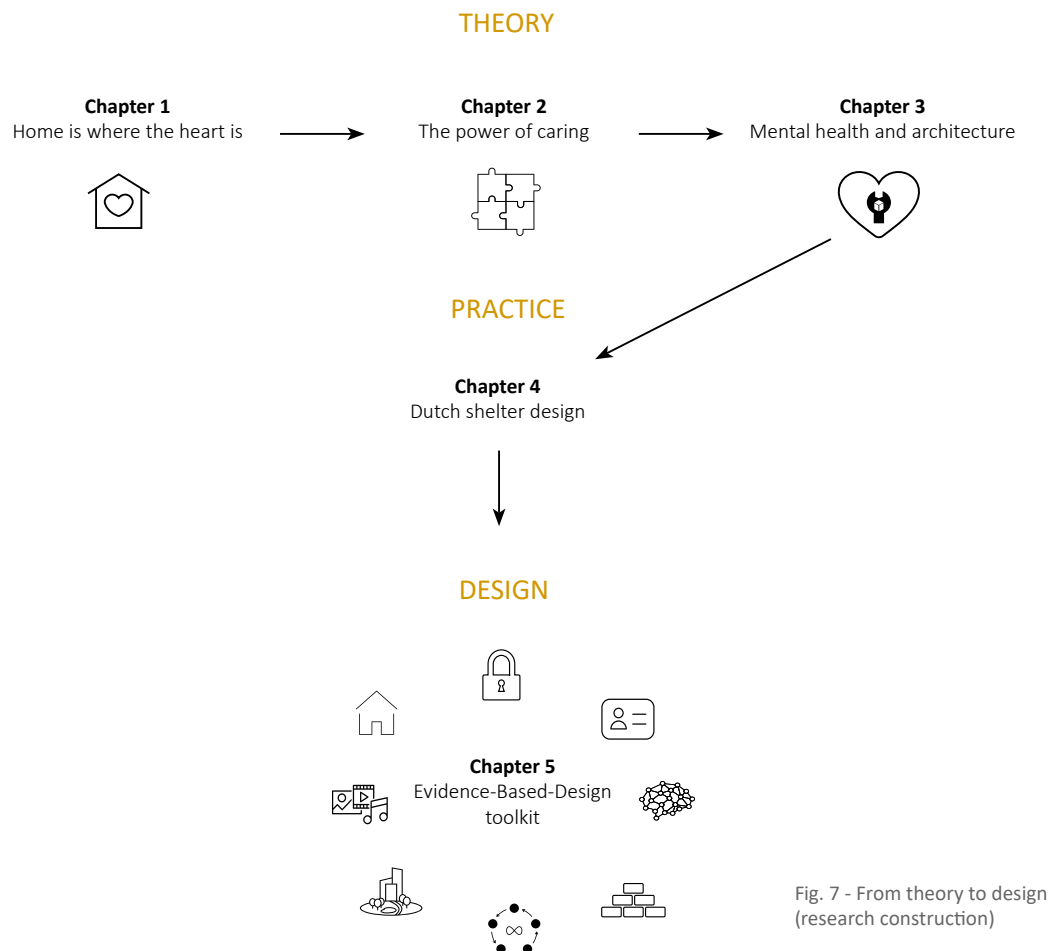
Chapter three addresses the phenomenon of stress. A condition which has a negative effect on the well-being of people. Some stress related processes and conditions are therefore examined and connected to the design profession. This knowledge is essential if we are to design health and social care services that appeal to homeless people (Fahnoe, 2017).

### *Dutch shelter design*

The fourth chapter elaborates on the architectural impact on well-being of three homeless shelters in the Netherlands. Both problems and solutions are outlined and supported by various reference projects in which these solutions have been applied.

### *Conclusion: Evidence-Based-Design toolkit*

Chapter five concludes with an Evidence-Based design toolkit to improve shelter design. The toolkit comprises of theoretical and spatial design principles which may be applied in the design profession.



## 0.5 Methodology

The research was conducted in the period of early October 2019 – mid March 2020 and comprises of literature review and case study analysis (see fig. 8).

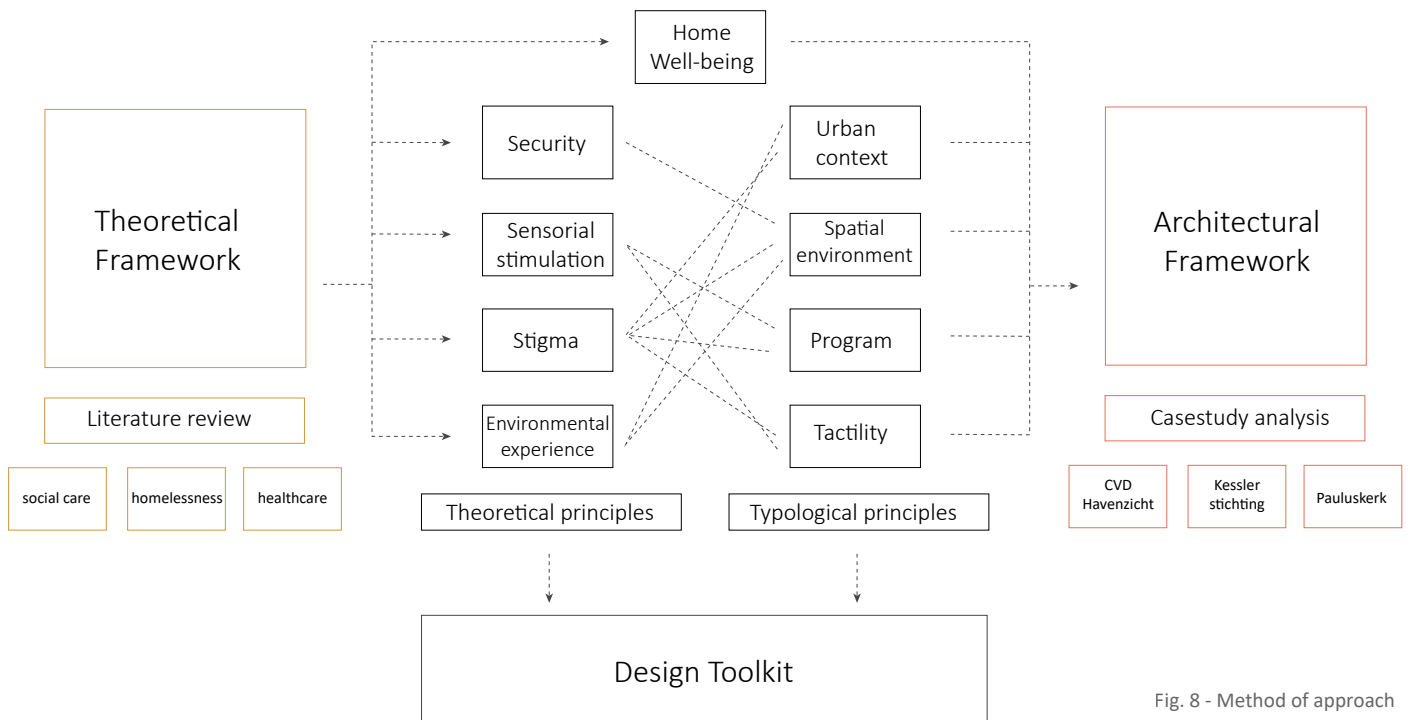


Fig. 8 - Method of approach

### Theoretical framework

#### A. Literature review

The theoretical framework of this paper is based on a comprehensive and systematic review of literature studies on healthcare, homelessness and social work. Throughout the paper the theoretical approach of phenomenology and sociology is used in order to emphasize the psychological dimension of homelessness. Autoethnographic accounts and emotional experiences of homeless people revealed how policymaking is reflected through the physical places in which these social services are provided. Strikingly, low to none of these places offered a fruitful sense of home. Thus, resulting in frequent avoidance of these places. Subsequently, studies in the field of healthcare and social work were carefully examined in order to identify the concerns and needs for homeless people in the care environment. Based on these findings, a relational scheme – of policies,



well-being and architecture - was developed to portray the psycho-spatial dynamics of homelessness (see conclusion p.115). This scheme was linked to the sociocultural context of the Dutch welfare state so to examine if current homeless shelters in the Netherlands need to be improved. For this reason, additional literature on mental health and architecture was selected. Out of the total scope of reviewed literature, a checklist was developed, comprising of 31 theoretical design principles which have been summarized into 4 EBD design themes eligible for the construction of an architectural framework.

### *Architectural framework*

#### *B. Case studies and fieldwork*

In the second phase an architectural framework was developed out of the theoretical framework. The EBD design themes were then translated into four architectural categories (*urban context, spatial environment, program and tactility*). These four categories were the foundation for a typological research conducted through the main method of case study analysis. As indicated, this research was aimed at extracting architectural elements from the care environment which may be applied in shelter design. Several studies however show, that architectural elements are dynamic and subject to many external influences such as time and culture. For this reason, the term *'architectural element'* has various meanings. In this research *'architectural element'* is defined as: *'all physical and spatial elements which may be applied by an architect in the care environment, and of which it is scientifically proved that they have a positive effect on the well-being of people'*. Including, the programmatic parameters of spatial environments. Thus, all physical and spatial structures belonging to a building (Herweijer-Van Gelder, 2016).

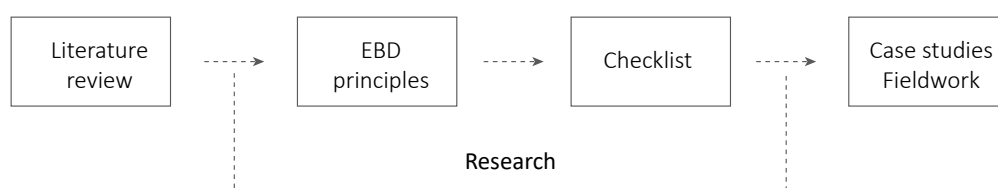


Fig. 9 - Set-up of EBD cross comparison between theory and practice

### *C. EBD cross comparison (checklist)*

Through a cross comparison of EBD design principles and case study analysis, three Dutch homeless shelters were analyzed on their architectural impact on well-being. This to determine to what extent EBD has been applied, how that has been done and which consequences it has for the architectural quality. By means of a matrix (see appendix A.1. p.135), the homeless shelters were valued on a scale of 1 to 10, with 1 being: No use of EBD and 10: Excellent use of EBD (see conclusion, p.117).

For the casestudy analysis, three homeless shelters were selected:

- (1) The Kessler Stichting;
- (2) The Pauluskerk;
- (3) CVD Havenzicht.

These projects were selected on their location and program. They needed to be in one of the four biggest cities in the Netherlands (e.g. Utrecht, Amsterdam, The Hague or Rotterdam), as the number of homeless people in these cities is the highest. Moreover, the projects needed to facilitate social care and healthcare amenities as the research was focused on the cross-collaboration of these two disciplines.

The case studies comprised of:

- General data;
- Drawings (translation of plans into diagrams);
- Pictures and publications;
- The application of the EBD checklist

The research concluded with a comparison of the theoretical and architectural framework, resulting in an Evidence-Based-Design toolkit. As the toolkit elaborates on city, neighbourhood and building scale, the design tools may also be eligible for policymakers (in other European welfare states), urban planners, developers and architects.

### *D. Empirical research*

Interviews were conducted as a supporting research method to include care professionals and homeless people into the design process (see appendix A.2. p.142). These interviews and additional shelter publications were of great help as they offered important programmatic recommendations for the design process.





## **MEDICAL CASE**

**David (48 years old) has been addicted to alcohol since puberty. In the past, he has been diagnosed with bipolar disorder. Because of his long-term alcohol consumption David is cognitively impaired. He lost his mother at a young age due to cancer and his father spent many years in jail. David's relationship ended six years ago and ever since he spent his days on the streets. Often, he made use of the night shelter, emergency shelter or other walk-in facility during daytime. Some of the social care workers noticed that David looked thin, yellow, increasingly lifeless and often very confused. David denied everything and walked away violently when social care workers engaged with him. On another occasion he started to vomit and told the workers that he suffered from abdominal pain. Yet, David refused any help from the street doctor who visits the shelter once a week.**

# CHAPTER 1

## HOME IS WHERE THE HEART IS



Humans understand and relate to the world through emotions. By recognizing the emotional experiences of homeless people, one could better understand the importance of creating genuine and safe places for this target group. Actual places in which their well-being is improved, instead of places where the homeless are obstructed in their psychological functioning (Kaplan et al., 2019). Building these emotional connections is vital and enables the general population to *'tap into the emotion and perception'* of those suffering from homelessness (Rennels & Purnell, 2017).

This first chapter therefore answers the following question: **'What is the phenomenon of home and how is it connected to well-being?'**. It advances our knowledge of homelessness by outlining the underlying principles of this deep-seated need. Subsequently, the concept of well-being is addressed so to reveal the relational dynamics between home and well-being.

## 1.1 The phenomenon of home

Home is a complex phenomenon of interconnected relations between an individual and its physical environment. Maslow (1968) describes that each person has basic hierarchical needs – with security, control and physiological needs as the most important ones. These human needs are the actual driving forces behind this intangible and complex phenomenon called home. Hence, as suggested by Heidegger ‘they are the basic conditions for the development of authentic human existence’ (Heidegger, 1966 cited in Dovey, 1985, p. 38). Dovey (1985) agrees by stating that home is a strong emotional connection which orients people in space, time and society. ‘Homeless or not – people go to great lengths’ to meet this sense of home (Rennels & Purnell, 2017, p. 494)

### 1.1.1 Home as order

The concept of home is established on the underlying processes of *order and identity* (see fig. 10). These processes indicate how individuals orient in the world and how meaningful connections with the communal are created. *Becoming-at-home* is then the establishment of all these ordered personal and collective connections. These underlying principles might indicate a strict sequence of how a sense of home is established, but Dovey (1985) stresses that this is an exemplary sequence of how the phenomenon might manifest in sociocultural contexts.

As home is an ordered center of *being* with which one comprehensibly orients itself in spatial and sociocultural contexts, it is not a generalized process. It is unique, individually driven and situation specific as it is ‘thoroughly imbued by the familiarity of past personal experiences’ (Dovey, 1985, p. 35).

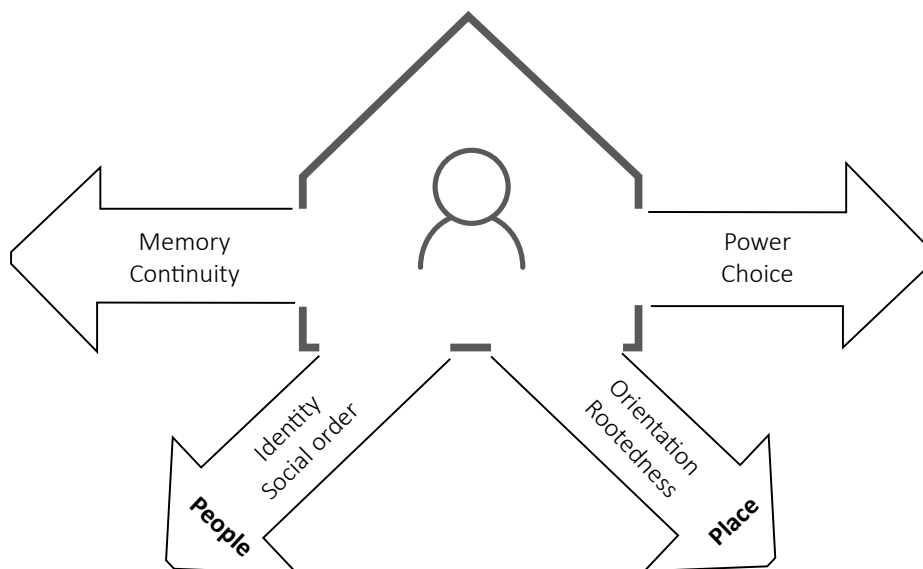


Fig. 10 - Home as connectedness (own image with information from Dovey, 1985)

What is the feeling of home and why is it important?

*‘Home orients us with the past, the future, the physical environment and our social world’ - Dovey, 1985, p. 41*

When viewed in a broader sense, this phenomenon is yet flexible and multidimensional as it may be applied and recreated in different environmental scales. Rennels and Purnell (2017) prove this by describing how homeless people redefine the meaning of places, through *re-appropriation*, in order to create new homelike places. According to Seamon and Buttner (1980, p. 80), this pattern of re-appropriating simply reflects the temporal order of becoming-at-home and is a '*pre-reflective action*' which is '*grounded in the body*' of human beings. For this reason, one starts to understand why homeless people randomly occupy objects in the built environment such as park benches, bus stops or even sidewalks. Their place-making actions are merely rooted behavioral patterns of fulfilling their deep-seated need for a sense of home.



Fig. 11 - Random occupation of park bench (Istock, n.d.)

People's '*bodily*' and behavioral patterns are extremely influenced by the sociocultural circumstances in which they are applied. Fahnoe (2017) indicates the accuracy of this notion by revealing how Danish policies are negatively reflected in the emotional ethnographic accounts of those in need. Homeless people in the Danish welfare state are managed through top-down policy-making and space control. This however leads to unintentional socio-spatial exclusions and homeless people's avoidance of the very same places where social services are offered to them (e.g. homeless hostels, night shelters and days centers). As a result, they then fall back on their inner temporal ability of order so to '*accomplish homelike places*' within the built environment (Rennels & Purnell, 2001). According to Dovey (1985, p. 35) home is a symbolic and secure feeling '*of certainty and of stability*'. A demarcated territory of symbolic boundaries in which people have full control, access and behavioral freedom. However, as shown by Maslow (1968) and addressed by Fahnoe (2017) the most important symbolic dimensions of a sense of home - security and control - are apparently shattered by policies that aim to assist the homeless.



Fig. 12 - New homelike places through re-appropriation (Istock, n.d.)

### 1.1.2. Home as Identity

Home is not only an experience of individual orientation within familiar spatial contexts. *'It also means to be identified with the place in which we dwell'* (Dovey, 1985, p. 37) From a traditional viewpoint, this may be a house. However, from a homeless person's perspective this may be any object in the built environment- even if this object severely damages one's integrity or dignity. Identification is an emotion and a means to bond with the physical world. Through this, one could better comprehend Churchills' quotation of: *'We shape our buildings, then they shape us,'* as it implies that human behavior is greatly influenced by the buildings we design (Dilani, 2009, Conference on february 6). This also explains why homeless people struggle with shattered dignities. Dovey (1968) states that this is indeed true. She additionally claims that the process of identification is highly affected by the site or genius loci of the physical object. This however, does not imply that home is static. As suggested by Allport (1955) home also has a temporal identity which grows. It roots in the past but extends and connects to the future. Therefore, it is dynamic and adaptable.

*'Knowing that we have the power to remain in a place and change it permits us to act upon and build our dreams'*  
(Dovey, 1985, p. 35)



## 1.2 What is well-being?

Well-being often 'conveys the material dimension of welfare or standard of living, suggesting a foundation in economic prosperity' (White, 2008, p. 3). However, the concept of well-being is not only limited to this description as it also conveys an immaterial meaning (Dodge et al., 2012, p. 222).

This research focusses on the latter characteristic of the term, namely the intangible psychological well-being of people. For this reason, the following definition is used: 'Well-being is when individuals have the psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge' (Dodge et al., 2012, p. 230).

### When does someone have a positive well-being?

Someone has a positive well-being when he/she has a stable life (e.g. a house, job, social network). Then, all resources and challenges are balanced and all basic needs are met.

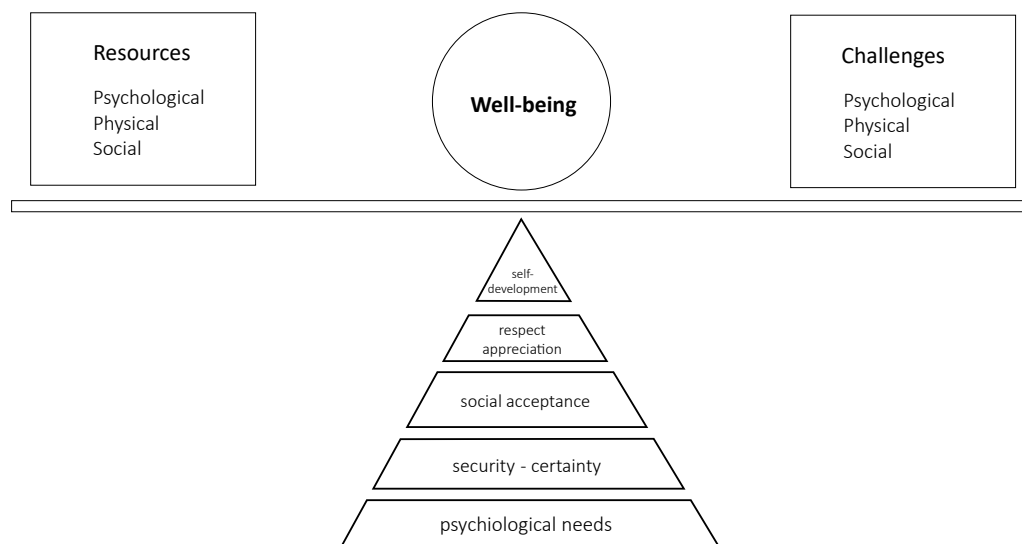


Fig. 13- Positive well-being (own image with information from Maslow, 1978; Dodge et al., 2012)

Whereas positive well-being is a balance of resources and challenges, negative well-being is the result of a disbalance. This disbalance of resources and challenges is always due to external forces (see fig. 13-14). As a result, 'a person deviates from his or her equilibrium pattern of events' (Headey & Wearing, 1992, p. 93). In this definition an individual is viewed as a decision maker who controls its own state of well-being. It emphasises positive (or negative) psychological well-being as one's own responsibility. Yet, this definition leaves room for self-development as it embraces people as being individuals 'with choices and preferences', whom are able to create 'possibilities of becoming master efficacious' in achieving a stable well-being (Seligman, 2002b, p. 3).

### 1.2.1 The connection of home and well-being

Through the see-saw definition it is possible to connect the process of becoming-at-home to the concept of well-being. Heidegger's (1962) phenomenological approach called '*being-in the world or lived space*', explains how one experiences space through bodily experiences – or moods (Dovey, 1985). These moods are intertwined with the existential needs described by Maslow and could therefore be summarized as a person's psychological well-being. Although Heidegger (1962) defines space as the invisible non-physical cosmos, studies of Fahnoe (2017), Rennels and Purnell (2001) clearly show that this invisible space may easily be defined as physical space in the built environment.

Based on this, a redefinition of Heidegger's '*lived space*' could now entail that the psychological well-being of people are identified *by* and centered *in* a physical built object with which they emotionally connect. Dilani (2009) confirms this notion and states that physical environments play a vital role in the psychological well-being of people. These built environments are the resources symbolized in the see-saw definition of well-being and are crucial for both the physical and mental health of a person. Positive well-being however is a condition which does not come naturally. As stressed by Csikszentmihalyi (2002) one must prepare, cultivate and defend it. However, how does one cultivate and defend a positive well-being when struggling with mental health problems, a lack of resources and everlasting challenges?

Well. . . Homeless people stress about this every day.



Fig. 14 - Negative well-being (own image with information from Maslow, 1978; Dodge et al., 2012)

**How does homelessness affect one's well-being?**

Homelessness affects the two most important basic needs of humans. It therefore leads to an immediate disbalance of resources and challenges. Thus, a negative well-being.



A close-up, high-contrast photograph of a person's hand, showing severe skin cracking and discoloration, likely due to chronic alcoholism or drug use. The hand is resting on a textured surface, possibly a blanket or fabric. The lighting is dramatic, highlighting the texture of the skin and the surrounding fabric.

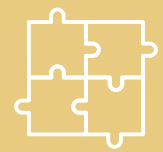
## **MEDICAL CASE**

*(SEQUEL)*

The street doctor was informed about the symptoms by the social care workers. To avoid any violent altercations, the street doctor called colleagues from the mental health care services (GGZ) who seduced David and transported him by ambulance to the hospital. After hospitalization, where serious liver cirrhosis was diagnosed, David was given accommodation with social assistance where the housing counsellors could now actively keep an eye on him. David's social contacts were mainly limited to fellow addicts with whom he drank alcohol in the park with. However, these contacts ended once he started to feel worse and his deteriorating body forced him to stay inside. David felt uneasy about staying inside as he got accustomed to living on the streets.

## CHAPTER 2

### THE POWER OF CARING



Chapter one showed that homeless people's behavioural patterns result from their existential human need of connecting to a physical object which they can call home. In this built object their identity, dignity and psychological well-being is centred. Through a set of ordered connections, bounded by spatial, temporal and sociocultural contexts, they become-at-home. Both personal and collective connections (with people, place, past and future) are then established.

This second chapter elaborates on homelessness by describing the complex care needs and the way how well-being is guaranteed in palliative terminal care. Additional attention is given to the Dutch welfare state and the care provision for homeless people. Therefore, the central question in this chapter is: **'How are homeless people cared for in the Dutch Welfare state'?**

## 2.1 The Homeless- Who are they?

A person experiencing homelessness is someone without permanent housing who may live on the streets, in a shelter, in temporary accommodation, or in some other unstable or non-permanent situation. As shown in fig. 15, there are two groups of homeless people in the Netherlands. In this research the primary focus is on *group B: homeless people with complex care needs* as they are viewed as the most vulnerable and isolated group (Kessler Stichting, 2019).



**Group A**  
homeless people without  
mental or physical diseases  
(Dutch / Foreigners)



**Group B**  
homeless people with mental  
or physical diseases (Dutch)

Fig.15 - Groups of homeless people in the Netherlands (Westert & de Groot, 2017)

### 2.1.1. Complex care needs

Many homeless people have long histories of loss. These losses greatly affect how the homeless deal with their illnesses and upcoming deaths. Several studies show that many homeless people express frequent psychosocial concerns. The most common concerns are the feeling of being a burden to families or friends, the fear of a lonely anonymous death or even being undiscovered after death. Also, many fear the absence of a respectful burial and the loss of personal control in choosing their place of death (Klop et al., 2018; De Veer et al., 2018). The latter is widely addressed by scholars who reveal that homeless people have a shared preference of dying in a home-like environment. Often, this is the homeless shelter, but current shelters do not meet the complex care needs of the homeless (De Veer et al., 2017). Moreover, there is a lack of personnel with the expertise of providing both palliative care and social care (De Veer & Francke, 2018).

### Who receives social assistance?

According to the social legislation (WMO), city councils are not obligated to provide shelter for homeless people without a health indication (Westert & de Groot, 2017).

The preferences, concerns and care needs of the homeless deserve attention. A cohort study in one of the largest cities in the Netherlands revealed that both men and women experiencing homelessness have shorter life expectancies compared to the general population. This is due to their bad living conditions and reduced access to care services. Homeless people need good care because many of them suffer from severe comorbidities which is a co-occurrence of mental health problems, addiction and physical chronic diseases (see fig. 16). These complex comorbidities are challenging and require people-centered care. De Veer et al. (2018) stress that such care for homeless people is not well-arranged. In fact, there is an occurrence of social inequality in Dutch healthcare. Meaning that palliative care is mainly organized with the general population in mind, whereas homeless people have unequal access to these services. Therefore, the Netherlands Institute of Research and Health- Nivel (2018) stress that more cross-collaboration of care disciplines is needed so to provide good palliative care for the homeless.

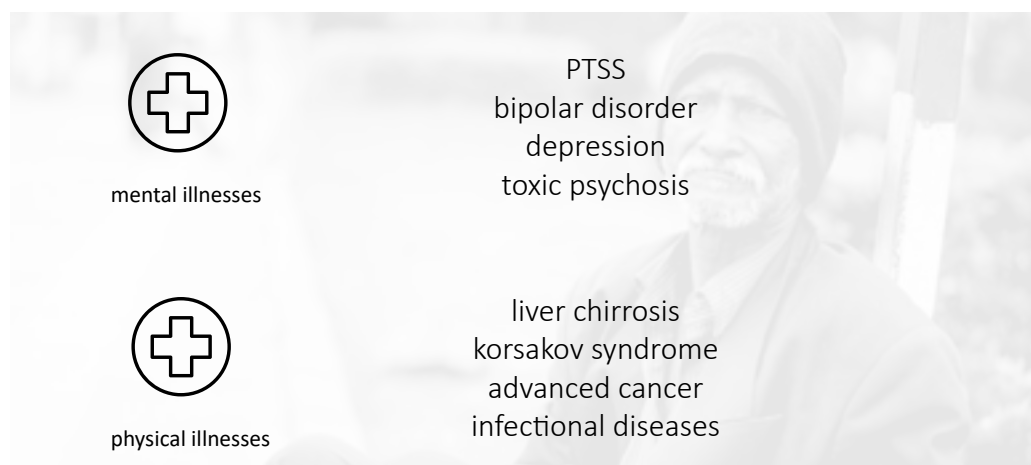


Fig. 16 - Comorbidities of homeless people (physical diseases and mental health conditions)

### 2.1.2. Palliative care and well-being

Palliative terminal care, or end-of-life care, aims to improve the life quality of terminally ill people and their families in the final phase of their lives. This, by means of physical pain and symptom control as well as psychosocial and spiritual assistance. Palliative care covers a broad range of domains and can start in an early phase of a life-threatening illness. In mainstream palliative care for the general population, family is closely involved. However, for people suffering from homelessness this is not a matter of course. In the Netherlands, almost a third of the homeless population has no social support from families or friends (De Veer & Francke, 2018). Therefore, the social network of homeless people mainly consist of fellow-sufferers. As palliative terminal care also means care for relatives, professionals always look for ways to rebuild withered family connections. This ofcourse, only with the approval of the ill homeless person. According to De Veer et al. (2018), most homeless people decline contact with family because it would bring painful memories back. Care professionals therefore stress that just 'being there' in the final phase is important enough (Kessler stichting, 2019).



+/- 4000 homeless people

+/- 30 die each year

**+/- 20 terminally ill**

Fig. 17 - Estimated number of yearly death rate homeless people in Rotterdam (CBS, 2018; Slockers et al., 2018)

## 2.2. The Dutch welfare state

Healthcare and social care for homeless people cannot be discussed without addressing the Dutch Welfare state. According to Wilterdink & Van Heerikhuizen (2006, p. 295) the Netherlands has a system in which the government *'guarantees the provision of both the material and immaterial needs deemed necessary for all citizens'*. This definition shows the broadness of the welfare state as being responsible for those in need in all circumstances. Moreover, the notion *'deemed necessary'* makes clear that with changing legislative views, the nature and size of the welfare state could change over time.

The Dutch welfare state has three main objectives:

- Guaranteeing social and economic security;
- Reducing social inequity and stimulating fair life chances;
- Increasing economic and moral integration.

These objectives have dual purposes. They first aim to ensure that all Dutch citizens



Fig. 18 - The four main functions of the welfare state (own image with information from Bijlsma & Janssen, 2015)



have an income and that the streets are not overcrowded with homeless people. This could include that social work facilities help in educating and assisting homeless people in finding jobs. From an economic point of view, integration and active participation of all citizens leads to greater financial support as people who work can contribute to the maintenance of the country itself. Additionally, moral integration leads to conformity and the prevention of inappropriate behavior, as people learn how to behave according to social norms (Bijlsma & Janssen, 2015).

### 2.2.1 Social work in ancient times

The current Dutch welfare state is the product of more than a century of social policies. The concept of social care and providing for the poor goes back to ancient times. Traditionally social assistance was provided by family and neighbors in times of need and illness. The inspiration of social aid and care was inspired by the Christian faith and the two most important commandments addressed by Jesus Christ to: (1) *'Love God\* with your whole heart and with your whole soul and with your whole mind and with your whole strength and (2) to 'love your neighbor as yourself'* (Markus 12:30,31 – The New World Translation). The Christian faith arrived in the Netherlands in the 1st century A.D. through the preaching crusade of the English bishop Willibrord. This resulted in the first campaigns of social aid in the form of poor men's food tables on the street and newly built monasteries that also provided accommodation, food and healthcare for those in need. In the Middle Ages, these accommodations were called 'gasthuizen' or guesthouses. They were the very first night shelters in the Netherlands in which primarily foreigners and pilgrims could stay for a maximum of three days to settle their affairs in the city (Bakker, n.d., p. 49).

Quickly, this concept was replaced, and the guesthouse became the shelter of homeless

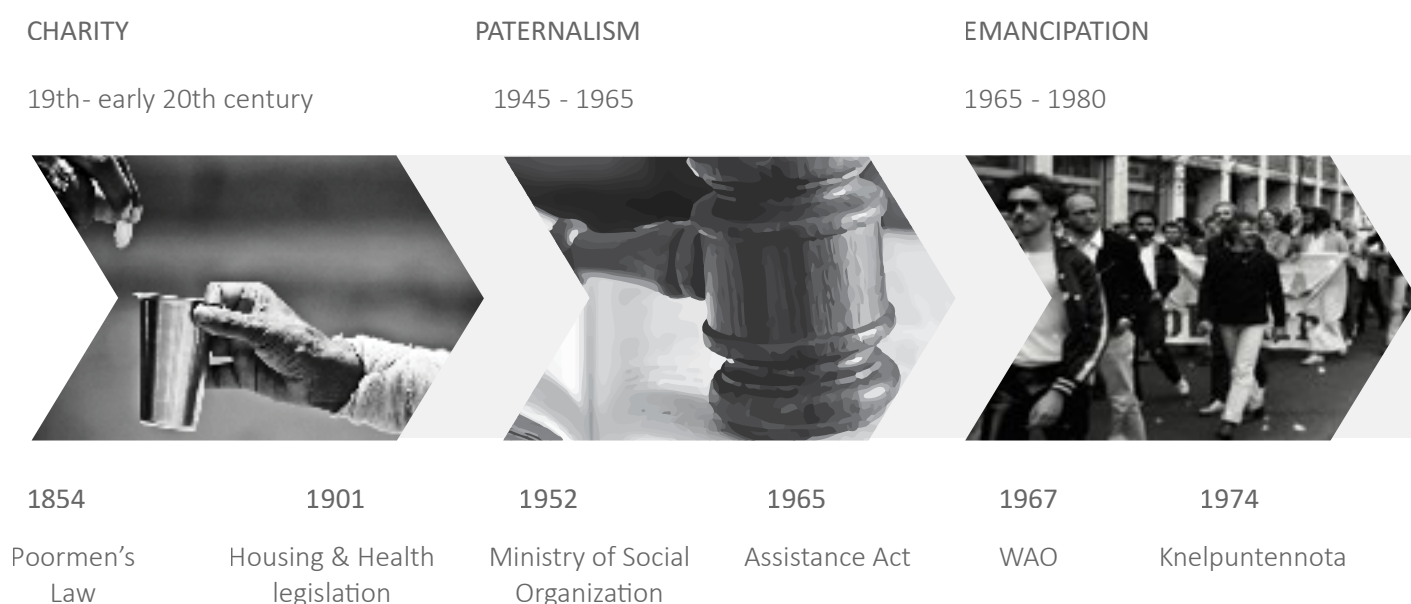


Fig. 19 - The history of social work in the Netherlands (own image with information from Van Dam, Kluft & Scheffelaar, 2016)

people in the city. Through the decades, these former night shelters were gradually transformed into the modern hospitals, nursing homes and hospices as we know them today. From the middle ages towards the 19th century, social work and care for the homeless was primarily initiated by different Christian religious groups through charity. Then, by the end of the 19th century social care started to professionalize as the state took over the tasks of the church. From that moment on, social support was no longer a charity-based favor. It became a national and universal right. Hence, from the early 20th century and onwards, the first substantial policies were introduced with the social support legislation (WMO) as currently the most important legislation for Dutch homeless people (Bijlsma & Janssen, 2015).



Fig. 20 - Teachings of Jesus Christ (Watch Tower Bible and Tract Society of Pennsylvania, 2020)  
 \*View God's name on [jw.org/](http://jw.org/)

**BUSINESS APPROACH**

**OUTREACH CARE**

**DEMAND-ORIENTED APPROACH**

1980 - 1990

1990 - 2005

2005- current



1987

1989

1994

2007

Decentralization of welfare policies

Welfare legislation

Change of Welfare legislation

Social Support legislation

### 2.2.2 Social care and healthcare provision

The Netherlands has approximately 40.000 registered homeless people who do not own a private living address (CBS, 2018).

City councils follow a four-step procedure to accommodate homeless people (see fig. 21; Westert & de Groot, 2017). Firstly, people are responsible for their own accommodation (e.g. a traditional house). When people lose their house and cannot find shelter themselves, it is up to the social network of the homeless person to offer them temporary shelter. This however is not an easy task as this could negatively affect the legal position of both the homeless person as the host. The host could risk a financial reduction or withdrawal of tax allowances from the state when providing temporary accommodation to a homeless family member or friend. When homeless people cannot maintain social contacts, then they can make use of a night shelter (the third step). According to the WMO 2015, these night shelters are public facilities which are accessible to everyone. Quite problematic, as people without addiction problems should now spend time with people suffering from (mental) health and substance abuse problems. These night shelters work on a first come, first serve base, just to provide people a bed, a shower and food without further support. During the day, the doors of the shelter are closed

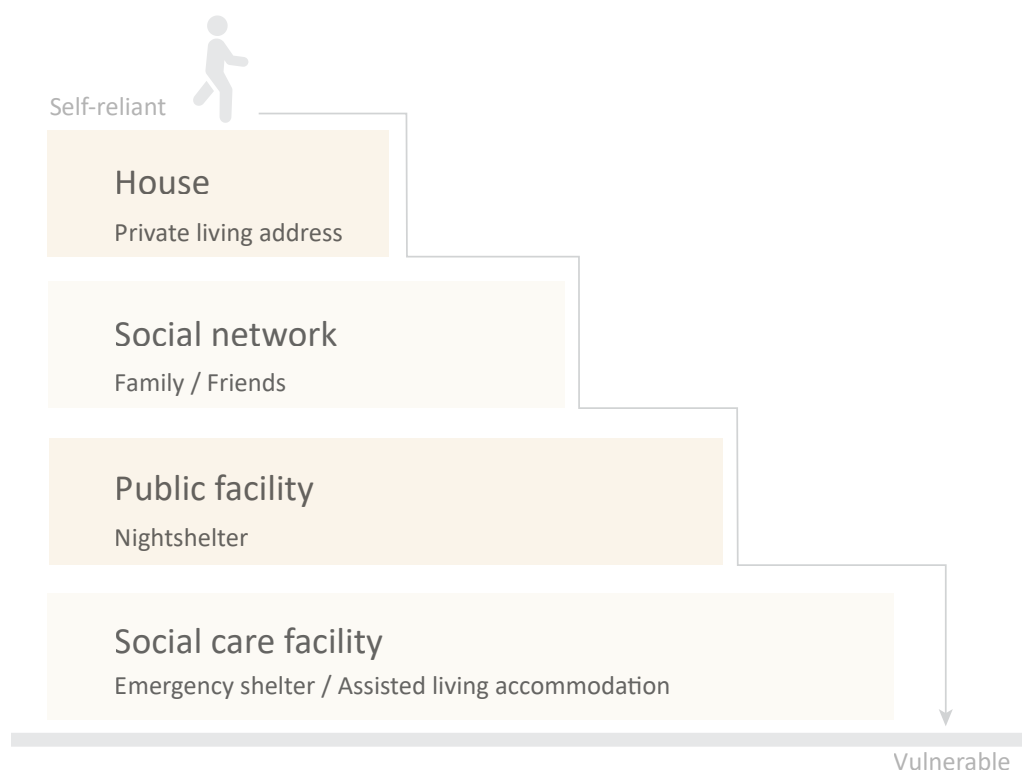


Fig. 21 - the fourstep method of the social legislation (own image with information from Westert & de Groot, 2017)

and people are obligated to leave the premises and spend their free time on the streets. The last step in the procedure is the application to be accommodated in a social care facility (e.g. an emergency shelter or assisted living accommodation). These facilities offer counselling and healthcare services which are tailor-made to the needs, personal characteristics and capabilities of the homeless person. For this reason, social care facilities are only accessible for homeless people with complex care needs. They must register at the city council in order to obtain a care pass, and admission is only granted if someone has received an official physical or mental health indication from a doctor (Westert & de Groot, 2017).

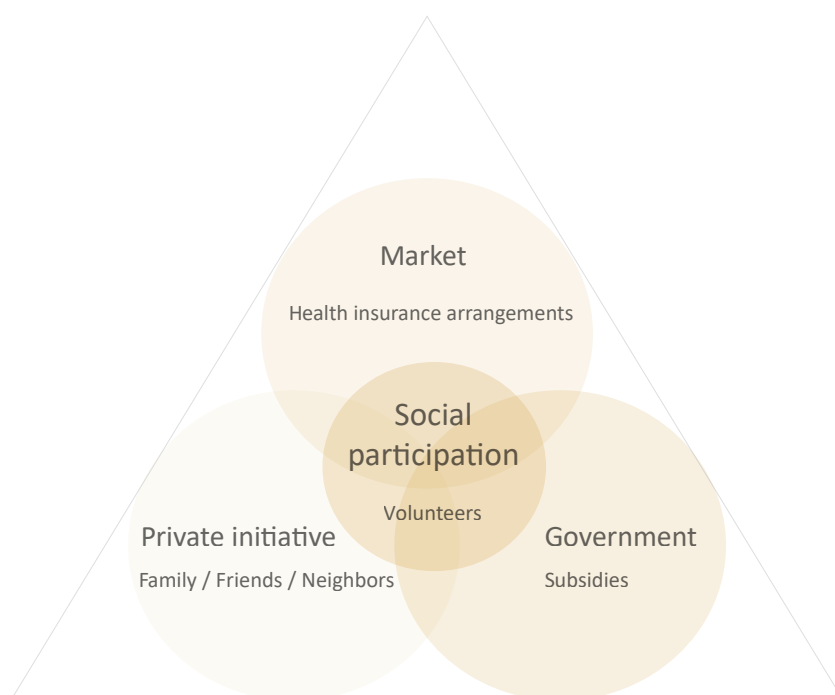


Fig. 22 - The welfare triangle (own image with information from Munday & Ely, 1996, p. 14)




### 2.2.3 The welfare triangle

Every society combats the social problem of people with unstable living conditions whom are unable to maintain a stable position in society on their own strength. The Netherlands aims to protect people from excessive poverty by means of a demand-oriented approach (Westert & De Groot, 2017). The Dutch society coordinates social life according to three mechanisms: *the government, the market and private initiative* (see fig. 22). These three mechanisms have different incentives, interests and regulatory principles.

**“Why is rehabilitation important?”**

Integration and active participation of all citizens leads to greater financial support, social conformity and prevention of inappropriate behavior (Bijlsma & Janssen, 2015).

The social and medical care for registered homeless people is a hybrid construction in which all three mechanisms play a role (see fig. 23). When Registered, homeless people need shelter and personal care. The costs for this are reimbursed by health insurance instances (market) as part of the basis package of the Dutch Health Insurance Law. The personal care and supervision are then carried out by healthcare companies and institutions (market) that are contracted by health insurers. In addition, city councils provide daytime activities (workshops, voluntary work etc.) under the Social Support Legislation WMO. As many homeless people cannot rely on their social network, additional support is provided by volunteers (private initiative) who want to participate and contribute to society (Bijlsma & Janssen, 2015).

	Incentive	Interest	Finance	Services	Regulation
<b>Market</b> 	Health insurers Care providers	Self-interest	Employment	Purchased help and services	Mutuality
<b>Private initiative</b>  <b>Social participation</b>	Family Friends Volunteers	Group-interest	Charity	Care taking Grooming	Affection Values
<b>Government</b> 	Control	Societal interest	Subsidies Allowances	Subsidized care provision	Policies Laws

Financial fundings for social care and healthcare for homeless people:

- > WLZ (legislation for longterm care)                      > WMO (social legislation)                      > Private subsidies
- > ELV ZVW (First-line care through basic insurance)   > Subsidies Dutch welfare state                      > CAK (contribution of the homeless)

Fig. 23 - Financial flows of social care and healthcare for homeless people in the Netherlands (own image with information from Bijlsma & Janssen, 2015; and CVD Havenzicht, 2019)

## 'Sla de handen ineen voor aanpak arme wijken'

De leefbaarheid in arme wijken gaat steeds verder achteruit. Daarvoor waarschuwt Aedes, de koepel van woningcorporaties. "De Vogelaarwijken uit 2007 komen terug als wij niet direct de handen ineenslaan."

Minister Ella Vogelaar bracht in 2007 een lijst van veertig Nederlandse probleemwijken in onder meer Dordrecht, Rotterdam en Schiedam naar buiten. Met extra investeringen moest de leefbaarheid in deze buurten verbeteren.

Van een verbetering is echter geen sprake, blijkt uit onderzoek van Aedes. De problemen in de kwetsbare wijken nemen juist verder toe: "De instroom van mensen met een laag inkomen in wijken met corporatiewoningen blijft groeien", zegt de branchevereniging. Mensen met een hoger inkomen verlaten de wijken juist. "De concentratie van mensen die vaker hulp en ondersteuning nodig hebben, is daardoor nóg groter dan verwacht."

Volgens de woningcorporaties gaan steeds meer mensen met uiteenlopende sociale problemen in dezelfde wijk wonen. "Steden worden prettiger leefbaar als kwetsbare mensen ook in sociaal sterkere wijken kunnen wonen", zegt Aedes.

### Spreiding

De corporaties willen met de gemeente werken aan meer spreiding van de kwetsbare groepen. "Gemeenten, zorg dat marktpartijen binnen hun projecten ook voldoende sociale huurwoningen opnemen." Ook wordt gepleit voor het afschaffen van de markttoets, zodat in wijken met veel sociale huurwoningen ook middenhuur gebouwd kan worden.

De samenwerking tussen de gemeenten, corporaties en zorg- en welzijnsorganisaties is cruciaal in de aanpak, stelt Aedes. "We kunnen nu nog voorkomen dat er nieuwe Vogelaarwijken ontstaan. Het is niet te laat, maar wel 1 voor 12."

Fig. 24 - News post vulnerable groups in the Netherlands (Rijnmond, 2020)





# ARCHITECTURAL FRAMEWORK



# CHAPTER 3

## MENTAL HEALTH & ARCHITECTURE



The complex crossover of architectural design and mental health requires multidisciplinary collaboration (Connellan et al., 2013). Dilani (2009) states that health is a difficult condition to define as it is subjectively experienced. It is also strongly affected by cultural beliefs, norms, expectations and previous experiences. Nevertheless, from a research perspective, health can be examined through multiple perspectives. Two of these are the pathogenic and salutogenic perspective. Whereas the pathogenic perspective focusses on the actual factors that cause diseases, the salutogenic perspective is aimed at the identification of wellness factors (e.g. in the built environment) that maintain and promote health. In this research the salutogenic approach is used as a connective bridge between the design profession and the healthcare profession.

Several studies show that there is an interaction between humans and physical environments. *'The physical environment is not only vital for good health but can also be a critical stressor for the individual'* (Dilani, 2009, p. 9). To advance our knowledge of the architectural impact on health, this chapter elaborates on the phenomenon of stress by concisely outlining what stress is. Therefore, the main question in this chapter is: **'What is stress and how does it affect the mind and body?'**

### 3.1 The phenomenon of stress

Stress is the body's natural response to a demanding life situation or event. When people encounter stress, the brain causes hormones to activate the immune system. This results in a 'fight or flight' response in which the heart rate increases, the lung capacity expands/reduces, and the muscle tension grows (Segerstrom & Miller, 2004; Verweij, 2019). The body is on high alert and ready to act and react quickly in challenging or dangerous situations. However, stress is not necessarily negative. It may well occur in non-dangerous situations as a job interview, a sports event or a public presentation in front of a huge audience. In these situations, stress can be beneficial as it enables someone to perform better and reach his or her personal goals. Once the stressful situation is over, the body returns to normal without any negative effects on one's physical and mental health (APA, 2019). However, long-term (chronic) stress is extremely harmful to one's physical and mental health. It may lead to behavioral and emotional changes, depression, unhealthy coping strategies as drugs and/or alcohol abuse. Likewise, stress can also contribute to a wide range of diseases which are frequently associated with homeless people (see chapter 2, p. 40). Therefore, stress can affect one's entire body (Verweij, 2019).

#### 3.1.1. What causes stress?

Changes and uncertainty are all-pervasive in modern life. According to a survey carried out by The Physiological Society (2017), the death of a loved one, the loss of a house, financial problems and diseases are among the top ten events causing severe levels of stress (see fig. 25). Although everyone may experience certain levels of stress, some groups of people experience more stressor events than others. Meltzer et al. (2012), McEwen and Gianaros (2010) all emphasize that people with high levels of debt and financial insecurity are more likely to experience stress related to money. Likewise, prejudice and stigma associated with living and health conditions also contribute to increased pressure on mental and physical well-being. Based on this, it becomes evident that ill homeless people are one of the most vulnerable minority groups in society.

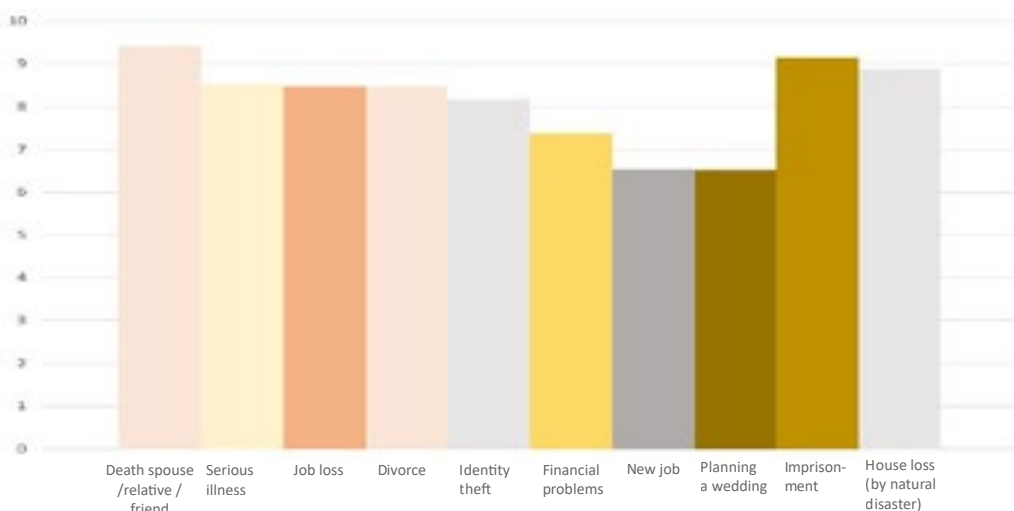


Fig. 25 - Top ten causes of stress (own image with information from The Physiological Society, 2017)

*'The number one root of all illness, as we know, is stress'* - Marianne Williamson



Fortunately, in line with Jesus' teachings (see p.42) a time will come that:

*'[...] No resident will say: "I am sick"'* - Isaiah 33:24a  
(New World Translation)

### 3.1.2. How can stress affect the body?

#### Cardiovascular system

An increased heart rate makes the heart beat faster. Blood vessels enlarge or shrink and direct blood to body parts that need it the most. Too much stress leads to:

- heart attacks, high blood pressure, strokes

#### Nervous system

The nervous system releases adrenaline and cortisol. These hormones increase the heart rate and blood pressure. Too much stress leads to:

- depression, anxiety, restlessness, irritation, anger, aggression

#### Endocrine system

Hormones activate the liver so to increase the glucose levels in the blood circulation. This results in higher energy levels. Too much stress leads to:

- diabetes, weight gain, mood changes, reduced immunity, increased illness

#### Gastrointestinal system

The food intake and processing of the body is disrupted. Too much stress leads to:

- diarrhea, vomiting, constipation, nausea

#### Reproductive system

High levels of stress negatively affect sexual functioning and/or desire. Too much stress leads to:

- erectile dysfunction, infertility, disrupted menstrual cycles

#### Respiratory system

Stress affects the oxygen intake as one will start to breath faster. Too much stress leads to:

- hyperventilation, panick attacks, shortness of breath

#### Musculoskeletal system

Muscles tension grows so to activate the body for defense. Too much stress leads to:

- tension, headaches, muscle pains

Fig. 26 - The affect of stress on the mind and body  
(own image with information from Watch Tower Bible and Tract Society of Pennsylvania, 2020)





## **MEDICAL CASE**

*(SEQUEL)*

David's housing counsellors ensured him that they have enough beers to satisfy his alcohol cravings, whilst staying inside. Exactly this type of care, gave them the opportunity to talk with him and to reflect on his life. David told his counsellors that the Bible was important to him as a young child. But when his mother died, he lost faith in God. However, he now would like to have a Bible again. Therefore, his housing counsellors bought him a Bible again where he could read in. Together, they then discussed what the biblical story meant to him. These conversations were important to gain trust in his caregivers. However, he had no interest in conversations about his illness, nor death in general.

# CHAPTER 4

## DUTCH SHELTER DESIGN

As addressed in the previous chapter, stress affects the mental and physical health of people. Although stress is mainly caused by unforeseen circumstances in life, several studies show that the built environment could also be listed as a critical external stressor. According to Dilani (2009) spaces can be defined as stressed spaces when they discourage people's mind from creating pleasure, creativity, satisfaction and enjoyment. Instead of discouragement, spaces should stimulate and support one's mental and social engagement.

For that reason, this chapter discusses the architectural impact on mental health and well-being of Dutch homeless shelters. The following five questions are therefore addressed:

- Which measures for security and privacy need to be taken?;
- Which measures reduce stigmatization and enhance a home-like environment?;
- Which measures regarding sensorial stimulation should be considered?;
- How does the connecting outdoor space should contribute?;
- How should social interaction be supported?

## 4.1 Stressed spaces

The architectural design of buildings can cause stress. Hence, In the long run, the design can negatively affect the human health and well-being. According to Evans & Cohen (1987) *'stress in the built environment occurs when there is an imbalance of environmental demands and human resources* (cited in Evans & McCoy, 1998, p. 85). The stress model below, describes how the physical environment promotes well-being and health. It shows how the built environment is linked to stress by certain theoretical themes and various spatial-design components that constitute that theme. The four theoretical themes and associated components are discussed by outlining problematic aspects and also ways on how to resolve these problems. Images of the selected case studies are shown and supported by exemplary health care projects. These projects contain design elements which can be used to improve shelter design.

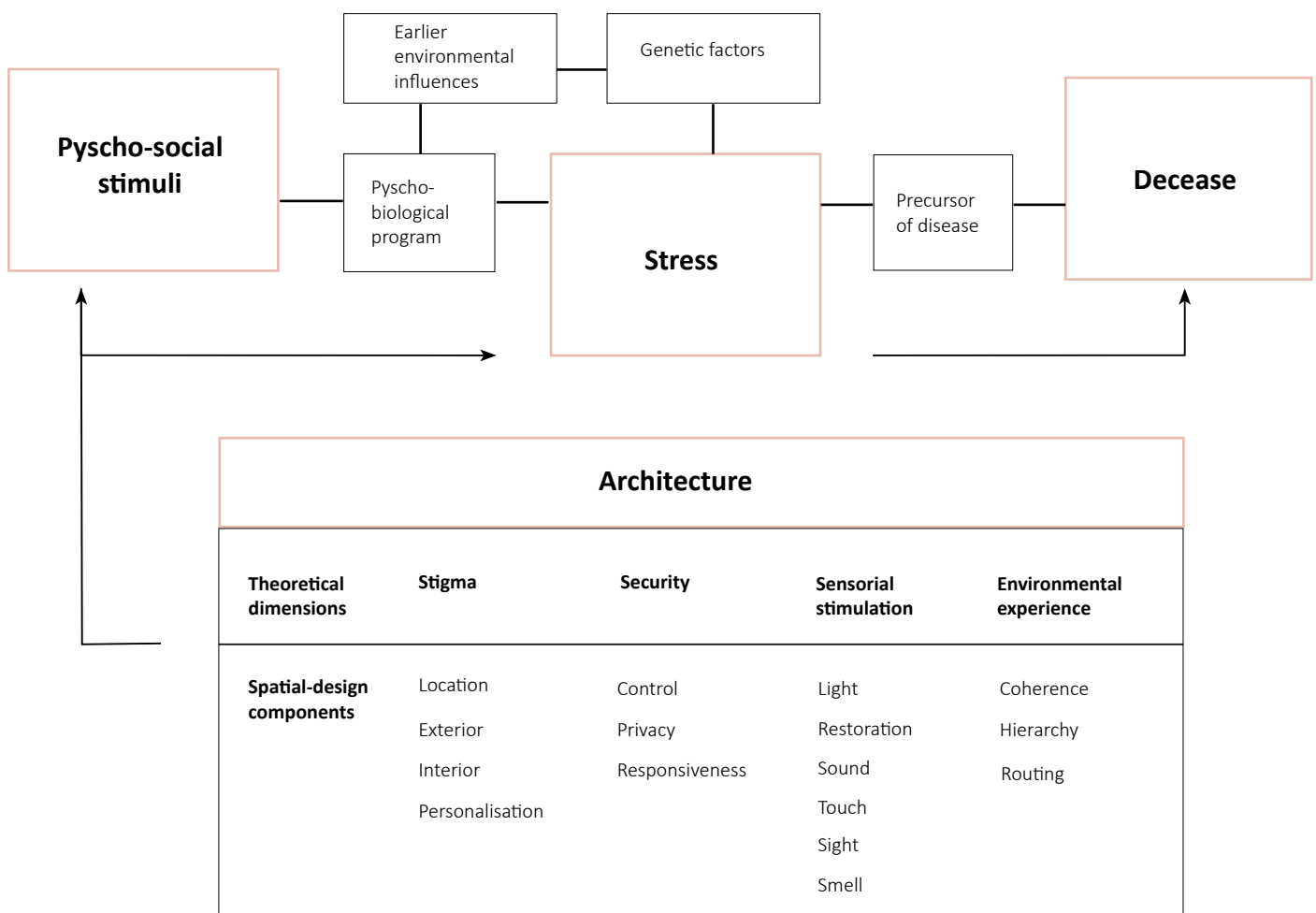


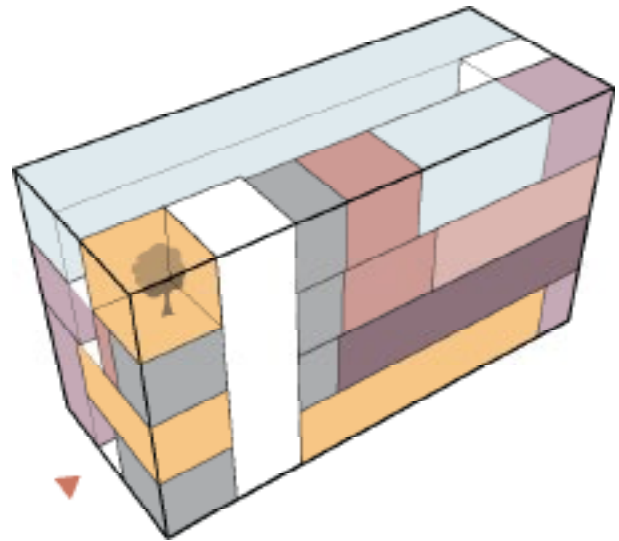
Fig. 27 - Stress Model (own image with information from Dilani, 2009)



## CASESTUDIES

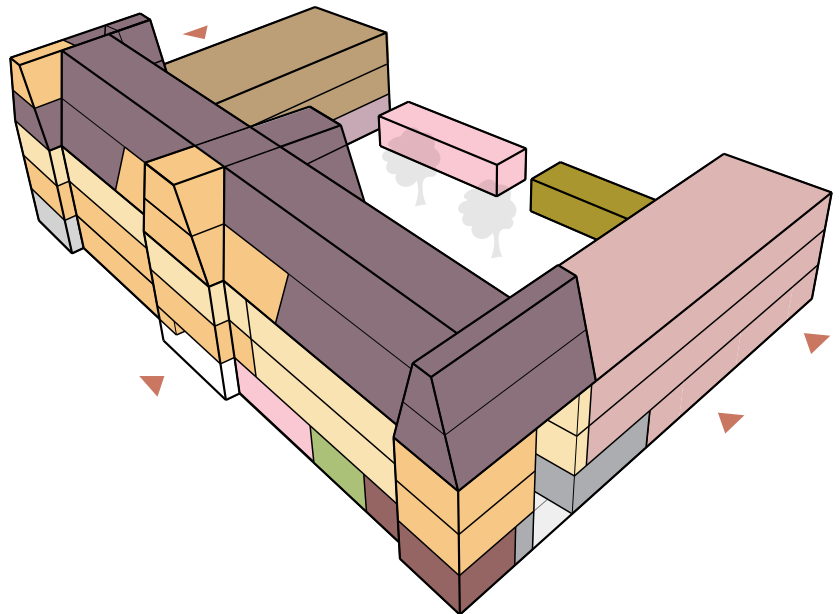
### CVD HAVENZICHT

CVD Havenzicht is a homeless facility with three functions. It facilitates a night shelter (with a maximum stay of six months), 17 rooms for assisted living people for people who need 24-hour care and guidance, and lastly a recovery and nursing department with 20 beds for homeless people with severe physical complaints, mental illnesses and/or addiction (CVD Havenzicht, 2019)



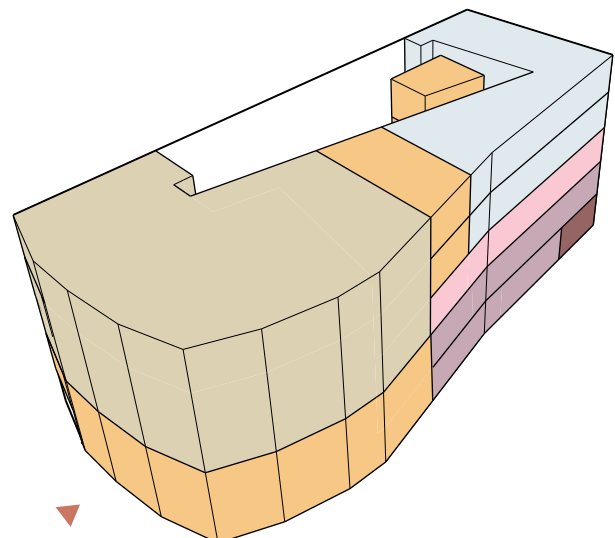
### KESSLER STICHTING

The Kessler foundation is a prominent social care organization for homeless people in The Hague. It facilitates four large shelter and residential functions, with day care facilities at other locations. The building facilitates an emergency shelter for around 100 homeless people, a recovery and nursing department for 38 people and two types of assisted living accommodations for 47 residents (Kessler Stichting, 2019).



### PAULUSKERK

The Diaconaal Centre Pauluskerk offers help to all vulnerable people in Rotterdam. It is an open religious community that operates on private initiative. Social assistance is primarily offered to illegal homeless people and other homeless Rotterdammers with addiction, psychiatric problems and financial debts. The Pauluskerk facilitates a night shelter, in which 24 people are accommodated. During the day homeless people are able to walk-in for drinks and meals (Pauluskerk, 2019).



## DWELLING TYPES

### ASSISTED LIVING

#### Type A

Individual unit + private sanitary

#### Type B

Individual unit + shared sanitary

### NURSING DEPARTMENT

#### Type C

Individual unit + private sanitary

#### Type D

Individual unit + shared sanitary

#### Type E

Shared unit (4-6 people) + shared sanitary

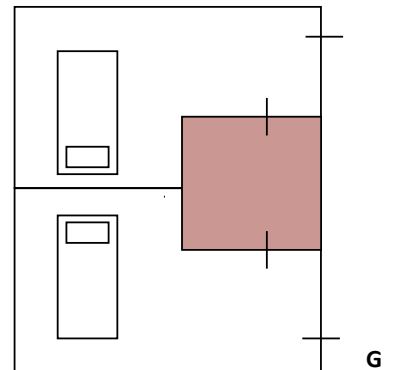
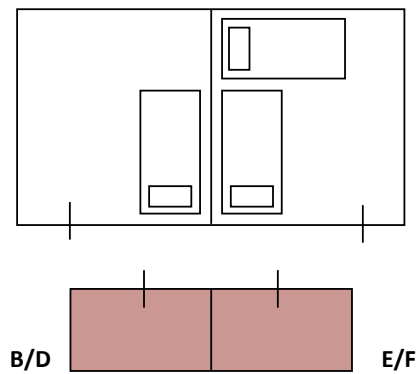
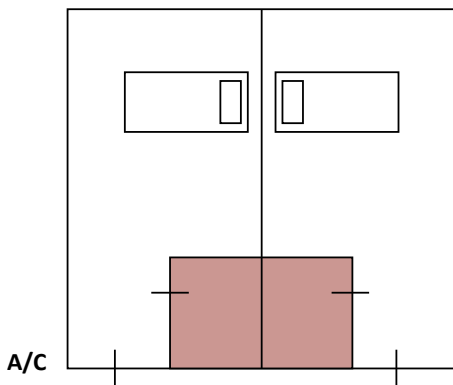
### NIGHT,- & EMERGENCY SHELTER

#### Type F
















Shared unit (2- 12 people) + shared sanitary

#### Type G

Individual unit + shared sanitary



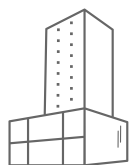
### Program

	Nightshelter		Individual assisted living		Emergency shelter		Nursing department
	Church		Workspace		Launderette		Shared assisted living
	Communal space / Living room		Store		Facility / Storage		Sanitary
	Office		Bike storage		Kitchen		

## PROBLEMS

### 4.2 Stigma

Stigma is associated with the architectural expression of the building. Evans & McCoy (1998) emphasize that an organization's image and identity are viewed and expressed through their architectural facilities. Therefore, the architectural design partly forms the identity of its users. A low sense of well-being and a negative mental health outcome is enhanced when the building contains institutional connotations in both the exterior and interior design. Asylum-style architecture, which is frequently apparent at buildings for homeless people and/or people with mental health problems, evoke loss of self-esteem, self-worth and/or intensified psychiatric symptoms (Dohrohottoff & Llewellyn Jones, 2010). Institutional connotations enhance the expression of generalization and group identity as opportunities for personalization are frequently absent (Connellan et al., 2013).



institutional connotations



generalization



bare furnishing



low to no public amenities

### Lessons learned from practice

The case study analysis and fieldwork showed how the location immediately affected the exterior design. Three architectural expressions could be divided: (1) the institution; (2) the row house; (3) the icon.

Of all three design expressions, the *institutional* expression did not fit into its surroundings in terms of scale and architecture. Therefore, the building negatively drew the attention. A second lesson was that of good accessibility and public amenities. Shelters must be located at an average of 0-5 minutes (walking/biking) distance from public transportation, because homeless people lack personal transportation resources (CVD Havenzicht, 2019). Public amenities should also be located at an average of 0-10 minutes walking/biking distance as homeless people are used to the city bustle. Lastly, the analysis and fieldwork showed that public amenities should be integrated in the shelters as they are important social connectors between the homeless population and general population. Hence, stigmatization is enhanced when there is a lack of public amenities (see fig. 28-30).



Location - outer city area (suburb)



Fig. 28 - Architectural expression 1: The Institution - Case study CVD Havenzicht (Picture taken by Top010, 2012)



Location - inner city area (city centre)

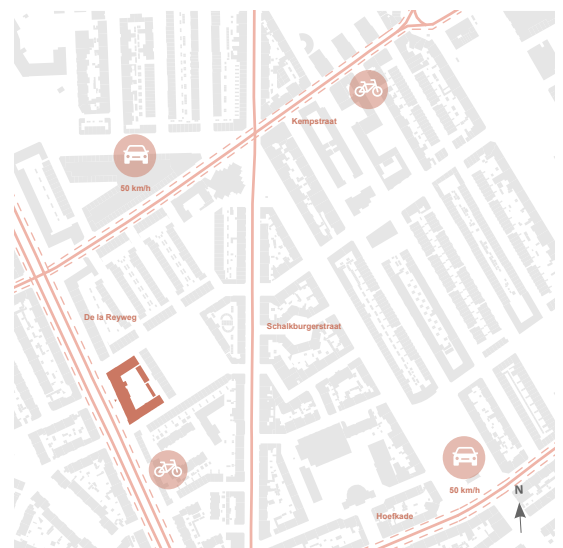
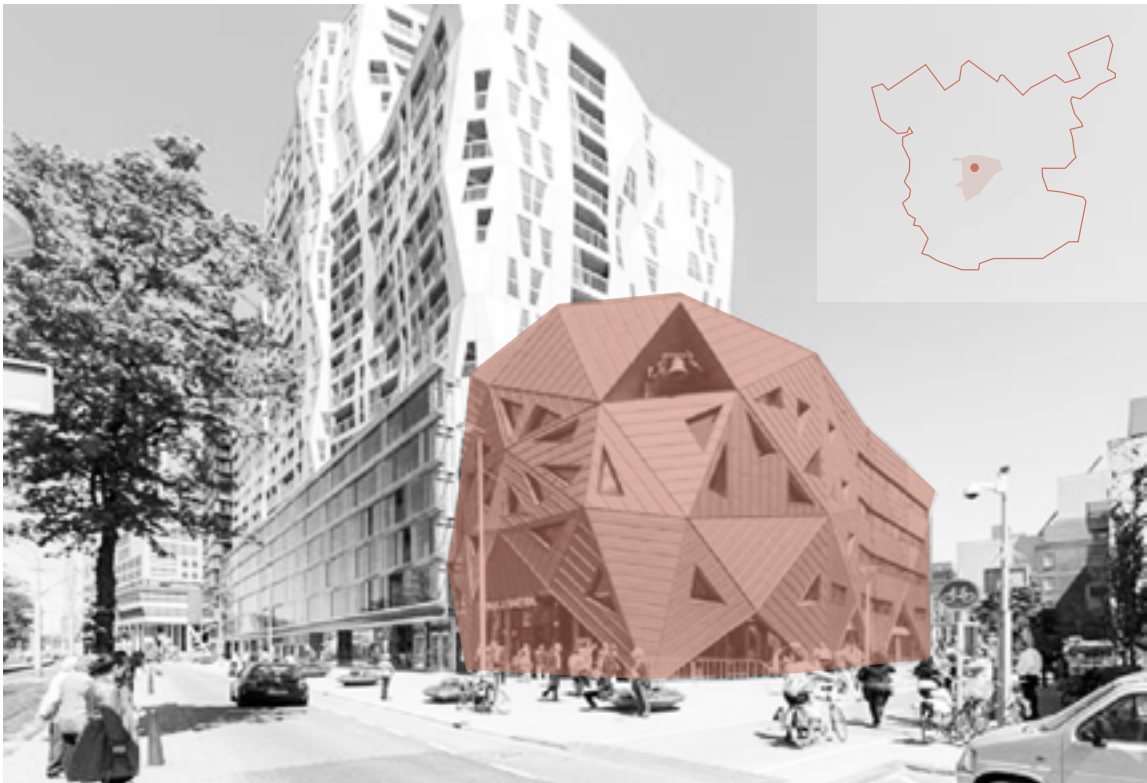


Fig. 29 - Architectural expression 2: Row house - Case study The Kessler Stichting (Picture taken by Common affairs, 2019)



Location - inner city area (city centre)



Fig. 30 - Architectural expression 3: Icon in the city - Case study Pauluskerk (Picture taken by Pauluskerk Rotterdam, 2019)

> **Public amenities:**  
The clothing store (see fig. 31) and bike shop (see fig. 34) in the shelters, allow opportunities for homeless people to develop a daily routine, independence, new skills and ways to communicate with others.

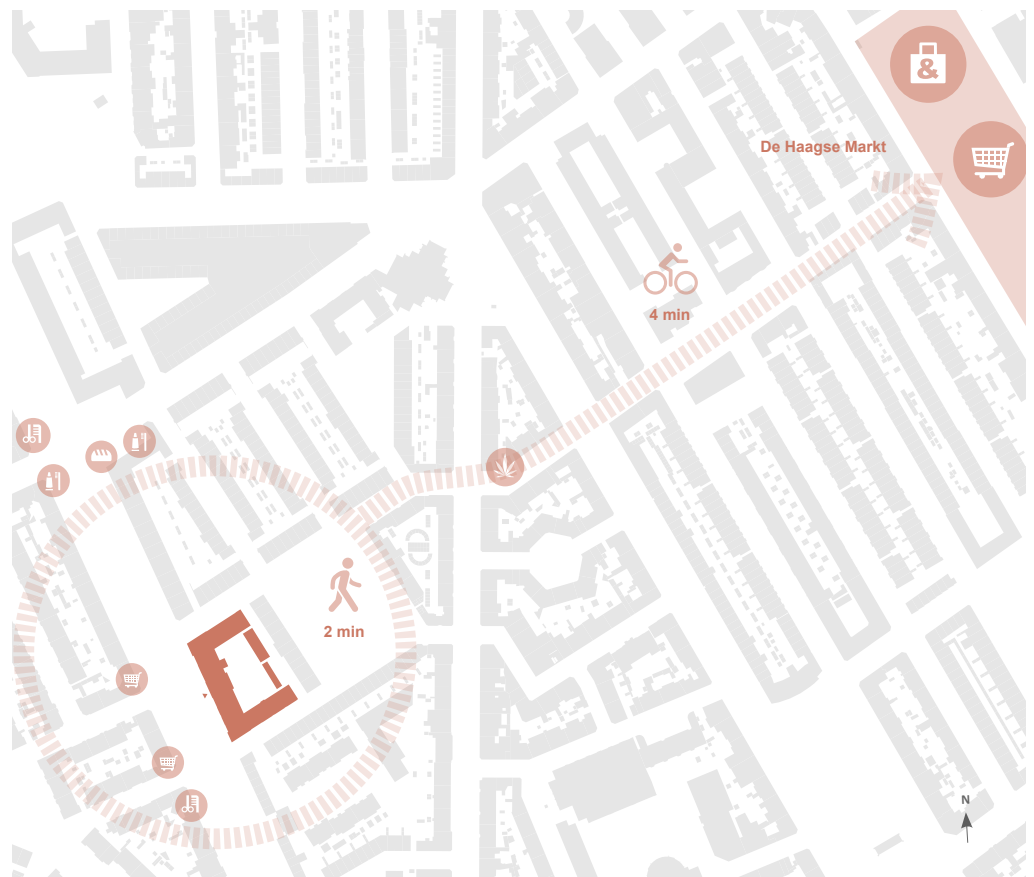


Fig. 31 - Second hand clothing store in the Kessler Stichting (Picture taken by Augustin, 2019)







Fig. 33 - Church hall Pauluskerk (Pauluskerk Rotterdam, 2019)



Fig. 34 - Multifunctional workspace Pauluskerk (Pauluskerk Rotterdam, 2019)

> **Public amenities:**  
Communal areas in this shelter (see fig. 33-34), such as a church space and rentable workspaces for arts & crafts, language lessons or other activities, ensure opportunities to invite the general population inside the homeless shelter. This helps to bridge the gap between the two groups.



## SOLUTIONS

### Examples to reduce stigmatization and a home-like environment

Reduced stigma, positive health outcomes and an enhanced well-being are established when the exterior and interior design mimic residential features and a 'normal' community setting. As stigma undermines one's autonomy and social identity, it is necessary to match individual competencies with design resources and to enable opportunities for personalization (Langan & Macdonald, 2008; Lawton, 1989). That way the building will be fit for purpose as being a psycho-supportive place in which rehabilitation is the key goal. The interior design should support this by ensuring a home-like ambience in which flexible furniture arrangements, moveable components, comfortable seating and lounges are apparent so to optimize the social interaction between staff and clients (Sommer, 1969).

The following examples show which spatial-design components help in the reduction of stigmatization and the enhancement of a home-like environment.

- > **Exterior:**  
This assisted living complex (see fig. 36) has no institutional like appearance. It ensures a cozy residential appearance because of its height (two storeys), the private balconies and ceiling to floor exterior openings so to maximize the connection with its green environment.



Fig. 36 - Assisted Living BW Volgerlanden - Hendrik Ido Ambacht (Yulius, 2019)

- > **Exterior:**  
These assisted living dwellings (see fig. 37) blend with the surrounding neighbourhood by means of characteristic roof elements. As a result of this, a residential ambience and sense of normalcy is created.



Fig. 37 - Assisted Living dwellings of Kessler Stichting - Den Haag (Common affairs, 2019)



> **Exterior:**  
 As healthcare becomes more and more integrated in every day life, this residential care environment (see fig. 38), with small-scale assisted living forms, is designed with recognizable and varying facades, roofs and materials.

As a result, the complex fits well into its environment. Moreover, one cannot see from the exterior design that this is a care related complex. Therefore, architecture can change the symbolic meaning of shelter design.

Fig. 38 - Residential care facility Rietveld - Alphen aan den Rijn (ITN, 2017)



> **Public amenities:**  
 This residential care facility (see fig. 39) hosts an entire wing of public amenities such as a restaurant, theatre, cinema and barber shop.

The public wing and its interior design ensure a zero-care ambience, which welcomes and invites visitors inside the building. Hence, a bridge is built between high intensity care and daily life.

Fig. 39 - Residential care facility Scheldehof - Vlissingen (Tilleman, 2018)

➤ **Exterior:**  
Hogeweyk (see fig. 40) is a non-traditional nursing home which is built as a neighbourhood with actual streets, squares alleys and a park. The neighbourhood facilitates 23 dwellings (with 6-7 residents) for people with dementia. The dwellings are clustered in different spatial environments.

Hence, through the exterior and spatial design the care complex fits well into its immediate surroundings.



Fig. 40 - Residential care facility Hogeweyk - Weesp (Curioctopus, 2019)

➤ **Public amenities:**  
Residents have access to amenities such as a neighbourhood supermarket, restaurant, cafe and theatre (see fig. 41). Well-being and independence are the key-goals and residents have the freedom to make own choices in a familiar environment.



Fig. 41 - Supermarket of Hogeweyk (Curioctopus, 2019)



Fig. 42 - Restaurant of rehabilitation hotel Domstate - Utrecht (Picture taken by Studio Komma, 2019)

➤ Comfortable lounges and easy to clean seats should familiarize living and workspaces in homeless shelters. They must evoke the message that these spaces are inviting and welcoming social areas (see fig. 42-43).



Fig. 43 - Comfortable seating area of Urban Hospice - Copenhagen (Nord Architects, 2019)

- > **Personalisation:** Walls and/or wall niches may serve as personalisation areas for photographs, personal items or other objects related to hobbies (see fig 44). This will enrich the spatial environment with meaningfulness and self-expression.



Fig. 44 - Memory wall for personal items in nursing home Koekoek - Veenendal (De Architect, 2015)

- > **Personalisation:** Additional opportunities for personalisation could also be used as central interior features in hallways or communal areas. On these features arts&crafts objects may be displayed which have been made by the residents (see fig. 45).



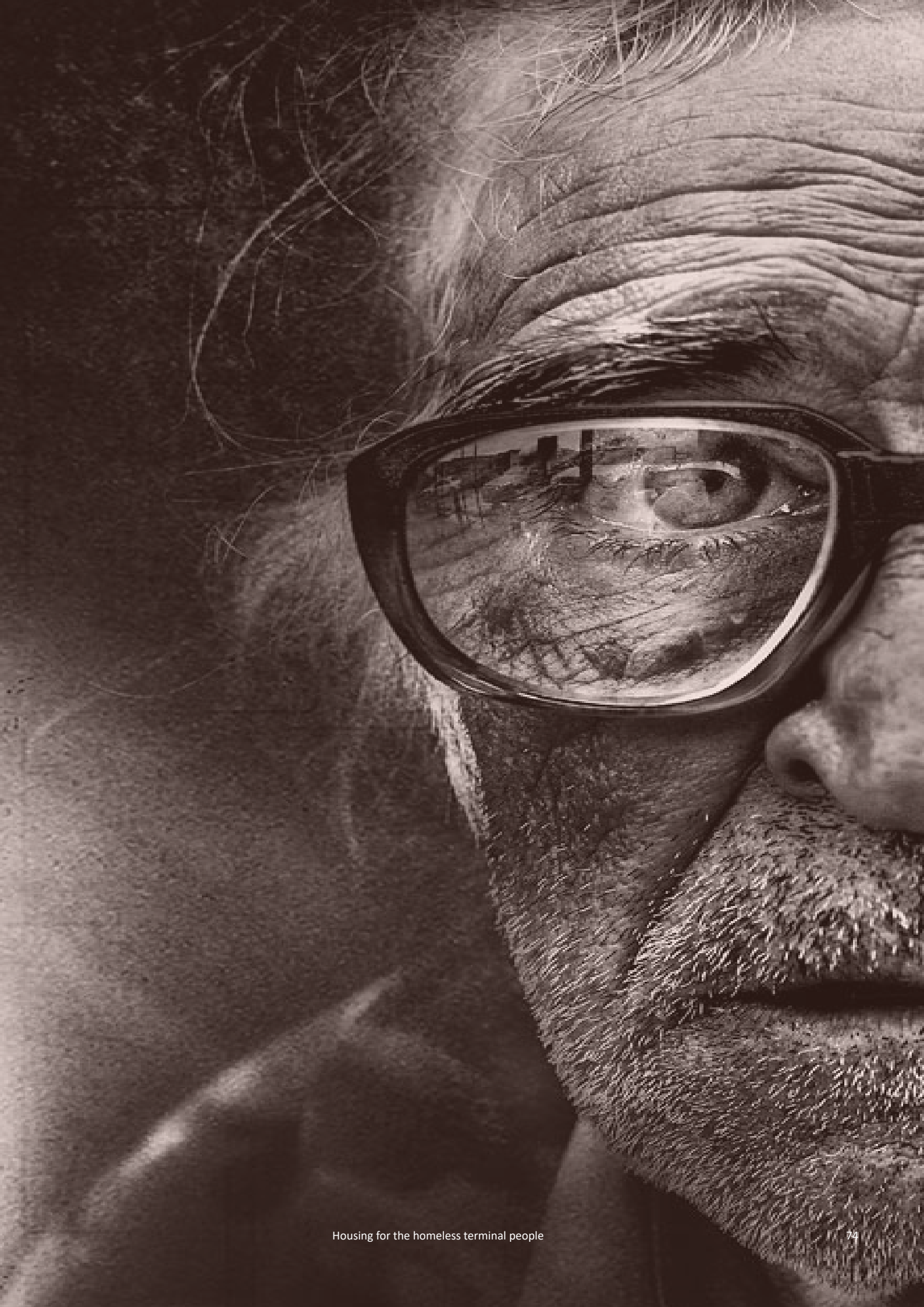
Fig. 45 - Personalisation area for arts and crafts - Woonzorg centrum Scheldehof (Picture taken by Studio Komma, 2019)



> **Personalisation:**  
The interior design of this nursing home, for people with alzheimer's, was built as a 40s neighbourhood to recollect childhood memories. Due to memory loss, many of the residents lost their social identities. As mental health assistance, interior design was used for personalisation and recollection of identities (see fig. 46).

Fig. 46 - Thematic personalisation in nursing home - Ohio (Lantern of Chagrin Valley, 2019)





A close-up, black and white photograph of an elderly man's face. He has a thick, grey beard and is wearing dark-rimmed glasses. His eyes are looking slightly to the right. The lighting is dramatic, with deep shadows and highlights on his skin and hair. The background is dark and out of focus.

## MEDICAL CASE

*(SEQUEL)*

As alcohol was the most important in David's life, he even told the housing counsellors: *'I would rather die than stop drinking alcohol'*. During one of the conversations David showed them an old photo of his father whom he had not seen over twenty years. They therefore asked him if he would like to see his father again, as his housing supervisors could not estimate how quickly David would deteriorate. As they also knew little about palliative care, the street doctor put them in touch with a GGZ nurse who was specialized in palliative care for people with addiction. In a meeting they discussed the possibilities where David could be accommodated when he becomes bedridden. Because of the erratic and extremely difficult behavior of David, the housing counsellors reasoned that home care would not be an option.

## PROBLEMS

### 4.3 Security

Homeless shelters are known for their large communal sleeping spaces in which many people are accommodated at once. Connellan et al. (2013) stress that high densities of people, lead to immediate losses of privacy, personal control and higher risks of personal safety. These spaces therefore produce and/or exacerbate stress as they physically constrain the behavioral options and choices of the homeless (Glass & Singer, 1972; Evans & Cohen, 1987). Feelings of distress are also increased through the interior design of care stations. Closed care stations (or stations with half-walls or glass-partitions) seemingly evoke the message that staff members are busy and inaccessible (Schweitzer, Gilpin & Frampton, 2004). This leads to an inadequate client-staff communication, thus a reduced social interaction and well-being.



Lack of personal control



Obliged rules and regulations



Low to no privacy



Feelings of unsafety



Closed care stations

### Lessons learned from practice

The case study analysis and fieldwork revealed that all shelters facilitate communal livingrooms for social interaction and recreation. Some offices and workspaces are semi-private, as external care professionals (street doctors/volunteers) could use them too. Workspaces however are accessible on request, through lease or for other rehabilitation purposes. In large sleeping areas, measures for privacy are limited or absent. Single-rooms and privacy measures are desired, but investments for improvement are difficult due to a lack of financial resources. Nursing stations are often separated, strictly organized and located at areas where optimal control of services is not guaranteed. Hence, feelings of unsafety, helplessness and a lack of privacy are increased due to the inflexible spatial arrangements (CVD Havenzicht, 2019).



- > **Control:**  
In this homeless shelter (see fig. 47) the entrance area contains a separate waiting room with lockers. Important belongings that the homeless may want to use inside (tooth brushes, books, snacks etc.) should be put in a plastic see through bag.

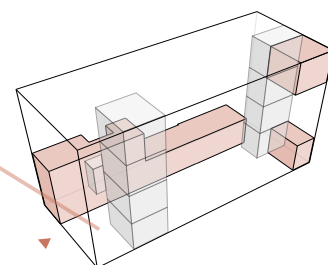
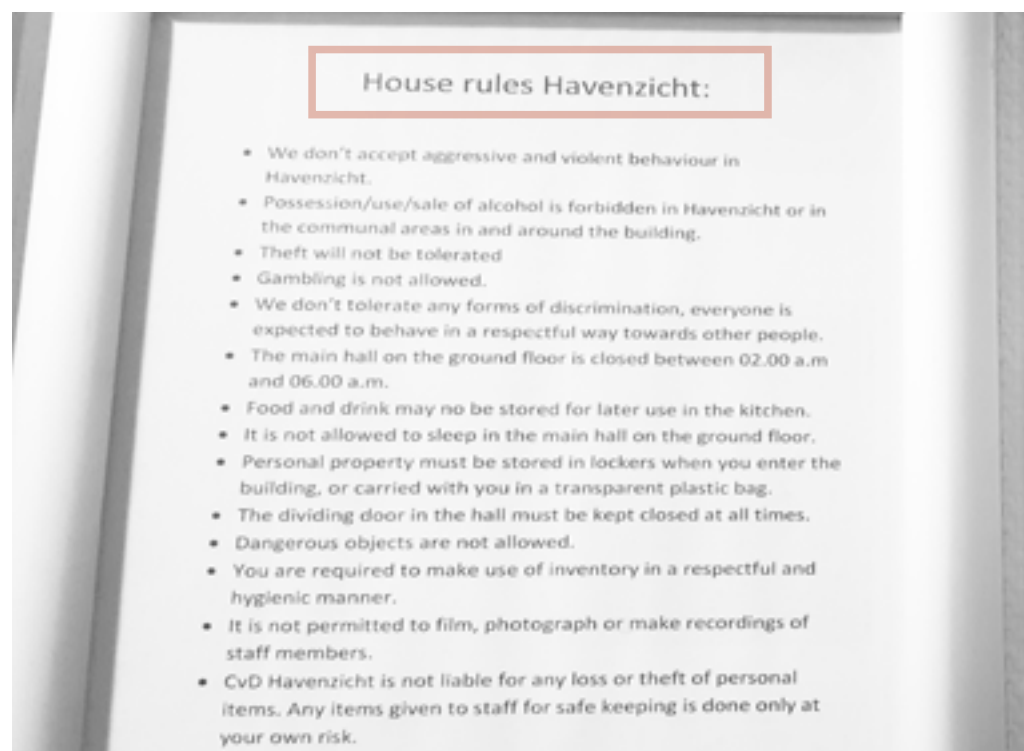


Fig. 47 - Entrance hall homeless shelter CVD Havenzicht (Picture taken by Augustin, 2019)



#### Semi-private spaces CVD Havenzicht

- > **Security**  
The entrance also contains a security portal to ensure that no hazardous objects are taken inside, such as drugs, needles, weapons of any sort, alcohol etc. (see fig. 47).
- > **Control:**  
Sufficient storage for mobility scooters is also important. In this homeless shelter they are not allowed inside due to a lack of space on the upper floors (see fig. 47).

Fig. 48 - House rules of homeless shelter CVD Havenzicht (Picture taken by Augustin, 2019)

> Interior design:  
In spite of different external expressions, the interior designs of all three shelters were similar in terms of furnishing, practical layout and a sterile appearance (see fig. 49-50).

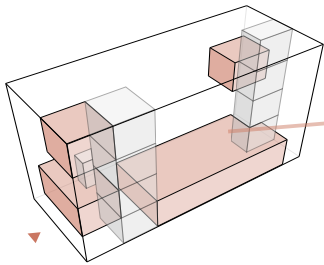


Fig. 49 - Communal area Paulus Kerk (Picture taken by Augustin, 2019)

Communal spaces CVD  
Havenzicht

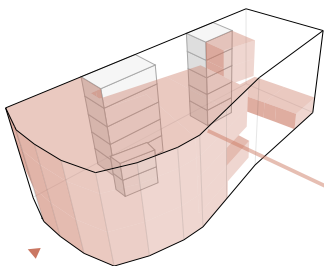
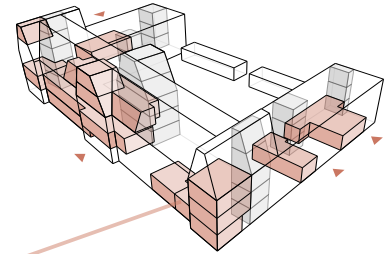
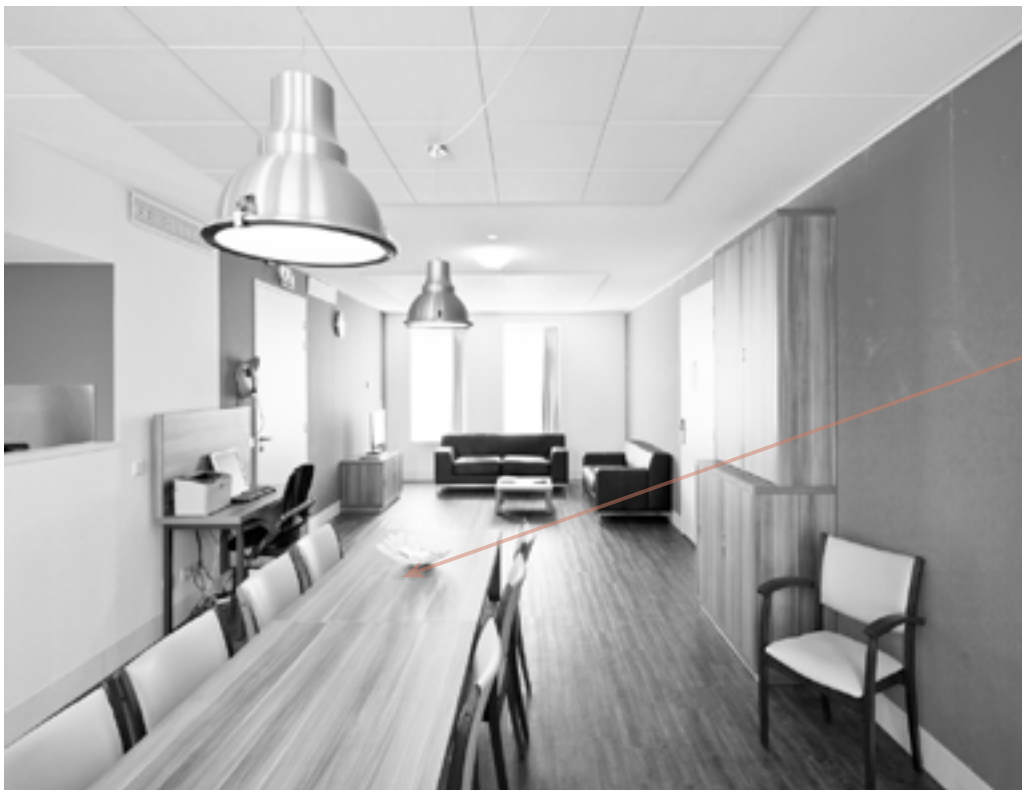
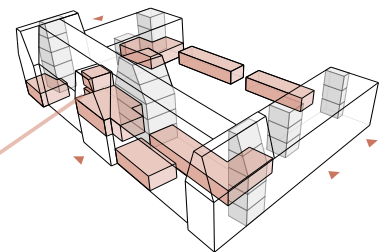


Fig. 50 - Living room Paulus Kerk (Picture taken by Augustin, 2019)

Communal spaces  
Pauluskerk



Communal spaces Kessler Stichting



Semi-private spaces Kessler Stichting

Fig. 51 - Living room (above) and office space (below) in Kessler Stichting (Common affairs, 2019)

> **Privacy:**  
Due to mass containment, sleeping areas provide low to no privacy and/or sufficient measures for noise control (see fig. 52).

> **Privacy:**  
Interior curtains for privacy or space division should be avoided (see fig. 52-54). They do not block noise and they extract smells in the sleeping areas. Therefore, exterior (sun) shading is advised and well insulated walls or panels as space dividers.

> **Control:**  
Exhaust systems are of utmost importance to ensure a pleasant indoor climate. *'Smells of the street'* will consume the area if it is not properly ventilated (CVD Havenzicht, 2019)



Fig. 52 - Nightshelter of CVD Havenzicht (Picture taken by Augustin, 2019)

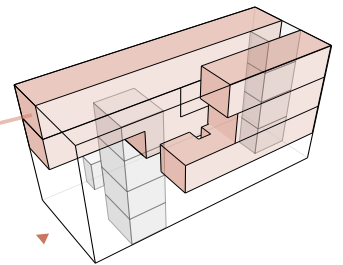


Fig. 53 - Nursing department of homeless shelter CVD Havenzicht (Picture taken by Augustin, 2019)



> **Security:**  
In this smaller sleeping area for two people (see fig. 54), privacy is more or less ensured by the closets in the middle of the room. These closets are multifunctional as they both serve as storage space and symbolic space dividers.

> **Security:**  
Interior window sills should be avoided. They could serve as easy hiding places for people who may want to hide prohibited objects (CVD Havenzicht, 2019).



Private spaces CVD Havenzicht

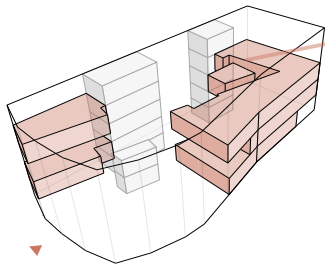
Fig. 54 - Sleeping area for women only in homeless shelter CVD Havenzicht (Picture taken by Augustin, 2019)



- > **Care stations:**  
This homeless shelter facilitates office areas for external care professionals such as social workers, counsellors and streetdoctors (see fig. 55). They are entirely closed, with an actual waiting area in the front. They may provide privacy, but these these closed care stations also create a distance between the homeless and the care professionals.



Fig. 55 - Office areas for care professionals in Pauluskerk (Picture taken by Augustin, 2019)

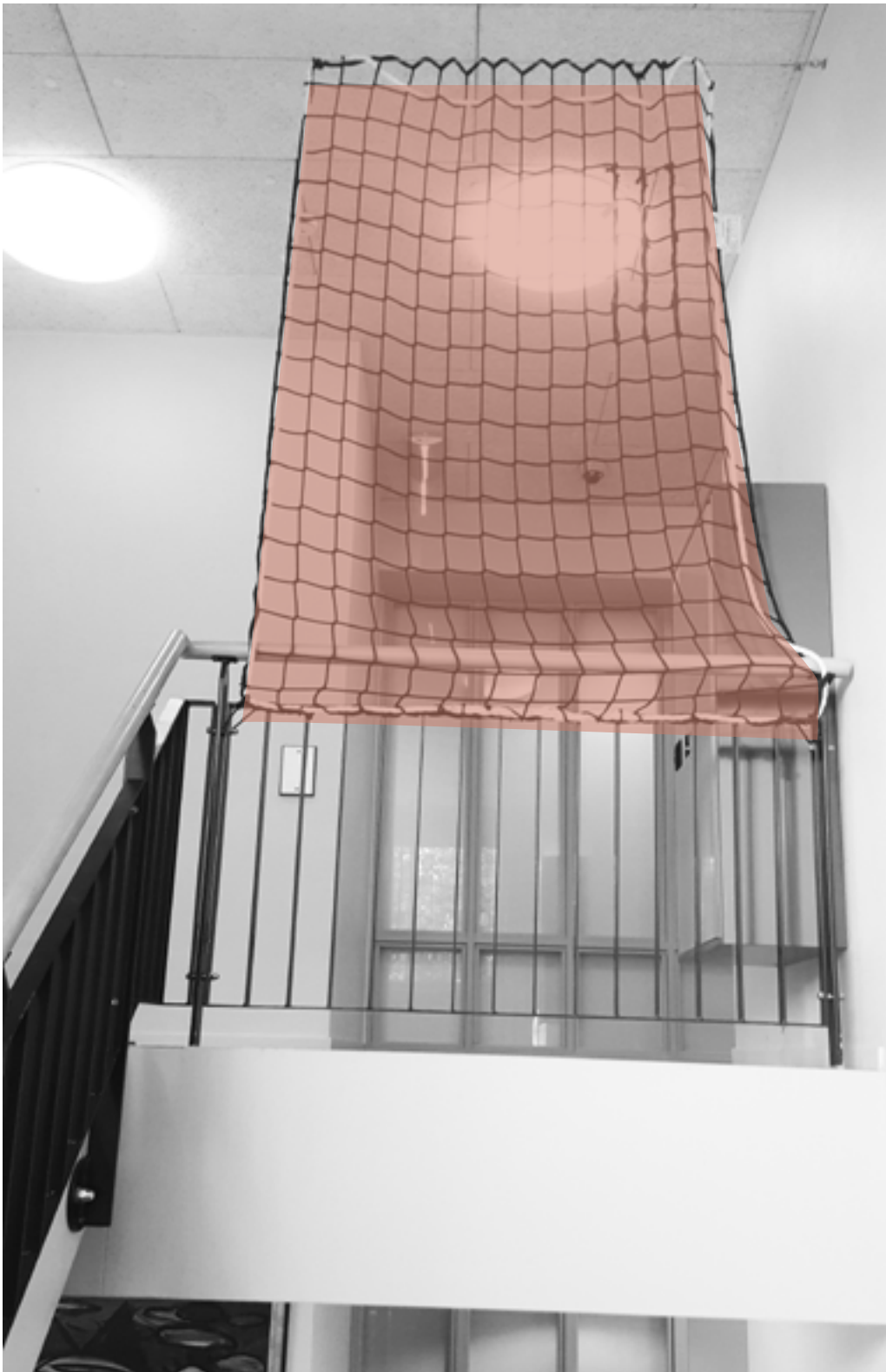


Semi-private spaces  
Pauluskerk

- > **Care stations:**  
The storage capacity of private administrative staff spaces, must also be taken into account. As shown in fig. 56, multiple functions (work and restoration supplies) are cramped into one space. To clearly indicate a room's intended use, functions must be seperated. This avoids clutter and improves the visual clearance of a room.



Fig. 56 - Team post of care professionals in CVD Havenzicht (Picture taken by Augustin, 2019)



- > **Security:**  
Openly designed stairs must be avoided. They may provide people with mental health problems opportunities for self-harm (CVD Havenzicht, 2019). If stairs are openly designed, measures for security must be taken. Moreover, all materials used for safety should be fire proof.

In this homeless shelter the safety nets were placed after the opening of the building (see fig. 57). Hence, safety regulations were not taken into account, nor the fire proof resistance of the nets. Hence, the nets have to be replaced, which leads to additional costs (that the organisation cannot afford).

Fig. 57 - Stairs in homeless shelter CVD Havenzicht (Picture taken by Augustin, 2019)

## SOLUTIONS

### Examples to optimize privacy, maintain security and personal control

Privacy, security and (personal) control is improved when the number of people in shared spaces is reduced and the physical environment is enriched with responsive and flexible features. These features establish symbolic defensible spaces to regulate exposure to one's surroundings. Improved personal control is also ensured when general house rules are balanced with day to day 'outside' domestic tasks (cooking, washing, grocery shopping). As stressed by Connellan et al. (2013), the outside world should not be separated from care dependent people as communication with others is essential in rehabilitation. The spatial design of nursing stations encourages interactions between staff and clients when they are designed as small seating areas which are decentralized, open and located outside clusters of 4-6 rooms. Yet, these areas need a sense of boundary and staff need private spaces for administrative tasks (Brown, 2009). This way the care stations suggest *'that healing is a collaborative process and not something exclusively under the purview of professionals'* (Schweitzer, Gilpin & Frampton, 2004, p. 578).

The following examples show which spatial-design components help to optimize privacy, personal control and the feeling of security.

- > **Privacy:**  
Walls or insulated panels should be used as space dividers instead of curtains. The interior of this care residence is designed in such way that folding walls and concealed cupboards are used to maximize or scale down spaces (see fig. 58).



Fig. 58 - Transformed private residence for disabled child - Doetinchem (Hedy d'Ancona, 2016)



➤ **Care stations:**  
Openly designed care stations, such as seating nooks (see fig. 59-60), must be promoted to emanate the message that rehabilitation is a collaborative process.

These spatial-design solutions improve the communication process between staff and clients due to their easy accessibility and high visibility. Thus, clients can ask for help much easier and feelings of loneliness can be reduced.

Fig. 59 - Seating nook through created by building form (no source, n.d.)



Fig. 60 - Interior seating nook (no source, n.d.)

> **Privacy:**  
Fieldwork revealed that lack of privacy is one of the most significant stressors. Therefore, additional attention must be given to this aspect.

Lessons can be learned from design principles used in hostels, hotels and airports. As shown in the examples in fig. 61-63, the bedstee and sleeping box principles are very interesting.

The essence and goal of these principles is: efficiently accomodating many people in one space for a short amount of time. Verily, the aim is similar to that of municipalities when it comes down to the accomodation of homeless people.

However, the approach is drastically different. The design principle of bedstees and sleeping boxes all ensure that the privacy of people is maintained and that daylight and access to views or the outdoor space is established in a blink of an eye. Hence, these principles may well be applied in the architectural design of homeless shelters.



Fig. 61 - Bunk bed principle in hostel (no source, n.d.)



Fig. 62 - Small sleeping boxes in hostel (Cao Pu Studio, 2017)



Fig. 63 - Bedstee (no source, n.d.)





## **MEDICAL CASE**

*(SEQUEL)*

In a multidisciplinary meeting the social workers, street doctor and GGZ nurse, decided that a transfer to a hospice would be best. Once David's housing counsellors noticed that David stayed in bed longer and longer, they then knew that the time had come to transfer him to a hospice. At first, David was not happy about it because he wanted to stay where he was. He had established a trustworthy relationship with his social counsellors, and he felt at ease in their presence. Therefore, he wanted to stay in that familiar environment. However, he also started to understand that it would be best, because the hospice would be a quieter environment for him.



## PROBLEMS

### 4.4 Sensorial stimulation

Sensorial stimulation is the amount of information in a setting which immediately affects the human user (Evans & McCoy, 1998). In terms of spatial design, sensorial stimulation is related to design components such as light, sound, touch, sight and smell. Whereas, moderate levels of stimulation are beneficial to one's functioning, too low or high levels of stimulants can cause stress. Low levels of light or no views to nature affect several hormonal systems that regulate the human mood, perception and behavioral activities (see p. 52-53). Therefore, it is of utmost importance that people are exposed to enough levels of daylight. As to colors and smells, bright colors (in the red spectrum) and unpleasant smells also stimulate brain activity in a negative way (Dilani, 2009). These physical parameters enhance agitation, aggression anxiety and fear. Thus, mental exhaustion which in result can lead to higher intakes of medication (Mazuch and Stephen, 2005; Dilani, 2009). A final physical stressor is material use. With regards to this, several studies reveal that materials must not be faked as they lead to unnecessary perceptual and tactile confusion.



bright colors



strong smells



touch



loud noise



minimal daylight  
entrance



low to no access to  
recreational greenery

### Lessons learned from practice

The case study analysis and fieldwork revealed that all shelters used sensorial stimulation to a certain extent. The physical parameter of color was primarily evident, but the colors were extremely vibrant with actual colors in the red spectrum. Thus, the use of color in the interior design was not done properly as they did not follow the theoretical recommendations as explained earlier. Moreover, light entrances, accesses and views on nature ranged from average to minimal. This was also the case in terms of noise control and tactility. Attempts were made to cheer-up areas with artworks and/or different materials. However, paintings and materials were used in places where people could not actually enjoy them.



- > **Light:**  
 In this homeless shelter (see fig. 64) natural daylight is ensured by floor to ceiling windows. However, outdoor views are obstructed by diffuse window coverages to ensure privacy from the outside. This way connections with the interior and outdoor environment are lost.

Fig. 64 - Communal area of homeless shelter CVD Havenzicht - Rotterdam (Picture taken by Augustin, 2019)



- > **Sight:**  
 In this shelter (see fig. 65) attempts have been made to visually distinct rooms by means of colors. These colors however, are extremely vibrant and in the red spectrum. As revealed by literature studies, colors in the red spectrum have a negative influence on one's emotional well-being.

Fig. 65 - Living room in homeless shelter the Kessler Stichting - The Hague (Common affairs, 2019)

- > **Sight:**  
Abstract art as shown in fig. 66 must be avoided. Commonalities in literature show that abstract art may cause higher levels of agitation and anxiety than nature-based art on which natural landscapes are displayed.



Fig. 66 - Hallway paintings in homeless shelter CVD Havenzicht - Rotterdam (Picture taken by Augustin, 2019)

- > **Light:**  
Light fixtures in shelters may be dangerous as they easily can be broken and transformed into hazardous objects to harm others (see fig. 67). Therefore, vandal proof lighting must be installed such as LED lighting (which are also easy to maintain).



Fig. 67 - Interior lighting of homeless shelter in CVD Havenzicht - Rotterdam (Picture taken by Augustin, 2019)



> **Nature:**  
 In this homeless shelter (see fig. 68) a small airing courtyard was present that served as an outdoor smoking area. With only a bench and wooden canopy, the space did not encourage any possibilities for restoration or actual relaxation away from other residents.

Due to regulations, the courtyard will no longer be used as a smoking area, which means that residents would need to leave the premises to smoke a cigarette.



Fig. 68 - Airing courtyard in homeless shelter CVD Havenzicht and nearby recreational greenery - Rotterdam (Picture taken by Augustin, 2019)



**Nature:**

The communal garden of this homeless shelter (see fig. 69) is spacious and accessible for both staff and clients. As advised in literature, separate recreational areas should be provided for staff and clients, to ensure a sense of boundary between work and restoration. Multiple recreational areas within the care complex could ensure a balanced division.

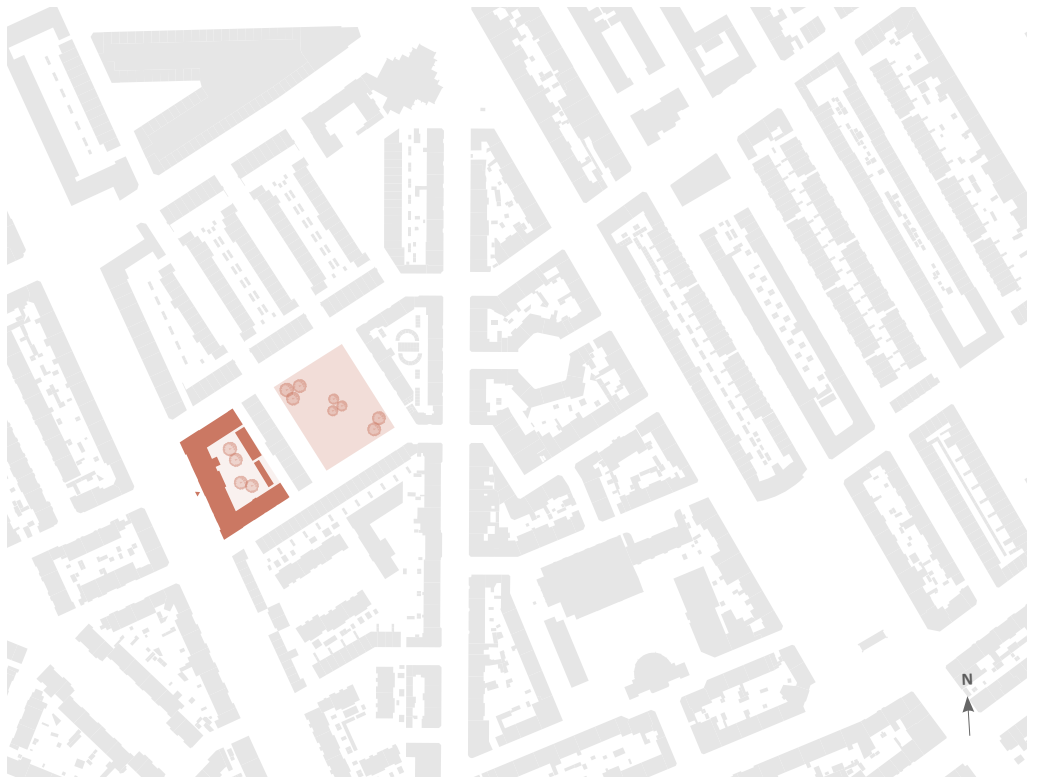


Fig. 69 - Communal garden in homeless shelter Kessler stichting - The Hague (Common affairs, 2019)



> **Nature:**  
 Similarly, this shelter (see fig. 70) also has a lack of recreational greenery due to its location in the city centre of Rotterdam. Recreation is only possible across the road or in a nearby park. However, use of neighbourhood greenery often leads to disturbance and an enhanced feeling of unsafety amongst neighbours.



Fig. 70 - Location city centre and recreational greenery in the near vicinity of the Paulus Kerk - Rotterdam (Nikonov, 2019)

## SOLUTIONS

### Examples for restoration, color use and materials

Physical environments encourage positive mental health outcomes when the sensory and perceptual abilities of people are considered in moderate levels. As explained on p. 51, homeless people are more likely to be vulnerable for mental exhaustion or so called '*human errors*' (Kaplan & Kaplan, 1982). Design features can function as coping resources to reduce these mental errors. Lighting and nature are the most significant sensorial stimulants to do so. Therefore, Joseph (2006) mentions that less stress is perceived when people are exposed to high intensity sun or artificial lighting between 1500 – 10.000 lux. In addition, access to and views on nature are beneficial to one's well-being as they may ground a person's sense of self and help in balancing environmental demands and personal needs (Fitzpatrick, 2017). Therefore, exterior and interior design features such as gardens, conservatories, ornate aviaries, moving water, aquariums and/or displays of nature-based art are important (Hartig and Marcus, 2006; Coss, 1973). The inspiration of nature must also be related to the use of colors. A play of soft toned colors – in the blue and green spectrum- must be used to stimulate emotional ease.

The following examples show how the restorative aspect, colors and the tactile experience of spaces can be improved.

- > **Nature:**  
This hospice is built for young people from all over the Netherlands who need terminal care (see fig. 71). It is located in a green courtyard with living rooms and views on the inner city of Leiden. Building details are of high quality and ensure a seamless connection between the interior and connecting outdoor space. Hence, direct access to greenery is established.

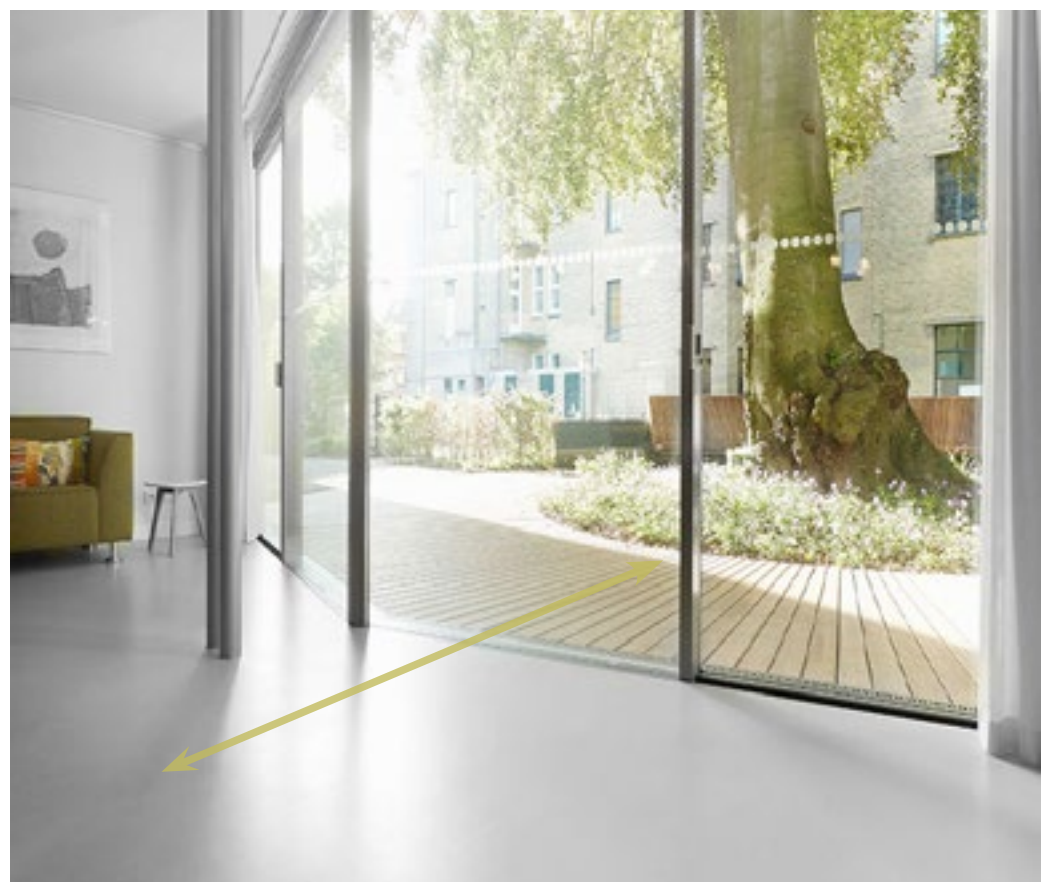
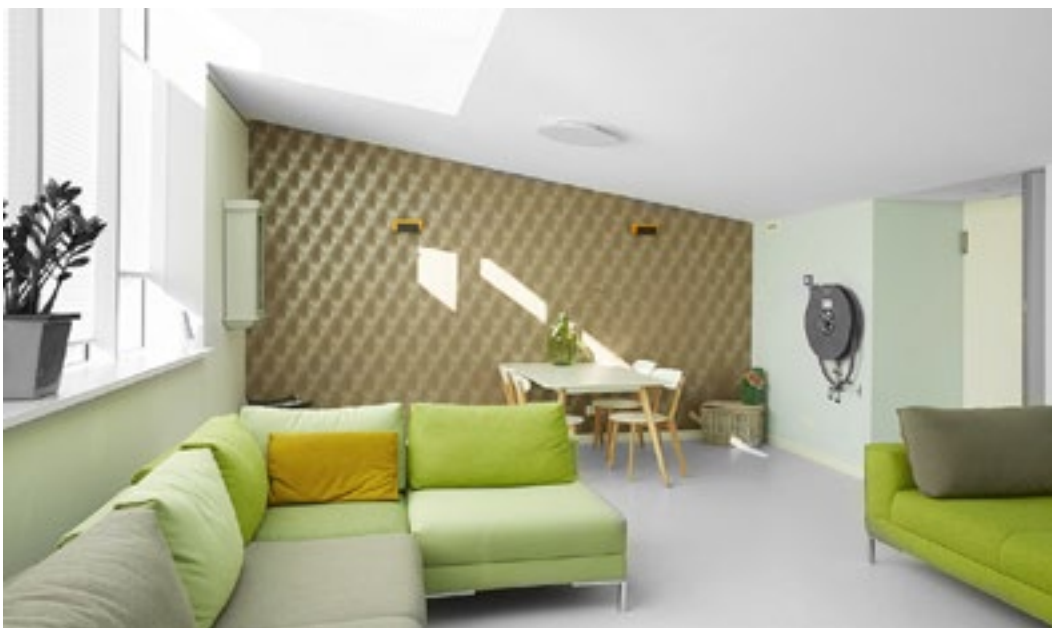


Fig. 71 - Indoor and outdoor connection of Hospice Xenia - Leiden (Xenia, 2019)



- > **Nature:**  
 In this assisted living complex (see fig. 72) there are four patios which have been designed as cozy and homely gardens for the surrounding living units. These gardens ensure direct access to recreational greenery. They facilitate separate seating areas and various colourful plants.

Fig. 72 - Patio of BW Volgerlanden - Hendrik Ido Ambacht (Picture taken by Studio Komma, 2019)



- > **Sight:**  
 The colors used in the interior of hospice Xenia are soft toned (see fig. 73). As shown in literature these are beneficial to reduce stress as they are part of the blue and green spectrum. As many homeless people suffer from mental distress, these nature based colors must also be used in the interior design of newly designed shelters.

Fig. 73 - Interior of Hospice Xenia - Leiden (Xenia, 2019)



> **Nature:**  
Healthcare organisation Tergooi realized a unique concept for patients who need chemotherapy (see fig. 74). During the treatment, patients use a specially designed pavilion in the garden of the hospital: the Chemotuin. The pavilion has a wooden structure with a glass roof, embedded in the nature that surrounds the hospital. The ability to be outside while the chemo is being administered lowers the patients' sense of stress and insecurity.



Fig. 74 - Chemotherapy pavilion - Hilversum (Hedy d'Ancona, 2016)



> **Nature and light:**  
 In these residential care facilities (see fig. 75-76), gardens are used as central orientation points and communal restoration areas. Smaller living rooms are located around the gardens to ensure spatial hierarchy and possibilities to withdraw in smaller restorative spaces. High ceilings, glazed facades and sky lights ensure an abundance of natural daylight in the buildings.

Fig. 75 - Wintergarden in residential care facility Scheldehof - Vlissingen (Atelier Pro, 2017)



Fig. 76 - Communal garden in residential care facility Lieven de Key - Utrecht (LEVS Architecten, 2013)

- > **Touch:**  
Exemplary design features as shown in fig. 77, can be used as decorative elements and acoustic panels for noise control. As these panels are easily removable, they support the tactile stimulation of the building as they invite clients to use them as artistic and creative outlets.



Fig. 77 - Acoustic wall panels with different textures and forms (no source, n.d.)

- > **Sight:**  
To enrich the visual experience of a shelter, wallpaper or art can be used in the same way as this hospital waiting room in fig. 78. The image shown is familiar as it depicts a canal in Delft. Likewise, wall decorations in shelters can depict familiar urban settings or landscapes to create different spatial themes.



Fig. 78 - Waiting room of the Reinier de Graaf hospital - Delft (EGM Architecten, 2019)



- > **Touch:**  
Vertical gardens and natural materials (see fig. 79) such as wood, are powerful decorative interior features to enrich the sterile interior settings of homeless shelters.

Fig. 79 - Vertical garden in the entrance hall of the Reinier de Graaf hospital - Delft (EGM Architects, 2019)





## **MEDICAL CASE**

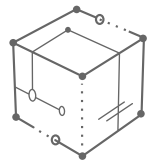
*(SEQUEL)*

David's counsellors reassured him that they would visit him every day. Also, of course to bring his most favorite beer since the health care nurses would not buy it for him. Once the counsellors and nurses noticed that David started to look even more yellow, they asked him yet again if he would like to see his father. They did not want to force him, but they wanted to try everything in their power to offer him the opportunity to get in contact with his father. Knowing that his father is old, he might wanted to see his son too.

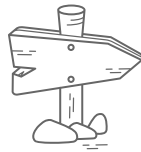
## PROBLEMS

### 4.5 Environmental experience

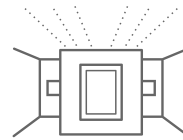
People's environmental experience is influenced by the complexity, coherence and legibility of the architectural design. Whereas complexity is defined by the variety and diversity in a spatial setting, Coherence refers to the composition, clarity and identity of building elements and forms. (Evans & McCoy, 1998). Spaces are too complex when the layout and circulation patterns are difficult to understand or too predictable: such as long echoing corridors. Therefore, dynamic routing should be implemented to positively challenge one's mental well-being. An imbalance of spatial routing and circulation systems will heighten stress as they greatly influence one's coping strategy in a negative way. Therefore, Dilani (2009) advocates that poor health is increased when people cannot make sense of the underlying form or patterns of spaces.



spatial confusion



monotone routing



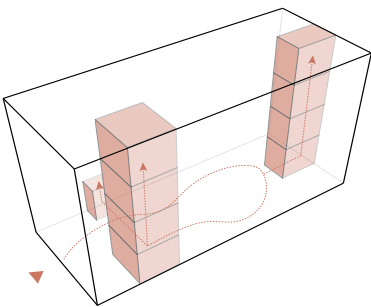
Inflexible spatial  
arrangments



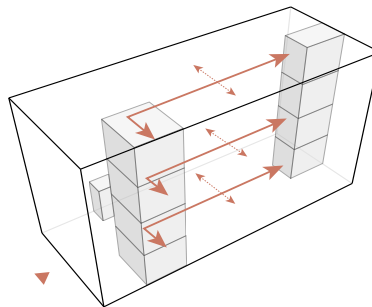
crowding

### Lessons learned from practice

The case study analysis and fieldwork showed that all three homeless shelters had a comprehensible spatial layout and circulation system with private and shared entrances for employees and residents (see fig. 80-82). Office spaces for care professionals also facilitated private vertical routing paths (elevators/stairs) to ensure staff efficiency. The routing however was extremely static. In addition, no interior variety or diversity was evident in the spatial design. Room and/or floor divisions were primarily made with colors, but no further interventions were taken to increase the spatial quality of both the private and communal areas. All shelters had linear and continuous corridors which were only used as circulation paths and storage space. Hence, the environmental experience and spatial hierarchy of all shelters can be improved.



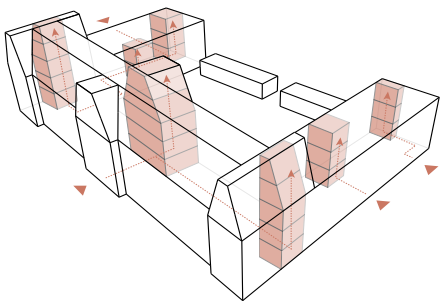
Vertical circulation paths and linear routing CVD Havenzicht



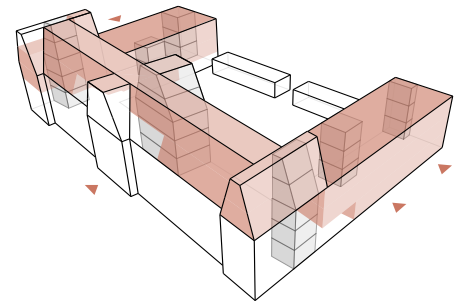
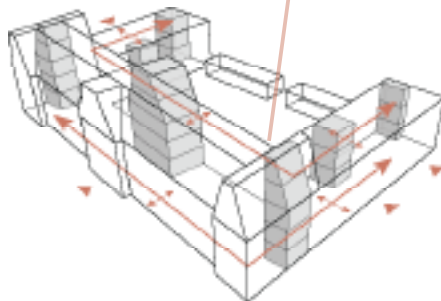
Private spaces Pauluskerk

Fig. 80 - Interior corridor of homeless shelter CVD Havenzicht - Rotterdam (Picture taken by Augustin, 2019)



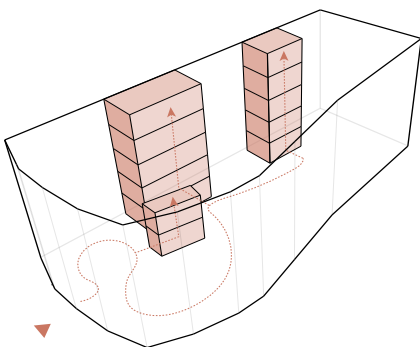


Vertical circulation paths and linear routing  
Kessler Stichting

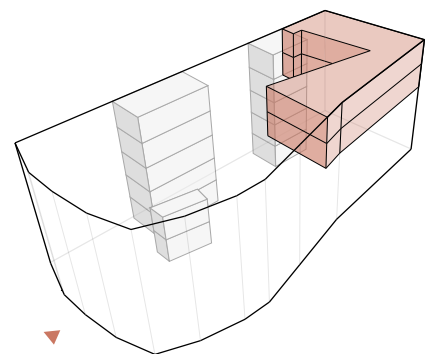
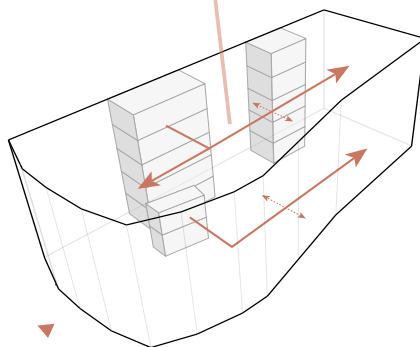


Private spaces Kessler Stichting

Fig. 81 - Interior corridor in homeless shelter Kessler Stichting - The Hague (Common affairs, 2019)



Vertical circulation paths and linear routing Pauluskerk



Private spaces Pauluskerk

Fig. 82 - Interior corridor of homeless shelter Pauluskerk - Rotterdam (Picture taken by Augustin, 2019)

### Examples for wayfinding, spatial hierarchy and thematics

Psycho-supportive designs enhance an individual's sense of coherence and comprehension through spatial-design components as: regular geometric building shapes, dynamic routing, underlying expressions of rules, repetitive building elements and thematic continuity (Weisman, 1981; Kaplan & Kaplan, 1982). All these factors contribute positively to a person's well-being and may even help in stabilizing delusions (Golembiewski, 2010). Other factors that relate to the perception of stress are spatial landmarks. These landmarks (sculptures, paintings or certain rooms) can serve as reference points for easy wayfinding and orientation in a building. Landmarks should therefore be effectively connected to a building's circulation system. Other architectural elements such as lighting or the connecting outdoor space can also be used to enhance the legibility of the spatial configuration.

The following examples show which spatial-design components improve the environmental experience and comprehension of the building configuration.

- **Spatial flexibility:**  
The spatial design of Maggie Centres (places for cancer care) are aimed to make people feel better rather than worse (see fig. 83). Therefore, these buildings are designed in such way that corridors are avoided because they enhance the institution and hospital feel. Based on this, there is a sequential flow of rooms. Yet, privacy is ensured as counselling areas can be closed off entirely when in use. For instance, due to the spatial openness, people might be able to see others in the kitchen, but they do not necessarily have to participate in the kitchen conversation.

In addition, easy spatial configurations can be made due to the paramater openness of the rooms.



Fig. 83 - Spatial flexibility of Maggie Centre - Oxford (Wilkinson Eyre Architects, 2014)



Fig. 84 - Living corridors in residential care facility Lieven de Key - Utrecht (LEVS Architecten, 2013)



Fig. 85 - Interior corridor residential care facility Scheldehof - Vlissingen (Picture taken by Studio Komma, 2019)

> **Routing:**  
 The interior circulation system of the residential care facilities on fig. 84-85 were clearly structured and organised in such way that they functioned as additional living and recreation areas. Therefore, the width of the hallways varied between 3-5 meters.

> **Routing:**  
Long echoing corridors should be avoided as they enhance visual monotony. However, if used in the building design, they should be aligned with the facade for daylight entrance and they must also have clear end points for orientation. The interior corridor of this urban hospice (see fig. 86) follows these recommendations. In addition, hallways which are designed in such way reduce stress as outdoor views are always apparent and break down the tunnel vision view that long corridors evoke.



Fig. 86 - Interior corridor of Urban hospice - Copenhagen (NORD Architects, 2019)



Fig. 87 - Interior corridor of residential care facility - Graz (Dietger Wissounig Architekten, 2019)

> **Routing:**  
The interior circulation system of this residential care facility also follows the theoretical design recommendations for well-being (see fig. 87). Whereas, the corridors in the other examples have views on nature, the complexity of this corridor is increased as it also provides access to outdoor communal patios.





## MEDICAL CASE

*(SEQUEL)*

At first David was hesitant about meeting his father. He did not want to be confronted with old painful memories. He also wanted to avoid feelings of anger or sadness. However, the nurses reassured him yet again, that it might give them both the opportunity to talk about things and enjoy the final moments together.



# CONCLUSION

## EVIDENCE-BASED-DESIGN TOOLKIT

In this research an attempt was made to answer the following main research question: **“Which architectural elements in the care environment have a positive effect on the well-being of homeless terminal people (with chronic mental health problems)?”**

The research revealed that the above question is multilayered. It can only be answered and understood when extensive knowledge is collected on the following three domains:

1. social care and healthcare;
2. homelessness and the sociocultural context;
3. architecture and the architectural impact on well-being.

Therefore, the above question is answered in threefold before the actual architectural elements are presented.

A. *Towards integral clustered care for the homeless*

Firstly, from the research results it can be determined that Dutch homeless people have unequal access to care services. Whereas integration is promoted in various care disciplines, many care related services and accommodations for homeless people are left out. If we provide good care for the general population then we should also want that for the homeless population. Therefore, it is fair to advocate that the Dutch welfare state should maximize integral clustered care for all homeless people. Also, for those without a health indication.

B. *Psycho-spatial dynamics between homelessness and policies*

Secondly, this research underlines that architecture reflects the decision-making process of policymakers and the current model of care. Thus, indicating the notion of a psycho-spatial dynamics between homelessness and policies. Policy makers accommodate homeless people as efficient as possible. This without considering how the spatial environment of these accommodations affect the mental and physical well-being of the homeless. Accommodations show a severe lack of privacy, storage and low to no views or access to greenery. Hence, they often do not meet the requirements necessary for ill homeless people. The additional feel of imprisonment is also enhanced by the control of services: rules and regulations implemented. As a result, many homeless people rather avoid these social care services. Therefore, newly built shelters must facilitate the three most significant design factors of single bedrooms, natural lighting and access to nature.

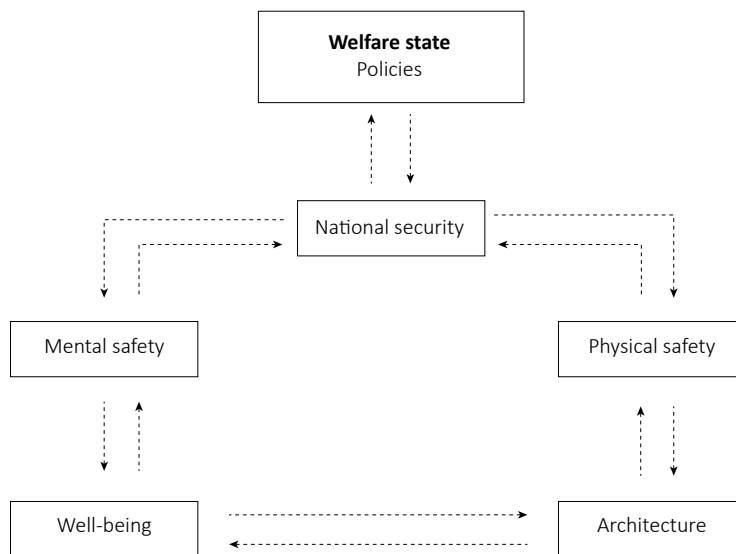
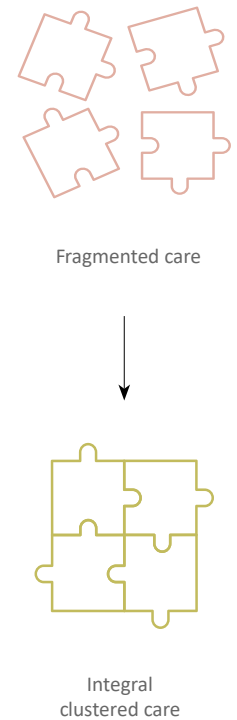


Fig. 88 - The psycho-spatial dynamics of homelessness and policies



Negative architectural impact on well-being



Psycho-supportive architecture

C. *Redefine the symbolic meaning and physical environment of homeless shelters into psycho supportive environments*

Thirdly, homeless shelters are often associated with asylum-style designs which are sober, obscure, pragmatic and inflexible. This institutional type of design is a curse for positive mental health outcomes.

This is supported by the chart below in which it is shown that the architectural impact on well-being of two Dutch shelters is insufficient (see fig. 89-90). This offers substantial reasons to improve shelter design. Even more so in the Netherlands, where the government's main task is protecting citizens from extreme poverty. Based on this, it may well be said that by (1) improving the social and medical care provision for the homeless and (2) improving shelter design, the Netherlands will strengthen its role as a Welfare state in which indeed all citizens feel secure.

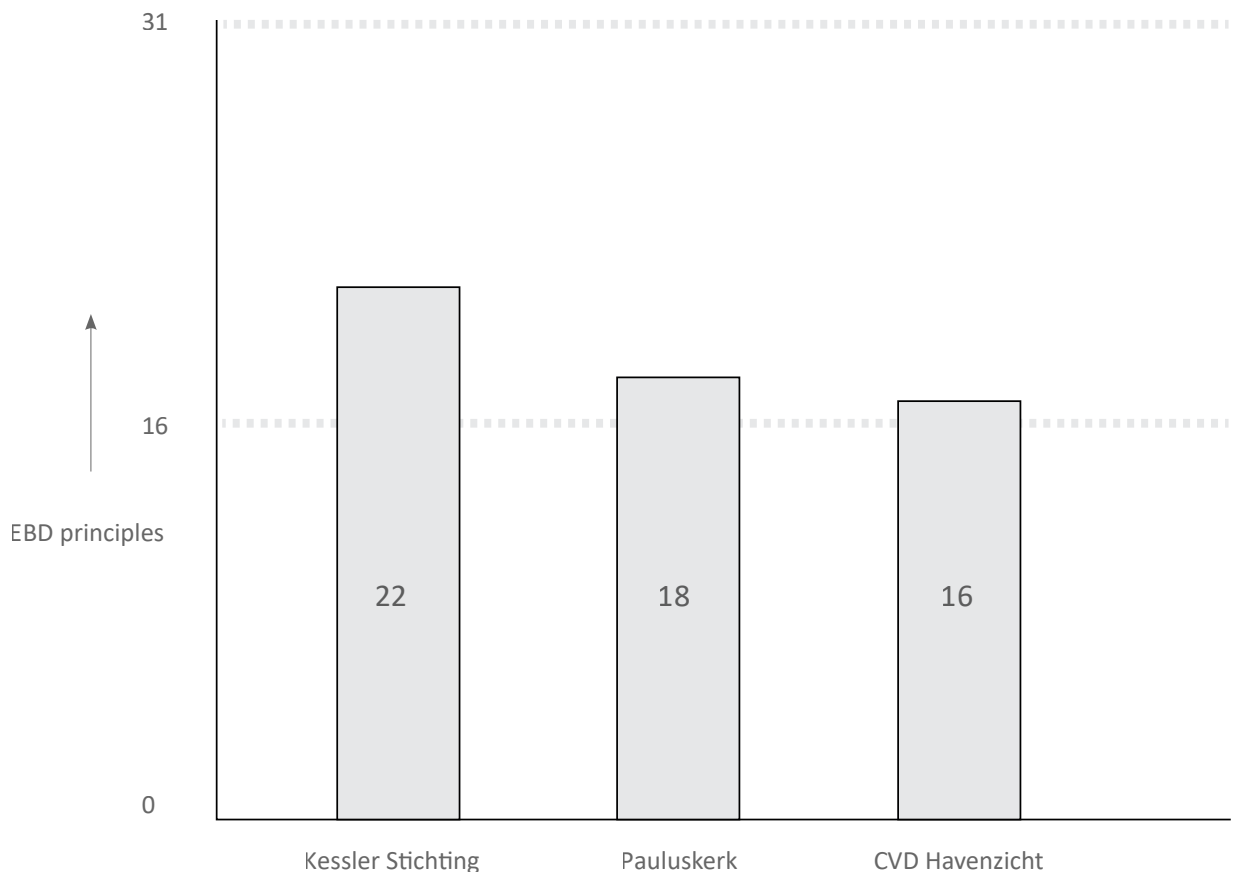


Fig. 89 - EBD principles used in the casestudies

## 5.1 Evidence-Based-Design toolkit

The architectural design of newly built shelters should address the four theoretical themes of stigma, security, sensorial stimulation and environmental experience (see chapter 3, p. 57). The implementation of specific design components related to these themes, lead to:

- 1). Positive mental health outcomes and an enhanced well-being of homeless people;
- 2). A chance at rehabilitation in a healthy environment;
- 3). Improved provision of (health and social) care.

With the result that homeless people may complete their lives with dignity.

For that reason, architects and urban planners can use the Evidence-Based design principles in the toolkit on page 118-121.



Mark: 7,1



Mark: 5,2



Mark: 5,8

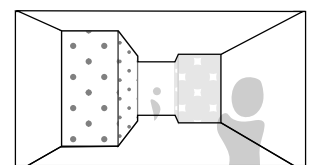
Fig. 90 - EBD score of casestudies

**Guideline 1. The design provides control of services by means of spatial configurations, building forms and individual possibilities to alter the physical environment.**



*Design suggestions for security, control and privacy:*

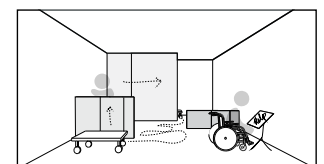
- Make areas visually distinct and clearly indicate a room's intended use;
- Maximize spatial control (e.g. by spatial flexibility, responsive design elements, moveable partitions and semi-fixed furniture applicable for both staff and clients);
- Maximize privacy by cleverly designing spaces that offer possibilities to regulate exposure to one's surroundings (single-sleeping rooms is of high preference);
- Separate daytime activities and work areas from living areas so to encourage day to day 'outside' domestic tasks to stimulate personal growth, trust and self-independence.



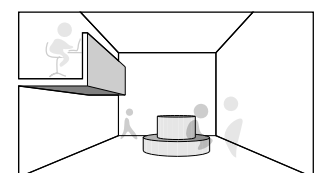
Visual distinction of rooms

*Design suggestions for care stations:*

- Provide high visibility, open and welcoming care station to show the collaborative process of rehabilitation;
- Decentralize care stations into small units with comfortable seating, acoustics, and size to suit the intended function of the space in which the station is located;
- Avoid half-walls or glass partitions as this evokes the message that staff is too busy, inaccessible and unwilling to help;
- Provide separate staff space for administrative tasks and restoration away from the clients (as a sense of boundary between staff and clients is necessary).



Spatial control and privacy



Staff control and openly designed stations



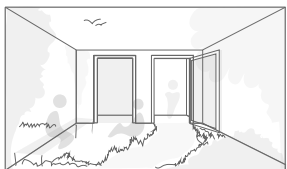
## Guideline 2. The design balances visual and acoustic stimulation to increase restoration and personal ease.



Daylight and light fixtures

### *Design suggestions for lighting and noise:*

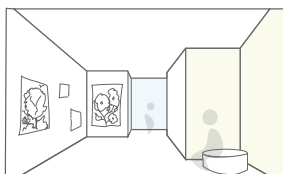
- Maximize natural daylight entrance to optimize visual tasks (e.g. use of large windows and clever orientation of living and work spaces);
- Provide integrated design solutions to reduce glare and temperature control (sun shading, climate installations);
- Use natural or (high intensity) artificial lighting as a support to define space;
- Avoid acoustic overstimulation by reducing excessive levels of noise (e.g. high quality insulation of separation walls and floors).



Nature and restoration

### *Design suggestions for nature inclusiveness:*

- Provide spaces with direct access to nature;
- Provide gardens as positive distractions for retreat, recovery and contemplation (consultancy with a landscape architecture is advised);
- Ensure spaces with indoor (healing) planting to enhance the sensorial environment with smells and pleasing aromas.



Calming color pallet

### *Design suggestions for colors, art and materials:*

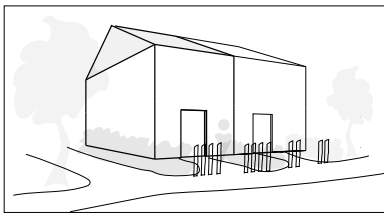
- Apply colors to support the intended use of spaces and activities;
- Use soft toned nature inspired colors in the blue spectrum and avoid bright colors in the red spectrum;
- Use visual art with natural landscapes or images and avoid abstract art;
- Ensure various materials with different tactile and visual experiences to avoid psychological monotony.

**Guideline 3. The design reduces severe stigmatization and psychopathology. It stimulates emotional geographies and enhances positive social identities.**

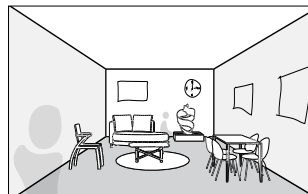


*Design suggestions for exterior and interior design:*

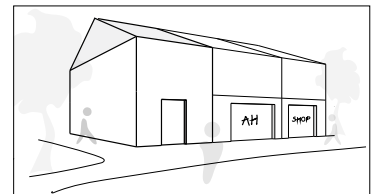
- > Ensure a 'sense of normalcy' through spatial design and avoid institutional connotations (e.g. domestic scale);
- > Reflect residential features (e.g. comforting furniture) and allow possibilities for personalisation to stimulate identity and positive self-esteem;
- > Ensure accessibility, inclusion and social interactions with the neighbourhood residents by commonly used amenities (e.g. retail, shops, arts and crafts spaces or other communal activities).



Domestic scale and ambience  
in exterior design



Residential features in interior  
design



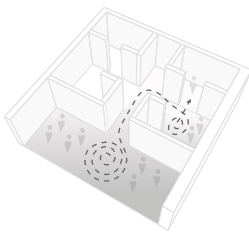
Public amenities as buffer  
between life in the facility and  
the neighbourhood



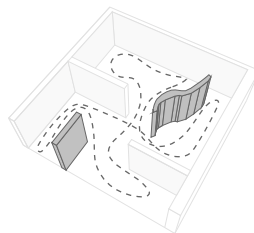
## Guideline 4. The design provides a healthy and desirable environment with underlying expressions of rules which help to stabilize mental health.

### *Design suggestions for exterior and interior design:*

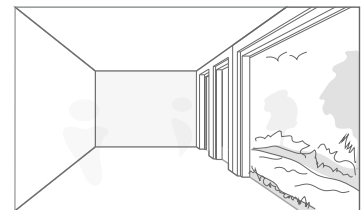
- Stimulate coherence, thematic continuity and complexity by repetitive building elements and a variety of spatial environments;
- Ensure spatial hierarchy in order to balance multi-occupancy, semi-private and private spaces;
- Stimulate familiarity and easy orientation to comprehend the spatial configuration;
- Eliminate long corridors or align linear circulation patterns with the building facade;
- Provide interactive dynamic routing with spatial landmarks and signages (distinct in shape and color) as reference points for wayfinding.



Spatial hierarchy



Interactive wayfinding



Corridor alignment with facade



## 5.2 Discussion

### *What needs to change?*

If the Netherlands is hit by the next economic crisis, the current model of care- meaning only providing housing for homeless people with a health indication- would be unrealistic. In fact, it will only lead to a growth of even more vulnerable people with complex care needs. So, to prevent a down-ward spiral, top-down action must be taken to replenish the current housing stock for social housing and assisted living accommodations in which people-oriented care can be offered. After all, people do not think and live in separate disciplines and domains. As complex healthcare issues affect different areas of life, knowledge and expertise is needed that transcends different disciplines and sectors such as the architectural profession and housing development sector. This will improve the rehabilitation process and decrease the number of people with complex care needs.

This research shows that there are many spatial-design components that can be used to positively improve the architectural impact on well-being of homeless shelters. The combined results from the casestudy analysis and the principles in the EBD design toolkit can be categorized in three scales:

#### **Scale 1. Urban context**

- A green environment in an inner city or outer city area;
- Public transportation within 0-5 minutes walking/biking distance;
- Public amenities and care services in the near vicinity on 0-10 minutes walking/biking distance.

#### **Scale 2. Building**

- The exterior should mimic residential architectural features;
- Dynamic and clear routing in the building with exterior sightlines;
- Visible and openly designed care stations to show the collaborative process of care.

#### **Scale 3. Interior and spaces**

- A large and welcoming entrance;
- Dynamic and clear routing in the building with exterior sightlines;
- Stimulation of social interaction by creating various seating possibilities;
- Closable spaces to maintain privacy;
- The interior must contain inviting and warm colors, materials and comfortable furniture.

The best result of well-being is achieved when the design considers the principles of all three scales. Yet, a balance is necessary. If the building would be designed only with public amenities, the privacy of the residents will be in danger. Likewise, a program with only housing would obstruct the social interaction between the homeless and the general population. Thus, their well-being and rehabilitation process. Therefore, it is up to the architect to carefully consider any programmatic choices and their spatial arrangement in the building. Moreover, it is a remarkable finding that the exterior design

of the building also affects the social identity of the users. Therefore, architects should carefully consider the façade designs and choice of materials. All this, within the financial constraints provided to build the project.

This research however, is not sufficient enough to demonstrate the connection between well-being and the actual composition of program in a building. Likewise, it does not justify what kind of architectural façade design might evoke stress and how it affects one’s well-being or social identity (e.g. types of masonry patterns, smells or sounds of materials). Additional combined studies on medical-, psychosocial care and architecture might identify how these aspects are connected. Nonetheless, as this research is based on a cross comparison of case study analysis and existing literature, it is reasonable that the application of the EBD principles will reduce stress and improve the architectural impact on well-being of homeless shelters. However, the reader should be aware that new additional and qualitative research – in which the accounts of the specific target group is involved- may contradict or justify certain findings.

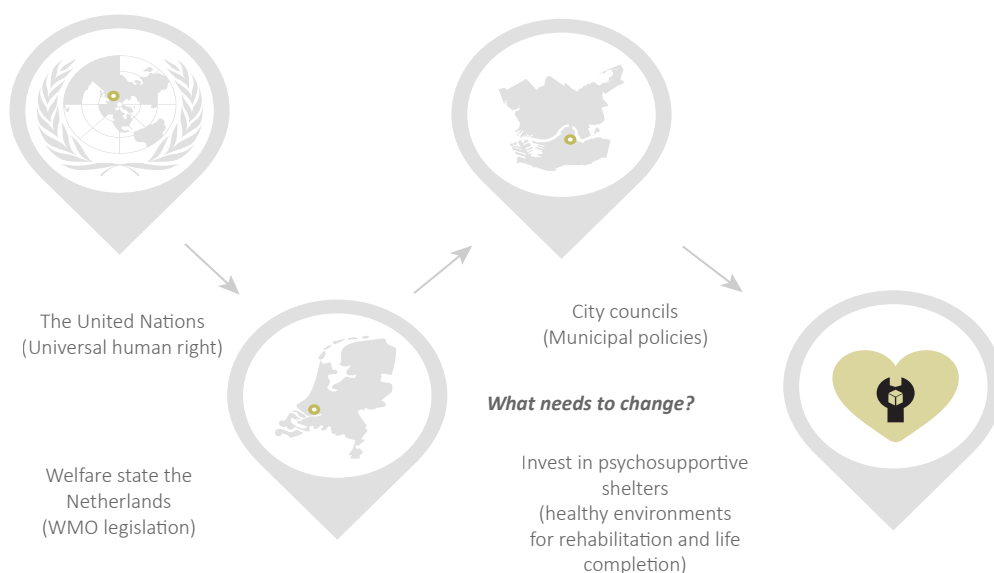


Fig. 91 - The regulation and societal layers of well-being

### 5.3 Recommendations

The importance of improved homeless shelters has clearly been stipulated in this research. Architectural firms who are actively involved in care architecture are advised to pay attention to the design principles that have been formulated in the EBD design toolkit. These design principles do not all have to be applied simultaneously in the design, but they do serve as a guide in the design process. These guides may also help urban planners and policymakers in the decision process for housing developments as some of the guidelines make explicit remarks about distances to public transportation and the presence of nearby public amenities.





## **MEDICAL CASE**

*(SEQUEL)*

At that time David's father was 78 years old, and was informed about his son's situation and his severe illness. He cried when he received the news. He felt terribly guilty about the difficult life his son had and that he did not protect him when growing up. Therefore, he desperately wanted to visit his son in a final attempt to apologize. After three weeks, and four visits of his father, David passed away.

## REFERENCES

- Allport, G.** (1955). *Becoming: Basic considerations for a psychology of personality*. New Haven: Yale University press
- American Psychological Association.** (2019). *How stress affects your health*. Retrieved from: [https://www.apa.org/images/stress-facts\\_tcm7-166363.pdf](https://www.apa.org/images/stress-facts_tcm7-166363.pdf)
- Bakker, T.** (n.d.). *Middeleeuwse kloosters begijnenhof en gasthuizen*. Retrieved from: <http://www.theobakker.net/pdf/kloostersadam.pdf>
- Bijlsma, J. & Janssen, H.** (2015). *Sociaal werk in Nederland: Vijfhonderd jaar verheffen en verbinden*. Bussum: Uitgeverij Couthino
- Bourgois, P. I. & Schonberg, J.** (2009). *Righteous Dopefiend*. Oakland: University of California
- Brown, D.** (2009). *Designing an effective nurses' station*. Behavioral Healthcare, 29(10), p. 22-25.
- Connellan, K., Gaardboe, M.A., Riggs, D., Due, C., Reinschmidt, A. & Mustillo, L.** (2013). *Stressed spaces: Mental health and architecture*. Retrieved from Health environments research & Design journal: [https://journals.sagepub.com/doi/full/10.1177/193758671300600408?casa\\_token=-jdVvp0QgDYAAAAA%3APkEGqYjS4uzEES7ibMUyJ4nAklji9k98rDjZO8XgYCFpRe-j-odnTNiAxb9Z75za-58WjBKmZGYxlw](https://journals.sagepub.com/doi/full/10.1177/193758671300600408?casa_token=-jdVvp0QgDYAAAAA%3APkEGqYjS4uzEES7ibMUyJ4nAklji9k98rDjZO8XgYCFpRe-j-odnTNiAxb9Z75za-58WjBKmZGYxlw)
- Coss, R.C.** (1973). *The cut-off hypothesis: its relevance to the design of public places*. Man-Environment systems 3, p.417-440
- Csikszentmihalyi, M.** (2002). *Flow: The classic work on how to achieve happiness*. London: Rider Books
- Centrum voor Dienstverlening Havenzicht** (2019). *Maatschappelijke zorg- en opvangorganisatie Den Haag. Fieldwork interviews 2019*
- Common Affairs** (2019). Architectenbureau en ontwerp realisatie Kessler Stichting Den Haag
- De Veer, A., van Meijel, B., Stringer, B., Verkaik, R., Francke, A.L.** (2017). *Samenwerken voor goede palliatieve zorg voor dak- en thuislozen*. Nurse Academy GGZ: 2017, 3, p. 4-8
- De Veer, A., van Meijel, B., Stringer, B., Verkaik, R., Francke, A.L.** (2018). *Access to palliative care for homeless people: complex lives, complex care*. Retrieved from BMC Palliative care: <https://bmcpalliatcare.biomedcentral.com/articles/10.1186/s12904-018-0368-3>
- De Veer, A.J., Van Meijel, B.,** (2017). *Samenwerkern voor goede palliatieve zorg voor dak-en thuislozen*. Nurse Academy GGZ (2017), 3, p. 4-8

**De Veer, A.J. & Francke, A.L.** (2018). *Kennissynthese Palliatieve zorg gelijk voor iedereen?: Sociale (on)gelijkheid in de zorg rond het levenseinde*. Utrecht: Nivel. Retrieved from: <https://www.nivel.nl/nl/publicatie/kennissynthese-palliatieve-zorg-gelijk-voor-iedereen-sociale-ongelijkheid-de-zorg-rond>

**Dilani, A.** (2009). *Psychosocially supportive design: A salutogenic approach to the design of the physical environment*. SHB: 2009, 1st International conference on sustainable healthy buildings: Seoul, Korea.

**Dobrohotoff, J. T., & Llewellyn-Jones, R. H.** (2010). *Psychogeriatric inpatient unit design: A literature review*. *International Psychogeriatrics*, 23(2), p. 174-189.

**Dodge, R., Daly, A.P., Huyton, J. & Sanders, L.D.** (2012). *The challenge of defining wellbeing*. *International Journal of Wellbeing*: 2012, 2(3), p.222-235

**Dovey, K.** (1985). *Home and homelessness*. *Home environments*: 1985, 8, p. 33-64

**Evans, G.W. & McCoy, J.M.** (1998). *When buildings don't work: The role of architecture in human health*. *Journal of Environmental Psychology*: 1998, 18, p. 85-94. Retrieved from: [https://www.feantsa.org/download/12-2\\_k1\\_article\\_fahne\\_v026415602230501911416.pdf](https://www.feantsa.org/download/12-2_k1_article_fahne_v026415602230501911416.pdf)

**Evans, G. W. & Cohen, S.** (1987). *Environmental stress*. In D. Stokols & I. Altman, Eds, *Handbook of Environmental Psychology*. New York: Wiley, pp. 571–610.

**Fahnoe, K.** (2018). *Emotional geographies of urban homeless people's avoidance of places providing social services*. *European Journal of homelessness*: 2018, 12(2)

**Fitzpatrick, H. C.** (2007). *Supportive housing for mental health recovery: A bio-psycho-social approach. (Master's thesis)*. University of Waterloo, Waterloo, Ontario, Canada. Retrieved from [http://uwspace.uwaterloo.ca/bitstream/10012/2719/1/OGS\\_Resub.pdf](http://uwspace.uwaterloo.ca/bitstream/10012/2719/1/OGS_Resub.pdf)

**Glass, D. C. & Singer, J. E.** (1972). *Urban Stress*. New York: Academic Press.

**Golembiewski, J.A.** (2010). *Start making sense: Applying a salutogenic model to architecture design for psychiatric care*. *Facilities*, 28(3/4), p.100-117

**Hartig, T., & Marcus, C. C. (2006).** *Essay: Healing gardens—places for nature in health care*. *The Lancet*, 368, p. S36–S37

**Heidegger, M.** (1962). *Being and Time*. Oxford: Blackwell Publisher Ltd.

**Herweijer-van Gelder, M.** (2016). *Evidence-Based-Design in Nederlandse ziekenhuizen*. Delft: TU Delft. Retrieved from: <https://repository.tudelft.nl/islandora/object/uuid%3A285a058d-1699-4016-8158-16b7a4375fcf>

**Headey, B.W., & Wearing, A.J.** (1992). *Understanding happiness: A theory of subjective well-being*. Melbourne: Longman Cheshire

**Joseph, A.** (2006). *The impact of light on outcomes in healthcare settings*. Concord, CA: The Center for Health Design. Retrieved from: <http://www.healthdesign.org/chd/research/impact-light-outcomes-healthcare-settings/>

**Kaplan, A., Diver, K., Sandin, K., & Kafer Mill, S.** (2019). *Homeless interactions with the built environment: A spatial pattern language of abandoned housing*. *Urban Sci*: 2019, 3(2), p. 65

**Kaplan, S. & Kaplan, R.** (1982). *Cognition and Environment*. New York: Praeger

**Kessler Stichting** (2019). *Maatschappelijke zorg- en opvangorganisatie Den Haag. Fieldwork interviews 2019*

**Klop, H.T., de Veer, A.J., van Dongen, S.I., Francke, A.L., Rietjes, J.A. & Bregje, D.** (2018). *Palliative care for homeless people: a systematic review of the concerns, care needs and preferences, and the barriers and facilitators for providing palliative care*. Retrieved from BMC Palliative Care: <https://bmcpalliatcare.biomedcentral.com/articles/10.1186/s12904-018-0320-6>

**Klop, H.T., van Dongen, S.I., Onwuteaka-Philipsen, B., Rietjes, J., de Veer, A.J., Francke, A.L., Gootjes, J.** (2018). *Samen sterker Consultatie verbeter palliatieve zorg voor dak-en thuislozen*. *Pallium*: 2018, 20(1), p.16-19

**Langan, C., & McDonald, C.** (2008). *Daytime night attire as a therapeutic intervention in an acute adult psychiatric in-patient unit*. *The Psychiatrist*, 32(6), p. 221-224.

**Lawton, M.P.** (1989). *Behavior relevant ecological factors*. In K.W. Schaie & C. Schooler, Eds, *Social Structure and Aging*. Hillsdale New Jersey: Erlbaum, p. 57-78

**Maslow, A.H.** (1968). *Toward a psychology of Being*. Princeton New Jersey: Van Nostrand

**Mazuch, R., & Stephen, R.** (2005). *Creating healing environments: Humanistic architecture and therapeutic design*. *Journal of Public Mental Health*, 4(4), 48-52.

**Meltzer H., Bebbington, P., Brugha, T., & Farrell, M.** (2012). *The relationship between personal debt and common mental disorders*. *European Journal of Public Health*, 23, p. 108-113.

**McEwen, B.S., & Gianaros, P.J.** (2010). *Central role of the brain in stress and adaptation: Links to socioeconomic status, health, and disease*. *Ann NY Acad Sci*. 1186, p. 190-222.

**Munday, B. & Ely, P.** (1996). *Social Care in Europe*. Hemel Hempstead: Prentice Hall

Europe

**Pauluskerk Rotterdam (2019).** *Overwin het kwade met het Goede: Diaconaal en Maatschappelijk werk. Fieldwork interviews 2019*

**Pattillo, M.** (2013). *Housing: Commodity versus Right*. Annual Review of Sociology, 39, p.509-531. Retrieved from: <https://www.annualreviews.org/doi/pdf/10.1146/annurev-soc-071312-145611>

**Rennels, T.R. & Purnell, D.F.** (2017). *Accomplishing place in public space: Autoethnographic accounts of homelessness*. Journal of Contemporary Ethnography: 2017, 46(4), p. 490-513

**Segerstrom, S.C. & Miller, G.E.** (2004). *Psychological Stress and the Human Immune System: A Meta-Analytic Study of 30 Years of Inquiry*. Psychological Bulletin, 130, p. 601-630.

**Roegiers, P.** (2018). *A sense of home (Master thesis)*. Academy of Architecture: Amsterdam

**Seligman, M.E. P.** (2002b). *Positive psychology, positive prevention, and positive therapy*. In Snyder, C. R., & Lopez, S. (Eds.). Handbook of positive psychology (p. 3-13). New York: Oxford University Press

**Seamon, D., Buttner, A.** (1980). *The Human Experience of Space and Place*. New York: Routledge

**Sommer, R.** (1969). *Personal Space*. Englewood Cliffs New Jersey: Prentice-Hall

**Studio Komma Architecten (2019).** *Field excursion internship 2019*

**Schweitzer, M., Gilpin, L., & Frampton, S.** (2004). *Healing spaces: Elements of environmental design that make an impact on health*. Journal of Alternative and Complementary Medicine, 10(Suppl 1), S71-S83.

**The Physiological Society.** (2017). *Stress in Modern Britain*. Retrieved from: <https://www.physoc.org/blog/scientists-and-social-media-can-you-tweet-your-way-to-impact/>

**Van Dam, C., Kluft, M., & Scheffelaar, A.** (2016). *Leren van het verleden. Kort historisch overzicht van de veranderende rollen van de sociaal werker in relatie tot de burger en de overheid*. Utrecht: Movisie. Retrieved from: <https://www.movisie.nl/sites/movisie.nl/files/publication-attachment/Leren-van-het-verleden%20%5BMOV-9165719-1.0%5D.pdf>

**Verweij, D.** (2019). *Zorg zonder zorgen: Het ontwerp van een stress reducerende zorgomgeving voor mensen met een chronische ziekte en hun mantelzorgers (Master*



thesis). Delft: TU Delft

**Watch Tower Bible and Tract Society of Pennsylvania** (2020). Was Jesus Married? Did Jesus have siblings? Retrieved from: <https://www.jw.org/en/bible-teachings/questions/was-jesus-married/>

**Westert, J. & de Groot, C.** (2017). *De zelfredzame dakloze*. Nederlands juristenblad: 2017, 44

**Weisman, G.** (1981). *Evaluating architectural legibility*. Environment and Behavior, 13, p. 399-419

**White, S.C.** (2008). *But what is wellbeing? A framework for analysis in social and development policy and practice*. Centre for development studies: UK. Retrieved from: [https://people.bath.ac.uk/ecsscw/But\\_what\\_is\\_Wellbeing.pdf](https://people.bath.ac.uk/ecsscw/But_what_is_Wellbeing.pdf)

**Wilterdink, N. & Van Heerikhuizen, B.** (2006). *Samenlevingen. Een verkenning van het terrein van de sociologie*. Groningen: Wolters-Noordhoff

## LIST OF FIGURES

**Fig. 1** Retrieved from: [https://www.volkskrant.nl/nieuws-achtergrond/door-gebrek-aan-woningen-en-geld-zijn-gemeenten-niet-meer-in-staat-dakloosheid-te-bestrijden~b46ca050f/?utm\\_source=link&utm\\_medium=app&utm\\_campaign=shared%20content&utm\\_content=freehttps://www.orga-architect.nl/ecologische-architect/](https://www.volkskrant.nl/nieuws-achtergrond/door-gebrek-aan-woningen-en-geld-zijn-gemeenten-niet-meer-in-staat-dakloosheid-te-bestrijden~b46ca050f/?utm_source=link&utm_medium=app&utm_campaign=shared%20content&utm_content=freehttps://www.orga-architect.nl/ecologische-architect/)

**Fig. 2** Retrieved from: <https://www.dearchitect.nl/projecten/kartonnen-slaapkamers>

**Fig. 3** Retrieved from: <https://www.nrc.nl/nieuws/2018/12/20/nieuw-eeen-opvang-die-daklozen-helpt-a3126609>;

**Fig. 4** Retrieved from: <https://www.omroepwest.nl/nieuws/3740394/Den-Haag-gaat-problemen-daklozenopvang-te-lijf-met-Tien-Punten-Plan>

**Fig. 5** Retrieved from: <https://versbeton.nl/2014/08/rotterdamse-nachten-slapen-zonder-dak/>

**Portrait 1** Retrieved from: <https://www.telegraph.co.uk/news/2016/07/07/portraits-of-homeless-people-by-photographer-shine-gonzalez/photographer-shine-gonzalez-45-set-out-to-capture-the-faces-of-110/>

**Fig. 11** Retrieved from: <https://458828.smushcdn.com/1522123/wp-content/uploads/2019/09/iStock-929671484.jpg?lossy=1&strip=1&webp=1>

**Fig. 12** Retrieved from: [https://www.istockphoto.com/ca/photo/poor-homeless-man-sleeping-on-the-bench-at-bus-stop-gm121344944-2564007?irgwc=1&esource=AFF\\_IS\\_IR\\_TinEye\\_77643&asid=TinEye&cid=IS&utm\\_medium=affiliate&utm\\_source=TinEye&utm\\_content=77643&clickid=V2hV8-29RxyOWKYwUx0Mo3ERUknXvCQhVWuzzs0](https://www.istockphoto.com/ca/photo/poor-homeless-man-sleeping-on-the-bench-at-bus-stop-gm121344944-2564007?irgwc=1&esource=AFF_IS_IR_TinEye_77643&asid=TinEye&cid=IS&utm_medium=affiliate&utm_source=TinEye&utm_content=77643&clickid=V2hV8-29RxyOWKYwUx0Mo3ERUknXvCQhVWuzzs0)

**Portrait 2+8** Retrieved from: <http://thumbpress.com/25-incredibly-detailed-black-and-white-portraits-of-the-homeless-by-lee-jeffries/#sthash.0ehvBXNm.dpbs>

**Fig. 24** Retrieved from: <https://www.rijnmond.nl/nieuws/191553/Sla-de-handen-ineen-voor-aanpak-arme-wijken>

**Fig. 26** Retrieved from: [https://2.bp.blogspot.com/-j7QUlUdgUWU/URRdWhuBU-I/AAAAAAAAAGoQ/2RIB8pUSnuQ/s1600/news\\_stock\\_image\\_man\\_seated\\_sad.jpg](https://2.bp.blogspot.com/-j7QUlUdgUWU/URRdWhuBU-I/AAAAAAAAAGoQ/2RIB8pUSnuQ/s1600/news_stock_image_man_seated_sad.jpg)

**Portrait 3** Retrieved from: <https://pixabay.com/photos/people-portrait-homeless-male-gaze-1640460/>

**Fig. 28** Retrieved from: <https://nieuws.top010.nl/daklozenopvang-nieuw-havenzicht-in-kralingen-geopend.htm>

**Fig. 30+33** Retrieved from: <https://www.pauluskerkrotterdam.nl/>

**Fig. 34** Retrieved from: <https://www.pauluskerkrotterdam.nl/activiteiten/taallessen/>

**Fig. 36** Retrieved from: <https://www.yulius.nl/bw-de-volgerlanden/>

**Fig. 38** Retrieved from: <https://itn.nl/wooncentrumrietveldalphenaanandenrijn/>

**Fig. 39** Retrieved from: <https://www.dearchitect.nl/projecten/arc18-woonzorgcentrum-scheldehof-vlissingen-atelier-pro-architekten>

**Fig. 40+41** Retrieved from: <https://www.curioctopus.nl/read/19564/er-bestaat-in-weesp-een-speciaal-dorp-voor-ouderen-met-dementie>

**Fig. 43+86** Retrieved from: [https://www.archdaily.com/867628/urban-hospice-nord-architects/58d13a46e58ece7c6a00001c-urban-hospice-nord-architects-photo?next\\_project=No](https://www.archdaily.com/867628/urban-hospice-nord-architects/58d13a46e58ece7c6a00001c-urban-hospice-nord-architects-photo?next_project=No)

**Fig. 44** Retrieved from: <https://www.dearchitect.nl/projecten/de-koekoek>

**Fig. 46** Retrieved from: <https://spotlightstories.co/lantern-of-chagrin-valley/>

**Portrait 4** Retrieved from: <http://static.boredpanda.com/blog/wp-content/uploads/portraits-of-the-homeless-lee-jeffries/portraits-of-the-homeless-lee-jeffries-13.jpg>

**Fig. 58** Retrieved from: [http://hedydanconaprijs.nl/pdf/hdp\\_2016.pdf](http://hedydanconaprijs.nl/pdf/hdp_2016.pdf)

**Fig. 59** Retrieved from: <http://www.houzz.com/photos/swampscott-waterfront-residence-contemporary-sunroom-phvw-vp~2482375>

**Fig. 60** Retrieved from: <https://i.pinimg.com/originals/e1/43/29/e14329c1b1f07eea79d028beaed40350.jpg>

**Fig. 61** Retrieved from: <https://nl.pinterest.com/pin/712976184745663017/>

**Fig. 62** Retrieved from: <https://www.archdaily.com/875270/together-hostel-cao-pu-studio>

**Fig. 63** Retrieved from: <https://i.pinimg.com/>

**Portrait 5** Retrieved from: <http://www.fubiz.net/2011/05/03/lee-jeffries-portraits/originals/45/29/9b/45299b392a372103d9d6add732563aee.jpg>

**Fig. 70** Retrieved from: [https://www.tripadvisor.nl/Attraction\\_Review-g188632-d11864545-Reviews-Pauluskerk-Rotterdam\\_South\\_Holland\\_Province.html](https://www.tripadvisor.nl/Attraction_Review-g188632-d11864545-Reviews-Pauluskerk-Rotterdam_South_Holland_Province.html)

**Fig. 71** Retrieved from: [https://www.xenialeiden.nl/zorg-bij-xenia/neem-eens-  
een-kijkje#gallery12979d2369-22](https://www.xenialeiden.nl/zorg-bij-xenia/neem-eens-<br/>een-kijkje#gallery12979d2369-22)

**Fig. 73** Retrieved from: [https://www.xenialeiden.nl/zorg-bij-xenia/neem-eens-  
een-kijkje#gallery12979d2369-29](https://www.xenialeiden.nl/zorg-bij-xenia/neem-eens-<br/>een-kijkje#gallery12979d2369-29)

**Fig. 74** Retrieved from: [http://hedydanconaprijs.nl/pdf/hdp\\_2016.pdf](http://hedydanconaprijs.nl/pdf/hdp_2016.pdf)

**Fig. 75** Retrieved from: [https://www.atelierpro.nl/nl/projects/255/nieuwbouw-  
woonzorgcentrum-scheldehof-vlissingen](https://www.atelierpro.nl/nl/projects/255/nieuwbouw-<br/>woonzorgcentrum-scheldehof-vlissingen)

**Fig. 76+84** Retrieved from: [https://www.levs.nl/projecten/de-bouwmeester-1.  
html#&gid=2&pid=4](https://www.levs.nl/projecten/de-bouwmeester-1.<br/>html#&gid=2&pid=4)

**Fig. 77** Retrieved from: [https://i2.wp.com/offbeathome.com/wp-content/blogs.  
dir/4/files/2011/09/hexagon2-800x533.jpg](https://i2.wp.com/offbeathome.com/wp-content/blogs.<br/>dir/4/files/2011/09/hexagon2-800x533.jpg)

**Fig. 78+79** Retrieved from: [https://egm.nl/architecten/projecten/reinier-de-  
graaf-gasthuis-interieur/221](https://egm.nl/architecten/projecten/reinier-de-<br/>graaf-gasthuis-interieur/221)

**Portrait 6** Retrieved from: [https://www.chambre237.com/wp-content/  
uploads/2015/11/Lee-Jeffries-devient-SDF-pour-photographier-les-Gens-de-  
la-Rue-08.jpg](https://www.chambre237.com/wp-content/<br/>uploads/2015/11/Lee-Jeffries-devient-SDF-pour-photographier-les-Gens-de-<br/>la-Rue-08.jpg)

**Fig. 83** Retrieved from: [https://www.archdaily.com/558757/maggie-s-oxford-  
wilkinson-eyre-architects/54429fc3c07a802a690004cc-maggie-s-oxford-  
wilkinson-eyre-architects-image?next\\_project=No](https://www.archdaily.com/558757/maggie-s-oxford-<br/>wilkinson-eyre-architects/54429fc3c07a802a690004cc-maggie-s-oxford-<br/>wilkinson-eyre-architects-image?next_project=No)

**Fig. 87** Retrieved from: [https://www.archdaily.com/565058/peter-rosegger-  
nursing-home-dietger-wissounig-architekten/545c1d68e58ece1e47000048-  
oeapaul-ott\\_prsggrstr\\_051-jpg?next\\_project=no](https://www.archdaily.com/565058/peter-rosegger-<br/>nursing-home-dietger-wissounig-architekten/545c1d68e58ece1e47000048-<br/>oeapaul-ott_prsggrstr_051-jpg?next_project=no)

**Portrait 7** Retrieved from: [https://www.reckontalk.com/homeless-lee-  
jeffries-photos/](https://www.reckontalk.com/homeless-lee-<br/>jeffries-photos/)

# APPENDICES

- A.1. Evidence-Based-Design Checklist
- A.2. Interviews / Guided tours

# A.1.

## Evidence-Based-Design Checklist

<p>Each theoretical spatial-design component (listed below) is validated in literature as an EBD element which helps to improve the well-being of people. The checks represent the concerning theme to which they belong. The components are used in the EBD-checklist to score the architectural impact on well-being of the three selected casestudies.</p>	<p><b>Psychological ne</b></p>
<p><b>Architecture</b></p>	<p><b>Sleep / Eat / Breath e</b></p>
<p>Are care professionals visible from the client's rooms?            Are small compact (living) units present?            Is personal climatic control (of temperature and ventilation) present?            Are single sleeping rooms (cubicles) present?            Are long corridors present?            Optimal daylight entrance (window presence)            Visual and physical accessibility of outdoor spaces (for clients + care professionals)            Space dividing wall panels instead of curtains            Spacious private sanitary (shower, toilets, sinks) with wide doors            Are closed care stations present instead of closed consultation rooms?            Are lounges, communal areas and coffe areas present and inviting?            Cozy designed gardens with various planting            Are outdoor views visible at seating or bed height?            Are public and daytime facilities present?            Is dynamic routing present and signage for wayfinding?            Are sufficient preventive measures taken to avoid noisy work-and sleeping areas?            Are decentral care stations present for accessible care provision and visual control            No standardization, but complexity and variety in room + department layouts (2)            Sufficient office / storage space + interactive teamwork possibilities (2-5-6)            Location of bathrooms at the facade (6)            Distinctive zones (public / semi-private / private) + sightlines (5)</p>	<p>v v v v  v v  v  v v v  v  v</p>
<p><b>Interior</b></p>	
<p>Lockers            Lift elevator (4)            Acoustic materials            Home-like environment + good cleanable furniture (1-7)            Sufficient, flexible and comfortable seating areas            Pantry / kitchen            Design reception / entrance            Position of doors in relation to privacy            Color pallet (nature-based tones)            Natural materials (wood or wood tones)            Effective combinations of soft color contrasts            Interesting ceiling decorations + other surface decorations            no instutional conotations or uniformity            Distinctive (colorful) routing patterns (between staff and residents)            Indoor planting            Automatic doors (1)            Hard or soft floor / wall coverings (1)            Artificificial lighting / Vandal proof lighting (2)            Art</p>	<p>v   v          v</p>

(1) diminish; (2) infectuous disease; (3) medical defects; (4) increase fall prevention  
 (4) reduced injury to staff; (5) reduced staff stress; (6) increase staff efficiency; (7) increase staff satisfaction

eds	Security	Stigma	Sensorial stimulation	Environmental Experience
tc.	Control / Privacy	Social support	Visual / Acoustic	Spatial configuration / Routing
	v  v  v v v  v v v	    v v  v  v	    v v v v  v   v	         v       v
	v v  v v  v v v	    v v v v v  v	    v v v  v v v v  v v	         v v v v  v   v



Evidence-Based-Design checklist to score architectural impact on well-being of the three casestudies	CVD Havenzick
<b>Architecture</b>	
<b>Layout</b>	
Are there different types of workspaces? (lounges, niches etc.)	no (all fixed
Is sufficient private workspaces present for staff?	r
Are workspaces noisy?	r
Are private communal recreation areas present for lunch breaks?	y
Are openly designed care stations presents?	r
Are there easy routing paths with little to no junctions?	y
Are standardized medical storage present (behind two locked doors?)	yes (but room
Are seperate support rooms present?	yes (the remark has niches wou
<b>Spaces</b>	
Are single sleeping rooms present?	yes (in assisted living she
Are bathrooms located at the facade?	r
Are curtains used as bed separations instead of wall panels?	y
Are clients able to see care staff from their rooms?	r
<b>Windows / Views</b>	
Are (large) windows present with views on greenery?	yes (but outdoor view window
<b>Garden / Patios</b>	
Are recreational outdoor spaces accessible?	limited (one sma pres
<b>Exterior design in general</b>	
Are evident institutional connotations in colors and materials present?	y
<b>Interior</b>	
<b>Materials</b>	
Are good acoustic insulation (ceiling/wall) panels applied?	r
Are colors or other materials used to distinct staff and client/resident routing?	yes (a mix of vibra
Are hard or soft floor covering present?	yes (linoleum
<b>Furniture</b>	
Are lockers (of different measurements) present?	yes (large lockers small lockers in
Are furniture coverings smooth and easy to clean?	y

nt	The Kessler Stichting	Paulus Kerk
workspaces)	yes (large and small units)	yes (fixed and flexible spaces)
no	yes	yes
no	no	no
es	yes	more or less present (communal areas for residents are also used by staff)
no	no	yes (communal areas also serve as large workareas)
es	yes	yes
s are too small)	yes	yes
been made that small ld work too)	yes	no
ng wing, not in night lter)	yes (single-rooms present for people with psychiatric histories)	no (rooms for 2 people)
no	no	no
es	yes	no (no space separation present at all)
no	no	no
ws are obstructed by coverings)	yes	yes
ll airing courtyard sent)	yes (large communal garden on the groundfloor)	no
es	no	no
no	no	no
ant and soft colors)	yes (a mix of vibrant and soft colors)	no
floor covering)	yes (wood, linoleum and carpet)	yes (hard floor covering)
on the groundfloor, sleeping rooms)	yes (large lockers on the groundfloor, small lockers in sleeping rooms)	yes (cabinets in sleeping rooms)
es	yes	yes

<b>Pantry</b>	
Are small pantries present for beverages?	no (only a groundflo
<b>Interior decoration in general</b>	
Is the interior welcoming, comfortable and attractive?	average (attempts h create a home-like en use of colors. Howe vibrant. Rooms will be use of differ
Soft color pallet used?	no
Is spatial complexity and design variety present?	no
Are workspaces neat and orderly?	no (to many functio space. Functional di
<b>Artificial lighting</b>	
Is there a combination of artificial lighting and natural light?	no
Does artificial lighting contribute to the aesthetics of spaces?	no
Does the artificial lighting evoke institutional connotations?	ye
<b>Accessories</b>	
Do spaces have a clean, well-cared and fresh ambience?	ye
Is art present?	yes (however abstr nature-ba
Are alcohol dispensers present in each room?	yes (in client rooms n

or kitchen present)	yes (in communal living rooms)	yes (in groundfloor communal area)
have been made to environment, with the ver, colors are too e more cheerful with nt materials	yes (however color use is too vibrant in living rooms. Wooden materials could be added as wall covers to enhance a sensorial environment.	yes (however sleeping areas are too sterile, with use of trendy color pallet)
o	no	no
o	limited (small void present at vertical circulation paths	yes (use of ceiling heights and light entrance in entrance area and church space)
ns cramped in one vision is necessary)	yes	yes
o	yes	yes
o	yes	yes
s	no	yes
s	yes	yes
fact art instead of ased art)	yes (personal portrets)	yes (presented as possibilities for personalization as they are made by clients themselves
nursing department)	yes (in client rooms nursing department)	no (not present in sleeping rooms)

# A.2.

Interviews / Guided tours

## TRANSCRIPT 1

INTERVIEW: FACILITY EMPLOYEE CVD HAVENZICHT (ROTTERDAM)  
17.10.2019

*Due to privacy reasons, the interviewee is appointed as Contact person 1 (CP1) and the Interviewer Sigwela Augustin abbreviated as S.A.*

**SA:** Hoeveel terminale cliënten hebben jullie op dit moment? Waarvan jullie de verwachting hebben dat ze binnen nu en een paar maanden komen te overlijden?

**CP1:** We hebben nu geen terminale patiënten liggen. Maar dat zijn er wel ongeveer 10 per jaar.

**SA:** In de resultaten van vorig jaar en het jaar ervoor heb ik gezien dat er gemiddeld 7 terminale cliënten waren.

**CP1:** Ja, dat zou zomaar kunnen. Ik heb er twee of drie gezien in mijn carrière hier bij het CVD.

Sigwela: Als je hier sinds april bent komen werken, en er dan al twee of drie gezien hebt. Vind ik aardig veel.

**SA:** Heb je een idee wat voor ziektes ze op dit moment hebben? Zoals chronische ziekten waardoor ze in een terminale fase zouden kunnen komen?

**CP1:** Ik moet zeggen dat kanker wel voorkomt, maar verder heb ik daar weinig van gehoord moet ik zeggen en niet teruggekoppeld gekregen. Maar het zijn voornamelijk wel echt special breuken, huidziektes en bacteriële infecties. We kunnen geen chemokuren geven, dat doen we niet. Dat is echt in het ziekenhuis. Maar dat traject loopt wel.

**SA:** En hoe is de bezetting van de herstel- en verpleegafdeling?

**CP1:** Die is altijd vol, met een wachtlijst. We moeten prioriteiten stellen en een selectie maken. Heeft die persoon bijvoorbeeld echt meer zorg dan een ander. Het is ook gewoon heel moeilijk, want met de ruimte is het al moeilijk maar ook met het personeel. Want je werkt in het CAO van sociaal werk en niet in het CAO van de gezondheidszorg. Dus er zit aar een paar schalen salarig verschil tussen.

**SA:** Hebben jullie ook meer behoefte aan samenwerking met de gezondheidszorg?

**CP1:** Dat weet ik niet. Ik ben niet werkzaam op de verpleegafdeling en kan daarom dat antwoord niet geven.

**SA:** Hoeveel personeel hebben jullie op de verpleeg- en herstelafdeling? En in het gebouw?

**CVD:** Op dit moment, 13 man. Samen in totaal denk ik

gemiddeld 20 per locatie. Het CVD heeft in totaal 500 medewerkers verdeeld over Rotterdam.

**SA:** En hoeveel werknemers zijn er specifiek op de herstelafdeling?

**CVD:** Momenteel, zitten we onder bemand. Je hebt de coördinator, je hebt er twee boven en dan vaak nog een stagiair of vrijwilliger erbij. Dus op de verpleegafdeling heb je er al snel vier of vijf. Omdat het gewoon tot in alles zijn ze hulpbehoevend.

**SA:** En zijn jullie tevreden met de kantoorruimte? Is er voldoende kantoorruimte?

Je merkt voor een instantie als CVD dan weet je dat er niet iets nieuws wordt gebouwd daarvoor. Omdat je subsidie krijgt van Rotterdam kan je gebruik maken van bestaande panden en dat soort dingen. Onze locatie De Hille bijvoorbeeld is een oud klooster. Maar dat betekent dat je die ruimtes daar kan je niet veel aan doen, vaak zijn het monumentale panden, of vaak hebben ze een gemeentelijk aangezicht en kan je er ook niet veel aan veranderen. Dus dan moet je het doen met wat je hebt. En dat geldt ook hiervoor eigenlijk. Er is een keuze gemaakt om twee grote gemeenschappelijke ruimtes te maken. Eentje kon voorheen gerookt worden, maar inmiddels is roken binnen verboden, dus dan mag dat niet meer. Dus dan heb je twee gezamenlijke ruimtes en die heb je ook straks nodig met de winteropvang. Om ervoor te zorgen dat de rust en vrede bewaard blijft, dat wanneer er daar mensen zijn die anderen irriteren, dat ze bijv. hiernaartoe kunnen komen om rustig op adem te komen.

Ruimte genoeg? Nee nooit. Alle ruimte die gebruik wordt, is voor de cliënten. Je hebt twee kamertjes om te spreken maar 1 daarvan zit sowieso een maatschappelijk werker, omdat die ergens anders geen plaats heeft, dus dan mis je alweer een ruimte om op een normale manier te vergaderen of te zitten.

**SA:** Dus de cliënten hebben voorrang als het gaat om ruimtegebruik?

**CP1:** Ja, je moet wel. Je wilt ze zoveel mogelijk bieden. In hetgeen, wat je kan toelaten. Maar je hebt de

ruimtes wel nodig om met elkaar te spreken, maar ook voor cliënten en hun begeleider of met een instantie (een schuldstanties) en dat soort dingen, reclassering. Het tekort aan ruimten is wel makkelijk op te lossen. Ik bedoel als je goede flexplekken creëert dan zou het ook al kunnen. Of als je goede stilte hoekjes creëert waar je op een goede manier kan praten. Een begeleider hoeft niet per se een gesprek te voeren waar je een aparte ruimte voor hoeft te boeken. Als je een stille hoek creëert of een goed akoestiek materiaal gebruikt, dan heb je er al minder last van.

**SA: Ik heb een vraag over de nachtopvang. Wat zijn de openingstijden?**

Bij het CVD, moeten de mensen 08u buiten zijn. De keuken is tot 07.30u geopend. Om 06.30u is de eerste wekronde, om 07.15u de tweede wekronde. Dan kunnen ze nog wel een boterham eten en douchen en dan om 08u moet iedereen buiten zijn. Tenzij je een meerzorg patiënt bent. Meerzorg patiënten moeten tussen 08u en 10u in de zaal beneden zijn, zodat we boven de tijd hebben om lakens te verwisselen. Dan is om 17u de inschrijving voor de mensen die zich aanmelden om de nacht te maken hier. Op het moment dat de bedden niet vol zijn, dan is er niks aan de hand. Op het moment dat het wel zo is, en er zijn mensen aan het wachten dan vindt er een loting plaats. Niks meer niks minder. Voor de mensen die uitgeloot worden dan wordt er gebeld naar andere locaties voor onderdak. Het moment dat iedereen werkelijk binnen moet zijn, of als anderen besluiten buiten te blijven, wat regelmatig gebeurt, dan komen toch nog bedden vrij en dan kunnen mensen daar gebruik van maken. Zo proberen we altijd alle bedden vol te krijgen.

**SA: Worden er ook als alle bedden vol zijn, extra stretchers geleverd?**

**CP1:** Nee, want daar hebben we ook geen geld voor van de gemeente uit. We krijgen geld voor, ik noem maar wat, we hebben 42 bedden, dus we krijgen dan subsidie voor 42 personen dat ze hier kunnen overnachten. En als we er meer ontvangen, dat kan wel, maar dat kost ons dan eigenlijk geld. De gemeente wilt zo min mogelijk geld uitgeven. Ze geven wel geld uit. Veel geld zelfs, als je ziet wat er allemaal mogelijk is voor die mensen, maar niet om iedereen te kunnen laten slapen. Op gegeven moment houdt het op.

**SA: Hoe gaan jullie om met de veiligheid? Dames en heren worden gescheiden, maar als het gaat om de opslag van medicatie?**

Om medicijnen uit te geven, moeten twee verpleegkundigen een handtekening zetten, voordat überhaupt maar 1 pilletje uitgedeeld wordt. Alle medicatie ligt achter slot en grendel. In de grote kluis is er medicatie voor alle opslag per patiënt. In de nachtdienst wordt de pillendoos klaargemaakt voor die dag, dus dat is het enige dat aan medicijnen vrijwillig tot aan het moment dat degene er is die daadwerkelijk de pillendienst doet. Als ze medicijnen nodig hebben dan krijgen ze dat. En ja de mensen in de nachtopvang, die medicijn behoevend zijn. Die halen het op straat.

**SA: Hierbinnen mogen ze geen drugs gebruiken?**

**CP1:** Nee

**SA: Er zijn hier ook 17 kamers voor begeleid wonen. Mogen ze daarbinnen wel een biertje drinken?**

**CP1:** Op hun eigen kamer, alleen, mogen ze blowen, drinken en doen wat ze willen. Op hun eigen kamer alleen in de woonvorm. Niet de nachtopvang. Als die willen blowen, gebruiken of wat dan ook dan moeten ze naar buiten toe.

Hun eigen kamer is hun eigen huis, en daar kan je niet over oordelen wat ze daar doen. Tenzij de brandveiligheid in gevaar komt. Of de veiligheid überhaupt van personeel of medewerkers.

**SA: En hoe gaan jullie om met de privacy als het gaat om persoonlijke spullen?**

**CP1:** Op de nachtopvang mogen de mensen spullen (tandenborstel etc.) meenemen naar de kamer wat in een plastic doorzichtig tasje past, zodat we weten wat ze meenemen. En de rest moet beneden in een kluis blijven en die moet de volgende ochtend weer leeghalen. En als je dan weer in de nacht een bed hebt dan mag je weer gebruik maken van de locker. En als de metaal detector afgaat dan moet je kunnen aantonen wat het is.

**SA: En hoe gaan jullie om met de hygiëne? Je kan mensen niet dwingen om gebruik te maken van de sanitaire voorzieningen, Maar wordt vanuit het CVD mensen daarop aangesproken dat ze toch een beetje voor zichzelf moeten zorgen?**

**CP1:** Mensen die in een traject of behandelfase, of nachtopvangtraject zitten, Ja! Maar de mensen die hier verblijven zijn al mensen die al voor zichzelf kunnen zorgen. Het zijn geen zwervers, liggen niet onder de brug. In de winteropvang zal dat denk ik anders zijn. . . Heb ik zelf nog niet meegemaakt maar ik denk dat dat anders is omdat het dan buiten te koud is om te slapen. Maar tot nu toe heb je ook een heel aantal

die gewoon werken, een normaal leven hebben maar alleen geen dak hebben. Maar die kunnen wel heel goed voor zichzelf zorgen. Er lopen hier 's ochtends een aantal dames uit die er heel verzorgd uitzien.

**SA:** Het is niet van ze af te zien.

**CP1:** Absoluut niet! Het enige waaraan je ze zou kunnen herkennen is dat ze met behoorlijk veel spelen over straat lopen en grote tassen.

**SA:** Heb je voor jou een beeld hoe de mensen op het gebouw reageren? Zijn ze blij met de ruimtes waar ze in verblijven?

**CP1:** Ik ben voor twee locaties verantwoordelijk. Deze, en de Hille. De Hille is een oud klooster, dus kleine ruimtes en dikke muren, donker met donkere hoekjes en lange gangen. Dit is wat moderner, opener, lichter, ruimer en wat groter. Het komt hier wat huiselijker over. En een oud klooster roept ook wel wat dingen op bij mensen. Of ze voelen dingen.

**SA:** Het valt me op dat er ramen zijn, maar dat het onderste gedeelte niet zo translucient is als erboven en er daardoor geen zicht naar buiten is.

**CP1:** Het gaat er voornamelijk om dat de mensen van buiten niet naar binnen kunnen kijken, anders blijven ze hangen. En bij de kantoren is de folie nog wat hoger omdat ze echt gewoon naar binnen kijken wat doet het personeel zijn ze aan het eten, wel aan het werk of weer koffie aan het drinken?

**SA:** Zijn het de buurtbewoners?

**CP1:** De nachtopvang mensen. Wij proberen hun in de gaten te houden met de camera's maar zijn proberen ook ons te observeren om te kijken waar kunnen we nog iets halen of niet, of voor elkaar krijgen of wat dan ook.

**SA:** Dus het is echt voor de privacy.

**CP1:** Ja ook voor de bewoners zelf. Ook die van de meerzorg die gewoon binnen zijn, die hebben hun eigen ding hier.

**SA:** Er is veel onderzoek gedaan naar goed ontworpen ruimten en dat architectuur een goede invloed kan hebben op het psychisch welzijn van mensen. Denk je dat dit gebouw dat ook bevordert?

**CP1:** Ja, dit gebouw zeker. Puur mijn eigen mening, en ik ben geen TU student, maar puur mijn eigen mening dat het wat lichter is en dat de kleuren wat aardser zijn. We hebben verschillende locaties, en de nieuwe locaties hebben echt hele felle kleuren, maar zo zijn dan ook de deuren en kozijnen en dat komt best op je af. En de kleuren hier zijn at rustiger en gemoedelijker. En voor de mensen die al op straat zitten, en waar straks ook 40 man in deze ruimte zitten, dan denk

ik dat wat rustigere kleuren een betere uitwerking hebben dan drukke kleuren.

**SA:** De buurt hoe reageren ze op het gebouw?

**CP1:** Je bent toch een dagopvang, daar zitten mensen niet op te springen.

**SA:** En waar ligt dat aan?

**CP1:** Ze hebben niks anders, dus velen blijven wel rondhangen. En als je rondhangt, dan veroorzaakt je overlast hoe je het went of keert. Of je praat te hard, of je laat troep achter of drugs. Het is dus ook aan ons om de mensen op te voeden en te zeggen binnen een straal van 500 meter en alleen daarbuiten mag je zijn. Velen zoeken ook het winkelcentrum op, en vormen een clan die naar de bibliotheek gaan. Gratis wifi, er is een toilet je kunt ook drinken.

Wat mij opvangt aan het CVD, alle locaties, heb je een coffee shop in de buurt. Je hebt de mensen liever aan het blowen dan aan de alcohol omdat ze daar rustig en relaxed van worden en slaperig. En door alcohol worden ze onrustig.

**SA:** En uiteindelijk als laatste vraag. Wat moet ik echt meenemen als ontwerper bij het maken van een maatschappelijke opvang?

**CP1:** Ik zou echt zorgen voor voldoende ruimte voor de schoonmaaksters, wasdames en wat dan ook. Want de schoonmaak karren moet zo geplaatst worden onder de trap zodat de nooduitgang vrijblijft. Ze moeten dan ok nog door niet automatische deuren. Daar is totaal niet bij nagedacht. Een afvalcontainer hok met een enorme drempel. Het zijn 1200 liters afvalcontainers, Er is heel veel ruimte in gebruik voor cliënten, met alle gemakken voorzien, maar ik denk dat je minder personeel en minder kwalificerend personeel nodig hebt als je ook de facilitaire gang van zaken beter hebt bedacht. Ook de opslag voor keuken is nodig. Naar mijn mening is er heel erg gekeken naar de client van toen, en niet naar wat voor cliënten hebben we nu. Want daar is ook een verschil in gekomen. Want er zijn nu meer dames bijgekomen, dus er moeten meer eigen kamers komen. Scootmobiel kun je voor 50,- euro er eentje komen en iedereen koopt er eentje. Ook, wat nu een hot item is in Rotterdam is de privacy. Als je dat mee kan nemen in je plannen dan heb je al een enorme plus.

**SA:** De behoefte is een enkele kamer?

**CP1:** Ja, tuurlijk. Voor een ieder, maar aan de andere kant is het ook niet haalbaar met de huidige subsidies, want daarmee moet je ook het gebouw betalen, het eten, elektra, water, personeel. Maar als we echt wat



nodig hebben op de verpleegafdeling, een grotere badkamer, omdat mensen niet meer kunnen lopen bijv. dan kunnen wij op basis van fondsen voor dat doel, geld gesponsord krijgen van bedrijven.

**SA:** En die scootmobiel moet ook ergens kwijt.

**CP1:** Ja precies. Probeer maar eens een scootmobiel te verplaatsen die uit staat.

**SA:** Er is bijvoorbeeld nog iets anders wat kan veranderen?

**CP1:** Ik denk dat de denkwijze van het personeel ook kan veranderen door open te staan voor meer flexplekken, als ook de werksituatie het toelaat. Flexplekken met wel een eigen kastruimte, dan denk ik dat er meer functionele ruimte overblijft. Het is toch allemaal nog een beetje dit is mijn plekje.

**SA:** Denk je dat de gemeente meer moet investeren in dit soort voorzieningen?

**CP1:** Het punt waar ikzelf mee worstel, is dat we een heleboel mensen kunnen helpen en de mensen die geholpen willen worden kunnen ook geholpen worden, en hoe groter je wordt hoe minder mensen je binnen krijgt die geholpen willen worden. Er zijn heel veel mensen die dit prima vinden. Er zijn ook heel veel mensen die niet geholpen willen worden. Meer is altijd goed, maar is het reëel dat weet ik niet. Zo een verpleegafdeling, een uitbreiding ervan, met daarin verschillende degradaties, waarin je kan zeggen er is een afdeling met bijv. meerzorg mensen die 's ochtends een verband nodig hebben voor hun voeten voordat ze de straat opgaan, tot aan dat ze echt bedlegerig zijn. Daar zit een heel groot verschil tussen. En dan heb je ook de palliatieve terminale zorg.

**SA:** Dus de gemeente zou wel kunnen investeren in een uitbreiding van zo een verpleegafdeling?

**CP1:** Ja. Alleen valt daar er wel minder te halen, want om iemand zorg te geven omdat die dat nodig heeft (omdat die niet meer zelf kan poepen, douchen etc.) of iemand waarvan een verbandje moet worden verwisseld, daar zit wel een heel groot geldbedrag verschil in. Iemand tot in de puntjes verzorgen, levert wat geld en plusjes op.

Daarvoor zou je nog een stukje nazorg moeten worden. Of iemand die betaald wordt om in de laatste rondje te checken of iemand misselijk wordt, of heb je je insuline wel gespoten etc. Eigenlijk voor ons hele onbenullige dingen, maar voor hen heel lastig, omdat ze niet voor zichzelf kunnen en willen zorgen.

**SA:** Waar ik meer mee worstel is dat de ruimten waar de mensen in verblijven ook niet perse stimulerend is

en/of ze een gevoel van waardigheid geeft.

**CP1:** Nee maar ja, dat is heel mooi en nobel, maar daar moet wel geld voor zijn. Heel simpel gezegd. De CAO van sociaal werkers is nu voor het personeel, 3,24% omhoog gegaan en in juli weer. Dus er gaat sraks meer geld naar het personeel toe. Maar er komen niet echt meer cliënten bij. Dus van het geld wat je krijgt van de gemeente mocht je daar wat over van houden dan gaat dat naar het personeel toe omdat het CAO omhoog is gegaan, en niet naar de cliënten dat er bijv. een tafeltennis tafel gekocht kan worden. Een spelcomputer, een wi, straatdokter, pedicure dame die hier een hok heeft.

Het zou mooi wel mooi zijn als de gemeente meer geld uitgeeft.

**SA:** Dus subsidies van particuliere partijen die kunnen ondersteunen, zouden wel om dit soort gebouwen te kunnen verbeteren.

**CP1:** Ik zou starten met verduurzamen. Niet naar de cliënten toe, als organisatie en werknemers. Bijvoorbeeld die spaarlampen eruit en doe er LED in, je huurt een ruimte of op het dak zonnepanelen en dan komt dat geld terug en kun je het ook gebruiken voor de cliënten. Maar nu wordt er eerst gedacht aan de cliënten en dan aan het gebouw. Dat is lastig. Ik denk dat jij in de toekomst daar juist problemen gaat krijgen, want dat zal de grootste uitdaging zijn in de architectuur. Het is wel leuk om een glazen gebouw te maken, maar het moet wel schoongemaakt worden.

## TRANSCRIPT 2

INTERVIEW: SOCIAL CARE WORKERS KESSLER STICHTING (THE HAGUE)

09.10.2019

*Due to privacy reasons, the interviewee is appointed as Contact person 2 (CP2) and the Interviewer Sigwela Augustin abbreviated as S.A.*

**SA:** Wat is de Kessler Stichting en wat voor zorg bieden jullie? Wat doet de stichting vooral?

**CP2:** Wat niet? Iedereen heeft een eigen takenpakket. De ene afdeling is vooral bezig met huisvesting, financieren, dagbesteding, acute dak-en thuisloosheid en het hele riedeltje op pakken. Wonen ze hier al langer dan is het weer anders. Bij mij bij het beschermd wonen, wonen ze er al 11 jaar, dus dan zijn er al dingen gestart en dan ga je meer met een trajectplan werken om doelen te behalen en om eventueel door te stromen. En de verpleeghuisafdeling is meer zorggericht uiteraard. Maar dan komt nog steeds het maatschappelijk stukje bij en de financiën, en doe je wel op elke afdeling hetzelfde. Maar op de noodopvang afdeling wordt het meer opgestart. Daar is het meer de eerste opvang als mensen rechtstreeks van de straat komen dan kunnen ze doorstromen naar verschillende afdelingen, Bescherm Wonen en Begeleid wonen etc.

**SA:** Hoeveel cliënten hebben jullie?

**CP2:** 114 voor de noodopvang. En daar krijgen ze ook zorg. We kunnen ze ook aanmelden bij de thuiszorg en ze worden ook aangemeld bij een straatdokter.

**SA:** En bij begeleid wonen, hoeveel bewoners zijn er?

**CP2:** 26 bewoners. Nee dat is niet begeleid wonen, dat is beschermd wonen.

**SA:** Er is dus een verschil tussen begeleid wonen en beschermd wonen? Wat zijn de verschillen?

**CP2:** Begeleid wonen is echt gericht op het doorstromen om eventueel daarna beschermd te gaan wonen of zelfstandig te gaan wonen. Terwijl beschermd wonen, ik zal niet zeggen dat het echt een eindstation is, maar dat is wel echt een eigen woonvorm. Begeleid wonen daar zit wel vaak een tijdsduur aan vast, bijvoorbeeld een half jaar of een jaar, met de bedoeling dat mensen weer op weg worden geholpen om zelfstandig te worden.

**CP2:** Bij de noodopvang is het niet de bedoeling dat je daar gaat wonen.

**SA:** En hoe laat mogen de cliënten binnenkomen?

**CP2:** Ze mogen binnenkomen vanaf 15.30 – en de cliënten die geen dagopvang hebben – moeten weer naar buiten om 08.30u.

**SA:** En in die tussentijd, zijn er dan activiteiten?

**CP2:** Er is dan dagbesteding bij Reakt, of sommigen gaan werken. Er zijn mensen die wel dagopvang hebben en die kunnen wel binnen blijven.

**SA:** Hoeveel mensen liggen er op de zorgafdeling?

**CP2:** Daar liggen er 38 mensen. En daar zitten onverzekerde eerstelijns (ELV) bedden, er zijn aparte kamers en er zijn mensen die wat langer verblijven. Er zijn nog wel sommigen die doorstromen, maar dat zijn er weinig hoor. De meesten zijn chronisch ziek. Als je daar komt, kom je daar niet meer vandaan.

**SA:** De bezetting daarvan?

**CP2:** Het is continu vol. De afdeling heeft opname stoppen. Het is te vol. Het is 36 max, maar er zijn bedden bijgeplaatst. Je merkt ook dat het zwaarder wordt met de GGZ problematiek en ook dit stuk.

**SA:** In hoeverre is er ook samenwerking met hospices buiten de Kessler stichting? Worden er ook transfers daarnaartoe gedaan?

**CP2:** Nee, wij zijn echt specifiek voor dak-en thuislozen. Het is vaak moeilijk om ze dan naar een verpleeghuis te krijgen, qua financiën en verzekeringen. Wij hebben daar speciale potjes voor. Wij hebben wel het verpleeghuis die bij ons komt, tenminste de arts komt 1 keer n de week, de diëtiste, dat is allemaal van BZA, die hier de consulten doen, fysiotherapie, ergotherapie, dus we hebben wel alle disciplines maar veel disciplines zijn ook van andere bedrijven binnengehaald.

**SA:** Ik heb me ingelezen dat er wel een roep is van sociaal professionals en professionals in de gezondheidszorg, dat er een wens is voor meer samenwerking omdat de palliatieve zorg voor deze doelgroep specifiek sterk verbeterd kan worden. En met 38 cliënten op de zorgafdeling en dat het vol is. . .

**CP2:** Als wij toegang hadden tot alle afdelingen qua ruimte, dan was het allemaal vol. . . Maar dat geldt ook voor de noodopvang als die toegang krijgen tot alle afdelingen, dan ligt het ook vol.

**SA:** Maar merken jullie dat ook dat er meer behoefte is aan samenwerking tussen de disciplines?

**CP2:** Het is gedurende de jaren wel verbeterd. Heel

kwetsbare mensen worden nog weleens naar de Nood opvang gestuurd, maar noodopvang is niet een plek voor mensen die heel erg ziek zijn (zoals terminaal zieken), maar het gebeurt wel eens dat we dat soort mensen binnenkrijgen. En dan heb ik liever dat ze gelijk doorsturen naar een verzorgingshuis, maar het is er nog niet en is wel een idee voor de toekomst. Je loopt gewoon tegen wachtlijsten aan en alles loopt vol.

**SA:** Ja, een kennis van mij is terminaal verpleegkundige en die heeft dat ook aangegeven.

**CP2:** Een enkele keer hebben we mensen die erg ziek zijn, en bij ons in de noodopvang absoluut niet op hun plaats zijn, en dan is het heel moeilijk om ze te verplaatsen. Wordt er wel hulp ingeroepen, we hebben de Figgers maar ook nu sinds een maand of drie of vier ook een AWW verpleegkundige op spreekuur. Dat is een verpleegkundige niveau 5, die is als tussenstap naar de straatarts, die kan het op dit moment ook niet meer aan, dus de heeft ook een patiëntenstop. Om te voorkomen dat die man helemaal overspoeld wordt met dak-en thuislozen, is nu een HBO verpleegkundige ingeschakeld, om een inschatting te maken of die naar de huisarts moet of kunnen we het in de opvang afhandelen. Vorig jaar konden we nog wel mensen gemakkelijker van de noodopvang doorsturen naar de Zorg & Wonen afdeling. En daarvoor is de nachtopvang de noodopvang geworden, daarvoor is de winterregeling langer geworden. Dus we hebben heel langzaam kleine aanpassingen gemaakt, Mensen kunnen langer binnenblijven in de dagopvang, mocht daar een medische regeling voor zijn. Dus in twee jaar tijd is het echt verzwaard. Mensen die echt heel ziek zijn, komen bijv. rechtstreeks vanuit het ziekenhuis, een man met Parkinson die er slecht aan toe is, nierdialyse, noem maar op. We moeten ook echt roeien met de riemen die we hebben want we zijn geen verpleegafdeling, en hebben iet voor een ieder een rolstoel. We hebben maar 5 echte ziekenboek bedden, maar we hebben er 16 nodig.

**SA:** Er is dus een verschil tussen de Noodopvang en de nachtopvang?

**CP2:** Het is van nacht naar nood gegaan, omdat we gewoon hulp moesten blijven bieden ook overdag en het niet om 08.30u konden stoppen, om een leeg gebouw te hebben om op te ruimen en voor de volgende lading die 's avonds konden komen. Dat kan gewoon niet. We konden ze niet met wonden op straat sturen. Maar ook heel veel psychisch.

**SA:** Dat is ook iets waar ik mij graag op wil richten. Omdat het dicht bij huis is, aangezien mijn moeder

ook tweemaal getroffen is door een psychose. Hoe gaan jullie daar mee om? Waar vindt die scheidingslijn plaats tot waar je zorg kan bieden?

**CP2:** We hebben recent een aantal heftige incidenten meegemaakt. Waarbij echt gevaar is geweest. Dat er geslagen wordt. Wij moeten ons ook veilig voelen als begeleiding. Dus wij hebben nu ook een aantal voorwaarden gesteld aan het daklozenloket dat wij niet zomaar iedereen meer opvangen, dat wat wij ook graag wat willen over de geschiedenis, of er somatische of psychische problemen zijn. Dat ze gescreend worden. Want sommigen komen dan voor een nacht, en dan kan iemand 's nachts ineens een psychose krijgen en dat dan de veiligheid van andere klanten in gevaar komen.

**SA:** Ik heb ook wel begrepen dat sommige dak-en thuislozen zorg mijndend zijn, en dat het daardoor moeilijk is om medische geschiedenis in te zien. Zien jullie dat ook?

**CP2:** Maar daar hebben we de Figgers en de verpleegkundigen voor die toch meer informatie kunnen verkrijgen over iemands achtergrond. En gaat het in samenhang met artsen? We hebben ook keten partners, van Top tien bijv. die eens in de twee weken langs komt om advies te geven. Dat is vaak een goede stap, want iedereen die binnenkomt is vaak al in beeld bij Parnassia, en dat soort hulpverleners en altijd wel bij een huisarts. Het is altijd wat uitzoekwerk. Je belt maar gewoon en je komt zelf wel bij iemand die kan helpen.

**SA:** Zijn dak-en thuislozen geregistreerd?

**CP2:** Ze mogen pas bij ons komen als ze een zorgpas hebben en die krijgen ze van het daklozen loket. Je kan maar 1x overnachten bij een pas, maar om de volgende dag te komen moet je wel er een hebben.

**SA:** En als ik een vraag kan stellen over het gebouw zelf. Zijn jullie er blij mee? Is er voldoende kantoorruimte?

**CP2:** De capaciteit is berekend op 85 cliënten op de Nood Opvang. We hebben een team kamer, twee spreek kamers, een dokter kamer. En we zijn bezig met renoveren, om het wat huiselijker te maken.

**SA:** Hebben ze dak-en thuislozen ook echt een huiselijk gevoel? En dat het hun huis is?

**CP2:** Ik denk het wel, er zijn ook eigen kamers die ze zelf kunnen inrichten. Op de Noodopvang is dat natuurlijk anders, want dan slapen ze met meerdere mensen op een kamer. Er is wel geprobeerd er een middenweg in te vinden, mensen moeten zich ook niet te thuis gaan voelen. De meesten willen zo snel mogelijk weg, en er zijn ook anderen die niet zoveel haast hebben. En als

je het heel erg huiselijk gaat maken, dan wordt die stap ook wel heel erg groot om weer weg te gaan.

**SA:** Ik heb nog een vraag over de activiteiten. Gebeuren er ook hier dag activiteiten?

**CP2:** Ja. Mensen in de Nood Opvang maken daar veelal geen gebruik van omdat het zoeken van huisvesting prioriteit is. Maar mensen van beschermd en begeleid wonen, doen er wel eens aan mee. Er is houtbewerking, inzameling en verkoop van kleding en een fietswerk plaats. Maar ook hebben we vooral door de personeelsbezetting dat we niet heel veel kunnen doen aan dagbesteding. Ook omdat het voor de mensen met psychische problematiek wel erg moeilijk is om ook bijpassende dagbesteding voor te vinden.

**SA:** Slapen ze in de noodopvang in een grote ruimte?

**CP2:** Nee, er zijn verschillende slaapzalen.

**SA:** Hoeveel slapen er op een ruimte?

**CP2:** Het varieert van rond de tien, acht een paar 1- en twee persoonskamers.

**SA:** Heeft het een reden, de enkele kamer, is dat voor mensen met psychische problematiek?

**CP2:** Ja klopt.

**SA:** En persoonlijke eigendommen?

**CP2:** Beneden hebben ze een locker, en boven nog een kleintje daar kunnen ze hun spullen kwijt.

**SA:** Is dat bewust gedaan?

**CP2:** Ja, anders kunnen de mensen dingen mee naar boven nemen die we liever niet boven willen hebben. Mensen gaan dan ook echt door een poortje heen, die afgaat als er metalen voorwerpen mee naar binnen willen nemen. Daar wordt wel op gecontroleerd.

**SA:** Zijn er best veel eenpersoonskamers?

**CP2:** Ik weet het niet helemaal uit mijn hoofd, maar dat zijn er een stuk of zes. Het zijn er weinig.

**SA:** En met sanitair en hygiëne hoe gaan jullie ermee om? Op elke kamer eentje?

**CP2:** Nee dat is ook centraal.

## TRANSCRIPT 3

INTERVIEW: COORDINATOR VOLUNTEERS KESSLER  
STICHTING (THE HAGUE)

09.10.2019

*Due to privacy reasons, the interviewee is appointed as Contact person 3 (CP3) and the Interviewer Sigwela Augustin abbreviated as S.A.*

**SA:** Wat voor zorg wordt er hier bij de Kessler Stichting aangeboden?

**CP3:** We hebben verschillende afdelingen, Bereik in de wijk is de ambulante hulpverlening (preventieve hulpverlening), maar ook als ze verhuizen naar een eigen huis. Ook dan vragen we wat kunnen we voor je betekenen? Welke sociale vaardigheden wil je nog leren, of een netwerk uitbreiden? Die schulden afbetalen en dat soort dingen.

**SA:** Zoeken jullie de mensen dan ook op? Of komen ze hier?

**CP3:** Beide, het is ook kijken wat kan iemand aan want sommigen zijn nog niet zover dat ze dat aankunnen. Het is ook kijken van, kun je op tijd zijn voor een afspraak, als je bijvoorbeeld de bus hebt gemist, bel je dan. . . We hebben ook de soepbus en op de markt bij de Grote Kerk, en dan delen we broodpakket uit een kopje soep, thee fruit en nu staan er ongeveer 100 mensen iedere avond. Noodopvang is echt acuut. Daar betalen mensen 2 euro dan krijgen ze een avond maaltijd, een dak boven hun hoofd, ontbijt en 's avonds om 08.30u gaan ze weer de straat op. Er is daar ook een eetzaal, en woonkamers met computers waar ze kunnen werken. Als je dakloos bent is die computer nodig om je zaken te regelen.

**SA:** Hoe zien de woonkamers eruit? Om een beeld te krijgen. . .

**CP3:** Er is een hele grote huis-en eetkamer. En dan drie kleinere woonkamers voor minder dan tien man om een beetje af te zonderen.

**SA:** Ik begreep van u collega dat er 114 man bij de Nood Opvang is. Wat is de verdeling tussen man- en vrouw?

**CP3:** Ze slapen wel met meerdere personen op een kamer (man en vrouw gescheiden natuurlijk) en ik schat dat 20% vrouw is.

Het proces is als volgt. Je moet eerst langs het daklozen loket, die doet een intakegesprek en vraagt bijv. Wat is het probleem, ben je verslaafd? Heb je schulden, psychiatrische problematiek en dan gaan ze kijken waar ze je kunnen plaatsen. Maar op dit moment hebben de gemeenten zulke lange wachtlijsten, dus we weten niet

wie we binnen krijgen en wat hun achtergrond is. En wat voor problematieken erbij komen krijgen. Dus dat is heel pittig. Voor de rest. . . de Sportlaan bevindt zich de zelfredzamere groep, de problemen zijn in kaart gebracht, en ze willen ook dat er wat mee wordt gedaan. IS ook meestal de groep die ook redelijk goed doorstroomt naar een eigen huis. Het is de groep die in mindere mate last heeft van psychische problematiek. Want van die dames en heren kun je zien dat ze wel werk hebben, en daar heb je al bepaalde vaardigheden voor nodig. Dan kan je nog wel verslaafd zijn, maar blijkbaar kun je nog wel werken en die hebben dus als dergelijke vaardigheden ontwikkeld om daarmee om te gaan. Beschermd wonen, zijn drie huizen aan elkaar gebouwd, ze delen met z'n zessen een eigen huis, met een woonkamer en keuken. Dat is kleinschalig beschermd wonen. Dus iedereen heeft hier in deze vestiging een eigen slaapruijme, met uitzondering van de acute Noodopvang. We hebben ook verpleeghuuszorg. Ik noem dat een bijzondere verpleeghuis. Daar kom je alleen als dakloze binnen met een medische indicatie.

**SA:** Dit is ook het stuk, wat ik het meest interessant vind omdat ik me ook vooral wil richten op die palliatief terminale zorg.

**CP3:** Het is ook echt de meest eenzame groep. Want ik heb de opdracht gekregen begin dit jaar om zoveel mogelijk vrijwilligers in te zetten op die afdeling. Want waarom? Als jij lichamelijk beperking hebt kom je al niet meer zo gauw buiten. Je hebt al geen contact meer met je vrienden en familie omdat je zo lang op straat hebt geleefd. Want je heen gaat er niet voor niets af. De begeleiders zijn druk bezig, we willen dus extra vrijwilligers neerzetten als luisterend oor en gesprekje. Het letterlijk zien en horen van iemand. We hebben bijvoorbeeld ook een elektrische fiets en dat iemand in die rolstoel daarin gaat.

**SA:** Hoeveel vrijwilligers hebben jullie?

**CP3:** We hebben 90 vrijwilligers. Verdeeld over Kessler breed (over de verschillende afdelingen). Dat betekent dus ook voor de soepbus en dagbesteding, want dat proberen we ook aan te bieden. Bijvoorbeeld dit tafeltje is gemaakt door bewoners. Het kan ook in de fietsbewerkingsplaats, we hebben ook drie tweedehandswinkels waar ze staan als verkoopmedewerker. Dus dat kan ook.

**SA:** En de werkplaats is ook hier in het complex?

**CP3:** Ja dat is buiten. Daar heb je dan ook de

fietswerkplaats en de verzamelplaats voor tweedehands kleding die mensen doneren en die wordt uitgezocht. Dus dat is ook een vorm van dagbesteding. Maar er moet ook een bepaalde mate van ontwikkeling in zitten. Dus hebben we gezegd dat bij een locatie, altijd een begeleider aanwezig. Bij de locatie hier komt wel elke dag een begeleider langs, maar die blijft niet heel de dag, en bij een andere locatie daar zijn de dan wel zelfstandig maar dan met een vrijwilliger. Dus dan heb je een opbouw. Maar ook bijvoorbeeld. De spullen moeten ook gebracht worden naar de mensen. En dan is het chauffeur zijn dagbesteding. Dus het is ook het verkleinen van de afstand op de arbeidsmarkt. Dat ze dus bij ons de ervaring kunnen opdoen.

**SA:** En de combinatie met de buurt? Zoals de tweedehands kledingwinkel. Komen die er ook vaak?

**CP3:** Ja. Die komen ook bij ons binnen. Je merkt ook wel dat die ook opzoek zijn naar dat praatje. Want het zijn ook best diverse mensen die naar binnen lopen. En hoe betrek je de buurt daarbij he? Er worden bijvoorbeeld aan de Sportlaan barbecues georganiseerd en dan worden ook de buurtbewoners uitgenodigd. Dat is leuk.

**SA:** De buurt staat er dus wel open voor om ook die sociale interactie te hebben met de bewoners hier.

**CP3:** Ja. Het zijn ook vrijwilligers van hier uit de buurt.

**SA:** Dat is ook wat ik me afvroeg, is hoe de buurt op de doelgroep reageert en op het gebouw, maar dat lijkt wel mooi samen te komen door de dagbesteding en de publieke voorzieningen.

**CP3:** Klopt. En ook zo een open dag dan merk je dat de buurtbewoners ook binnenlopen om eens te kijken wat er zoal gebeurt. Ik wil het wel zien eigenlijk.

**SA:** Maar geen enige vormen van klachten?

**CP3:** Die komen bij mij niet binnen. Maar ik kan me wel voorstellen dat er enige vorm van overlast zal zijn. Je probeert het wel te beperken. Maar het lijkt me wel het kan niet anders, maar het is wel iets waar we heel erg op letten en mee bezig zijn.

**SA:** Ik heb nog een vraag over die verpleegafdeling. Hebben ze wel vrienden ook hierbinnen? Kun je ze bezoeken?

**CP3:** Tuurlijk. Ze zitten niet opgesloten. Ze ontmoeten elkaar in de tuin, in de woonkamer beneden. We organiseren ook twee keer per jaar een party en dan nodigen we ook alle cliënten van de afdelingen uit. Dus we proberen wel die vermenging te doen. Het zou ook niet goed zijn dat ze niet geheel afgezonderd zijn.

## TRANSCRIPT 4

(TELEPHONE) INTERVIEW: STREETDOCTOR (PAULUSKERK)

06.01.2020

*Due to privacy reasons, the interviewee is appointed as Contact person 4 (CP4) and the Interviewer Sigwela Augustin abbreviated as S.A.*

**SA:** Met hoeveel terminaal zieke cliënten heeft u dit jaar contact gehad?

**CP4:** Dit jaar ben ik niet in contact gekomen met terminale cliënten. Naar schatting ontmoet ik er ongeveer 2 tot 3 per jaar. Ik kom er niet veel tegen vanwege de daklozen populatie die in de Paulus Kerk terecht komt. 80% bestaat uit vooral (illegale) buitenlanders, en die komen niet in aanmerking voor de Nederlandse wet- en regelgeving aangaande sociale zorg en gezondheidszorg. In de Dukdalf van het Leger des Heils wordt wel dergelijke zorg geboden.

**SA:** Hoeveel personen heeft u op spreekuur gehad met een chronische ziekte? En welke soort chronische ziekten hebben dakloze personen veelal, waaraan zij kunnen overlijden?

**CP4:** Dit jaar heb ik 4 personen behandeld met een chronische mentale en lichamelijke ziekte. Daarbij moet je denken aan mensen met PTSS, angststoornissen en depressies. Ook kom ik veel mensen tegen met COPD, allerlei soorten vormen van kanker, ook diabetes en hart & vaat ziekten. Mensen die hier last van hebben zijn niet meer zelfstandig en hebben moeite met het voorzien in basisbehoeften.

**SA:** O.b.v. schattingen van het CBS heb ik kunnen berekenen dat in Rotterdam jaarlijks circa 30 daklozen sterven, waarvan circa 20 terminaal zijn. Denkt u dat dit een reële schatting is? (afgelopen jaar in CVD Havenzicht, zijn er ruim 7 cliënten gestorven).

**CP4:** Ik heb daar zelf geen inzicht in, maar dat zou wel eens goed kunnen. Wellicht dat mijn collega Marcel Slockers je hier meer informatie over geven. Hij is straatdokter bij CVD Havenzicht.

**SA:** Denkt u dat er voldoende draagvlak is om een Maatschappelijke Opvang (MO) + Verpleegafdeling (VA) te bouwen specifiek voor dak- en thuislozen in Rotterdam?

**CP4:** Ik persoonlijk denk van wel, want dat draagvlak is er al. Alleen hangt het vooral af van de gemeente of zij behoefte hebben aan uitbreiding.

**SA:** Waar moet ik als ontwerper rekening mee houden bij het ontwerpen van een MO met VA? Wat mag niet ontbreken?

**CP4:** Ik denk dat je heel erg rekening moet houden met faciliteren van voldoende buitenruimten en rookruimten. In het ziekenhuis mag er niet gerookt worden, en dat kan voor terminaal daklozen die nog roken (of een andere verslaving hebben) wel belangrijk dat ze daar niet ook nog in belemmerd worden, wat in een ziekenhuis wel het geval is. Daarnaast kun je ook denken wellicht het faciliteren van gebruikersruimten, waar ze gecontroleerd toch nog kunnen gebruiken. Het is afhankelijk ook hoe jij daar in staat en de organisatie die de zorg aanbiedt.

Ook kun je denken aan kamers waar separate (afscheidende) kamers mogelijk is, voor degenen die met ernstig psychische problematiek (of dementie) te maken hebben, zodat zij geen overlast veroorzaken voor andere bewoners.

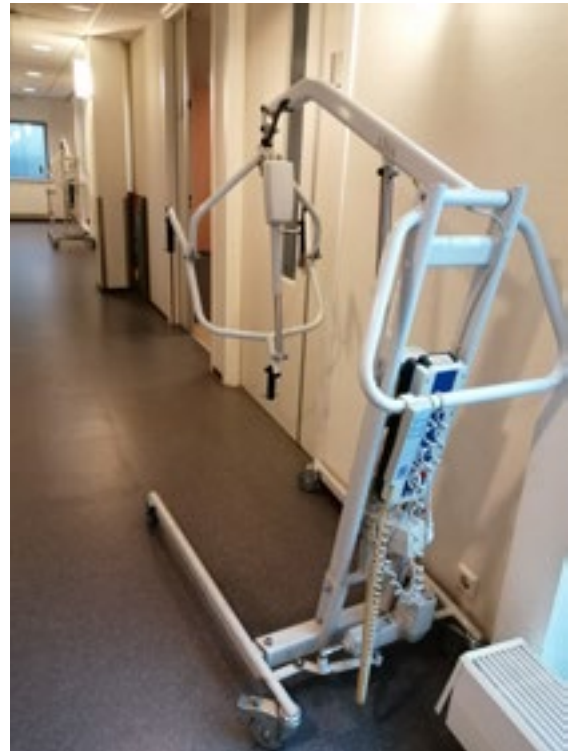
## GUIDED TOUR

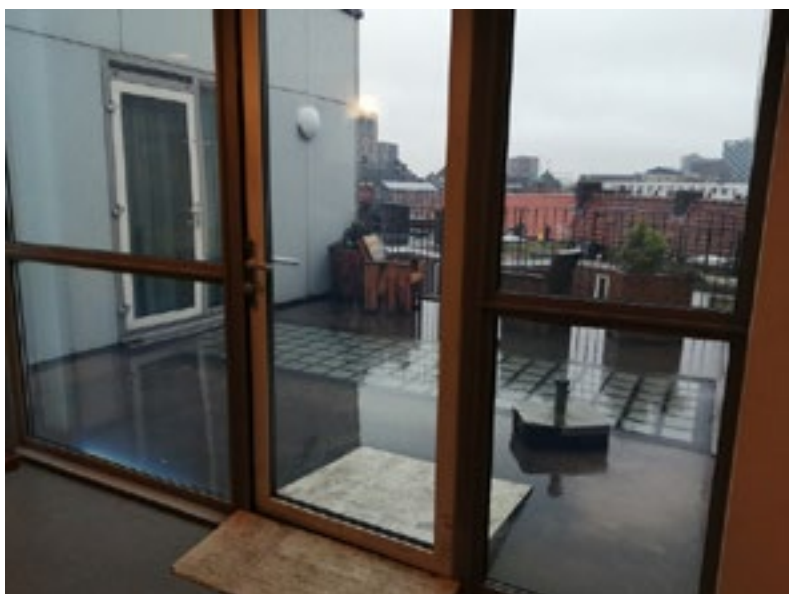
NURSING DEPARTMENT THE DUKDALF (ROTTERDAM) - ILL HOMELESS PEOPLE  
10.03.2020

*Images made as programmatic input for the design process.*



*'It is not cozy in here. I'm not allowed to bring personal items inside.'* - Ill homeless person





*'A mix of private care stations for administrative tasks and public stations for client support are necessary to increase staff efficiency and care provision' - Care professional*





## GUIDED TOUR

NURSING HOME DE LINDE (DORDRECHT) - ILL HOMELESS PEOPLE  
10.03.2020

*Images made as input for the design process.*

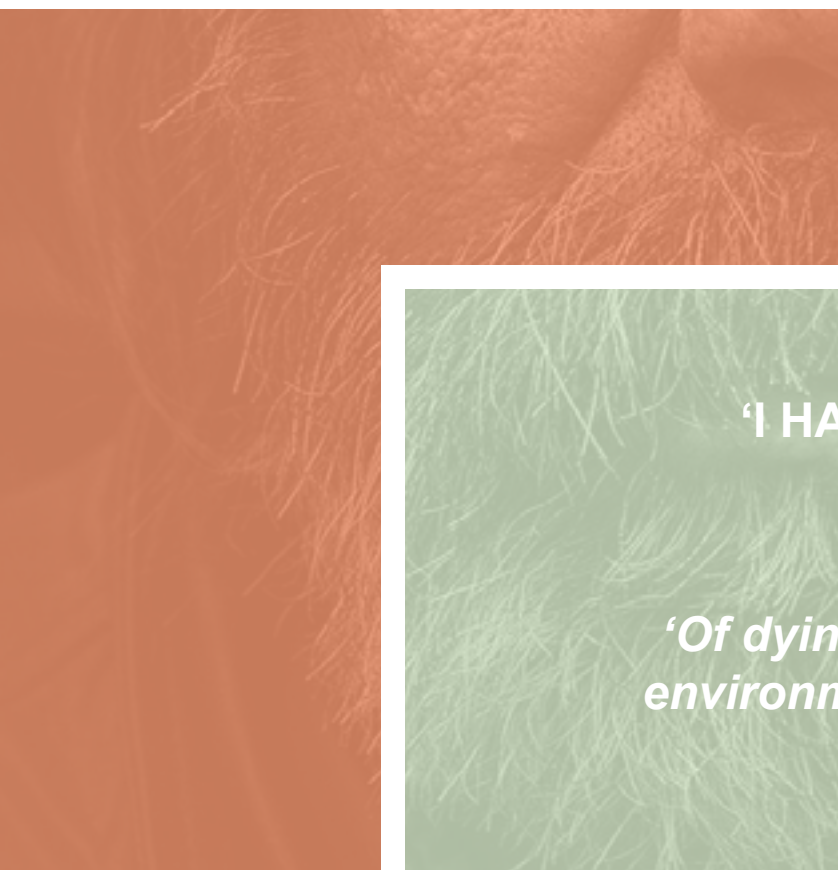
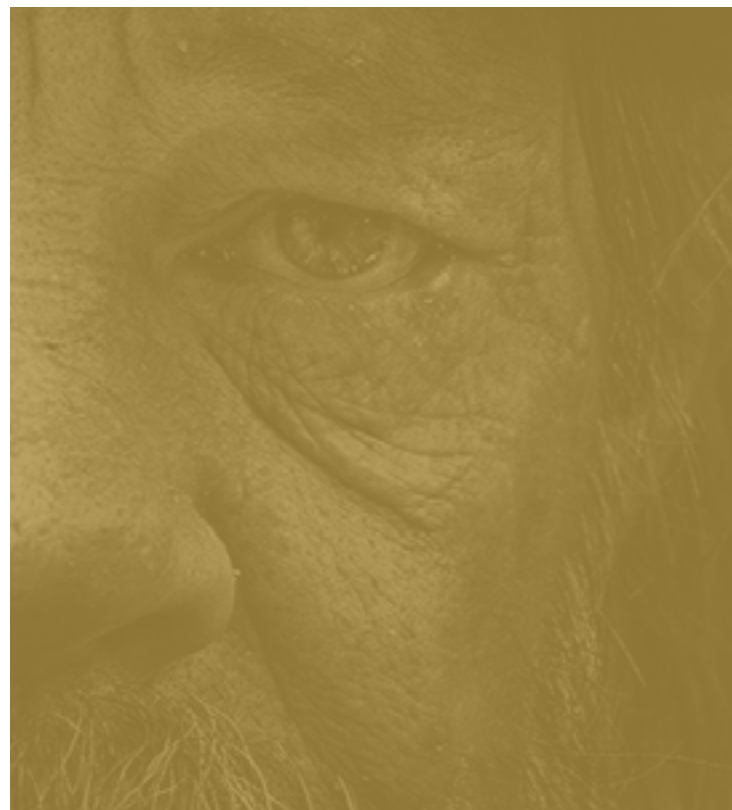


*'Large communal living rooms are important, because residents in wheelchairs need space to turn in the room. The rotation circle of a wheelchair is 1,5m' - Care professional*



*'Paintings on doors are used to familiarize individual rooms. Especially practical for those who suffer from frequent memory loss' - Care professional*





**'I HAVE A WISH'**

***'Of dying in a home-like environment with dignity'***

