



TINY ROOTS

Designing for Compact Living Spaces: An Exploration Tool for the Ultimate Tiny House Experience

By Anne van Essen



Graduation Thesis

Delft University of Technology
Industrial Design Engineering
Design for Interaction
Date: 16-10-2018

Author	Anne van Essen (A.S.)
Email	asvanessen@gmail.com A.S.vanEssen@student.tudelft.nl
Student number	4164164

Supervisory Team

Chair	Dr. ir. M.H. Sonneveld
	Industrial Design Engineering
Department	Industrial Design
Section	Applied Ergonomics and Design
Mentor	Ir. L.M.M. de Wit
	Architecture and the Built Environment
Department	Architecture
Section	Interiors, Building, Cities

Designing for Compact Living Spaces:

**An Exploration Tool for the
Ultimate Tiny House Experience**

By Anne van Essen





Preface

After travelling around the world, living from a backpack and sleeping in campervans, my boyfriend Thomas and I decided that renting or buying a house together would definitely not make us happy. Living in small spaces with almost no possessions already proved to be a success for us. For this reason, we decided that we wanted to build our own compact living space: a Tiny House, so we can live more outdoors, have a simpler and more flexible lifestyle and most important, so we could start a challenging but really awesome building adventure.

Because of this Tiny House building adventure, I did not become very enthusiastic about graduating. I had trouble finding a nice subject so I went to Marieke for advice, who only needed five minutes to put the two together. Thank you for that!

So that is how I came to design for Tiny Houses. During my own research I noticed that there is a lot to be found about the practical aspects of a Tiny House: blogs, books, video's and courses about how to build your own house, how to use software to design your own house and how to declutter and get rid of your stuff before moving into a Tiny House. Since there was not much to be found about the experience of living in a Tiny House, I wanted to focus on how people live or want to live in a Tiny House and their motives.

Are they all vegan, hippie-like people who only eat homegrown food and live in a Tiny House to save the planet or are there other motives and aspects why people choose for this lifestyle? I knew there were, so I wanted to map out the different motives and values these people have and distinguish different 'sorts' of Tiny House residents.

This report is meant for everyone interested in designing a Tiny House based on the experience instead of the practical aspects. During Tiny Roots sessions this report can serve as the background or handbook for the tool if participants want to know more about the theory behind it.

During this project I had much help from my supervisory team: I want to thank my chair Marieke Sonneveld, for all her feedback, the positive motivation when I was lost and of course the infinite enthusiasm about (both) my project(s). I still believe she will be living in a Tiny House herself soon.

And my mentor, Leontine de Wit, for opening the world of Architecture for me. She gave me a whole different view on designing. It was very interesting and useful for me and my project to have both Industrial Design and Architecture views on this design project. Thank you for that.

Thomas, for all the hours he built on the house on his own because I needed to study and his patience when I didn't have time to help but did have time to comment and criticize. :)

My parents, for all the support and my mom for the help during the test workshops.

Also many thanks to all Tiny House residents that took the time and effort to share their experiences: Doris, Piek, Bernhard, Maria, Sanne, Jente, Ep, Jan-Willem, Noortje, Tessa, Jeroen, Linde, Kjeld, Wendy, Timothy, Madelief en Yvette.

Anti, Marit, and Piek for testing.

And finally, the participants during the test workshops and the Kluit members for testing the tool.

Thank you all and enjoy reading.

Anne van Essen

Glossary

List of definitions and abbreviations:

<i>Tiny House</i>	House of less than 50 m ² (officially), with sustainability and reducing ecological footprint as main motive.
<i>TH</i>	Tiny House
<i>THOW</i>	Tiny House on wheels
<i>Off-grid</i>	Not using or depending on public utilities eg. electricity, water grid, sewage system and gas grid.
<i>On-grid</i>	Connected to public utilities eg. electricity, water grid, sewage system, gas grid.
<i>Decluttering</i>	Getting rid of your clutter (in Dutch: ontspullen)
<i>Creative session</i>	A group of people performing creative tasks like generating ideas, under the guidance of a facilitator
<i>Generative tools</i>	Components that stimulate to use creativity to express thoughts, feelings or ideas, by for example using collages or stories
<i>Sensitizing toolkit</i>	Package consisting of various exercises and materials (e.g. workbook, camera, diary, pictures, scissors etc), to stimulate the user to describe observations or experiences.

Abstract

In recent years, the popularity of compact living spaces like Tiny Houses is rising in the Netherlands. With Tiny Houses still gaining in popularity, there is a demand for information and knowledge about this new form of living. Through multiple sources, interested people are learning about tiny living and how to realize living in a Tiny House. However, these sources only cover the 'what' and 'how' about a Tiny House and forget about the most important 'why' part: why does a Tiny House fit you and which aspects of living in a Tiny House are important to you?

This project focuses on this 'why-gap' by designing an exploration tool that helps people to find their ultimate Tiny House experience and this way create a strong base for designing their own Tiny House.

To gain knowledge about the context, target group, and existing Tiny Houses, multiple types of research are conducted. In a contextual research, Tiny House residents are asked to share their experiences to find out which different values can be distinguished per resident. In the user research, the target groups are defined to see how the tool could contribute to each of the different groups. The reference analysis is used to map out the different characteristic elements that determine the design and character of a Tiny House.

From these researches, a design model arose, where the 'why' forms the base of the design, with the user and its values central. The 'how' builds on to this base, where the choices of the user as the determinants are central. Finally, these two layers serve as the foundation for the design of the Tiny House.

The final design: Tiny Roots is a toolkit that can be used in a series of sessions, for users to explore their ultimate Tiny House experience by answering this 'why' and 'how' first before designing the 'what': the Tiny House itself. It serves as the roots for designing a Tiny House that meets all values and wishes, matches the personality of the resident and this way create the ultimate Tiny House experience.



Table of contents

	Preface	5
	Glossary	6
	Abstract	7
1.	Introduction	10
	1.1 An introduction to Tiny Houses	
	1.2 History of Tiny Houses	
	1.3 Background: trends and developments	
	1.4 Problem definition	
	1.5 Goal	
	1.6 Approach	
2.	User research	22
	2.1 Defining the user	
	2.2 (semi-) Professionals	
	2.3 Go-getters	
	2.4 Dreamers	
	2.5 Conclusions: Target groups	
3.	Contextual research	30
	3.1 Research plan	
	3.2 Results	
	3.3 Insights	
	3.4 Conclusions	
	3.5 Implementation	
4.	Reference Analysis	40
	4.1 Reference projects	
	4.2 Characteristic elements	
	4.3 Implementation	
5.	Experience Determinants	50
6.	Research conclusion	66
	6.1 Overall conclusion	
	6.2 Design goal	
	6.3 Interaction Vision	
7.	Implementation	72
	7.1 Creative session	
8.	Testing	82
	8.1 Test sessions	
	8.2 Reflection	
	8.3 Insights	
9.	Case study	90
	9.1 My Tiny House	
	9.2 My Tiny House community: Kluit	
10.	Final Design	98
11.	Final conclusions	110
	11.1 Conclusion	
	11.2 Discussion & recommendations	
	11.3 Personal reflection	
12.	Appendix	116

CHAPTER 1.

INTRODUCTION

- 1.1 An introduction to Tiny Houses
- 1.2 History of Tiny Houses
- 1.3 Background: trends & developments
- 1.4 Problem definition
- 1.5 Goal
- 1.6 Approach





Figure 4. Tiny House community in Den Haag, by Proeftuin Erasmusveld

1.1 An introduction to Tiny Houses

Living small

The definition of a Tiny House is a primary and complete compact house, with the requirement of being full-time inhabited (not for recreational use). The 'official' boundaries for calling a house a Tiny House are a maximum of 50 m². In spite of that, my general interest for this project will be in houses up to 30 m², to focus on the more compact living spaces within this spectrum. During this project I will mainly put my focus on Tiny Houses in the Netherlands, since this will be the target audience for the final design.

Tiny House philosophy

Living in a Tiny House means living with more simplicity, consuming less and reducing your ecological footprint. Because the building costs are relatively low compared to a "normal" house, a Tiny House can often be built without a bank loan or mortgage. People often choose

for this lifestyle because it gives you freedom. By reducing the cost of living, people are able to work less and spend more time or money on things that are important to them like family, hobbies, holidays or learning a new profession or skill. Experience and interactions are more valuable than possessions.

Sustainability and living a more conscious lifestyle are often closely connected to living in a Tiny House. Being off-grid is not a condition, but is often a means to an end. Most Tiny Houses have solar panels and use rainwater for their water supply. When several houses are placed together (as in Figure 4) the social part of living in a Tiny House "community" can be very valuable as well. Working and living together with like-minded people is often an important component of living in a Tiny House.

Figure 5. Henk's Tiny House build for only €1000,-
 Figure 6. Elke Rabe's Tiny House with climbing holds
 Figure 7. First Tiny House in the Netherlands (Marjolein Jonker)
 Tiny Houses on wheels, pictures by Bluemonque





Figure 8. Modular Tiny House: Wikkellhouse, picture by Yvonne Witte

Location

When living in a Tiny House, the location is of great importance. By extending the living space to the outside, the focus is on living more outdoors with a connection to nature.

With the Tiny House Movement being relatively new in the Netherlands (in 2016 the first people officially lived in a Tiny House), it is still a hassle to find a place for it within the restrictions of modern regulations. However, more and more municipalities are trying to meet this demand for alternative housing and offer temporary locations to place Tiny Houses. For this reason, Tiny Houses are often placed on wasteland that is waiting for new developments. This way they can temporarily fill the unused areas before moving on to the next wasteland.

Mobility

Being mobile is not a requirement for a Tiny House but it often makes it easier to realize. A Tiny House on wheels (THOW) as shown in Figure 5 - Figure 7 is movable but, unlike a caravan/campervan, often not made for travelling. Next to these THOW, there are Tiny Houses without wheels, which can be moved by truck or special transport, as one unit (Figure 9 and Figure 10) or in modular parts, like the Wikkellhouse in Figure 8. For both sorts of houses are different regulations. A THOW has more size and weight restrictions since it is often moved as regular transport (behind a powerful car or small truck).

Since mobility is nowadays mainly a means to meet the regulations and legally live in a Tiny House, this can alter in the future, when the regulations for Tiny Houses become less strict and mobility will be less important.

Figure 9. Container home, from wideopencountry.com
Figure 10. Mill home, from millhome.nl





Figure 11. Tiny House Gooseneck trailer, from tinyhousetravelers.com

1.2 History of Tiny Houses

United States

The Tiny House Movement as we know it, originated in the United States. In 1999, Designer Jay Shafer (Figure 12) began speaking out against the legislated ban on small houses in the US. He claimed that people should be able to live as simple as they choose. In this same year, Shafer founded the first U.S. company that sells mobile Tiny Houses. According to Shafer, any house in which all the space is being used well, basically towards the happiness, contentment and health of the occupants, is a Tiny House. (ABC News)

Some years after this first introduction, the demand for Tiny Houses increased rapidly due to a meeting of the following events. When many people lost their home to Hurricane Katrina in August 2005, Marianne Cusato designed the Katrina Cottages (Figure 13) as an innovative housing solution for disaster recovery.

As Cusato's design and others gained increasing media attention, the number of designs increased, as well as the interest in smaller dwellings as a whole. (mariannecusato.com)

A year after the hurricane, in 2006, the housing prices in the U.S. peaked and the mortgage- and financial crisis took hold in 2008, which resulted in an increase in the already growing interest in more modest homes, including Tiny Houses.

People started building their own Tiny Houses and the number of professional Tiny House builders increased rapidly. Tiny houses in all sorts of styles and sizes appeared (up to 50m² on a trailer) and the Tiny House Movement was born. In recent years this phenomenon got more attention in the Netherlands, resulting in a rapidly growing popularity for Tiny Houses.

Figure 12. Jay Shafer in front of his Tiny House, from shareable.net

Figure 13. The Katrina Cottages, from cnu.org





Figure 14. Trailer Camp Amsterdam 1915, from geheugenvannederland.nl

Tiny House vs. trailer

When talking about Tiny Houses, there is a clear comparison with a trailer (in Dutch: woonwagen) or trailer center. Because of the negative label that sticks to a trailer center this can be a sensitive subject. There are intense discussions about the differences but there are no strict boundaries between a trailer and a Tiny House or a trailer resident (also called traveler) and a Tiny House resident.

It can be said that the Tiny House Movement is based on a lifestyle where sustainability, simplicity, living consciously and consuming less are important pillars, which is not necessarily the case for trailer residents. Where the houses in trailer centers became bigger and bigger in recent years (Figure 16), Tiny Houses are based on the philosophy of less is more.

Still, the form of living in a Tiny House has a lot of similarities with the background of these trailer residents/travelers. Where the Tiny House Movement initially has its roots in the United States there will undoubtedly also be connections with the former Dutch travelers.

The Dutch trailer residents or travelers, not to be mistaken by Gypsies: Sinti (originally from Western Europe) and Roma (from Eastern Europe), started traveling through the Netherlands around 1850 when many people lost their job because of the mechanization during the industrial revolution. They travelled around the country with trailers pulled by a horse to find work elsewhere. In 1918, the "Woonwagenwet" decided it was no longer allowed to place trailers everywhere without a permit and in 1968 it became illegal to travel at all, which obliged them to settle in a trailer center. (Kenniscentrum Immaterieel Erfgoed Nederland)

Figure 15. Traditional Dutch trailers, from cultuurparticipatie.nl
Figure 16. Modern trailer center, from woonwagenwijzer.nl



1.3 Background: trends and developments

The demand for compact living in the Netherlands is increasing, due to several trends and developments. Next to economic and demographic trends, lifestyle changes play a large role in the transition from 'the bigger the better' to 'less is more' in terms of dwelling and living. The trends and developments below possibly have influenced the growing popularity of Tiny Houses.

Upcoming housing crisis

With the economy recovering from the crisis, the housing demand is increasing rapidly. With a housing demand higher than the supply, the Netherlands is coping with the biggest price increase for owner-occupied homes (koopwoningen) since 2002 (CBS, 2017), which makes it hard for young people to buy their first house. Also, with the rising square meter prices, the demand for small houses is strongly increasing.

Increasing number of one-person households

According to statistics of CBS StatLine (2016), an increasing number of people in the Netherlands is living alone. The share of single person households grew from 32,6% of the total number of households in 1995 to 37,6% in 2016. In this timespan, the number of these households increased from 2,1 to 2,9 million.

Stec Groep (2017) predicts that over 80% of the household growth till 2040 is caused by the growing number of one-person households. In 10 years' time, 70% of the households in the Netherlands will consist of one- or two persons. Living alone without a partner is becoming more and more desirable. This results in a demand for smaller houses and residential solutions like living in a community.

Housing costs vs. recreation time

In 2016, more than 10% of Dutch citizens spent 40% or more of their total expenses on housing costs. When looking at the lowest 20% income group this is an average of 39% (CBS, 2015). Comparing this to the 10,7% of their expenses they spend on recreation/ culture, opportunities could be found here.

When looking at how people spend their time daily, only 28% of the time is used for recreation (weekend included). The other 72% is: mandatory time (26%): working, studying and housekeeping and personal time (46%): sleeping and eating (Sociaal en Cultureel Planbureau, 2013).

Combining these facts, it can be concluded that people spend a large part of their day at work to earn enough money to pay the housing costs for a house they can only actively enjoy a few hours a day. This work - life balance can be improved.



Figure 17. Work - Life Balance, from recruitingdaily.com

Autarkic lifestyle

People are paying more attention to the environment and become aware of their ecological footprint. Climate change is seen as a serious problem and more people are adapting their lifestyle by living greener and reducing their impact on the environment. The focus is on living more consciously, in a more sustainable way and consuming less. There is a growing demand for sustainable and self-sufficient housing.

Flexible lifestyle

Compared to earlier decennia, it is not very common anymore to stick to the same job your whole life. People are switching jobs more often and contracts are often based on temporary employment. Working from home is getting more popular and more workplaces are flexible. With the knowledge of changing jobs every couple of years, people prefer flexible housing. Renting gains in popularity compared to buying a house. People prefer to be able to move house whenever they find a new job in another area.

Demand for living small

According to Stec Groep (2017), the living identity plays an increasing role when choosing a house. Living and the residential area are more and more linked to identity and lifestyle. Variety, flexibility and the focus on experience instead of possession are essential in this living identity. With a decrease of possessions and a focus on living outdoors, the size of the living space loses importance. The surrounding area becomes an extension of the living space. As shown in Figure 18 (source: Stec Groep 2017) the preference of a Micro House (up to 40 m²) in 2015 doubled compared to 2012.

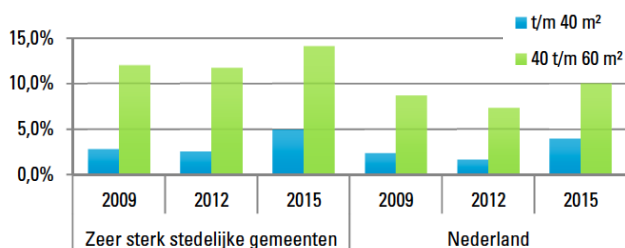


Figure 18. Increasing amount of Micro Houses, from WoON (2009,2012, 2015).

Conclusion: Demand for alternative housing

Within this increasing demand for Micro-Housing, Tiny Housing is a more specific development based on a way of life. Financial freedom, a small ecological footprint and living with like-minded people are pillars in the Tiny House movement.

For these (and all above) reasons more people in the Netherlands (like Jan-Willem and Noortje in Figure 19) make the decision to move into a Tiny House. In a Tiny House, people are living simpler, smaller, cheaper and more sustainable with less stuff.



Figure 19. Jan-Willem and Noortje in front of their self-build Tiny House in Rotterdam, Picture by Bluemonque

1.4 Problem definition

Before making the move to live in a Tiny House there are different phases people go through in their journey. These 4 phases are shown in Figure 21 (next page).

After their first contact with Tiny Houses (**Attention**), they want to know more about it (**Orientation**). When deciding a Tiny House is something for them, they move on to the **Preparation** phase where they start doing research and start designing their Tiny House, or have it designed by a professional. Finally, there is the **Realization** phase where the house is being built and in the end, people start to actually live in the Tiny House.

During this process, there are a lot of questions to answer. Before being ready to live in your own Tiny House, it is very important to know the 'why', 'how' and 'what' of a Tiny House.

The Golden Circle

When looking into the 'why', 'how' and 'what' in a certain context, they are often closely connected. According to Sinek, S. (2009) the 'why', 'how' and 'what' are linked to each other in three levels through a model called 'the Golden Circle' (Figure 20).

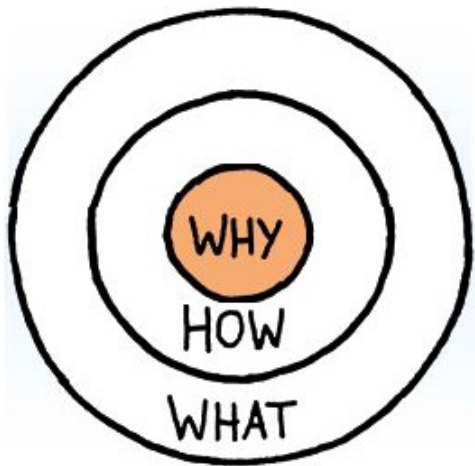


Figure 20. The Golden Circle by Sinek, S. (<https://courses.startwithwhy.com/?ref=sqs-header>)

What: Living in a Tiny House

In this model the 'what' is easy to identify. Everyone knows 'what' he or she is doing. In the case of a Tiny House, this is the orientation phase: What exactly is a Tiny House and what is involved? What is it like to live in a Tiny House?

How: How to realize living in a Tiny House

Some people know 'how' they do what they do. The 'how' in a Tiny House involves a lot of research: How do you live off-grid, how do you design a Tiny House, how do you build a Tiny House?

Why: Why do you want to live in a Tiny House

In this model, the 'why' should serve as the motive for the 'how' and the 'what'. Despite that, few people actually know why they do what they do. According to Sinek, S. (2009), your 'why' is the purpose, cause or belief that inspires you. Knowing your 'why' gives you a filter to make choices, that will help you find greater fulfillment in all that you do.

The why-gap

For the 'what' and 'how' of a Tiny House, there is currently a lot of information available and experts to talk to, both online and offline. As shown in Figure 21, currently, there are courses, workshops, open houses/events, people sharing their stories etc. All informative and practical sides of a Tiny House are covered. When coming to the 'why' aspects, there is a gap in this case:

WHY?

Why would you choose for a Tiny House? Why does it fit you? Why would you choose for certain solutions? What inspires or moves you? Which parts of living in a Tiny House are important to you?

To be able to design for the experience of living in a Tiny House, the Tiny House Movement needs knowledge and insights into what people actually long for when choosing for this way of living. Because this Tiny House Movement is relatively new in the Netherlands, it lacks analytical research regarding the experience of living in a tiny house.

Users would benefit from an exploration tool that supports them to explore their needs and helps them to realize the experience they are dreaming of.

1.5 Goal

In this project, I want to cover the 'why' of living in a Tiny House. By designing an exploration tool I want to help people to figure out what drives them, what is important or valuable for them and what fits them, by taking their desired living and dwelling experience as a starting point.

With this tool, people can design and explore their own ultimate Tiny House experience before realizing the house itself. By using this tool they can form a substantiated base that can serve as requirements for their actual design.

In this project, the focus will be on custom made Tiny Houses, where the user has a large role in designing and/or building their own Tiny House but does not necessarily have a background in building or designing.

1. ATTENTION

2. ORIENTATION

3. PREPARATION

4. REALIZATION

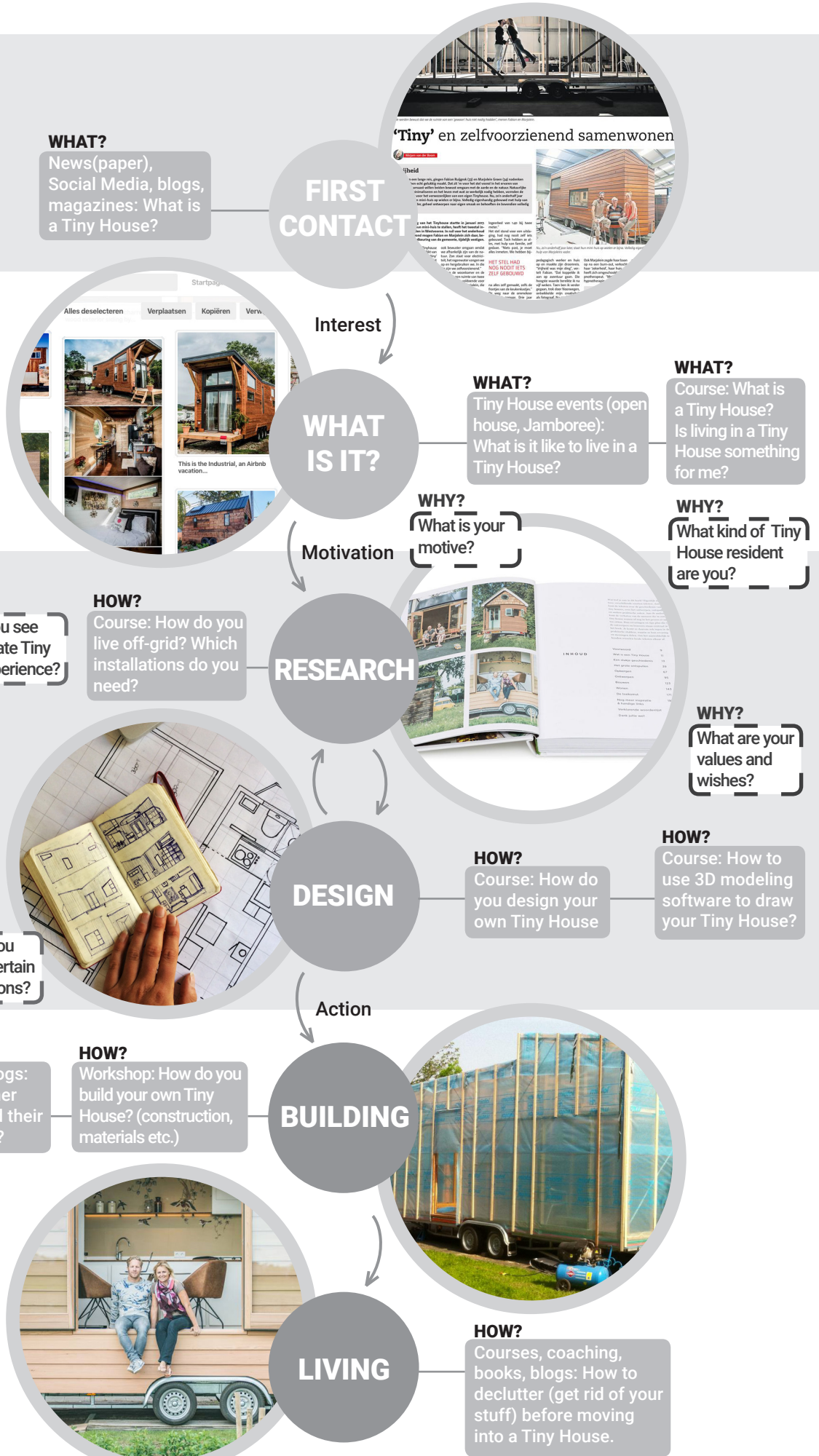


Figure 21. Current four phases in the Tiny House journey with WHY-gaps

1.6 Approach

During the project, the experience of living in a Tiny House will be explored. First, by defining the user or user group, secondly, by conducting a contextual research and thirdly, by comparing different projects in a reference analysis.

User research

Who are the people who want to live in a Tiny House? By conducting a user research the different categories of users can be found. These different users all have different ways of designing and are using different types of tools. By identifying these different users the target groups for the final design can be distinguished.

Contextual research

How do people experience living in a Tiny House? Because it is hard for future Tiny House residents to imagine how they will live in a Tiny House (they have never done it before), the contextual research concentrates on people who already live in a Tiny House. The focus is on the environment, experience and the different persona that can be characterized. By collecting their experiences, the different values and motivations per resident can be mapped out.

Reference Analysis

What sorts of Tiny Houses already exist? By comparing different projects, the similarities and differences between Tiny Houses can be mapped out. This way the characteristic elements can be found for every house. These elements can form a base for the experience determinants: factors in which every Tiny House differentiate from each other.

Implementation: Exploration Tool

Based on the outcomes of these studies, the exploration tool can be developed. Through this tool future residents can learn from the experiences of people already living in a Tiny House. This way they can discover which elements they value and design for their own desired experience by using the Experience Determinants.



CHAPTER 2.

USER RESEARCH

- 2.1 Defining the user
- 2.2 (semi) Professionals
- 2.3 Go-getters
- 2.4 Dreamers
- 2.5 Conclusion: target groups



2.1 Defining the user

To define the different user groups, a series of informal, unstructured interviews are conducted on different open Tiny House events and information meetings. By talking to them about how they started their orientation and design process I got a broad view of the tools they use while designing. To categorize the different users the innovation theory can be used.

Innovation theory

According to the innovation theory: Diffusion of Innovations by Rogers, E. M. (2010) (first published in 1962), the spread of new ideas and technologies can be described through a diffusion process as shown in Figure 23. In this process, an innovation is communicated over time among the participants in a social system.

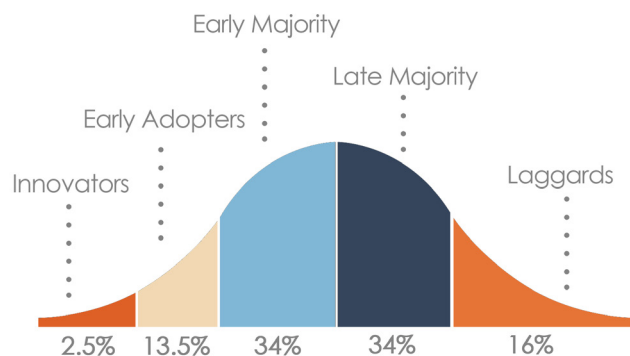


Figure 23. Rogers Diffusion on Innovations, from communicatiekc.com

There are five categories of adopters: innovators, early adopters, early majority, late majority, and laggards. **Innovators** (only 2,5% of total) are the first people to adopt an innovation since they are looking to try new ideas regardless of the risks involved. The second group: **Early Adopters** (13,5%) are willing to adopt when these risks are decreased and they have enough confidence in the success of it. Together they form a base for the introduction of new ideas. If it proves to be a success, the rest of the people will follow. For Tiny Houses probably only the first two groups will be included since the majority will probably not be comfortable living in a Tiny House.

Tiny House Innovators

When looking at the introduction of Tiny Houses in the Netherlands we are still in the innovators phase. Only the pioneers who are willing to take the risks are taking the step to live in a Tiny House. These are the go-getters who just followed their dream without the possibility of having it all planned out.

Tiny House Early Adopters

There is a very large group of Early Adopters waiting for more certainty around Tiny Houses. For them, the uncertainty of not having a (whether or not permanent) location still weighs too heavily. They are still waiting for the Innovators to create a risk-free journey before taking the step. Until then they will continue dreaming about living in a Tiny House.

User groups

When looking at (future) Tiny House residents, they can be divided into three groups based on their skill level in designing or building: The Innovators can be put in two different categories: the (semi-)professionals, who are experienced in designing or building, and the go-getters, who are ready to dive into a new adventure and not afraid of the obstacles they will encounter. The third group is the dreamers or Early Adopters who are mostly inexperienced in designing and building.

These novice users are using different tools to communicate their ideas and designs than the go-getters or (semi-) professionals.

RESEARCH QUESTIONS

Who are the people that want to live in a Tiny House?

- How do these people differ from each other?
- Which target groups can be distinguished?
- What kind of tools do they use while designing?
- What kind of tools do they use while doing research?
- Where do they encounter problems?
- Are they designing/building the house themselves or in collaboration with a professional?

2.2 (semi) Professionals

The first group includes builders, carpenters/woodworkers, architects or (interior) designers. These people are experienced in making (technical) drawings, working with wood, building scale models, making moodboards, using 3D modeling software or making renders. They have infinite sources of inspiration and knowledge about materials and constructions. Above all, they know how to make a house look nice. For this group, creating the first design of their Tiny House is not a problem. They know how to use the right tools from the first to the final design and are very confident during the process.

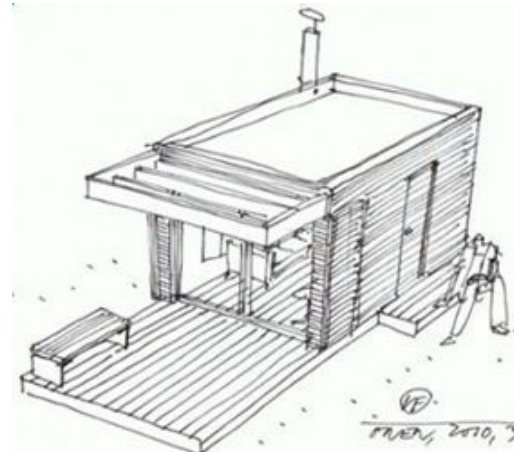


Figure 25. Sketch of container house, by My Containerhouse



Figure 29. Scale model by tinyhousetravelers.com

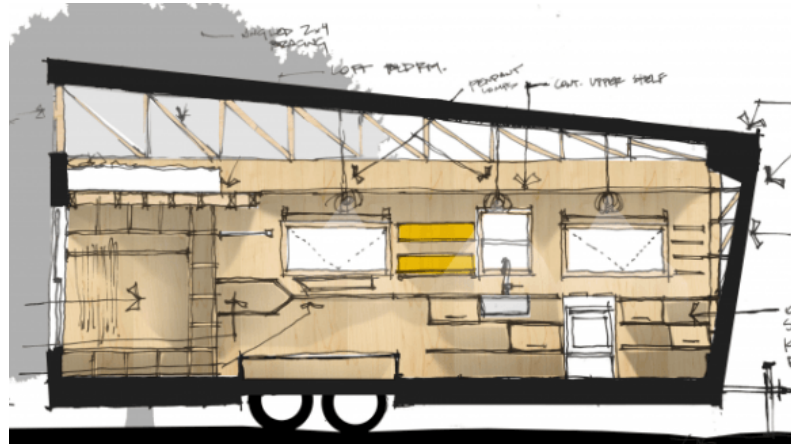


Figure 30. Tiny House painted impression by Kinetohaus from homecrux.com



Figure 24. Designing a Tiny House with 3D modeling software, by Daphman from theamundell.com

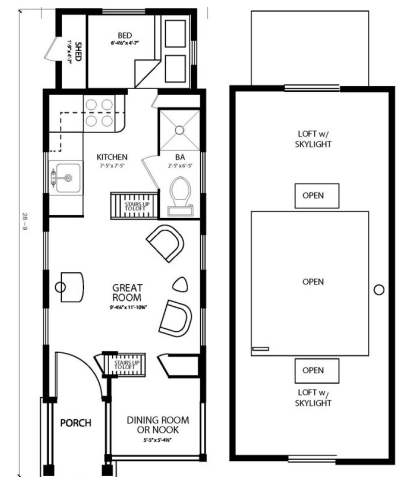


Figure 26. Tiny House floor plan, by Marie Colvin from tinyhousefloorplans.org



Figure 28. Tiny House rendering from spectraair.com



Figure 27. Tiny House interior impression by Homesteadology

2.3 Go-getters

The second group consists of people who are inexperienced in designing or building but are very determined and curious to learn these new skills and jump into this new adventure. These go-getters need a lot of research and often will experience some hard times, but with a bit of help they will figure it out in the end. They are depending on what their predecessors shared online in videos, blogs or forums and often copy them. With the use of research and improvisation, they are able to design their own house. They make sketches on paper, cardboard models or learn to use 3D modeling software to make the first designs of their home.



Figure 31. Sketch from "The Big Adventures of Tiny House" by Courtenay Fletcher



Figure 36. Life-size floor plan from tinyhouseliving.com

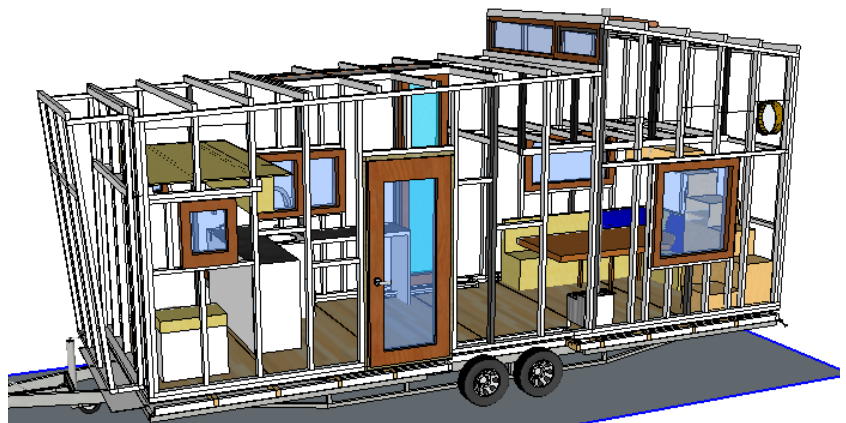


Figure 37. 3D model made with 3D modeling software (own picture)

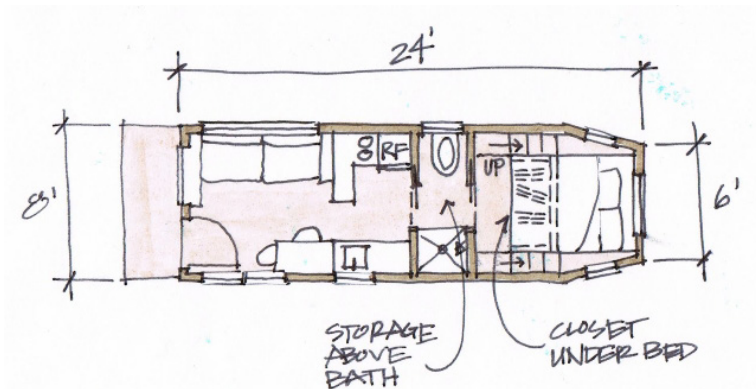


Figure 35. Tiny House floor plan sketch from top10metin2.com



Figure 32. Tiny House sketches and floorplan (own picture)



Figure 33. Tiny House model build of Lego blocks, by Ekobor



Figure 34. Cardboard Tiny House scale model interior (own picture)

2.4 Dreamers

The third group includes people who are less technically minded or skilled and have trouble making their ideas visual. They do not have the right skills or tools to transform their ideas into something visual or tangible and are insecure about designing their own house. They lack knowledge about the range of possibilities. By using rough sketches, books, existing floor plans and pictures of existing Tiny Houses they communicate their ideas to builders or designers, who then design or build the house for them. This way they need to put their trust in the hands of professionals. Because these people are depending on existing designs and solutions it is hard for them to implement their own unique ideas into the design of their Tiny House.

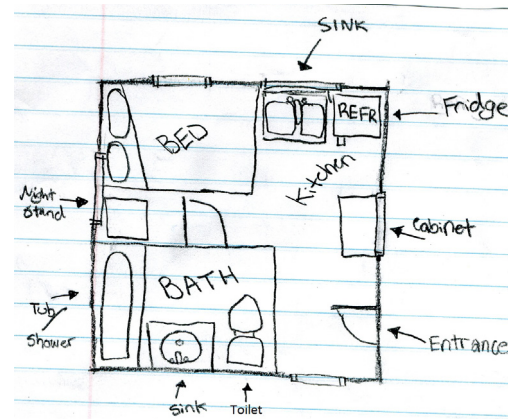


Figure 41. Floor plan sketch by D. Bigley



Figure 40. Existing floor plans by Chris Heininge



Figure 38. Book: Tiny Houses, minder huis meer leven by Tiny House Nederland

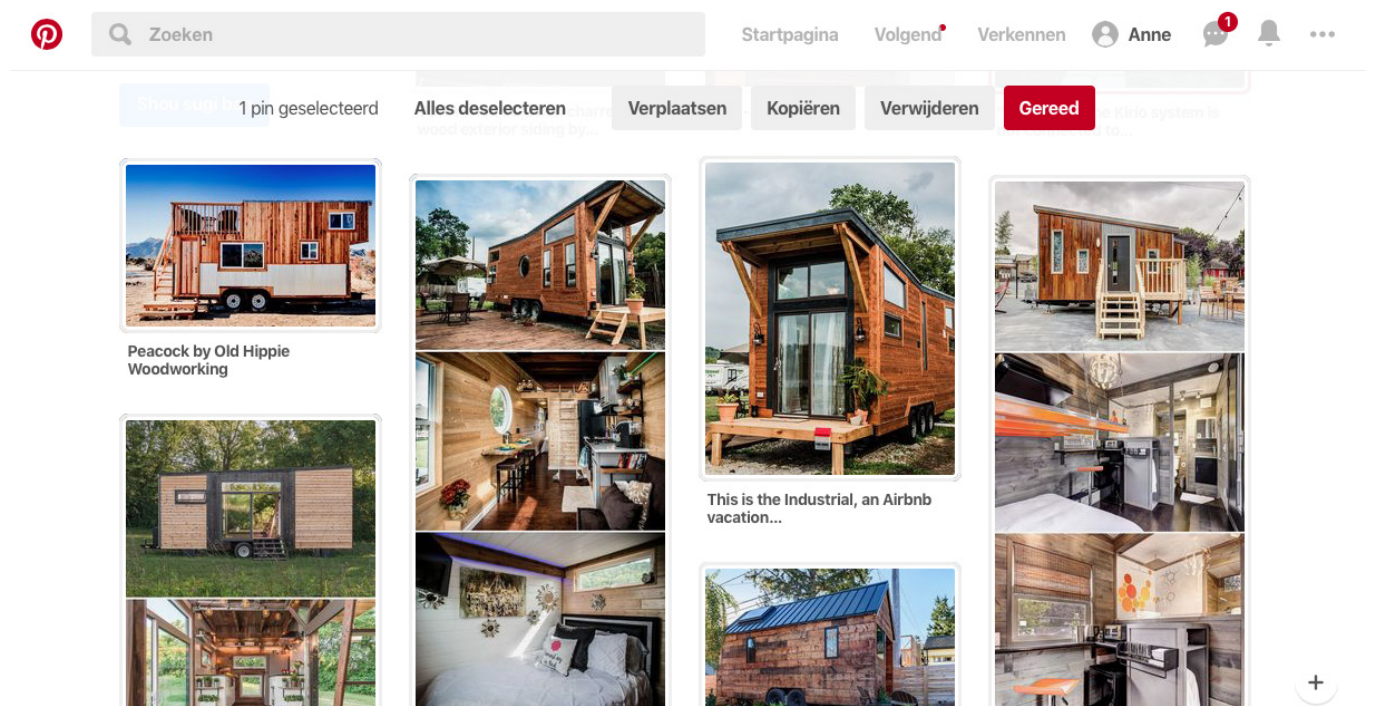


Figure 39. Using Pinterest for inspiration (own picture from Pinterest)

2.5 Conclusion: Target groups

When looking at the available design tools in the different skill levels it can be concluded that several target groups could benefit from an easy to use exploration toolkit. The focus will not only be on people who are completely new to the field of designing but also on people with already some experience in one of the design fields.

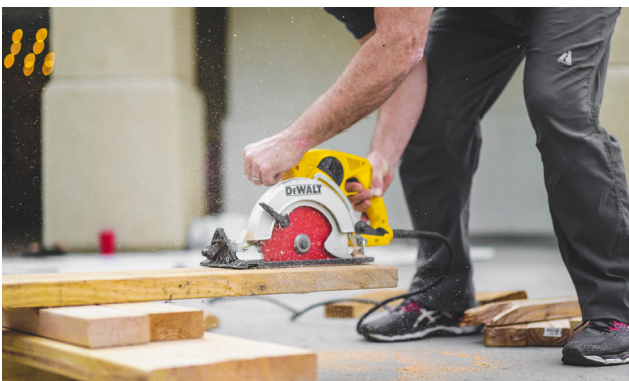
Figure 43. Photo by rawpixel on Unsplash



Dreamers

Inexperienced or novice designers can benefit from an exploration tool on all levels. This is the most important and biggest target group to focus on. For people who have no idea where to start when designing a home, the tool can function as a roadmap through the first steps of the design process. The exploration tool can help them to get an overview of the possible solutions without many hours of research. Instead of handing it over from the first phase it can help them to first think about their values and wishes and help them communicate with a possible architect or builder.

Figure 44. Photo by Greyson Joralemon on Unsplash



Go-getters

For people with some experience in designing as DIY-ers or just handyman/women, the exploration tool can be a good addition to what they are already capable of. It can broaden their skill set and make the difference between a hobby project and a home that perfectly suits them and their lifestyle, wishes, and needs.

Figure 42. Photo by Daniel McCullough on Unsplash



(semi-) Professionals

People with a building background can have experience with the technical choices they need to make, but do not necessarily know what fits their personality, wants and needs best. The same applies to people with a design background who know how to make their house look nice but do not know what their ultimate living experience looks like. Although this group will be less likely to use the tool, it could maybe offer them more than they would expect in the first place.

Figure 45. Photo by Artem Bali on Unsplash



Couples

For couples or families who are designing together, the design tool can help them to communicate during the design process. They can share their thoughts and ideas with each other and start a conversation about which solutions or lifestyle fits them best. The design tool could help them to be on the same page when talking about their dream home.

Figure 46. Photo by Proeftuin Erasmusveld on Woonpioniers.nl



Community groups

As an additional target group, the design tool could be very interesting for starting Tiny House communities. Through this tool, they can communicate their expectations and adjust them if necessary. When answering questions about what kind of Tiny House resident they will or want to be they can already learn something about the different roles that can be played within the community and see if their expectations are matching or colliding with each other.

Within the target groups, the age, income, and background can vary greatly. Also, I will not distinguish between people who are or aren't actually going to live in a Tiny House in the end. So also the Early Adopters can use this exploration tool in their research if they are not yet sure if they are really going to live tiny.

CHAPTER 3.

CONTEXTUAL

RESEARCH

- 3.1 Research plan**
- 3.2 Results**
- 3.3 Insights**
- 3.4 Conclusions**
- 3.5 Implementation**

3.1 Research Plan

To get more insights into the Tiny House living experience, context mapping is used. By putting the Tiny House resident in the role of the expert of his own experience, insights are gained about the environment, emotions, and needs of the Tiny House resident.

Objective

In this contextual research, the focus is on the Tiny House residents themselves. Who are these people? Where and how do they live? Based on personal motives, passions, and archetypes, different Tiny House persona can be created. In this research, I would like to find the factors that determine the Tiny House living experience and distinguish different persona with different values.

Method

To get beyond the knowledge obtained by what people say, think, do and use (interviews/observations), generative techniques are used to also learn about what people know, feel and dream of in a Tiny House (Figure 48). Participants are stimulated to express the deeper levels of knowledge about their experiences like the tacit and latent knowledge, which are often difficult to express in words. (Visser, Stappers, Van der Lugt and Sanders, 2005)

For this kind of context mapping, experience booklets are used as a generative tool to get the best insights on how people live and feel in a Tiny House. Each participant receives (either in person or by mail) a toolkit with an experience booklet containing questions and exercises about their Tiny House experience. The participants are asked to keep the booklet with them for 6 days, every

day answering different questions. In these questions and exercises, the participants are encouraged to make pictures, drawings, and use images to support their answers and make their booklet as personal as possible. The questions in this experience booklet can be found in "Appendix 2. Questions from experience booklet". When the booklets are completed they can serve as a representation of the Tiny house resident and his/her living experience.

Participants

To form a broad and complete spectrum of participants, not only residents of Tiny Houses on wheels are included in this research. The target group includes all kinds of people using their home or living environment based on the principle of being independent, sustainable or living flexible in a compact living space. This includes for example people living in small boats or non-flexible cabins. Different household compositions and people of different ages are approached. Participants with houses both self-designed/built and manufactured/ designed by external parties participated in the research to see if there is a distinction between the living experiences of the two.

Tools

The toolkit consists of one 14 pages experience booklet per person, one page with images/pictures to cut out, scissors, coloured markers, glue or tape and a Polaroid camera (Figure 49).

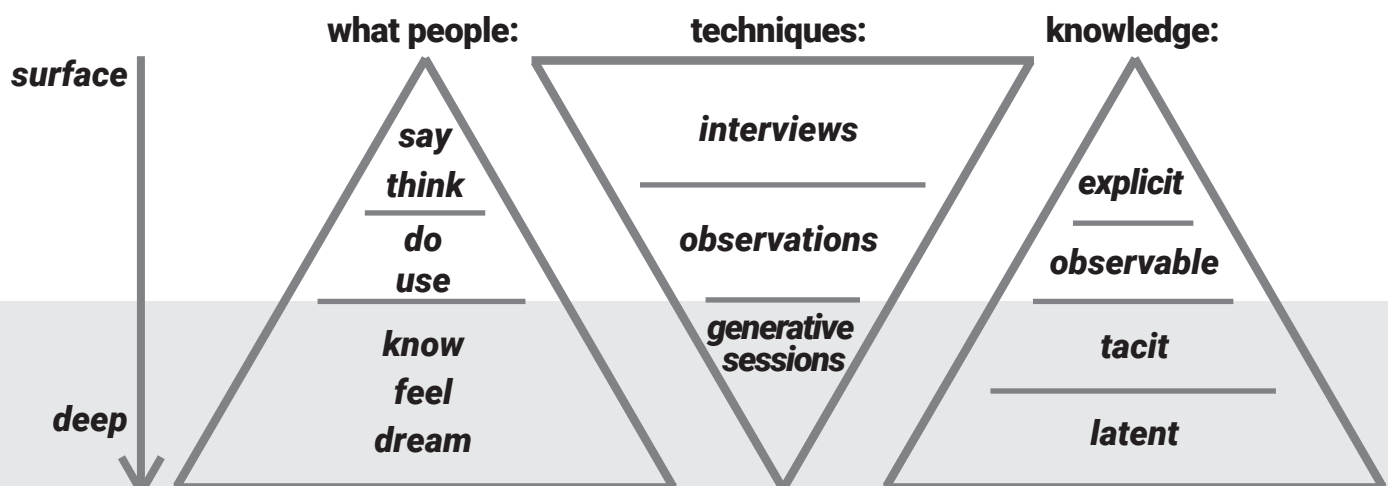


Figure 48. Different levels of knowledge about experience are accessed by different techniques



RESEARCH QUESTIONS

How do people experience living in a Tiny House?

Context

- How does the environment influence the experience?
- How does the living experience differentiate whether the house is self-build/designed or not?
- Which aspects of a Tiny House are most important or valuable for the resident?
- How do these aspects differ in value for different residents, and in particular, different residents within one Tiny House community?

Persona

- How does the household composition influences the living experience?
- Is there a relationship between certain experience aspects and the household composition?
- Which archetypes/categories can be distinguished within the Tiny House residents?
- How does the preferred Tiny House experience differentiate between the different archetypes?
- How do people differ in their motives for living in a Tiny House?

Experience

- How do Tiny houses reflect the personality of the resident?
- Which aspects of the Tiny House are residents most proud of?
- Which factors contribute to or strengthen the Tiny House experience?
- Which factors counteract or weaken the Tiny House experience?

Figure 49. Experience Toolkit used by Tiny House residents

3.2 Results

18 different Tiny House owners participated in this contextual research, some of them living in the same house or within the same Tiny House community. They shared their experiences in the booklet by using examples, pictures, images or even drawings. To be able to compare these data, all answers are clustered into different themes, into different Tiny House resident profiles. In these profiles, the most important values are mapped out per resident together with the supporting quotes per theme. Figure 50 and Figure 51 show two of the profiles. For the other profiles see "Appendix 3. Participant profiles".

When comparing these different profiles there are clear distinctions between the motive of the residents, what they are most proud of or what aspects are important or valuable for them. All residents are unique in their values, wishes and in how they experience certain aspects of living in a Tiny House.

For example, when comparing the profiles below, Ep has a lot of functional solutions built in his house to which he attaches great value, while Bernhard, who also built a very unique and functional fold-out roof, attaches much more value to the mindful and social part of living in a Tiny House.

Bernhard (29):

Antropoloog, taalwetenschapper, barkeeper, explorer, Tiny House adviser, Tiny House Architect

Woont samen met Maria in TH community Proeftuin Erasmusveld

DIY

"Het meest trots ben ik op het feit dat ik mijn eigen huis heb gebouwd, een droge warme herberg, een shelter, een thuis"

FUNCTIONAL

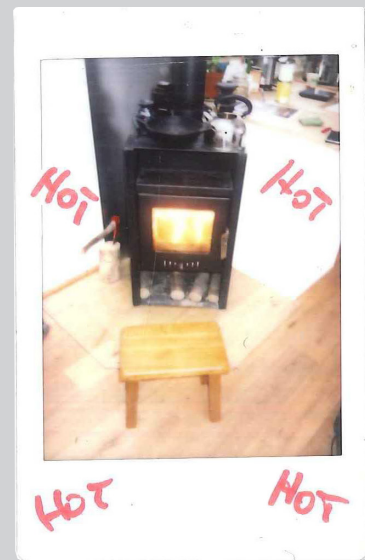
"Uniek aan ons huisje is het uitklapbare dak, zo kunnen we boven ook staan en hebben we extra leefruimte gecreëerd"

ADVENTURE

"Het leven is geweldig, en elke dag is een avontuur!"

SUSTAINABLE

"Ik rij met de elektrische auto naar het voedsel coöperatief om biologische groenten voor iedereen te kopen."



MINDFUL

"Het fijnste plekje is 's ochtends vroeg op het houten stoeltje voor de kachel wanneer ik een vuurtje stook. Mijn lichaam is koud en rustig, het vuur warmt alles op en ik groet de dag met een fijne diepe meditatie."

SOCIAL

"Ik voel me het meest thuis als ik iets doe wat mij gelukkig maakt en ik het kan delen met mensen die ik lief heb."



3.3 Insights

Age: All people participated in the contextual research were in the age group 20 to 40 years old.

Household composition: Among the participants are only couples or singles. No families/ single parents.

Self-build: A great majority of the houses is self-built by the participants.

Variety: 7 out of the 11 Tiny Houses were 'standard' Tiny Houses on wheels, built on a 7 x 2,5-meter trailer, while there are plenty of other solutions for mobile Tiny Houses.

Although there are a few families and people above the age of 40 living in Tiny Houses in the Netherlands, they did not want to participate in this research. Still, it can be concluded that the target group innovators mainly consists of young people (under 40). Nevertheless, this means that there are possibilities for families and people over 40 concerning the design of the exploration tool. Also because all participants were still pioneers and there was not much information available for them, the variety in houses is small. This also could be improved if the tool provides people with more options.

Ep (40):

Timmerman, Meubelmaker,
Administrateur, Beheerder
Bedrijfsverzamelgebouw
Woont in de tuin van een
woongemeenschap

SOCIAL

"Hoewel ik kan koken in mijn huisje eet ik vaak met de woongroep. Het hebben van een eigen plek en daarnaast ook onderdeel zijn van een gemeenschap bevalt mij goed."

SUSTAINABLE

"Op een vrije dag besteed ik graag tijd in de moestuin. Deze is 10 m bij mijn huisje vandaan."

MINDFUL

"Afwisseling tussen rust in huisje en drukte in woongroep bevalt goed! Fijnste sub-plekje is mijn bankje aan mijn tafel. Er is iets rustgevends en comfortabels aan dit plekje. Ik hou ervan om uit het raam te staren en de wereld te overdenken hier."

ADVENTURE

"Het voelt wel een beetje als kamperen in mijn huisje. Het heeft wel iets kneuterigs om water te moeten halen in jerrycans, naar een ander gebouw te moeten om te douchen en te koken op slechts twee spiritus pitjes, maar ik vind het heerlijk!"

FUNCTIONAL

"Overdag vouw ik mijn matras op om mijn bed om te bouwen naar het bankje voor aan de tafel."

DIY

"Mijn passies zijn dingen bedenken, maken, repareren en werken met hout. Als timmerman en meubelmaker kon ik helemaal mijn eigen ding doen"



Figure 51. Profile of Tiny House resident Ep

3.4 Conclusions

By means of this research, I found that every Tiny House resident had different values and different views on their living experience and what they thought was important for them. For one person, building the house himself is most valuable for the experience, while for someone else, who may have also built his own house, living in a community together with like-minded people adds more value.

Experience Values

As a conclusion from these findings, I created the Six Experience Values. Each of the six experience values serves as one component of the total tiny House living experience.

The experience values that are distinguished in which the Tiny House residents differ from each other are adventure, green, mindful, DIY (do it yourself), social and functional (Figure 52). Of course, one resident will not fit one clear category but in most cases, they did value certain components better than others. When comparing different residents within one Tiny House community or even within the same Tiny House you can clearly see how, for example, one focuses more on being mindful and social when the other adds more value to the DIY aspect and being green.



Figure 52. The six different values: adventure, green, mindful, DIY, social and functional, that form a person's Tiny House profile



Adventure

The flexible and independent side of living in a Tiny House is for many people a very important part. The ability to take your home with you to start new adventures somewhere else is often one of the main reasons for choosing a Tiny House and a major contributor to the living experience. Because you are not stuck to your expensive, big house, it gives you more freedom in living your life and making big decisions.

The adventure, the challenge of trying to live off-grid and the simplicity of living in a Tiny House play a large role here. The nomadic lifestyle, together with living in the outdoors is highly valued by these people. There is a strong connection to the environment around the house, so the location of the Tiny House is of great importance.



Sustainability

For some people, the sustainable part is the most important reason for choosing a Tiny House. Living in a Tiny House can be the ultimate way of living green. By generating your own green energy, growing food and reusing/reducing waste or wastewater the main focus is on reducing your ecological footprint. Having a composting toilet and using the compost as a fertilizer for your own garden is one (more obvious) adaptation when comparing a Tiny House with a normal house.

This sustainable lifestyle translates itself further into, for example, food: eating more locally produced food, growing their own food or being vegetarian/vegan. Transport: by sharing or not having a car, using an electric car or using the train instead of the plane. Consuming: by buying sustainable brands, secondhand, repairing more often and consuming less.

For these people living in a Tiny House goes hand in hand with living as sustainable as possible and giving something back to nature. Choices that are influenced by this are, for example, the kind of isolation used or whether people choose for using a wood stove or not. To what extent sustainability plays a role in your Tiny House varies from being fully off-grid to just the reduced consuming that fits the Tiny lifestyle.



Mindful

Switching to a Tiny House is often linked to a more conscious lifestyle and staying close to yourself. Due to the lower cost of living you can work less and put more time and energy into things that are important to you. There is more time to spend with your family, more time for your hobbies and passions or to develop yourself and learning new skills. Because there is less distraction and noise in and around the house, it is easier to enjoy the little things. It is more likely to withdraw yourself and read a book, do a yoga- or meditation session or just dream away.

In a Tiny House, not everything is always for granted, which makes living with nature and the seasons more valuable. The simplicity of living in a Tiny House and taking a step back to basic can make a major contribution to the living experience. Staying close to yourself and living more conscious can be a really important motive for choosing a Tiny House.



DIY (do it yourself)

Because Tiny Houses are often designed or built by people themselves or custom-made, this gives a completely different living experience compared to a 'normal' house. For some people, this process of designing and building is the main reason for choosing a Tiny House.

The use of their creativity and the challenge of starting this new building adventure can be the primary motive for living in a Tiny House. Learning a new skill and creating something very personal is highly valued, together with the ability to solve problems or repair parts themselves if necessary. All research prior to the process of designing or building contributes to the experience. The fact that you are literally designing and building every single square centimeter around yourself makes you very connected to your own Tiny House. Where one person chooses for a ready-made home or working together with an architect or builder, the other wants to sort out and build everything by him or herself.

Social

For some people, living in a Tiny House community or village is a very important part of the Tiny House living experience. Working or living together with like-minded people to create a unique living environment can contribute greatly to this experience. Sharing often plays a large role here: sharing facilities, having a shared garden or space to come together for a meal or play games can be seen as a big advantage of living in a community with multiple Tiny Houses.

Within this community, helping each other, learning from each other and caring for each other creates a strong social connection which can be one of the most valuable aspects of living in a Tiny House. To what extent this social aspect of a Tiny House is important, differentiates per person. Where one person prefers living in a close community, the other attaches more value to living alone in a quiet area without having to adapt to others.



3.5 Implementation

To be able to truly design for the ultimate Tiny House experience, people first need to find out what this ultimate living experience is about for them. Before designing or building a Tiny House, people need to think about what kind of Tiny House resident they will be or want to be and which parts of living in a Tiny House are most important or valuable for them. By combining, rating or describing each of these six experience values people can create their own profile and this way form a substantiated base for the start of the design process.

Functional

Apart from mainly lifestyle changes, living in a Tiny House also involves a functional side. Living small can be very practical as well. A small house means cleaning less, fewer window frames to paint, less floor to wipe and fewer possessions that can get lost. Everything is reachable within two steps and solutions to problems are often less complicated compared to a 'big' house.

Is it important that everything in the house is functional or is comfort more valuable? This can have a lot of influence when designing the Tiny House. It can be very practical to combine different functions into one, for example, if the bed can also function as a couch, or to create extra space when folding up the stairs or table.

The balance between functional and comfort differs per person. What one person experiences as practical and functional, feels for someone else maybe more like a hassle. For one person there can not be enough smart solutions implemented in their Tiny House while the other attaches more value to having a 'house-like' atmosphere where everything has a fixed function and place and where few concessions have been made.

CHAPTER 4.

REFERENCE

ANALYSIS

- 4.1 Reference projects**
- 4.2 Characteristic elements**
- 4.3 Implementation**

Figure 53. Wikkellhouse by Fiction Factory, Picture by Yvonne Witte



Spacious:
high ceiling,
wide

Modular
construction

Visible
wood use

Integrated
kitchen and
bathroom

Fixed
options/
layout

4.1 Reference projects

To gain insights about the differentiating factors between different sorts of Tiny Houses, a reference analysis is conducted. In this analysis, I explored 6 different Tiny Houses as reference projects.

To get the most out of the analysis, a varied selection of projects, shown below, is chosen from self-built to professionally built, from 11 to 48 m² and from mobile to fixed.



Wikkelhouse by Fiction Factory

Cardboard base - From 15 m² - 5 m² per segment
Professionally built - on chassis - on-grid



Tiny House Wendy & Timothy

Floor surface 18 m²
Self-built - on wheels - off-grid



Tiny House Karin & Gijsbert family of 4

Floor surface 25 m²
Self-built - on wheels - off-grid



Slim Fit - design by Ana Rocha

Floor surface 16 m² - 48 m² in total
Professionally built - on foundation - on-grid



Tiny House Jan-Willem & Noortje

Floor surface 18 m²
Self-built - on wheels - off-grid



Tiny House Ep

Floor surface 11 m²
Self-built - on chassis - semi off-grid

Figure 54. Wikkelhuis by Fiction Factory, Picture by Yvonne Witte



Figure 55. Wikkelhuis by Fiction Factory, Picture by Yvonne Witte
Figure 56. Wikkelhuis bedroom from paradijsvogelsmagazine.nl

Figure 57. Karin and Gijsberts Tiny House outside



Figure 58. Karin and Gijsberts Tiny House, kitchen, sleeping loft
Figure 59. Karin and Gijsberts Tiny House, living room, children's bedrooms
All pictures by Bluemonque

Figure 60. Jan-Willem and Noortjes Tiny House, by Bluemonque
Figure 61. Kitchen and bathroom, from modernehippies.nl



Tiny House Jan-Willem & Noortje

Floor surface 18 m²
Self-built

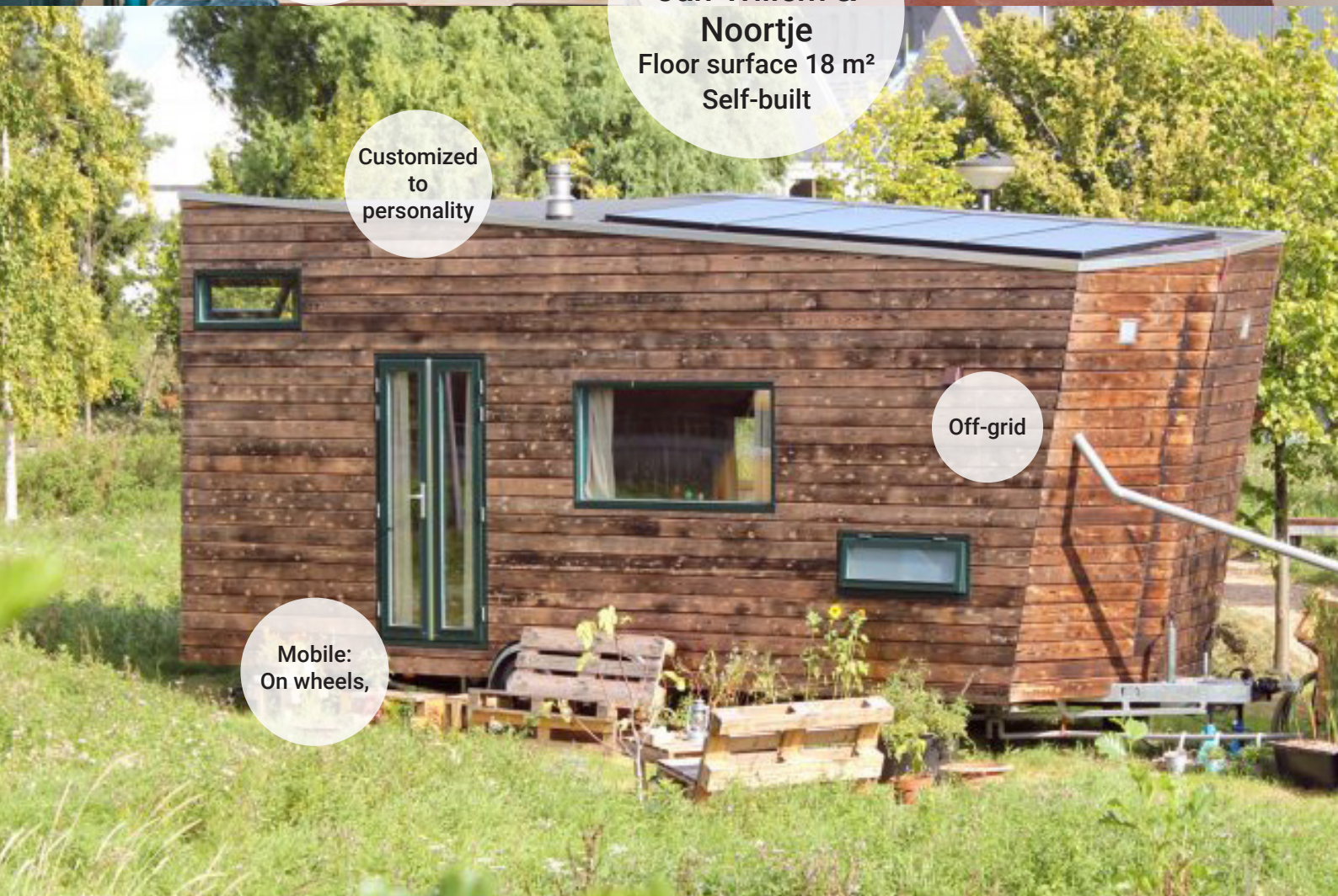


Figure 62. Jan-Willem and Noortjes Tiny House outside, from tinyhouserotterdam.nl



Figure 64. Kitchen and bathroom, by Bluemonque
Figure 65. Livingroom and bedroom, from noordwijk-klein.nl

Figure 66. Slim Fit by Ana Rocha, first floor
Figure 67. Slim Fit outside



Figure 68. Slim Fit kitchen and stairs
All pictures by Christiane Wirth



Tiny House Ep Floor surface 11 m² self-built



Figure 70. Bed/couch and table

Figure 71. Kitchen

All pictures from epshuisje.wordpress.com

4.2 Characteristic elements

Within the comparison of these six different projects, a list of differentiating factors is found. All of these characteristic elements of the Tiny House have their own individual influence on the living experience. All together they determine the complete design or character of the Tiny House.

Mobility

Within the projects, the mobility varied from very flexible (on wheels) to semi-flexible (movable in parts) to completely fixed on a foundation.

Size/space

The total surface varied from 11 to 48 m².

Professionally vs self-built

Some houses are built by professionals while others built the house themselves (as amateur builders).

Off-grid vs on-grid

The fixed houses like the Slim Fit can be completely connected to the power-grid, gas-grid and sewage system while the Tiny Houses on wheels were mostly self-sufficient. In between is the Wikkelhuse which can be partly off-grid.

Comfort

The comfort varied in the different houses between normal comfortable stairs and bedroom to a foldable bed and foot pump for tap water.

Functionality

A foldable bed can, on the other hand, be very functional when it can be converted into a couch as a combined function. Where some houses had integrated or built-in furniture others chose for the style or comfort of separate (design) furniture which is not always very functional.

Personality

When designing and building a house yourself the house can be adjusted to your personal preferences. In the case of the Wikkelhuse the parts are fixed but you can still make your own combinations. For the Slim Fit, both options and layout are already fixed.

Material appearance

When built by professionals the materials are often of high quality and professional appearance. When building the house yourself people sometimes preferred using secondhand or reclaimed materials which are cheaper or more sustainable.

Detailing

In some houses, the wood structure is accentuated while in other cases the building materials are covered by paint, concrete or wallpaper.

Privacy

With a closed bedroom, there is more privacy than when the bed is part of the living room or placed in an open loft. Also when having large uncovered windows there can be less privacy.

Natural light

In some houses, large windows provide plenty of natural light. A glass facade gives a different ambiance than small windows. Openness or enclosure.

Facilities

Where one resident chooses to have a large bathroom with private bath and washing machine, the other chooses to not have a private shower at all. Some residents are sharing or using public facilities instead of having everything in their own house.

4.3 Implementation

This list can be supplemented further with factors that did not appear in this reference analysis but are clearly having an influence on the living experience of a Tiny House. For example the environment around the house and the context of living in a community with multiple Tiny Houses can be important elements that differ between houses. These differentiating factors are used as a base to form the experience determinants in the next chapter.

CHAPTER 5.

EXPERIENCE

DETERMINANTS

Next to the 6 experience values found in the contextual research, a number of experience determinants are found during the reference analysis. These determinants all influence the Tiny House living experience but are more specific than the experience values. For each factor, there is a range of solutions that can be implemented in the Tiny House.

The WHY gap

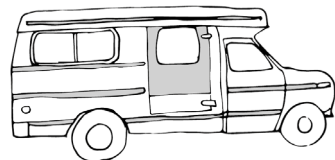
To be able to decide which solution fits future Tiny House residents best, there are a number of important questions that are to be answered. By answering these questions the focus is on the personal motive of the user. This substantiated decision-making based on personal motive covers the WHY gap that is explained in the problem definition.

For example: before deciding to have a Tiny House on a trailer with wheels people need to ask themselves why they want to have it on wheels. How often do they want to move their house and how far do they want to travel with it? A house on wheels is a frequently used solution but maybe does not fit everyone. Sometimes there are different, more suitable solutions. The different experience determinants are explained in this chapter.

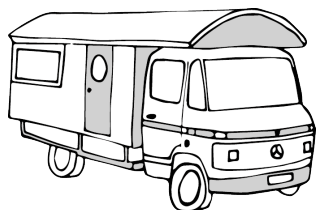
Experience values

When choosing a specific solution for one of the determinants, this decision can be linked to one of the experience values found in the contextual research. Someone who highly appreciates the value adventure is more likely to choose for a more mobile and off-grid house and someone who scored high on the social part of a Tiny House is more likely to choose for living in a community instead of in an isolated area.

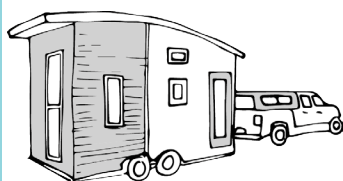




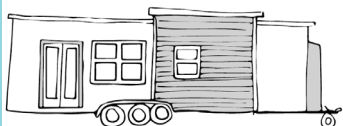
COMPACT CAMPER
max mobility
temporary - freedom



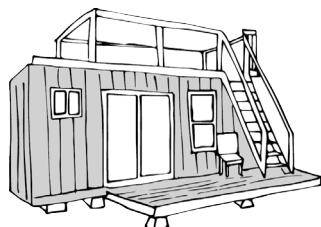
CAMPER TRUCK
max mobility
temporary - freedom



COMPACT TRAILER
mobile
semi-temporary



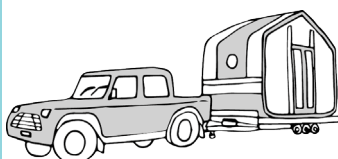
LARGE TRAILER
mobile
semi-temporary



CONTAINER HOME
semi-mobile
truck transport
semi-temporary



LARGE TRUCKLOAD
semi-mobile exceptional
truck transport



MODULAR PARTS
semi-mobile
trailer transport in parts
semi-permanent



CONNECTED HOME
foundation
fixed - permanent



Mobility

**Flexible vs Fixed
Freedom vs Anchored
Temporary vs Permanent
Uncertainty vs certainty**

To what extent a Tiny house is flexible has a large influence on the experience. When the house has a foundation and is permanently fixed to one spot this is a completely different experience than for example living in a campervan, which can be placed everywhere you want and move whenever you want. Being able to move your home if necessary or preferred gives a feeling of freedom. But when flexibility is used in temporary places of residence this feeling of freedom can also turn into an uncertainty. For others, this same uncertainty can be translated into the feeling of an adventure or challenge.

It can be of great contribution to be able to move your own house yourself but you can also choose for a more secure way where you put professionals in charge of moving your house. Within the flexibility spectrum, multiple different solutions exist in between a very flexible campervan and a static, fixed house with a foundation.

TO WHAT EXTENT DO YOU WANT YOUR TINY HOUSE TO BE MOBILE?

How do you see your Tiny House future? For how long do you want to live in the house?

- ☐ Temporarily; up to 3 years
- ☐ Up to 5 years
- ☐ Up to 10 years
- ☐ Up to 15 years
- ☐ Longer

(How often) would you like to move your house?

- ☐ Not
- ☐ Maybe someday
- ☐ Every 5 years
- ☐ Every 2 years
- ☐ Every 6 months/more often

Within which distance would you like to move?

- ☐ Not
- ☐ Within the area
- ☐ Within the province
- ☐ Within the Netherlands
- ☐ Within Western-Europe
- ☐ Outside Western-Europe

How would you like to move?

- ☐ Independently
- ☐ With help of friends/family
- ☐ With help of professionals
- ☐ Professionals in charge

Personality

Personal vs impersonal
Independent vs dependent
Custom vs ready-made
Creative vs fixed shape
Risky vs secure
Low costs vs higher costs



Many people choose to design and build their Tiny House themselves. Because it is such a small living space, it is important that your house really matches you and your lifestyle. By designing and building yourself, you basically design the house around you. Next to being very low budget, designing and building independently creates room for freedom and creativity but of course, it can also be a risk if you do not have any experience in these fields.

By working together with an architect or builder you do have your own input but also the security that everything goes well. They know exactly what is possible and what is not and can help you when making decisions. Also, there is a growing amount of companies offering complete, ready-made Tiny Houses or houses that you can compose yourself.

Where one resident thinks the designing and building process is very important, the other resident is mainly looking forward to the actual living in a Tiny House. For this last group, the security of an already existing or ready-made Tiny House is a very good and safe option.

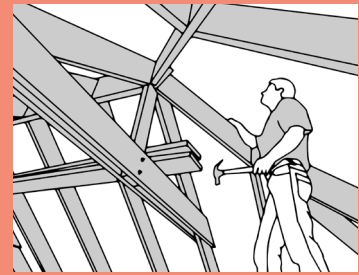
TO WHAT EXTENT DO YOU WANT YOUR TINY HOUSE TO BE PERSONAL?

To what extent do you consider the personal and independent part of designing your own house important?

- o I want to design my own house to make it fit my personality/wishes best.
- o I want to design my own house under supervision of a professional
- o I want to design my own house together with an architect.
- o I want my house to be designed by an architect.
- o I want to compose my own house from existing components.
- o I want to choose an existing design or house.

To what extent do you consider the personal and independent part of building your own house important?

- o I want to build my own house to make it fit my personality/wishes best.
- o I want to build my own house under the supervision of a professional.
- o I want to build my own house together with a builder.
- o I want my house to be built by a builder.
- o I want to buy an existing house.



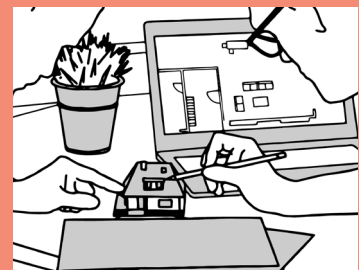
DESIGNING & BUILDING YOURSELF
independent - personal



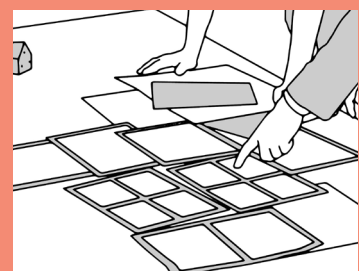
DESIGNING YOURSELF HAVE IT BUILT
semi independent/personal



DESIGN TOGETHER HAVE IT BUILT
under supervision - custom



HAVE IT DESIGNED/ BUILT
dependent - unique



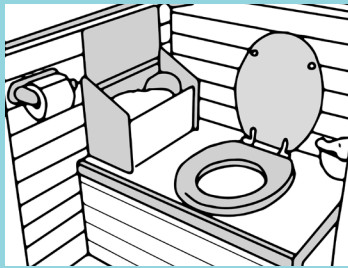
COMPOSE YOURSELF
existing components



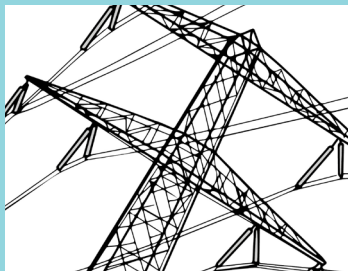
READY-MADE
complete house
no own input



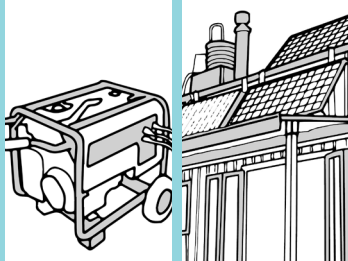
**TOILET -
CONNECTED**
sewage system



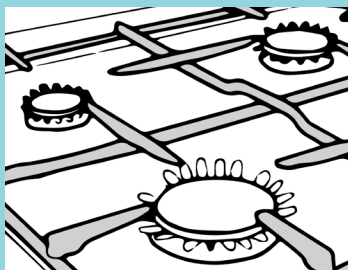
TOILET - OFF-GRID
composting toilet -
chemical toilet



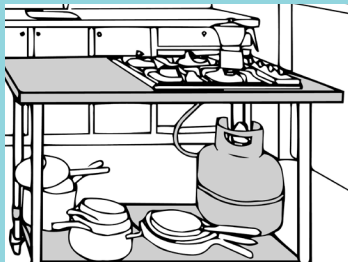
POWER - CONNECTED
power grid - camping plug



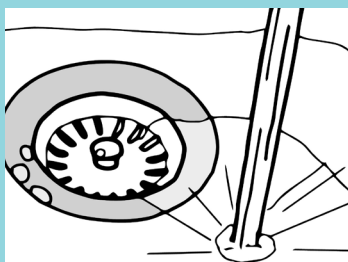
POWER - OFF-GRID
solar / wind energy
generator



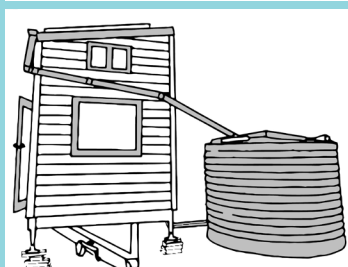
**COOKING -
CONNECTED**
gas network - power grid



COOKING - OFF-GRID
gas tank - biogas - electr.
using solar/wind energy



**WATER -
CONNECTED**
water grid



WATER - OFF-GRID
water tank
collect rainwater



Independence

Off-grid vs connected
Independent vs dependent
Freedom vs anchored
Uncertainty vs certainty

The level of independence of a Tiny house also plays a role in the living experience. When the home is completely autarkic the resident does not depend on external corporations or utility companies which gives a feeling of freedom. When the resident does not need anything or anyone else to provide for himself this creates a self-contained or self-sufficient context. Residents can feel proud and self-assured of providing everything themselves. This also pushes the responsibility of the resident to take care of their own needs.

On the other hand, being attached to the sewage system, gas, or power grid provides certainty. Whatever happens, the home will always be provided with electricity, gas, or water. Often people choose a combination where they are partly off-grid. The independence of the home can be divided into different levels from fully off-grid to fully on-grid.

TO WHAT EXTENT DO YOU WANT YOUR TINY HOUSE TO BE INDEPENDENT?

IN TERMS OF:

1. TOILET 2. COOKING 3. ENERGY 4. WATER

Is there a :

1. sewage system
2. gas/power grid
3. power grid
4. water network

present at the location

☐ Yes
☐ No
☐ Unknown

Do you want to have the possibility to connect to the:

1. sewage system
2. gas/power grid
3. power grid
4. water network

☐ Yes
☐ No
☐ Maybe

Would you like to share a:

1. toilet
2. cooking space

at the Tiny House location/community?

☐ Yes
☐ No
☐ Maybe

Do you want to be independent of the:

1. sewage system/shared toilet
2. power grid
3. gas grid/shared kitchen
4. water grid

☐ Yes
☐ No
☐ Preferably

Environment

Rural vs urban
Nature vs city
Quiet vs noisy



The environment of the home determines a large part of how people feel at home. Being in a rural area with lots of nature can give one a lot of energy while someone else feels more at home in an urban environment.

To decide whether people want to place their home in a certain environment, they should first question themselves why they want to live in this environment and how they are going to live in this environment. How important is the location/area to place the house and does it have to be easily accessible? Simple things like having a supermarket at cycling distance or a train- or bus station nearby can make a big difference. Often a rural environment goes hand in hand with fewer facilities and services nearby but for some people, this is the exact reason to choose for this kind of environment.

Because in most situations it is not very easy to find a location for your Tiny House, it is hard to be critical about the environment but, nevertheless, it is very important to think about what fits you and what does not.

IN WHAT KIND OF ENVIRONMENT DO YOU IMAGINE YOUR TINY HOUSE?

Which facilities do you want to have nearby?

- ☐ Work
- ☐ Supermarket
- ☐ (Shopping) center
- ☐ Park
- ☐ Nature
- ☐ Public transport
- ☐ (Primary) school
- ☐ Café
- ☐ Gym
- ☐

How do you want this environment to look like?

- ☐ Forrest
- ☐ Dune area/at sea
- ☐ Farm/grassland
- ☐ Polder
- ☐ Waterside
- ☐ Park/garden
- ☐ Camping
- ☐ Urban
- ☐
- ☐



RURAL



SEMI RURAL



POLDER



VILLAGE



SUBURBAN



UPTOWN



CITY CENTER
DOWNTOWN
apartments

Context

Public vs private
Included vs isolated
Together vs individual



Living in a community with like-minded people can make a large difference in the living experience. Living and working closely together with other Tiny House residents and sharing a garden could be of great contribution for one, while the other attaches more value to living more privately or isolated from others, with the focus more on the connection with nature and self-development.

If people choose to live together with other Tiny Houses it is very important to think about the different implementations. You can live together with two other Tiny Houses on a shared ground with rough terrain and shared facilities but this is completely different from living in a very structured Tiny House street or village with 20 other houses. Every situation differs from the other, where, in one case everything is fixed and controlled while in the other case you are free to experiment and create something together with your neighbours. Also, it is important to think about what kind of relationship you want with your neighbours. Is it only superficial or would it be more valuable to develop a more friendship-like relationship?

IN WHAT KIND OF CONTEXT DO YOU IMAGINE YOUR TINY HOUSE?

In what way would you like to live together with others?

- ☐ No neighbours
- ☐ Neighbours on separate ground
- ☐ Neighbours on shared ground
- ☐ Tiny village
- ☐ Tiny street

How frequently do you want to have contact with your neighbours?

- ☐ Minimal contact
- ☐ Contact for practical reasons
- ☐ Weekly small talk
- ☐ Daily social contact

What kind of relationship would you like to have with your neighbours?

- ☐ Kindly greeting each other
- ☐ Superficial relationship for practical matters
- ☐ Good contact: sharing eg vegetable garden, chickens or responsibilities
- ☐ Good neighbours: occasionally visiting each others house. Organising activities together.
- ☐ Friendship: close contact, working together or having dinner

**CITY CENTER
DOWNTOWN**
apartments

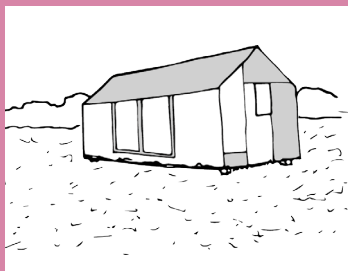
PRIVATE
no neighbours

SHARED GROUND
rough terrain

VILLAGE
landscaped terrain

STREET
structured terrain

APARTMENT
fully structured



Sustainability

Off-grid vs on-grid
Tough vs easy
Investment vs cheap
Conscious vs unconscious



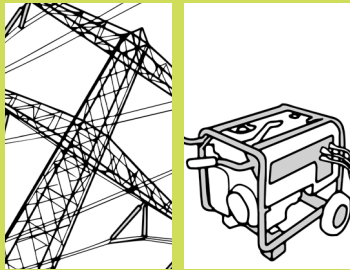
Tiny Houses are often closely connected to sustainability. The transition from moving into a more compact living space already involves a much more conscious lifestyle. A small space means less consuming, less energy use and a smaller space to heat.

Next to these positive changes, there are endless other decisions to make concerning sustainability. For energy supply, there is solar energy, wind energy, a connection to the power grid or a generator (sometimes used as a back-up in winter in combination with solar panels). For cooking, water supply and heating there also is a range of solutions to choose from.

Some people want their house to be as sustainable as possible while others consider a combination of sustainable and less sustainable solutions or switching between off- and on-grid. Then there are also alternative solutions to experiment with like cooking on biogas or heating water by double using the woodstove.

TO WHAT EXTENT DO YOU WANT YOUR TINY HOUSE TO BE SUSTAINABLE? IN TERMS OF: 1. ENERGY 2. COOKING 3. WATER 4. HEAT

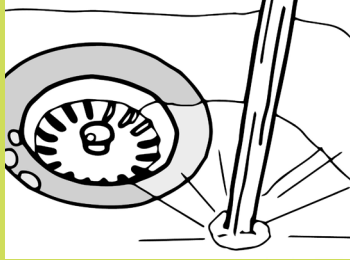
How important is sustainability in power supply? ☐ I want to be connected to the power grid since I'm using very little electricity ☐ I want to be able to switch between the power grid and solar energy ☐ Preferably I'm using mainly solar/wind energy, but power grid when really necessary ☐ I only want to use solar/wind energy	How important is sustainability in water supply? ☐ I want to be connected to the water grid ☐ I want to be able to switch between the water grid and (rain)water tank ☐ Preferably mainly filtered rainwater, but water grid when really necessary ☐ I only want to use rainwater for my water supply
How important is sustainability in cooking? ☐ I want to use gas for cooking ☐ I want to be connected to the power grid (for electric cooking) ☐ I want to be able to switch between the power grid and solar energy for cooking ☐ Preferably I'm using mainly solar/wind energy for cooking, but power grid/gas when really necessary ☐ I only want to use solar/wind energy or biogas for cooking	How important is sustainability in heating the house? ☐ I want to use a gas stove ☐ I want to use a wood stove ☐ I want to use a pellet stove ☐ I want to use an electric heater connected to the power grid ☐ Preferably I'm using mainly solar energy for heating, but power grid when really necessary ☐ I only want to use solar/wind energy for heating (or alternative sustainable solutions)



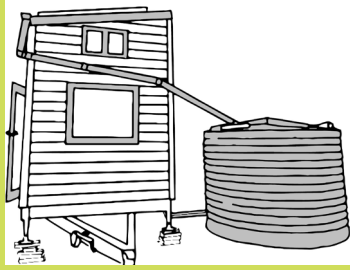
ELECTRICITY
connected to powergrid / generator



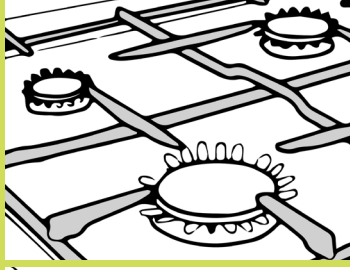
ELECTRICITY
solar/ wind energy



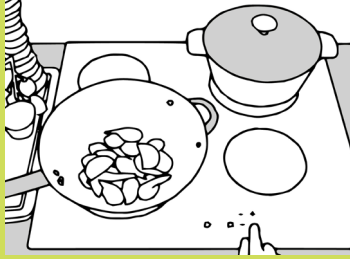
WATER
connected to water grid / sewage system



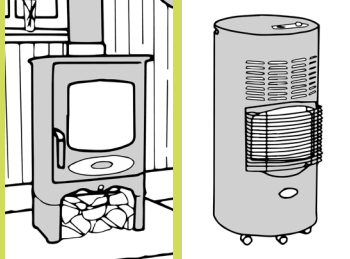
WATER
collecting & filtering rainwater



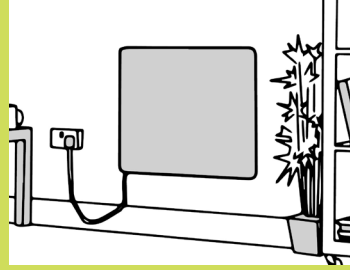
COOKING
cooking gas electric using power grid



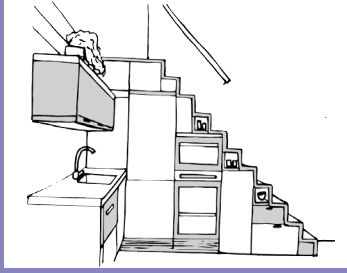
COOKING
electric using solar / wind energy or biogas



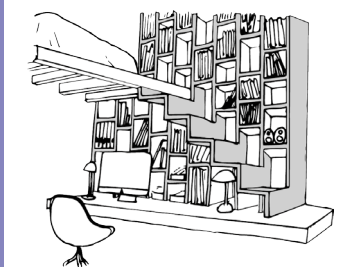
WARMTH
wood stove - gas stove electric using generator



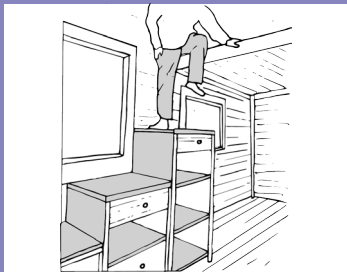
WARMTH
electric using solar / wind energy - solar water heater



NORMAL STAIRS
no concessions made
lot of space needed
very comfortable



INTEGRATED STAIRS
combined function
little space needed
comfortable



MERGED STAIRS
double function
little extra space needed
moderately comfortable



PULL-OUT STAIRS
hidden - action required
minimal space needed
moderately comfortable



LADDER
minimal space needed
little comfortable



FOLD-OUT LADDER
action required
minimal space needed
uncomfortable



Functionality

Comfort vs functional
Easy vs hassle

When designing a Tiny House there is a fine balance between functional and comfortable. This balance is a bit different for everyone. Sometimes this decision has to do with certain factors like age, fitness or having children. When you are turning 70 people rather choose for more comfortable solutions instead of functional. Same if you have (or planning to have) small kids.

When talking about functional and comfortable there are two main parts of the house that can really vary within this spectrum and therefore greatly influence the living experience: the stairs and the sleeping area. When most people think about a Tiny House they often think about a sleeping loft combined with a ladder to enter the loft but there are many other solutions possible.

Stairs

When designing a Tiny House the opinions about stairs are diverse. Where one chooses for a normal staircase with equal steps the other attaches more value to creating extra space by using a ladder, combine functions (closet as stairs), or use a fold- or pull-out staircase or ladder. Where one staircase feels more like a 'normal house', the other maybe makes it feel more like camping. The only thing is: do you mind the hassle of is comfort more important.

TO WHAT EXTENT DO YOU WANT YOUR HOME TO BE FUNCTIONAL?

1. STAIRS

In what way do you want your stairs to be functional?

- ☐ I want to have a normal, fixed staircase with equal steps
- ☐ I want to have a fixed staircase. The shape is not important, steps can be unequal.
- ☐ I don't mind doing concessions concerning the stairs to combine functions.
- ☐ I don't mind using a ladder
- ☐ I don't mind having a fold out staircase or ladder
- ☐ I don't need a staircase, everything is on one floor.



Sleeping area

When choosing what kind of sleeping area people want in their Tiny House, people often choose to have a sleeping loft. But there can be a lot of variation in comfort or functionality concerning the sleeping area. For the optimal comfort level, you can create a sleeping area on the ground floor with a high ceiling just like in a normal house. In the middle of the comfort-functionality spectrum is a split level sleeping area as a loft or on the ground floor, which is often a lower space. At the end of the spectrum are the more functional solutions like a pull- or fold-out bed or a lift-bed to save space in the house or transform the bed into a couch during the day.

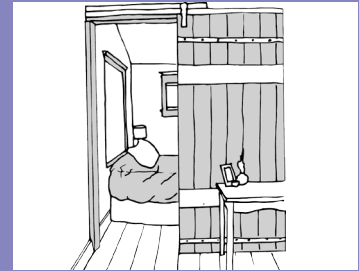
Whether or not you are willing to transform parts of your house in a daily routine is an important factor to take into account when designing a Tiny House.

TO WHAT EXTENT DO YOU WANT YOUR HOME TO BE FUNCTIONAL?

1. SLEEPING AREA

In what way do you want your sleeping area to be functional?

- ☐ I don't want to do any concessions on the sleeping area. I want my bed to be on the ground floor.
- ☐ I don't mind sleeping in a loft as long as the ceiling is high enough to sit up straight
- ☐ I don't mind having to do concessions on the sleeping area to combine functions
- ☐ I don't mind having to fold/pull out the bed every day to make optimal use of the space



**GROUND FLOOR
FULL HEIGHT**
no concessions - comfortable



LOFT / SPLIT LEVEL
lower space
average comfortable



PULL-OUT BED
action required
moderately comfortable



LIFT-UP BED
action required
moderately comfortable



FOLD-OUT BED
action required
little comfortable

Facilities

Public vs shared vs individual



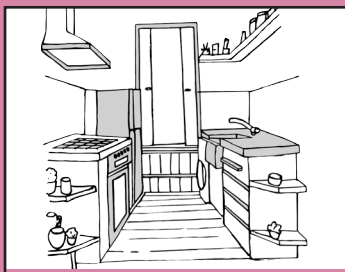
When living in a Tiny House, there is a range of facilities that are not necessarily needed in every home. Some Tiny House residents choose for using shared facilities or even public facilities. Instead of having their own shower they can use the one at work or at the gym. When there is a shared kitchen in the Tiny House community, they maybe do not need an oven or freezer in their own home.

Washing machines can be a big struggle since, when living off-grid, it is very hard to get enough electricity and water to get your own washing machine running. For this reason, this is one of the first things in the house people consider to share or use in public facilities.

Whether Tiny House residents are sharing facilities or not can significantly affect the living experience. For one this could be the perfect way of collaborating and be more connected to and depending on their neighbours. For others, the comfort of having individual facilities can be of great importance.

TO WHAT EXTENT WOULD YOU LIKE TO HAVE INDIVIDUAL OR SHARED FACILITIES IN YOUR TINY HOUSE?

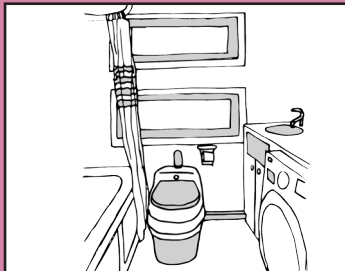
1. KITCHEN 2. BATHROOM 3. WASHING MACHINE



OWN KITCHEN



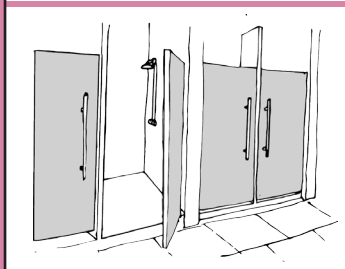
SHARED KITCHEN
within TH community



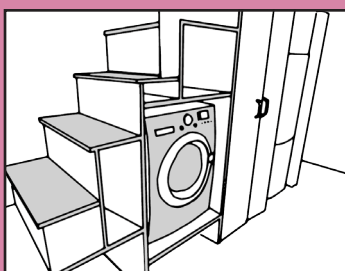
OWN BATHROOM



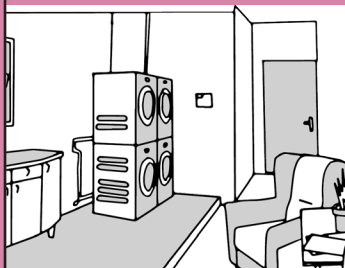
SHARED BATHROOM
within TH community



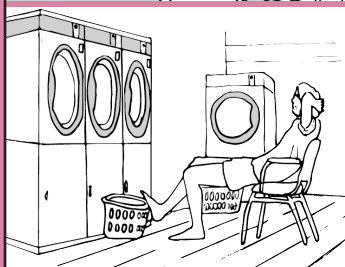
PUBLIC BATHROOM
at work / at the gym



OWN WASHING
MACHINE



SHARED WASHING
MACHINE
within TH community



PUBLIC WASHING
MACHINE
laundry service

Which objects are you planning to use less than daily (or weekly)?

Cooking area:

- ☐ Dishwasher
- ☐ Oven
- ☐ Microwave
- ☐ Coffee machine
- ☐ Water heater
- ☐ Kitchen machine
- ☐

Bathroom/area:

- ☐ Bathtub
- ☐ Shower
- ☐ Toilet
- ☐

Washing machine

Which of these objects would you like to :

- Share within a community?
- Have yourself?
- Use in public facilities (at work/gym)?
- Not use at all?

Privacy

Indoors

Closed vs open
Private vs shared



When living together with someone else in a small house, it is very important to take privacy into account. Where one person really needs time and space for him/herself, someone else does not value privacy at all. For this reason, it is important to take into account the wishes of all residents in one house, for example when there are children growing up in the house.

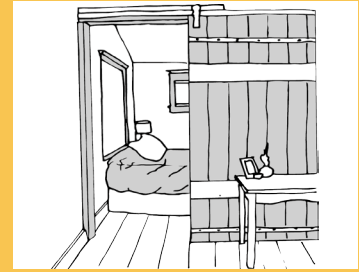
In what way you want to implement privacy in the Tiny House can vary from fully closed spaces to one open space, with the use of curtains or partly shielded areas in the middle of the privacy spectrum. For optimal privacy, a space is closed from sight and sound, while sometimes a small barrier like a partly covering, thin curtain is enough to create a feeling of privacy.

TO WHAT EXTENT WOULD YOU LIKE TO HAVE PRIVACY IN YOUR TINY HOUSE?

1. INDOOR

To what extent is privacy important inside the house?

- o It's very important to have a private/closed space to withdraw yourself and take some time for yourself
- o I want to have the possibility to withdraw myself but it doesn't have to be a closed space
- o I think it is important that my housemates can have a place for their own whenever they feel like having some privacy
- o I like my house to be open en feel like one pleasant open space.
- o I'm not really in need of privacy (apart from a closed toilet)



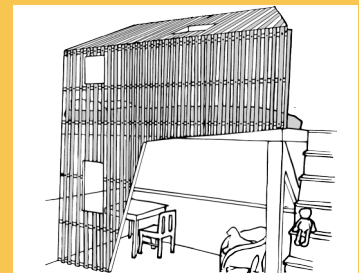
FULLY CLOSED
no concessions
minimal sight/sound



CLOSED
no sight - little sound



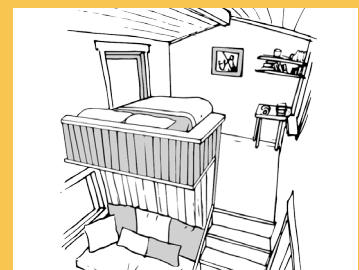
SEMI-CLOSED
no sight



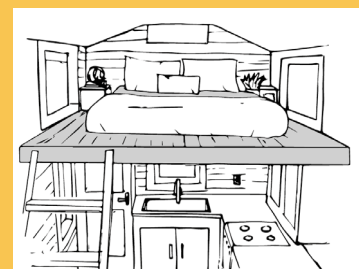
SCREEN
little sight



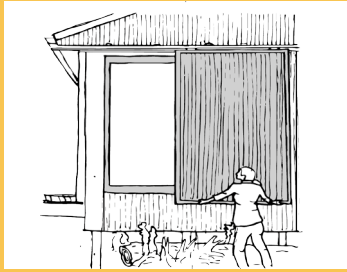
PARTLY OPEN
half open for sight



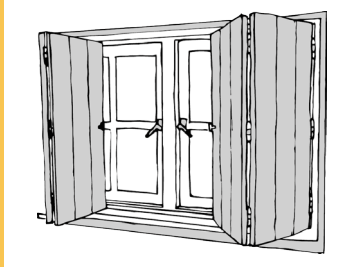
OPEN
sight and sound



FULLY OPEN
maximum sight and sound



FULLY CLOSEABLE
maximum privacy



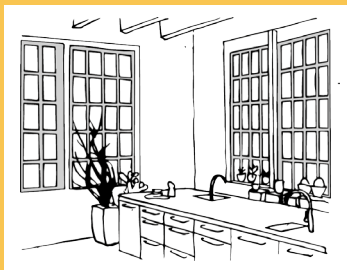
CLOSEABLE
shutters



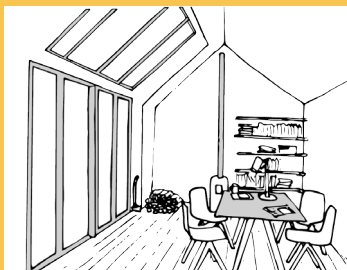
SEMI-CLOSED
slats



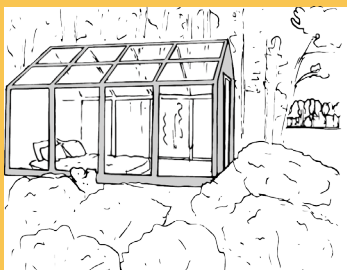
SEMI-CLOSED
curtains



HALF OPEN
divided windows



OPEN
many windows
moderate privacy



FULLY OPEN
many large windows
no privacy



Privacy

Outdoors

Private vs public
Closeable vs open

When looking at privacy towards the outside, the preferences can vary widely. In this case, the environment around the house plays a big role as well. If the house is placed in a rural area without any neighbours it is probably more likely that there is less privacy needed towards the outside. On the other hand, if you are living together in a larger community or in a more urban area, it can be of bigger importance. When the Tiny House is placed in an open/public estate like a nature park, construction site or with for example a public road close to the house, privacy can be more valuable.

Where some people like to have a very strong connection to the outside by using large windows and don't mind people looking inside their house, someone else feels more comfortable being able to cover the windows when preferred.

TO WHAT EXTENT WOULD YOU LIKE TO HAVE PRIVACY IN YOUR TINY HOUSE?

2. OUTDOOR

To what extent is privacy towards the outside of the house important?

- o I don't like it when people can look inside my house. I would like to be able to cover/close the windows when I feel like it.
- o During the day I like to look out of the windows but at night I want to close the curtains.
- o I rather have a very open house but do want the possibility to cover the windows whenever necessary.
- o I don't feel like covering up any windows. I don't need any privacy towards the outside. I like my house very open.

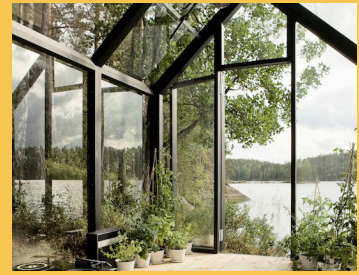
Openness

Daylight

Openness vs enclosure
Bright vs dark
Outside vs inside
Exposed vs protected

The amount of daylight plays a large role in the living experience of a Tiny House. The preferred amount of daylight can be very personal. One person feels most comfortable in a very bright and open space with lots of daylight and someone else feels more at home in a darker, more enclosed area where it feels safe and warm.

Also here the outside environment is an important factor in choosing for a light and open space or dark and enclosed. The outside can be seen as an extension of the inside or the inside can be more isolated from the outside.



FULLY OPEN
maximum daylight - strong
connection with outside



OPEN
much daylight
connected to outside



HALF OPEN
much daylight



HALF OPEN/CLOSED
moderate daylight



SEMI-CLOSED
little daylight



ENCLOSURE
minimal daylight
private - protected

TO WHAT EXTENT WOULD YOU LIKE TO CREATE OPENNESS IN YOUR TINY HOUSE?

1. DAYLIGHT

How important is it to have daylight inside the house?

- o I like my Tiny House to be very bright and open with many large windows to have a strong connection with the outside.
- o It's very important that there is enough daylight in every part of the house
- o There only has to be enough daylight/windows at places where spend most time or where I want to look outside.
- o I like my Tiny House to be a bit closed with small or only a few windows to create a cozy and safe place.



**HIGH CEILING
WIDE**
maximum spacious



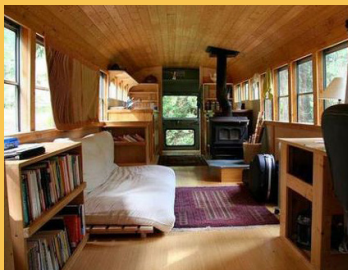
**SEMI HIGH CEILING
WIDE**
spacious



**HALF HIGH CEILING
SEMI NARROW**
moderately spacious



**SEMI LOW CEILING
SEMI NARROW**
little spacious



**LOW CEILING
SEMI NARROW**
small space



**LOW CEILING
NARROW SPACE**
minimal space



Openness

Space

**Spacious vs narrow
Openness vs enclosure
Exposed vs shelter**

When talking about space in a Tiny House it is not only about how big or small the house is. A big house can feel enclosed and a small house can feel, to a certain extent, very open or spacious. Next to absolute size, it is also about the layout of the space or how it is used.

The spaciousness of the house can become less when using low ceilings or narrowing it with extra walls. For example, when placing the kitchen opposite the bathroom, the space gets narrowed down from both sides. But on the other hand, when using the full height and width of a smaller house, it can still feel quite spacious.

Where one person feels more at home in low and narrow spaces because it feels safe and sheltered, someone else likes it more open and spacious.

TO WHAT EXTENT WOULD YOU LIKE TO CREATE OPENNESS IN YOUR TINY HOUSE?

2. SPACE

To what extent is the spaciousness of the house important?

- o I like to have high and wide open spaces in my Tiny House to create an open and spacious atmosphere.
- o I like my Tiny House to be somehow spaciousness but still compact.
- o I like the spaces in my Tiny House to fit me perfectly. It doesn't have to be wider or higher than necessary.
- o My house can be as compact as possible. As long as everything fits there is no extra space needed.
- o I feel most comfortable in lower and narrower spaces because that gives a cozy and safe feeling.

Openness

Colours Contrast

Openness vs enclosure Cool vs warm

The openness of a space also has to do with the use of colour and contrast. When using light colours, people experience a space as cooler and bigger while dark colours create a warmer, but smaller space.

This way lighter colours create more openness while dark colours create a more enclosed feeling. Colour and contrast are depending on personal preference or style, which is, of course, different for everyone. Some people really like a cold or cool appearance while others feel more at home surrounded by warm and dark colours.

TO WHAT EXTENT WOULD YOU LIKE TO CREATE OPENNESS IN YOUR TINY HOUSE? 3. COLOURS/CONTRAST

To what extent are the colours and contrast of the house important?

- o I mainly want to make use of white and light colours to keep it calm and spacious.
- o I want to use mainly light colours and materials in my Tiny House.
- o In my Tiny House, I want a combination of lighter and darker colours to create contrast and vibrance.
- o I want to use darker colours and materials to create a warm, cozy and safe atmosphere in the house.



VERY LIGHT
COLOURS



LIGHT / VERY LIGHT
COLOURS



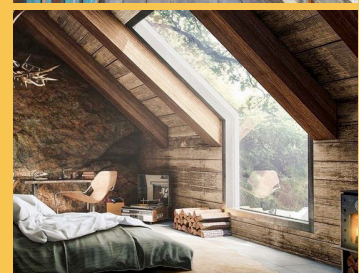
LIGHT
COLOURS



SEMI LIGHT
COLOURS



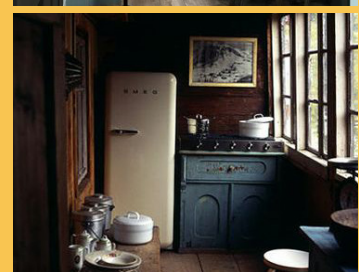
SEMI DARK
COLOURS



DARK COLOURS



DARK / VERY DARK
COLOURS



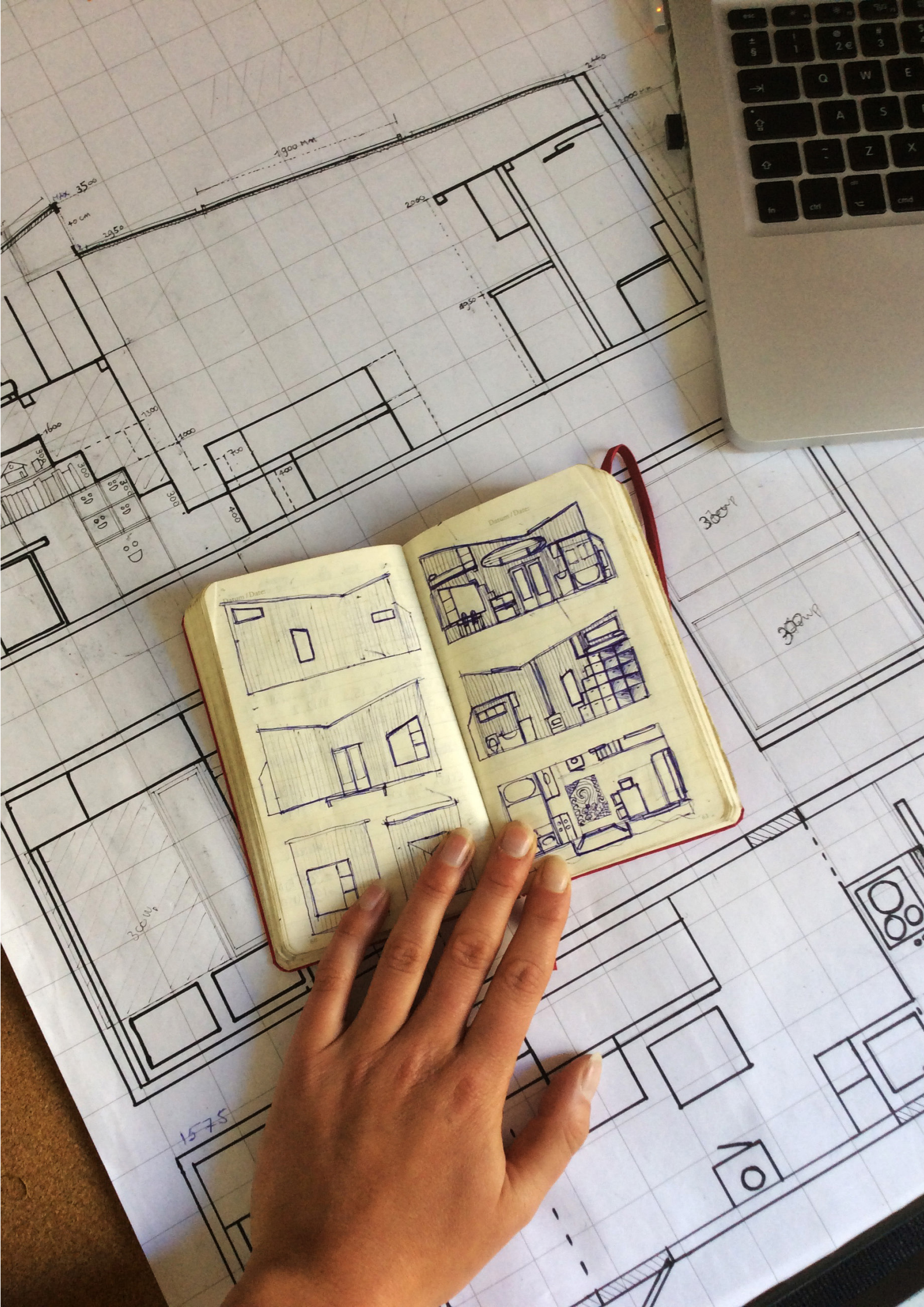
VERY DARK
COLOURS

CHAPTER 6.

RESEARCH

CONCLUSIONS

- 6.1 Overall conclusion
- 6.2 Design goal
- 6.3 Interaction vision



6.1 Overall conclusion

When looking at the conclusions from the User Research, Contextual Research, and Reference Analysis, they can all be put together and implemented in the exploration tool (Figure 74).

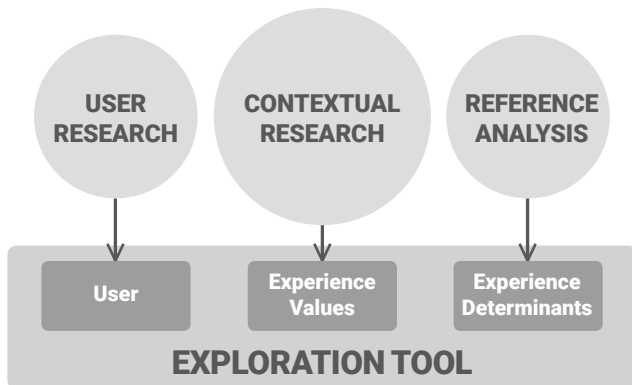


Figure 74. Substantiation of the exploration tool

3 Levels of designing

When designing a Tiny House there are three different stages in the process that influence each other: the why, how and what. By using the Experience Values and Determinants, the why and the how can be filled in. When placing all three elements and the interrelationships between the three in one figure, the design pyramid is created (Figure 75).

In this pyramid, every level builds on to the next one starting with the basis: You (Why do you want to live in a Tiny House and what is important to you?), then to the second layer: Your Choices (How do you create a Tiny House that fits you and which solutions do you want to implement?) and finally: Your Tiny House (What does it look like?).

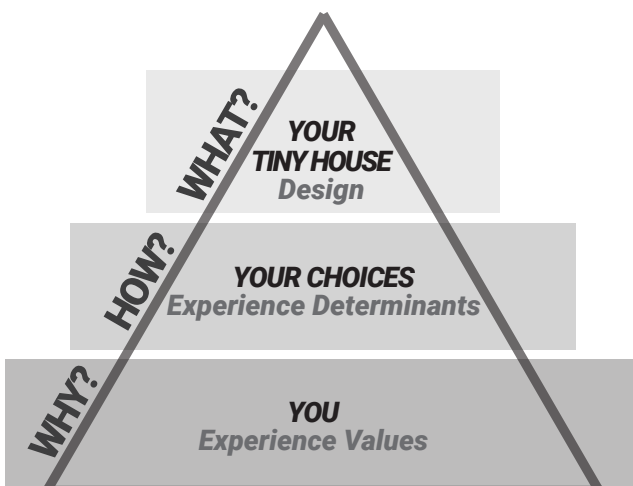


Figure 75. Design pyramid with three levels in designing a Tiny House

1st level, WHY?

You: Experience Values

By using the six Experience Values: adventure, green, mindful, DIY, social and functional, a personal Tiny House profile can be created for each (future) Tiny House resident. Before designing a Tiny House, people first need to find out what this ultimate living experience is about for them. In this first level, people need to think about what kind of Tiny House resident they will be or want to be and which parts of living in a Tiny House are most important or valuable for them. By starting with these Experience Values, a foundation is laid for designing a Tiny House.

2nd level, HOW?

Your Choices: Experience Determinants

In this second level, decisions can be made based on the Experience Values. By asking questions about the different factors, a choice can be made between various solutions within this factor. Experience Determinants like: mobility, context, independence or environment are discussed here including the range of solutions. In this second level of designing these different solutions can be mapped out for every Experience Determinant and this way create the building blocks for the actual design of the Tiny House.

Before deciding to have a Tiny House on wheels, people need to ask themselves how often they want to move their house and how far they want to travel with it. A house on wheels is an often used solution but maybe does not fit everyone. Often there are different, more suitable solutions.

3rd level, WHAT?

Your Tiny House: Design

When having decided which solution for every factor fits the living experience best, the first steps to an actual design can be made. Taking the first and second design levels in the back of their head they can truly design a Tiny House that fits their personality, wants and needs by making substantiated design choices.

6.2 Design goal

As an addition to the project goal set at the beginning of the project, a more elaborated design goal is formulated as a starting point for the implementation of the exploration tool. This design goal is as follows:

I want to encourage people with or without a designing or building background, to design a Tiny House that meets their personality, by creating an easy to use exploration tool, focusing on their ultimate Tiny House living experience.

With this toolkit, I want to enable them to think out of the box, beyond obvious solutions and instead design their home around themselves.

Because every future Tiny House resident differs in their ideas within every of the 3 designing levels, this tool can serve as a conversation starter between these people to see what fits their personality and their wants and needs best. This tool should stimulate people to start a discussion about the different ideas and motives for every decision and this way help them to design a Tiny House that truly fits them.

Objectives

To support this design goal, several objectives are created. When designing the exploration tool, the following objectives are to be met:

Physicality

Using a physical tool creates a more conscious interaction than a digital tool or application. Performing actual actions like cutting, glueing, or drawing is better suitable when expressing an experience.

Group implementation

The tool must be implementable in a group session because it can be very valuable to share experiences, stories or ideas with people who are going through the same process. They can learn from each other or inspire each other while using the exploration tool or when presenting the outcomes.

Learning process

Instead of learning from the tool the focus must be on learning from themselves and each other. The tool is not providing users of knowledge but pushes them in the right direction to provide the knowledge themselves.

Visuality

By creating a tool with a high visual content to communicate information, people can relate better to certain aspects. Visuals can be interpreted in different ways so people can refer to them for different reasons when expressing their preferred experience.

Trigger

The exploration tool should function as a trigger and encourage people to continue their process with inspiration and confidence. By initiating the design phase the tool should stimulate people to continue their journey in the right direction.

6.3 Interaction Vision

To give an indication of the preferred interaction experience for this new design tool, a metaphor is used in the form of an interaction vision. Through this metaphor, the preferred interaction qualities can be described.

For my Experiential design tool, I want the interaction to feel like:

Taking a ride in a hot air balloon above known ground

The interaction qualities that are most important here are: enlightening, freedom and inspiring

Enlightening

Flying in a hot air balloon gives you another way of looking at something you already know. From a top view, the area looks more structured and less complex compared to the view from the ground. Because of this clear overview, you can learn things about this area you did not know or noticed before.

With the exploration tool, I want to stimulate people to take a step back and take a different look on designing their Tiny House. By taking themselves as a starting point it clarifies why they would design it in a certain way. When dividing the design of the house into different sub-solutions it gives a clear overview of the possibilities.



Freedom

Flying high above everything that matters, the chaos and the pressure, without having high-tech equipment gives a feeling of freedom. The simplicity of a hot air balloon using no more than heated air and the flow of the wind contributes to this free feeling.

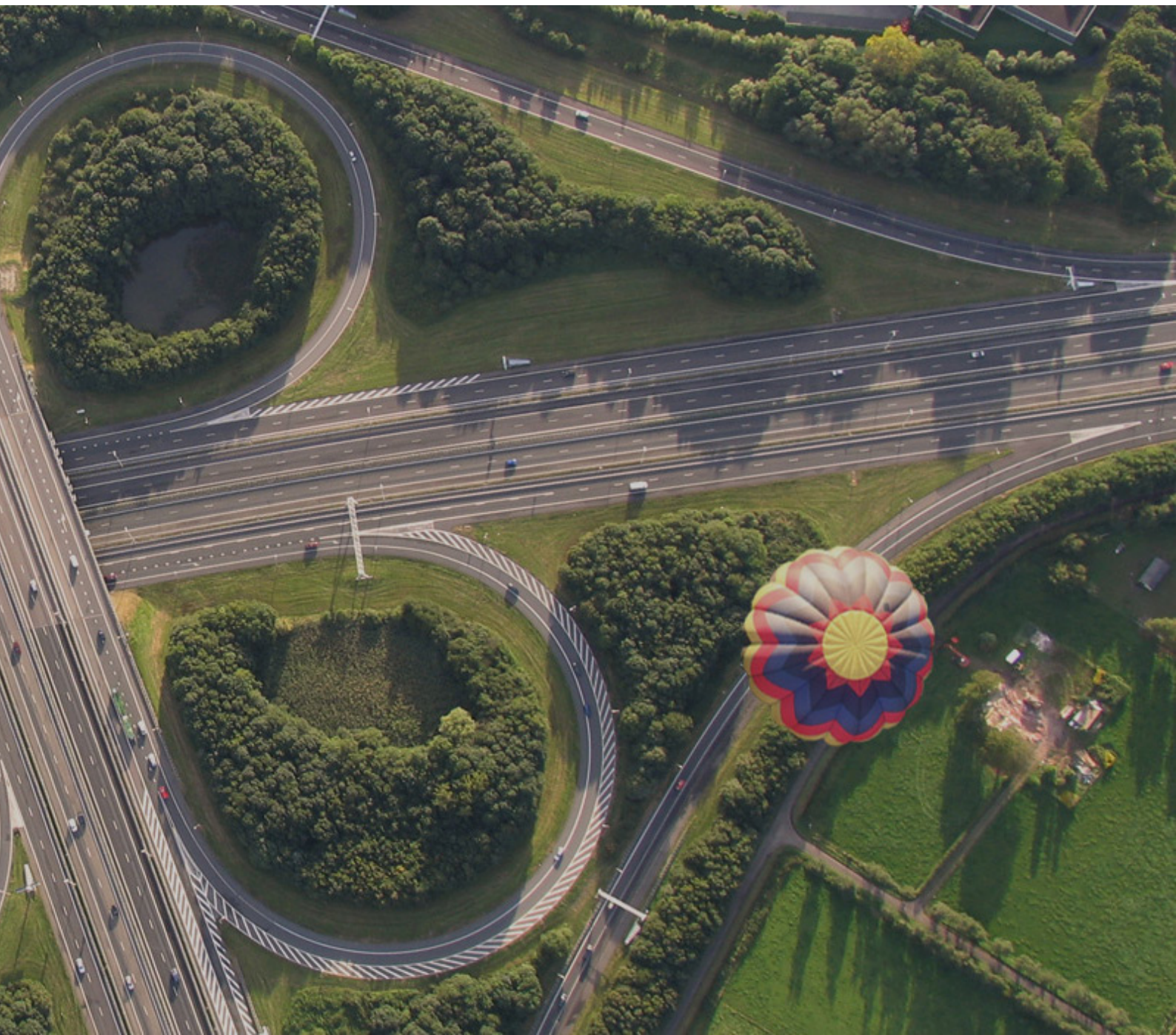
With the exploration tool, I want people to feel this freedom in designing. When designing without the boundaries of what other people did or built before, the range of possibilities widens. When talking about the ultimate Tiny House experience it is very important to fantasize in complete freedom.

Inspiring

It takes some courage to step into a hot air balloon but the unexpected beautiful surreal view and peace around you feels inspiring and makes you aware of the environment around you. Environments that normally would not appeal to people may suddenly be appreciated when looking at it from a top view.

When using the exploration tool I want people to feel encouraged and inspired to create their own story and realize their dream home. People can inspire each other and share their stories and ideas when using the tool together.

Figure 76. View from hot air balloon, from ballonvaartcentrumvanmanen.nl



CHAPTER 7.

IMPLEMENTATION

- 7.1 Creative session**
- 7.2 Pre-workshop activity**
- 7.3 Workshop part 1: You**
 - 7.3.1 Archetypes
 - 7.3.2 Quotes
 - 7.3.3 Values
 - 7.3.4 Moodboard
- 7.4 Workshop part 2: Your Choices**
- 7.5 Workshop part 3: Your Tiny House**
- 7.6 After-workshop activity: evaluation**



7.1 Creative session

The Exploration Tool is designed to be implemented in a workshop-like setting as a creative session. It focuses on people who are at the beginning of the design process and helps them to create a strong base to start designing.

The tool consists of five parts: the pre-workshop activity, the actual sessions 'You', 'Your choices' and 'Your Tiny House' and the after-workshop activity. Each part answers its own questions. All parts of the session are shown in Figure 78.

7.2 Pre-workshop activity

What?

Sensitizing booklet

Before attending the creative session (one week prior to the session), the participants are asked to fill in a sensitizing booklet. In this booklet, they can describe how they see their future Tiny House life and what they imagine their house will look like. The booklet also serves as a warm-up exercise for the creative sessions to prepare them to think about certain aspects of their Tiny House.

Questions asked in the booklet, 'My Tiny House experience' are:

- What does your ideal (work)week look like?
- What does your future Tiny House look like?
- In what kind of environment do you imagine your house?
- On what term do you plan to move into a Tiny House?
- What is the most important motive for choosing a Tiny House?
- Why does it fit you?
- What are you looking forward to?
- What is important to your house/living environment?
- When would you feel most at home?
- How would you spend your day off?
- What would be your favorite spot in the house?
- How would your house reflect your personality?
- What metaphor would match your Tiny House?

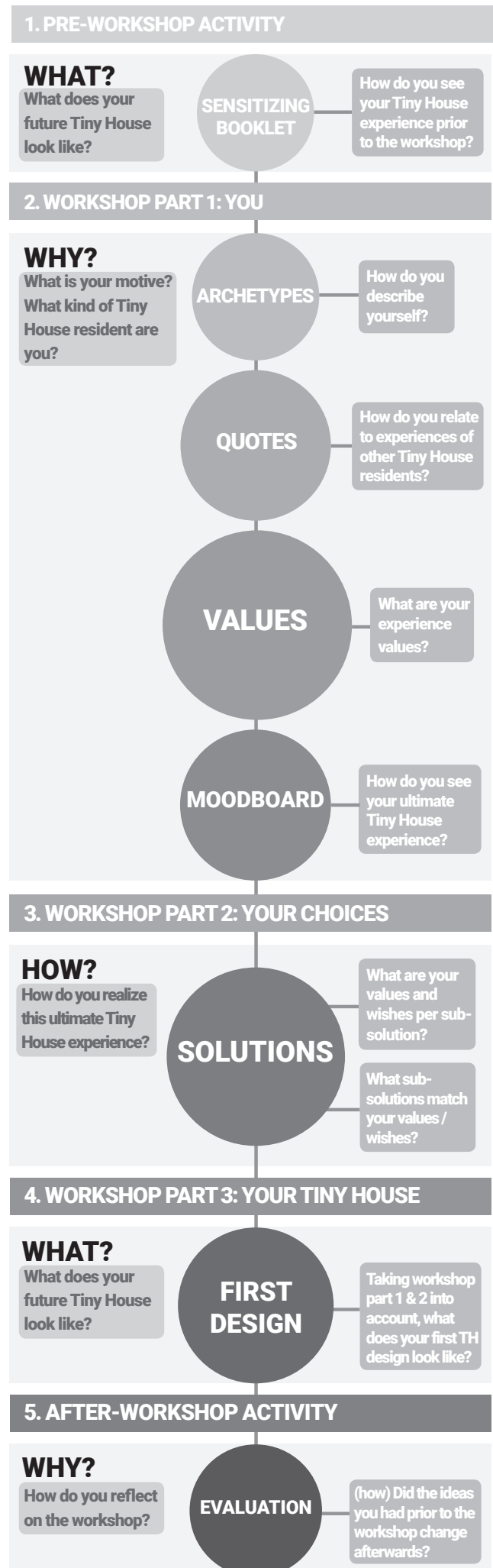


Figure 78. The five components of the exploration tool

7.3 Workshop part 1: You

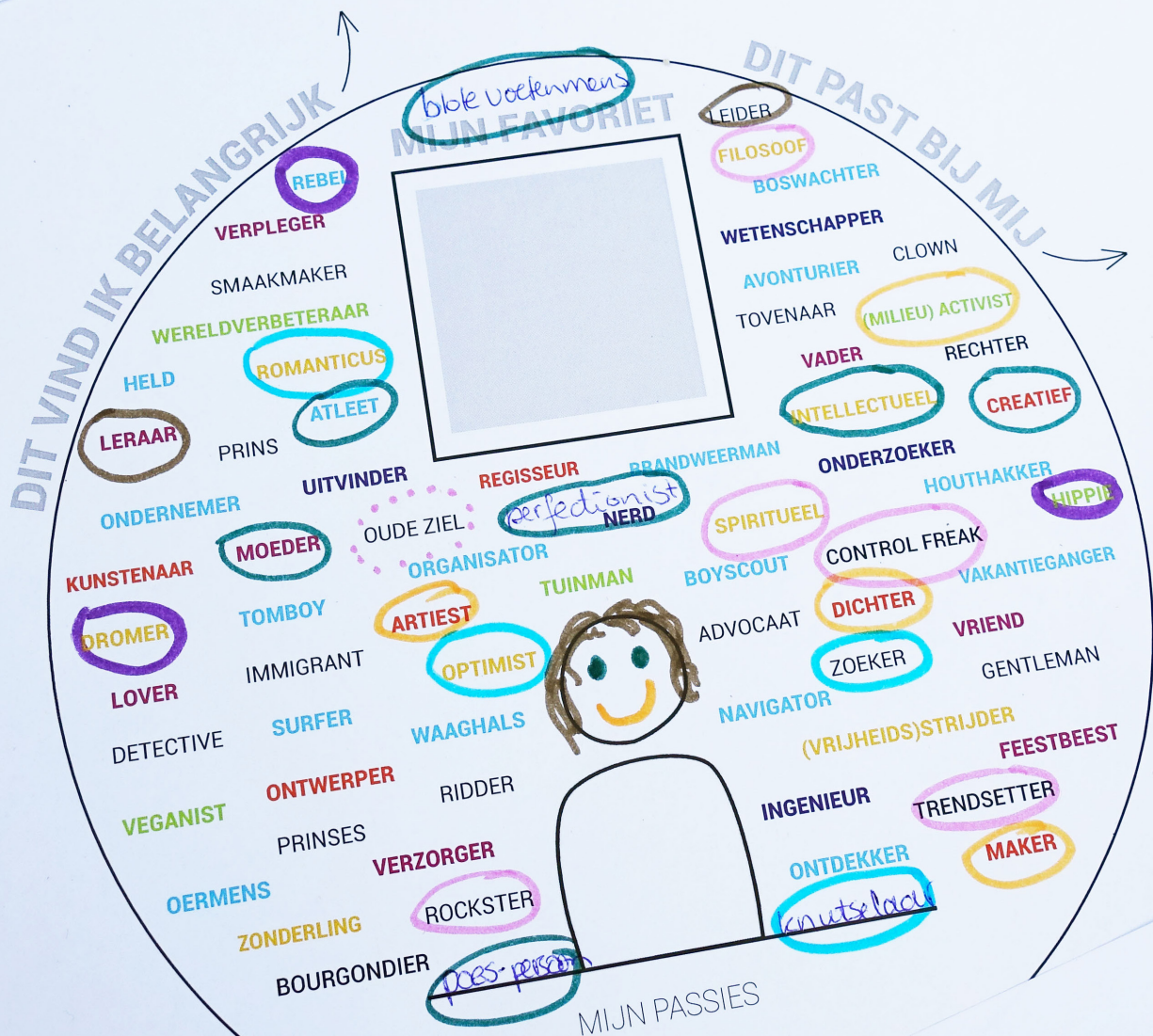
Why?

7.3.1 Archetypes

In this first exercise, the middle of the circle represents you, the Tiny House resident. Participants are asked to describe themselves based on a selection of archetypes. By selecting archetypes that represent/fit them or describe the resident they want to become, they create a starting point for the exercises. From the 'You' in the middle we later build on to the next layer, the outside of the circle.

During the exercise, there are no strict rules. They can circle, underline, use colours, make connections, drawings or add extra words. Because this circle stands for 'You', it serves as a representation of the participant.

Figure 79. Participant describing herself in the 'You' part of the workshop





7.3.2 Quotes

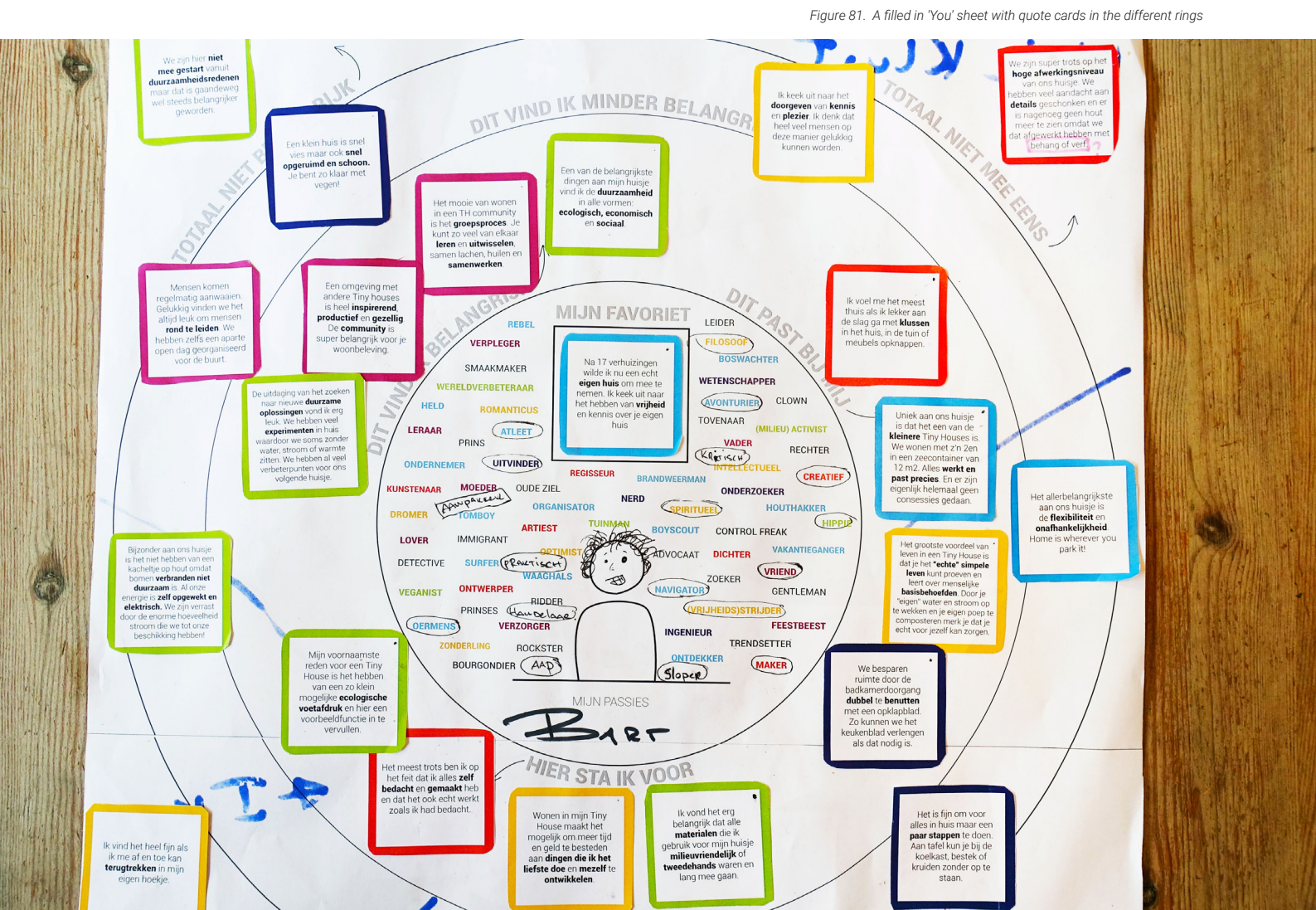
Based on the answers participants gave in the sensitizing booklet, they can select aspects that are important to them and put them on a quote card. Because people are often experiencing trouble imagining something that they haven't experienced yet, they receive indirect help from Tiny House experts.

Based on the experiences of the Tiny House residents from the contextual research, 70 quotes are selected and transformed into quote cards (Figure 80). Participants can select the quote cards that fit or represent them or are important to them.

These cards can be placed in the first ring around the 'You' circle. They have the closest connection to 'You'. The ultimate favorite quote can be placed in the middle, inside the 'you' circle.

In the second ring, the cards are placed that are less important but still have a connection to 'You', like quotes they agree with or things they want to implement but are a bit further from their personal vision.

Lastly, outside these two rings, there is some space left for quote cards they totally disagree with or stand against their personal vision.



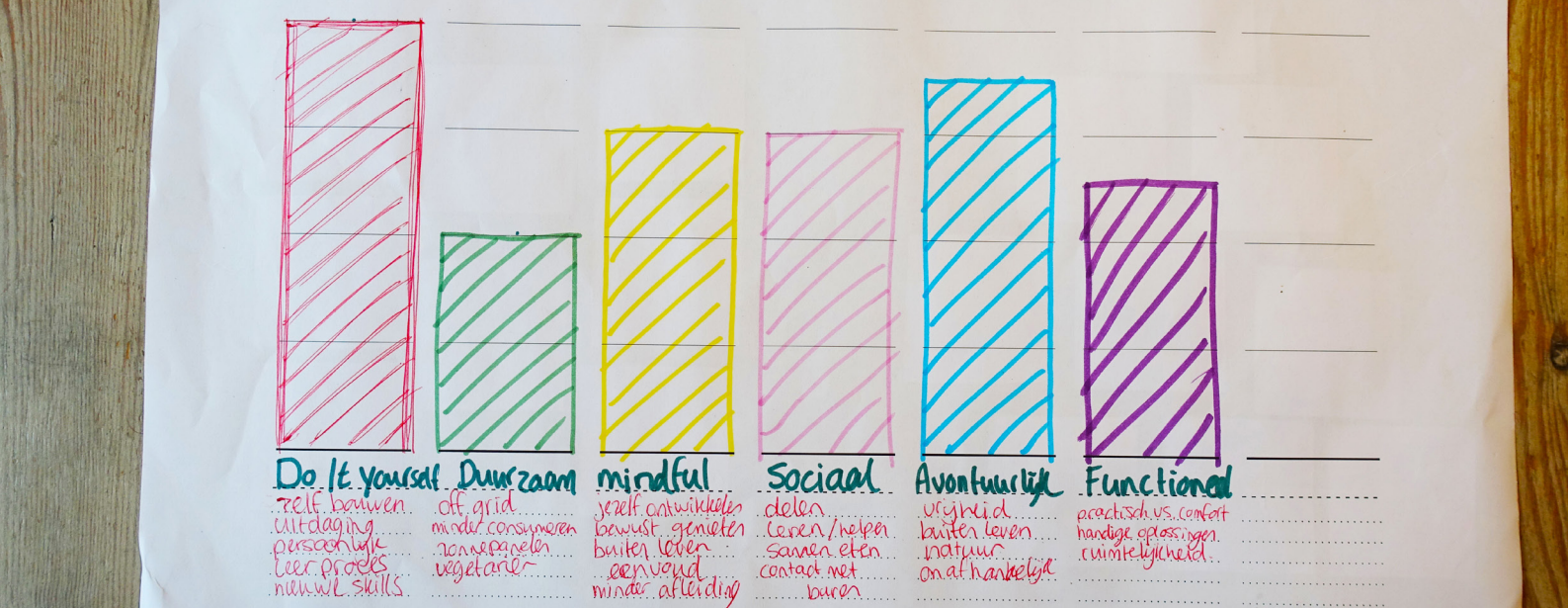


Figure 82. Personal profile with bar charts for every of the six values

7.3.3 Values

After the participants are finished with the quote cards, they can take a look at the different colors of the cards and the archetypes. Every color represents one of the six experience values shown on the value cards given to them.

When looking at which quote cards are placed in which ring, people can form a personal profile. Many green cards in the inner circle mean the value sustainability is important for them.

The personal profile can be formed by making bar charts for each of the six values (Figure 82). Many pink cards mean the social aspect of a Tiny House is important, so this bar is higher than the others.

Below the bar charts, participants can write a description of what each of the six values means to them.

On the front of the value cards, only a picture and some keywords are visible (Figure 83). This way they can fill in the exact meaning of the value for themselves without being influenced too much.

On the back of the cards, a description of the value can be found when the participant needs some more guidance in forming their values. When all bar charts are complete a personal value profile is created.

Figure 83. The value cards are used to create a personal profile



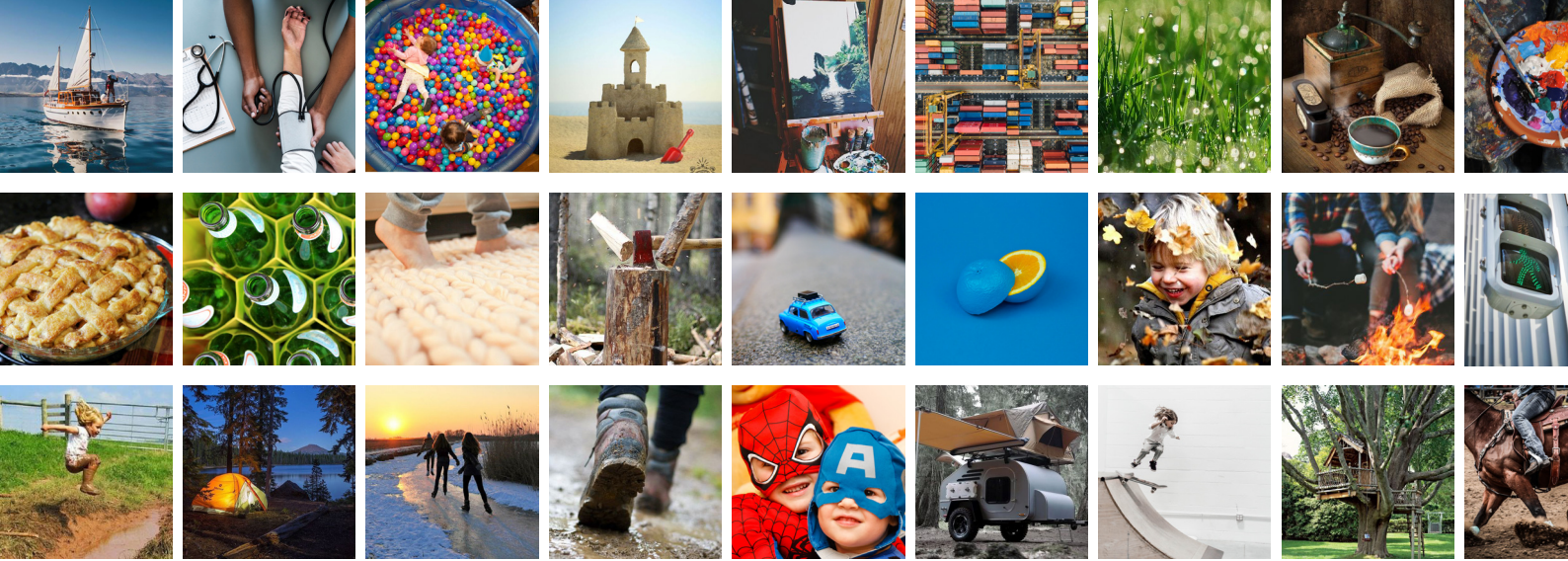


Figure 84. A selection of pictures used to create a moodboard

7.3.4 Moodboard

To get a better impression of the preferred Tiny House experience, the profile needs visual support. By creating a moodboard as a visual representation of the desired experience, the values get supported. Instead of keywords, actual images are used as an easier way to tell their stories. These stories can be about the participant as Tiny House resident, the Tiny House itself and the environment around the house as community or whatsoever. In this final 'You' part, the Why-substantiation gets closed.

The selection of images used in the creative session is developed during several tests sessions and are selected for their ambiguous character and differentiating styles. This way it makes it easier for all sorts of Tiny House residents to relate to the pictures in their own way.

When the sessions are performed in a group, presenting the findings to each other is very valuable. This way participants share their stories, learn from each other and get inspired.

Figure 85. Examples of moodboards made by participants





Figure 88. Participant creating a 1:1 scale floorplan of her Tiny House

7.5 Workshop part 3: Your Tiny House

What?

As a completion of the workshop, participants can implement the findings from part 1 and 2 into the first design of their Tiny House. By reflecting on the design they had prior to the workshop they can decide to stick to the design or adjust certain aspects to make the house better suitable for their preferred living experience.

Depending on the design stage they are in, participants can make floor plans, on scale or life-size, or a first 3D representation/maquette.

Making a 1:1 scale floorplan is a convenient first design step and an effective way to mimic and feel the actual size of the spaces. By using rope and tent pegs, people can play with space and adjust it until it feels right. After that, they can convert it into a detailed scale floor plan or later, a scale model.

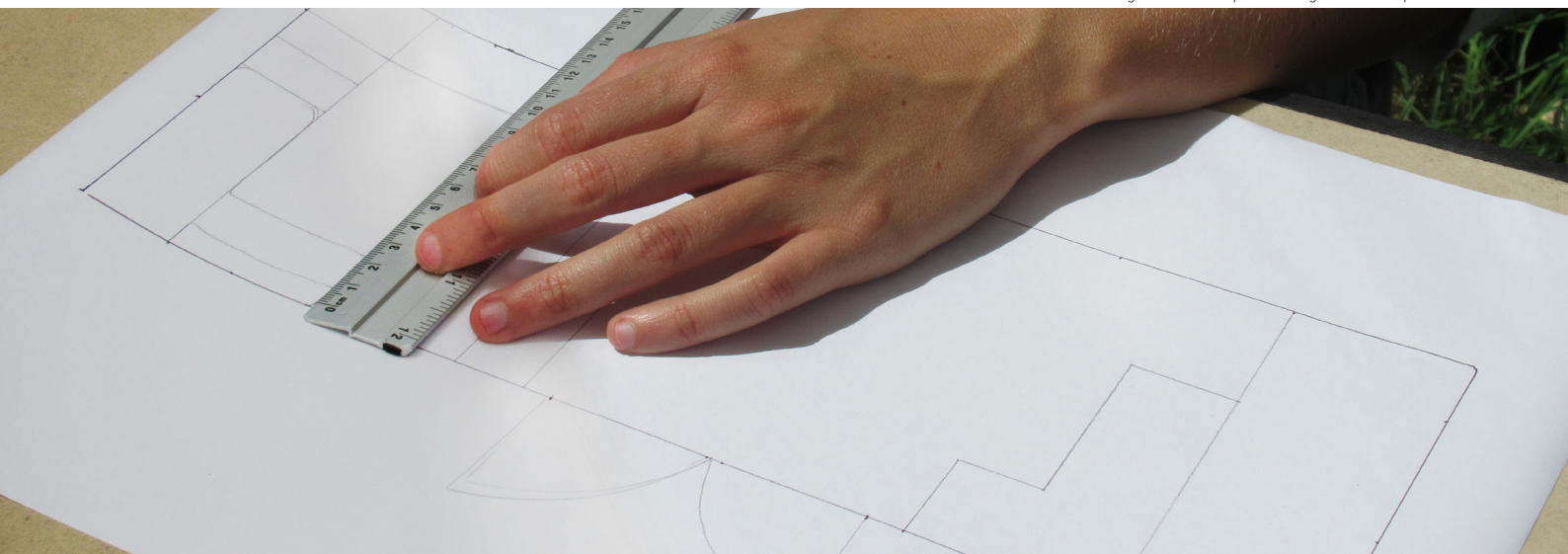


Figure 89. Participant making a scale floorplan

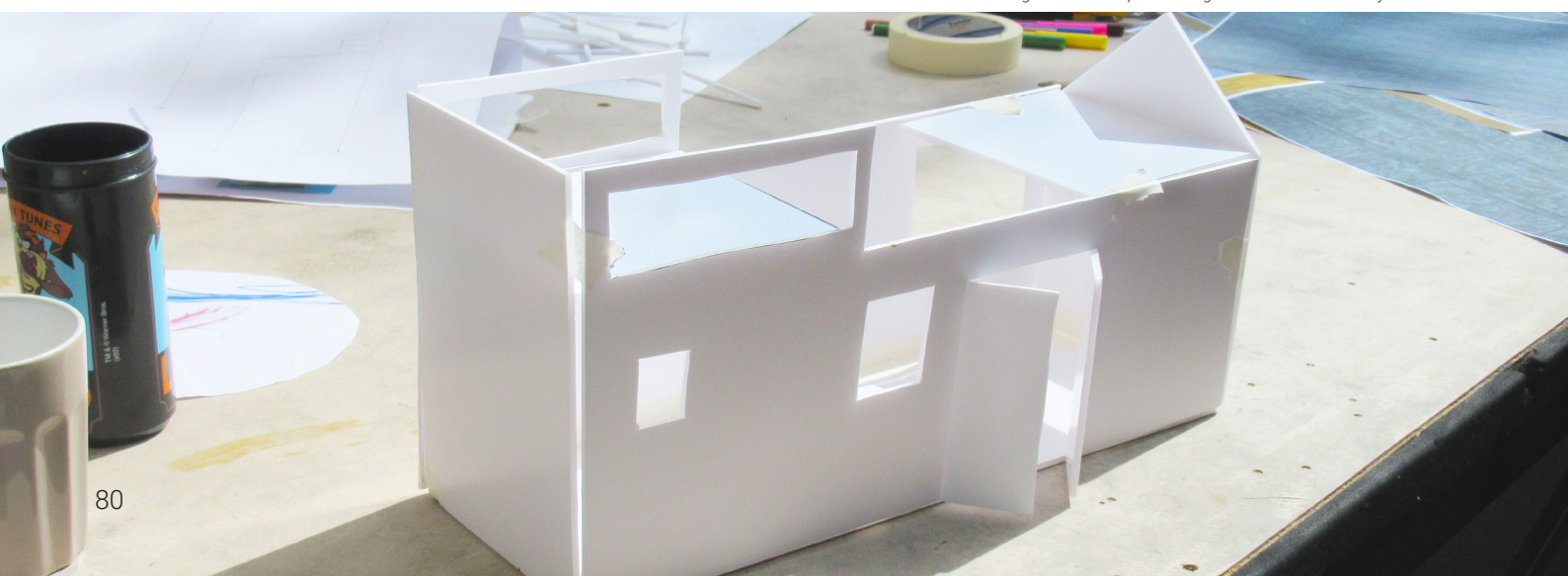


Figure 90. Participant making a scale model of her Tiny House

7.6 After workshop activity: evaluation

Why?

Two weeks after the sessions, participants are asked to reflect on the workshop. After they have let their experience settle, they are stimulated to think about their next steps in the process and continue their journey.

Vision

The participants are asked to create an (interaction) vision for their own Tiny House experience in one or two sentences. In this vision, the most important values should be reflected. It should answer the questions;

- How do I want to feel in my Tiny House?
- What would the ultimate Tiny House living experience look like for me?
- What are my values and wishes?
- Which metaphor represents your preferred Tiny House experience?
- How does the environment play a role in the Tiny House experience?

As an example they can use the following sentence:

**Living in my Tiny House should be/feel like or
I want my Tiny House to be/feel like
in a way, by/with**

To support this vision, one or more pictures can be added to strengthen it. These pictures can represent the experience or interactions in the Tiny House.

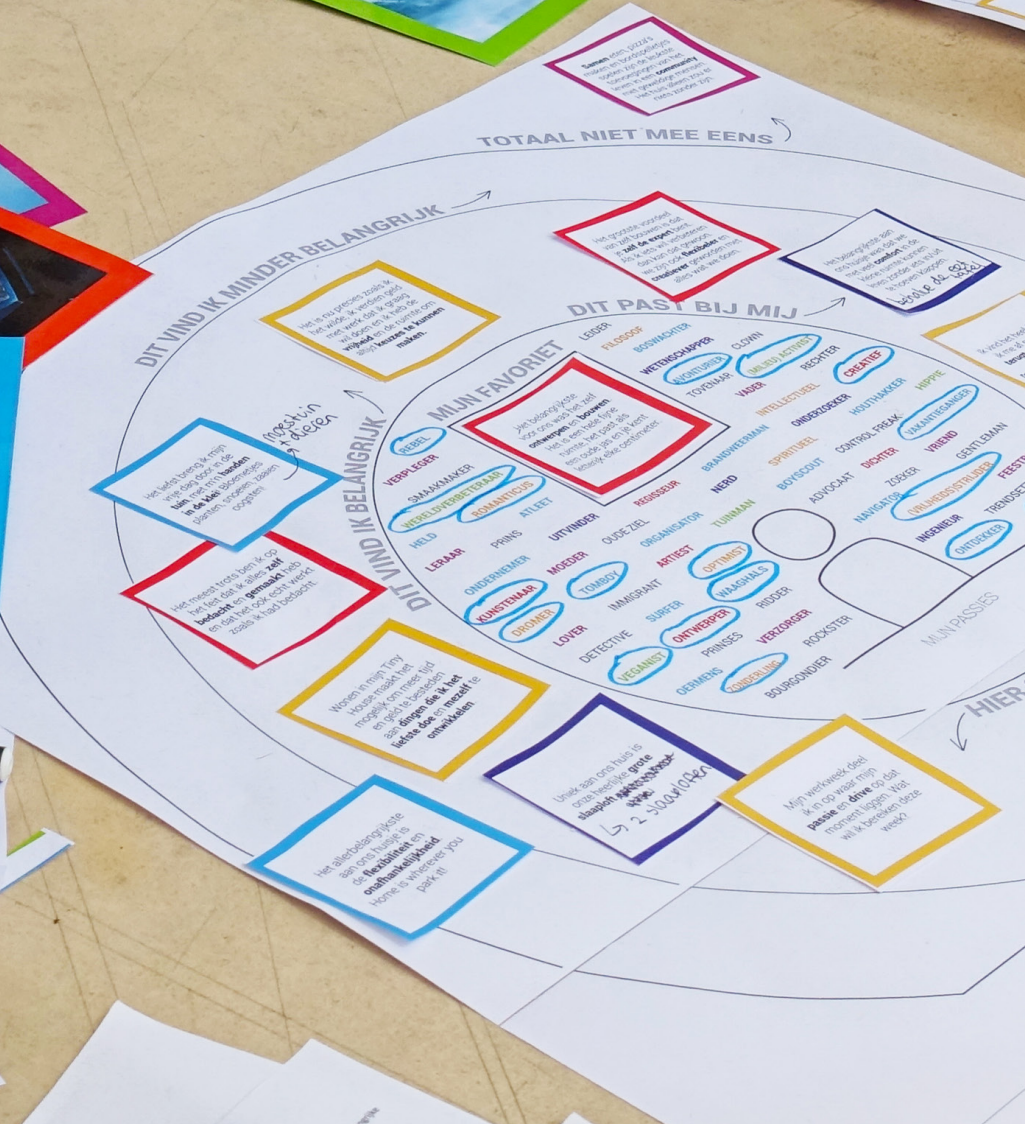
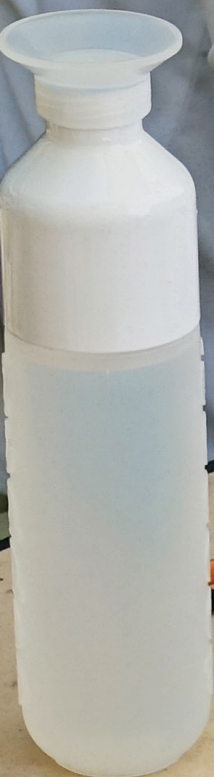


Figure 91. Examples of pictures to use when creating a vision, from Unsplash 81

CHAPTER 8.

TESTING

- 8.1 Creative session
- 8.2 Reflection
- 8.3 Insights



8.1 Test sessions

Participants

To find participants for this test session I did a request within the Tiny House Nederland (Facebook)group. Within 24 hours there were 34 submissions of people interested in participating in this test workshop. From these submissions, I selected a mixed group of people to organize two workshop sessions with, both including 8 participants.

All of them were seriously considering moving to a Tiny House but still at the beginning of the design phase. Amongst them were students, singles, starters, families, single parents, and a young couple who bought their first house just some years ago. Unfortunately, one older couple and two of the single 60+ participants that signed up canceled the sessions, which resulted in a total of 6 participants per session.

The session started with introducing themselves by using the filled in 'My Tiny House Experience' booklet. People shared their plans and motives for choosing a Tiny House.

Schedule

The session was planned from 10:30 to 16:00

10 min Welcome + introduction to the workshop
20 min Introductions by using the booklet

You:

40 min Archetypes + quotes
20 min Making a value profile
30 min Making a moodboard

Lunch

10 min Presenting profile + moodboards

Your choices:

50 min Roadmap
10 min Presenting roadmap

20 min Break: tour in Tiny House

Your Tiny House:

80 min Making (scale) models
10 min Reflection

On the next pages, a photo story is created for every one of the 12 participants. To see the video of the sessions, please click on the following link: <https://youtu.be/z2C2y07DVwg>

Figure 93. Participants during the test workshop





Nadia (family with three kids): "The DIY part of building a Tiny House is the most important part for me. I'm homeschooling my kids so this way they also learn how to use tools."



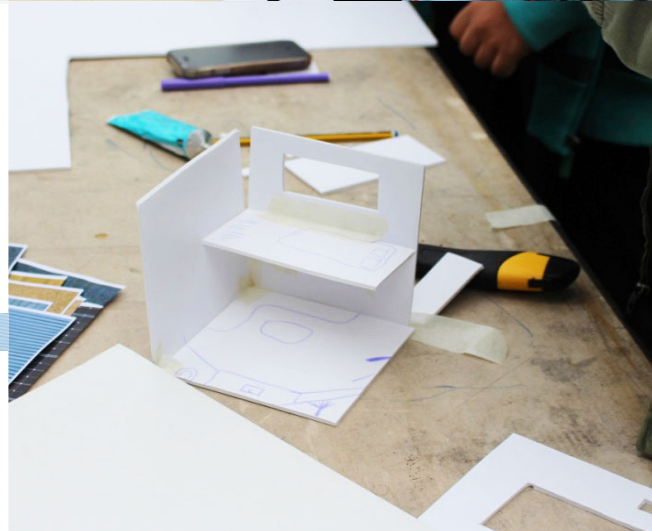
Marieke: "I want my Tiny House to work together with the seasons and include a modular part that I can take with me behind my bicycle."

"Going back to basic and learning how to support yourself are the most important reasons for living in a Tiny House."



Xarifa (starter): "The social part of living in a Tiny House is way less important for me than I thought. Although I like to be surrounded by people, the mindful aspects appeal much more to me."

"Now I know that wheels don't fit my situation, I can go for a more square design which fit my ideas much better"



Poyon (together with Rineke, young kids): "I really like to grow my own food: having fruit trees and eat berries from my own bushes."

"The DIY part of a Tiny House does not add value to my Tiny House experience."





Rineke (together with Poyon, young kids): "In contrast to Poyon I do think the DIY part of a Tiny House is very important to me. Designing or building your house yourself makes it very unique"

"For me it's very important that the materials we're using for our house are environmentally friendly or reused."



Myrthe (student): "The functional part is much more important to me than living and working together in a community."

"By combining functions you can make use of the space in a smart way, I don't mind having a fold-up table."



Maloe (single mom) and Isa: "I noticed that for me sustainability isn't a very important factor of living in a Tiny House."

"I wouldn't choose for a pull-out bed or a foldable countertop, but that's probably because I have a small child."



Elke (single): "The mindful part is for me that I need my own time and space. I really don't mind being alone,"

"The thing I would like about a community is doing things together and learning from each other."

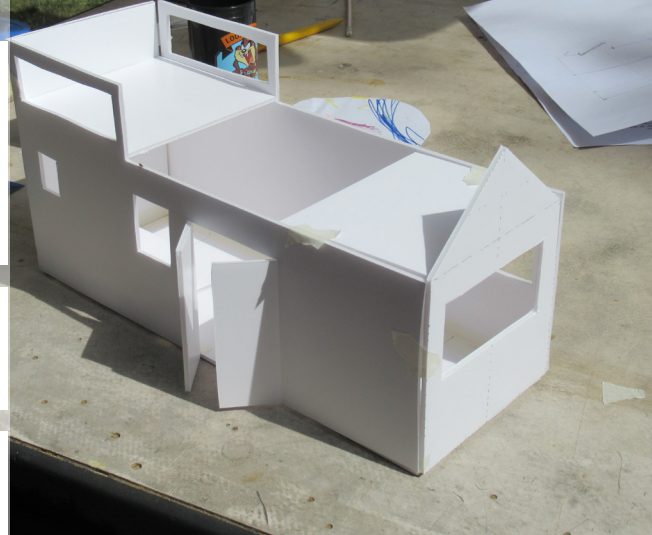




Maartje (student): "Being off-grid is something I really like about living in a Tiny House but sustainability isn't the most important factor for me. It's a nice side effect."

"I would really like having a garden with some animals around the house."

"Comfort is much more important to me than functionality."



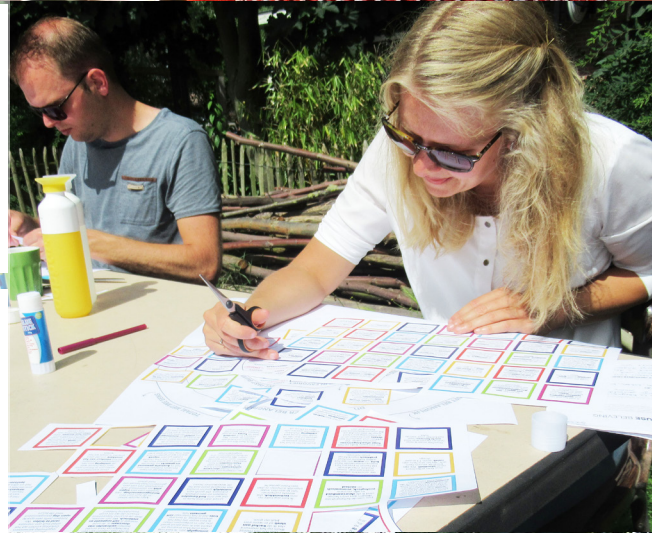
Marion: "The sustainable part of living in a Tiny House is definitely the most important factor to me. I am really worried about this planet and really think we need some improvement here."

"I like having my home on wheels, If I'm up to something different, I can just take my home elsewhere."



Susan (together with Mark): "The mindful part is for me the most valuable part of living in a Tiny House: the freedom, making your own choices and creating my own little space."

"I really like the contrast between the peace inside the house and the community, so the social part of living in a Tiny House is also very important."



Mark (together with Susan): "Living outdoors, having a comfortable place to withdraw yourself and a nice atmosphere are very important to me."

"When thinking about it I saw my niece playing and jumping around when she would stay over."



8.2 Reflection

Three weeks after the workshop session the participants were asked to reflect on the workshop and to share their experiences afterwards.

How did the workshop influence your Tiny House ideas?

Rineke and Poyon: *"The idea of building a Tiny House is made more feasible. Seeing the different sub solutions next to each other gave us a nice overview. It clarified the chaos."*

Susan and Mark: *"Before, we always thought about a Tiny House on wheels but the workshop made us realize a house without wheels fits us much better since we don't want to move that often."*

Maartje: *"The different exercises made it very clear for me what I value most. Comfort, DIY, and independence are most important to me. I already had a design but there where a lot of things I didn't think of before"*

Myrthe: *"The different choices on the sheets made me broaden my view. There where a lot of options I didn't consider before like sharing a toilet or being partly off/on-grid."*

What are the most important insights gained from the workshop?

Elke: *"The simplicity of living in a Tiny House is most valuable for me. Also, I should really reconsider living together in a small group instead of alone."*

Marieke: *"Tiny Houses can really be adjusted to your personality. The personality exercises made me realize this is very valuable for me since I often let my choices be influenced by ease or budget."*

Maartje: *"Now I realize that I don't want to travel with my home, I don't need to built in on a trailer anymore. Weight is no longer an issue and I can make it a bit wider. I just thought about a trailer because that's what most other Tiny Houses are built on."*

How did you proceed the Tiny House process afterwards?

Nadia: *"The results of the workshop are hanging next to the other Tiny House plans and clearly represent what is in my head."*

Rineke and Poyon: *"We canceled our registration for a Tiny House village in Hengelo because the location didn't meet our wishes. Nadia (from the workshop) and her family took over our place. We are now looking for a building location and a big bag of money."*

Maartje: *"Before the workshop, I was planning to start building in 6 years (after my study) but the other participants and Anne herself inspired me to start earlier. I started in Sketchup adjusting the design of my house."*

Susan and Mark: *"We shared and talked about our plans with other people and are now in the process of decluttering and selling our stuff."*

8.3 Insights

+ Working with paper, glue, and scissors achieves the preferred result and experience. It contributes to the process of choosing a certain quote or picture since an action is needed to make the decision. When redesigning the different cards, it needs to be taken into account that the shapes still need to be easy to cut out so the sessions will not cost more effort of time.

+ The group process is a very important part of the sessions. Sharing experiences and presenting the findings to each other is a starting point for interesting discussions. People were often surprised or inspired by each other.

- The sessions took much more time than estimated in the test session. Because they really valued sharing experiences with like-minded people they used their time also to profit from this part of the situation. Solution: since it was contributing to the session, there should be more time scheduled for the workshop.

+ It gave them insights they did not expect since there were parts of the Tiny House experience they did not think about before. It really gave them the complete overview of living in a Tiny House.

- In the You part of the session some people kept putting extra quotes on the sheet because the space was not limited enough. This did not contribute to the overview of the sheet. By creating a restriction to the number of quote cards that can be put on the sheets, the participant needs to be more critical in choosing quotes, and only choose the ones that really represent them.

+ When creating moodboards, some people had trouble starting up (mainly male participants) because they never did something like this. But with a little encouragement, even the most down-to-earth participants created the nicest and most enthusiastic stories and visions.

- In the Your Choices part of the session the overview is a bit lost. By cutting out solutions the range of solutions is not clear. Also, it would be valuable if users are able to change solutions later in the process (like a dynamic document) when more research is done.

- The third phase of the session: making a feasible model of the Tiny House, was too quick for most people since they needed time to first think about the outcomes and make a redesign of their house. It would be better suitable for a multi-day workshop, with the designing itself as a separate day. By expanding each of the three phases, it can also be an option to divide the workshop into three separate days/sessions.

Opportunities

It is interesting that several families and people over 60 signed up. In the contextual research, I found that families and people over 60 already living in a Tiny House are still very rare in the Netherlands. This means that most people in these categories belong to the target group: dreamers (or early adopters), who want to make the step to a Tiny House but are still insecure about how to realize it. For this group, the exploration tool can offer a solution by means of giving them a step in the right direction.

Also, it can be very promising that already 34 people from all over the Netherlands signed up for the session within 24 hours. This can mean there is indeed a demand for an exploration tool focussing on the experience and answering the 'why' aspects of a Tiny House.

Conclusion

For the final design, I am only taking into account the first (You) and second (Your Choices) part of the workshop, since these have the largest influence on changing the way people design their Tiny House. For the design phase itself are plenty of tools and courses available.

CHAPTER 9.

CASE STUDY

9.1 My Tiny House

9.2 My Tiny House community: Kluit



9.1 My Tiny House

When reflecting on the design process of the Tiny House I am building myself (together with Thomas), there are certain aspects and design decisions that can be lead back to the foundation of the exploration tool that is created. In this analysis, all aspects of our house that can be traced back to our values and wished are mapped out.

Mobility

On wheels

When deciding we wanted to build a Tiny House, it quickly became clear that we wanted it to be on wheels (Figure 96). Because we did not have a location to place it when it would be finished, we would maybe depend on temporary locations so moving every year would be easier when having wheels. Also the fact that we can move our own house independently behind a car without having to involve professionals was a major plus.

Sustainability

Energy/water supply

For energy supply, we will be only depending on the energy we will receive from our solar panels. For water supply, we will collect rainwater and filter this for the shower, sink and drinking water.

Cooking

To start up, we will be using propane to cook. When settled on a location, we want to experiment with using biogas from our own biodegradable waste.

Shu Sugi Ban

Instead of impregnating or painting the wood for the outside of the house, we burned the upper layer of the siding to make it resistant to weathering (Figure 95). Next to the nice look, this Japanese technique Shu Sugi Ban also makes the wood more durable.

Reclaimed materials

For the windows, door, flooring, ceiling, wall and tabletops, we used second-hand materials and refurbished them by planing, sanding, painting and repairing them. Initially, this was to reduce costs but also because it is more sustainable than buying new ones. This resulted in designing around this diversity of windows and materials instead of designing it exactly how you want it to look, which for us, felt more like a challenge than a restriction.

Figure 95. Shu Sugi Ban siding



Figure 96. The Tiny House is on wheels





Figure 97. Stairs on the short end of the house

Openness: space

Layout

For us, the openness (spaciousness) of the Tiny House was very important. In our very first designs of the floor plan, we already took this into account when deciding about the layout of the house. By placing the bathroom, kitchen, and stairs on the (shorter) end-faces of the house, we only lost space in the length of the house. Because the house is already very narrow we did not want to make it even narrower by placing the bathroom, kitchen or stairs on the long side of the house.

Stairs

The stairs we made is partly open and consist of two separate parts with space in between: an upper part floating in the air, connected to the walls and hanging from the loft, and a lower part standing on the floor. Underneath the stairs, we built a seating area so this space is used functionally. This way our stairs visually and functionally (underneath the stairs is a couch) takes less space.

Vide/ floating loft

Our sleeping loft is only connected to one of the four walls. The other sides of the platform are connected to the structure of the roof. This way our sleeping loft is hanging from the ceiling and floating on three sides. This creates an open and spacious atmosphere. In Figure 98 the vide is shown on one of the open loft sides. The vide is on the highest side of the house which gives a very spacious feeling when standing downstairs and looking up.

Privacy

Sleeping loft

Despite having a floating loft, it is not completely open to the rest of the house (the open side of the loft in Figure 98 will be closed with a wall). It is open for sound and ventilation on two sides but you can only look into the bedroom when standing halfway up the stairs. From the sleeping loft, you can look down through the vide when looking over the low railing. We really wanted our bedroom to be a separate area to withdraw yourself and have some privacy but still being able to communicate with each other and keep the open feeling.



Figure 98. Floating loft with vide



Figure 99. Large table at sitting area

Comfort

large table

In our Tiny House, we did not want to compromise on comfort concerning our table. Because this is the place where we would spend most of our time while eating, working, hanging out and receive friends, we wanted to have a large table (Figure 99).

Comfortable stairs

Because we did not want living in our home to feel like camping, we built comfortable, fixed stairs instead of a ladder or fold out stairs. We wanted our sleeping loft to be easily accessible also when your hands are full or when going to the toilet in the middle of the night.



Figure 100. Fold-up table as closet door



Figure 101. Fold-up table as table

Functionality

Closet vs. table

When we need more table surface, we can fold up the closet door and create an extra table (Figure 100 and Figure 101) where you can sit with two or three people. If this was our only table it would lack comfort but since it will be used as extra, this fold-up feature is very functional.

Facilities

Washing machine

We did not implement space for a washing machine in our design since this takes lots of space, energy, and water. We decided to use a shared washing machine if possible, go to friends or family to wash or use the public laundry service.



Figure 102. All members of Tiny House community 'Kluit'

9.2 My Tiny House community: Kluit

During the course of this graduation project, we also continued our own Tiny House journey. Which included searching for a spot or community to place our dream home, which we found!

Together with 11 other people and 8 other Tiny Houses, we will form the Tiny House community 'Kluit' in Den Hoorn. When meeting each other for the first time as a complete group, we used the exploration tool to get to know each other, our values, and how we imagine living in a Tiny House in this particular place.

Things we wanted to know where:

- What kind of Tiny House residents are we?
- How do we imagine living together in this community?
- Which values are important to us?
- What is our vision?

In this session, we only used the first phase of the exploration tool (the 'You' part) to find out the 'why' aspects of our Tiny House community.

When creating moodboards, the starting point was how everyone would like to experience living together within this community Kluit.

The motives for everyone in the group were very divergent. For some, the sustainable aspect was by far the most important factor while for others developing themselves as mindful aspect was more valuable. Also, the DIY and social aspects scored very high for some of the community members.

We can conclude that we complement each other in the different fields. The different bar charts for all Kluit members can be found on the next page in Figure 109.

Figure 103. Creative session with 'Kluit'





Figure 104. Kluit member presenting his vision



Figure 108. Kluit member presenting her vision

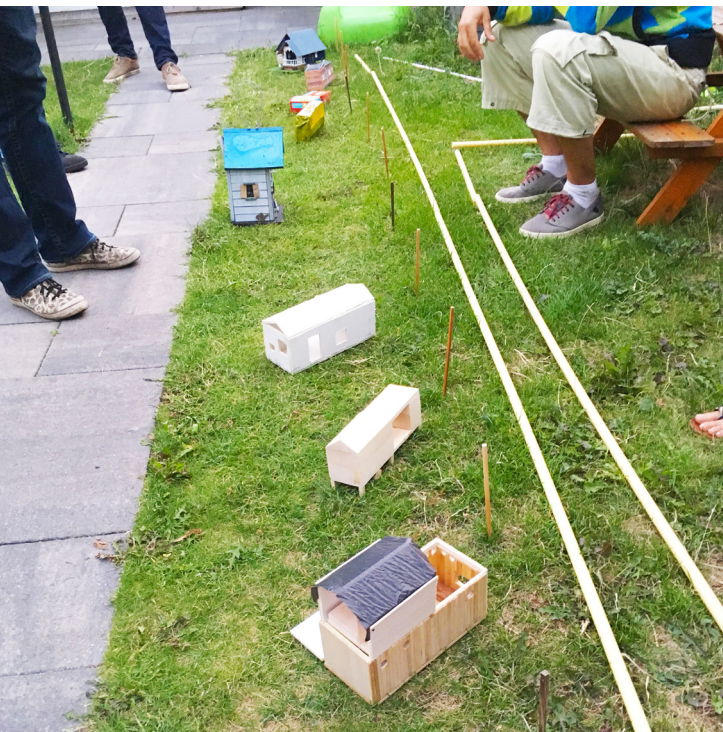


Figure 105. Organizing the terrain by using scale models

Figure 106. Kluit member presenting her profile



Figure 107. Kluit member presenting her vision

After presenting the outcomes of the session we could create an overall mission and vision for the community based on each of the personal visions and values.

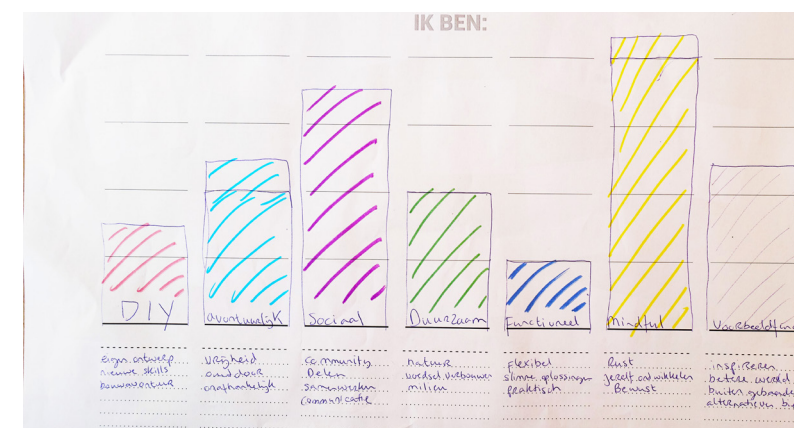
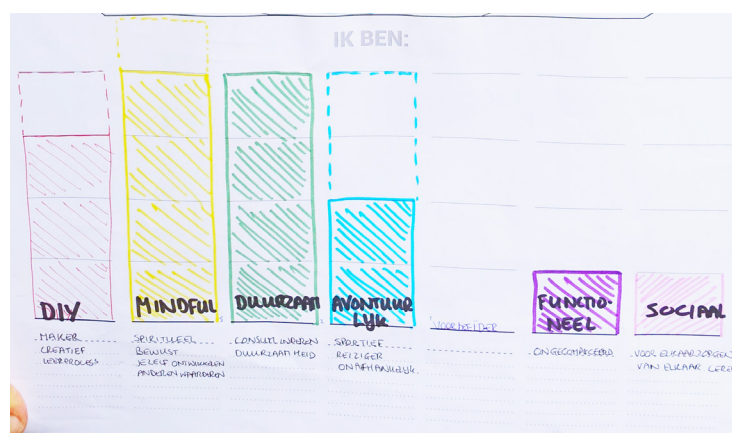
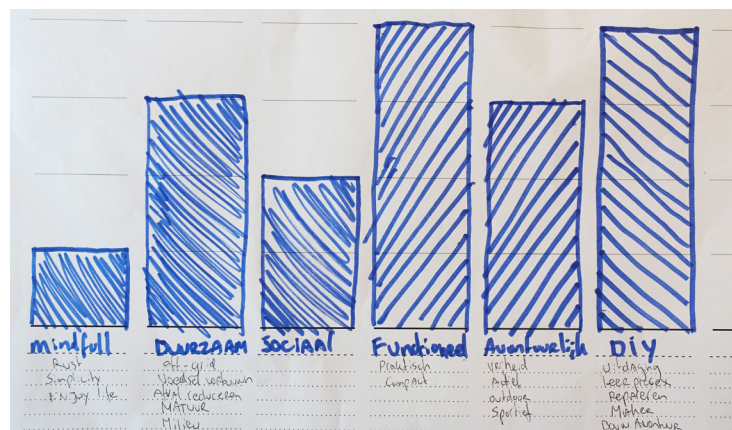
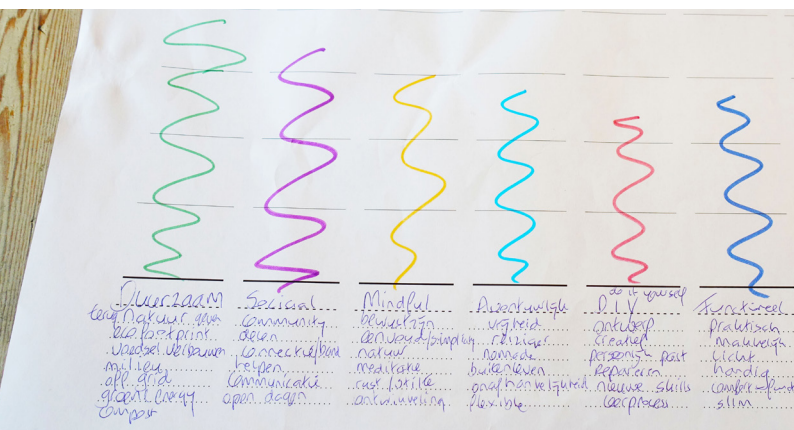
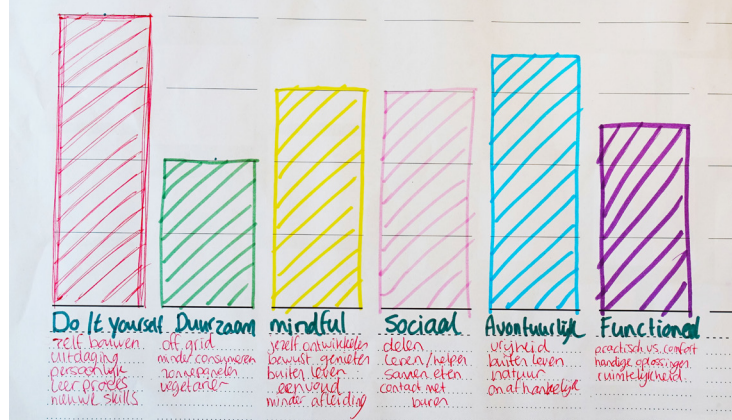
Mission Kluit:

Kluit is a Tiny House community where everyone can **realize his own tiny dream** and where **respect for nature and each other** is central. The community offers the possibility to **explore, develop and propagate** the concept of Tiny Living.

Vision Kluit:

Tiny Living creates conditions that **invite a specific lifestyle**. By forming a community of Tiny Houses, in which the importance of **diversity** is recognized, we can **learn** from each other, **help** each other and **challenge** each other in accomplishing our mission.

Figure 109. Next page: all personal profiles of Kluit members



CHAPTER 10.

FINAL DESIGN

10.1 Tiny Roots

10.2 Preparation

10.3 Session 1: You

10.4 Session 2: Your choices

10.5 Tiny Roots context



1. HOE MOBIEL WIL JE DAT JE TINY HOUSE IS?

2. HOE PERSOONLIJK WIL JE DAT JE TINY HOUSE IS?

3. HOE ONAFHANKELIJK WIL JE DAT JE TINY HOUSE IS?

4. IN WELKE OMGEVING ZIE JE TINY HOUSE VOOR JE?

5. IN WELKE CONTEXT ZIE JE TINY HOUSE VOOR JE?

6. HOE DUURZAAM WIL JE DAT JE TINY HOUSE IS?

7. HOE VEEL WIL JE DAT JE TINY HOUSE IS?

8. HOE VEEL WIL JE DAT JE TINY HOUSE IS?

9. HOE VEEL WIL JE DAT JE TINY HOUSE IS?

TOTAAL NIET BELANGRIJK

We hebben een **gaskachel** omdat het **minder werk** is en minder **stank** dan een houtkachel.

Het voelt een beetje als **kamperen** in mijn huisje. Het heeft wel water te **kneuterigs** om water te halen in jerry-cans, in een ander gebouw te douchen en te koken op spiritus-pijp, maar ik vind het heerlijk!

Het grootste voordeel van zelf bouwen is dat je **zelf de expert** bent. Als ik iets wil verbeteren dan kan ik dat gewoon zelf doen. Ook dat gevoel van **creatieve flexibiliteit** met alles wat we doen.

De afwisseling tussen de **rust** in mijn huisje en drukte in de **community** maakt in mijn huisje eet ik vaak samen met de rest van de gemeenschap.

Een klein huis is snel vies maar ook **snel opgeruimd en schoon**. Je bent zo klaar met vegen!

Voordat we gingen bouwen hebben we een tijd in het **Australische woongedrag** gewerkt en goed gesproken voor ons huisje. Leven we al een **ruzak** want we al een Tiny House wist luxe.

Op een vrije dag ga ik graag met de **elektrische auto** naar de biologische groenten voor de community te kopen.

MINDER BELANGRIJK

ORGANISATOR
WEELDEVERBETERAAR
LERAKMAKER
SMAAKMAKER
KUNSTENAAR
ATLEET
MOEDER
ONDERNEMER
BOURGONDIER
LOVER
SURFER
DETECTIVE
VEGANIST
OERMENS
ZONDERLING

PRINSES
INGENIEUR
OPTIMIST
ONDERZOEKER
RIDDER
ROMANTICUS
REBEL
ARTIST
FILOSOOF
PRINS
VERZORGER
ROCKSTER
HELD

AVONTURIER
OUDE ZIEL
TUINMAN
VERPLEGER
BOYSCOUT
ROMANTICUS
WAGHALS
BOEWACHER
GENTLEMAN
VADER

SPRITUEEL
CLOWN
VRIEND
HERD
BRANDWEER
TOVENAAR
DILLEN ACTIVIST
VADER
INTELLECTUEEL
CREATIEF
WETENSCHAPPEL
HOUTHAKKER
NAVIGATOR
REISSEUR
FEESTBEEST
TRENDSETER
ONTDEKKER

Ik vind het heel fijn als ik met al een **terugnabek** in mijn eigen hoekje.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

Ik heb me het meest thuis op het moment dat ik de **keuken** van mijn huisje zie. Het is een plek die ik graag gebruik.

10.1 Tiny Roots

The exploration tool for the ultimate Tiny House experience

Before designing a Tiny home, Tiny Roots offers the foundation for the ultimate Tiny House experience, starting at the origin: You.

Tiny Roots is a series of two creative sessions that are both offered as a day workshop. During these creative sessions, participants go back to the origin by answering the why around their Tiny House to find out what is important for them and their home.

In the first session, the users themselves are central. By using the six experience values, they learn which parts of a Tiny House are most important for them and how they want to live in their home. In this session, participants explore their ultimate Tiny House experience. The outcomes of this session serve as the roots for making decisions in the second session.

The second session is about how to realize this ultimate Tiny House experience. Here, the choices of the user are central. By following a journey through the different sub-solutions, the users can choose the solutions that match their ultimate Tiny House experience. This way, they create a strong foundation for the design of their Tiny House.

The tool consists of 3 phases: the preparation, the first session, and the second session. In between the two sessions, participants have an assignment to complete and present during the next session.

In this final design, most improvements are made in the look and feel of the tool. Since the exploration tool proved itself to be working very well in general during the test workshop, the focus for the redesign was mainly on improving the experience and interactions with the tool. In this final design of Tiny Roots, the colours are made softer and more appealing, the images are adjusted and the look and feel of the materials (for example the thickness and structure of the paper) are improved.

Figure 111. Final design Tiny Roots toolkit





Figure 112. Experience booklet: my Tiny House experience

10.2 Preparation

Just like in the test workshop, participants are sent a small experience booklet: My Tiny House Experience. By answering questions they need to think about how they imagine living in their future Tiny House and at the same time, they have a nice warm-up for the creative sessions.

To make it a more personal experience, the booklets are made in six different colours and sent to the participants by post. This way, they are stimulated to really put time and effort in filling them in and making it a more personal booklet.

By using this booklet, the participants can introduce themselves and their Tiny House plans to each other at the start of the first session. Also, the answers are used during the first exercise.

Figure 113. Experience booklet: my Tiny House experience inside





Figure 114. A selection of quote cards

10.3 Session 1: You

Archetypes and quotes

In this final version, the shape of the quote cards and the field to place them in is optimized. By using hexagon shapes the places for the quote cards or own quotes are indicated in the field and restricted to only 12 in the first ring, one ultimate favorite in the middle, 8 in the second ring and 4 outside the rings.

The middle circle is used in the same way as in the previous design: to describe the user by using archetypes that represent him/her and create a personal field in the middle. For the quote cards applies: the closer to this middle circle, the better it represents the user. All quote cards and the quote board can be found in "Appendix 4. Final design"

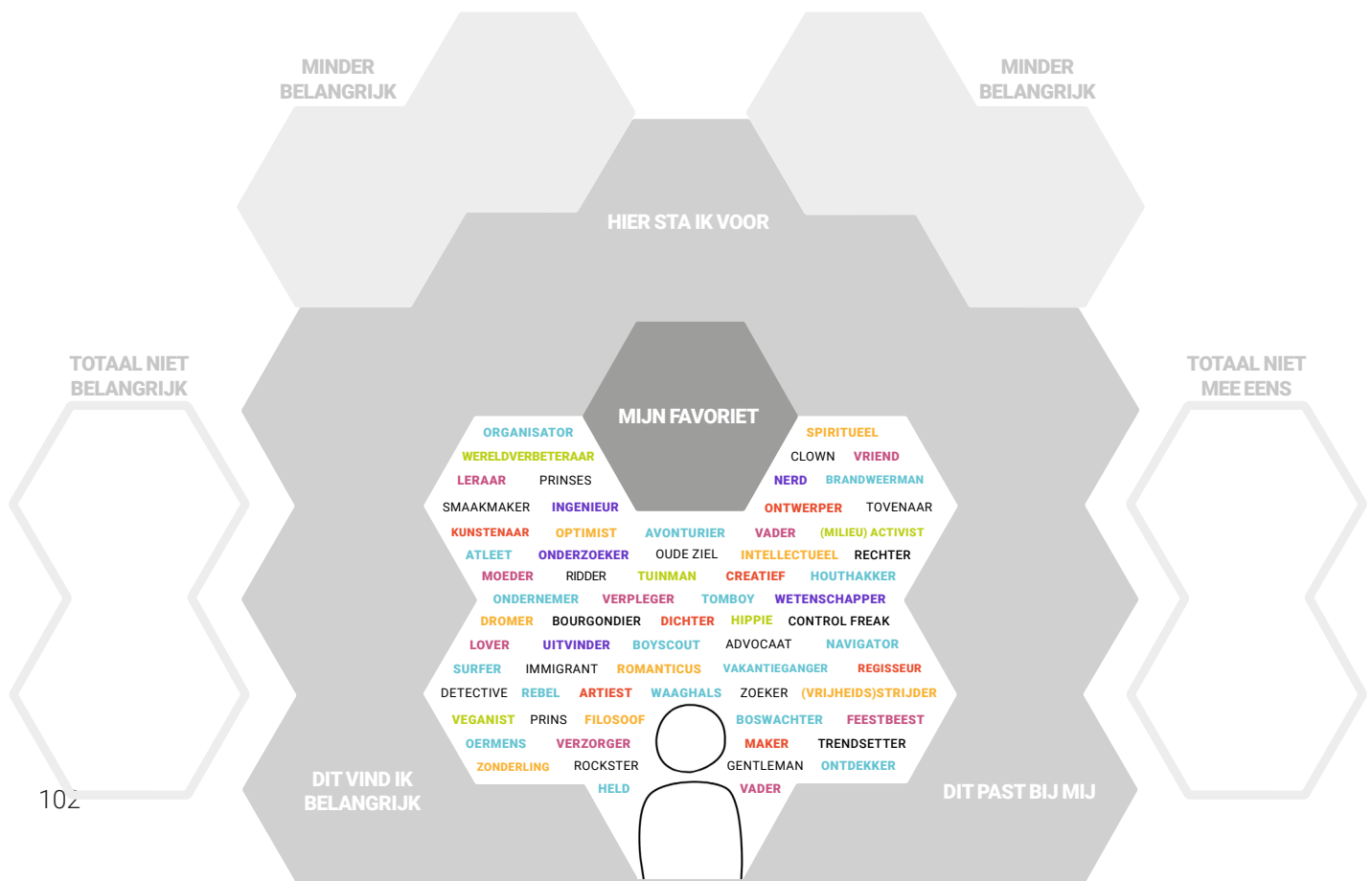
Values

By using the value cards, the users can find out which values are important to them. When linking the colours of the different quote cards to the six values they can find out which values are very important and semi-important (in the first and second ring) and which are not important at all (outside the rings).

Profile

By implementing these findings in a resident profile the users create an overview of their values. By adjusting the sliders the user can create his/her own profile. For every value, they can write down in keywords what this value means for them or which aspects of this value appeal to them. The profile and value cards are shown in Figure 116 on the next page.

Figure 115. The quote board



10.4 Session 2. Your choices

Roadmap

In this second session, the participants are making their first design decisions. The road on the workshop sheet represents the design journey, making decisions along the way. Every empty rectangle offers space to one sub solution that has to be chosen from a range of solutions. By making small cuts in the corners of the rectangles the cards with sub solutions can be put in place. This way, participants can change cards to update the sheet whenever they change their mind about a certain solution later in the process (like a dynamic document).

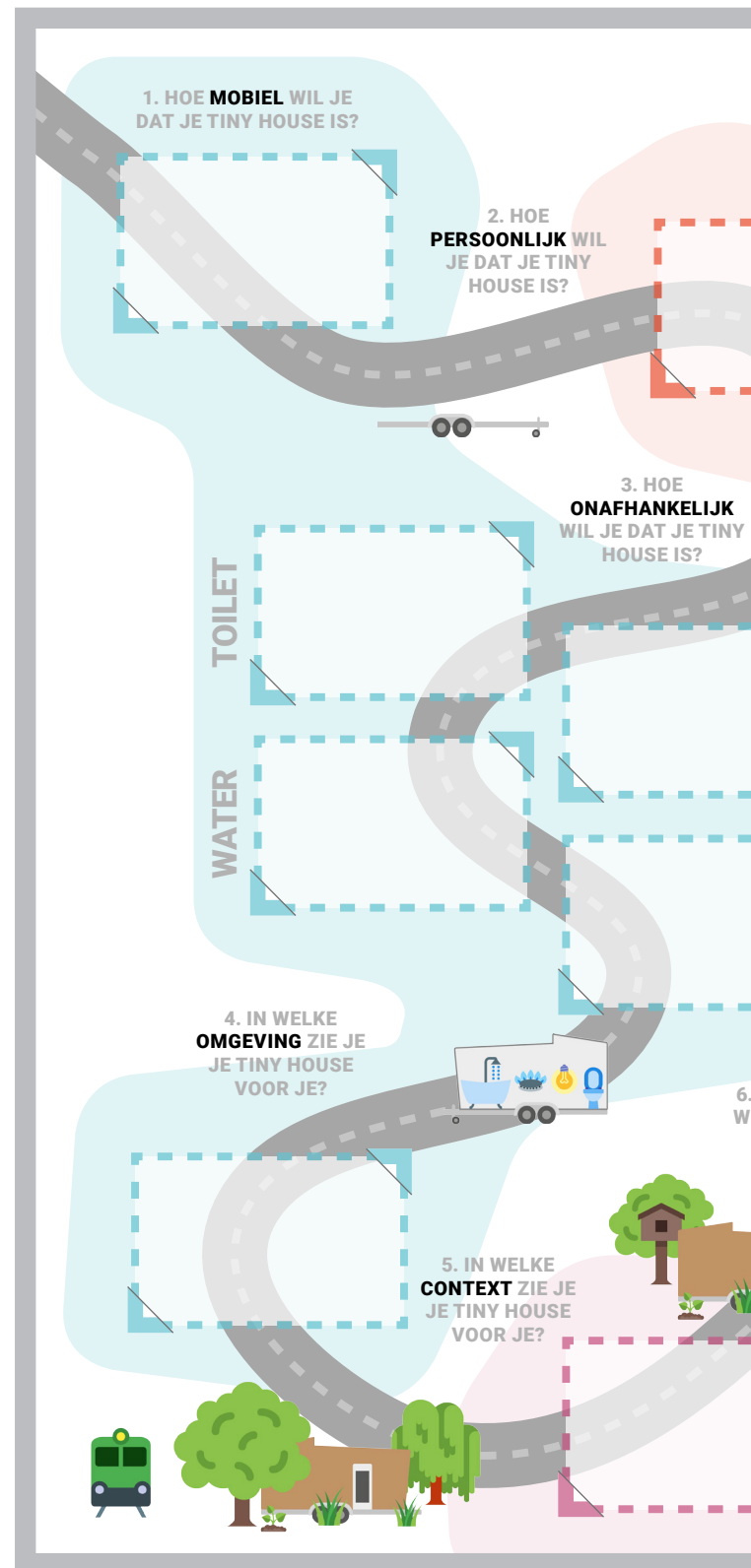
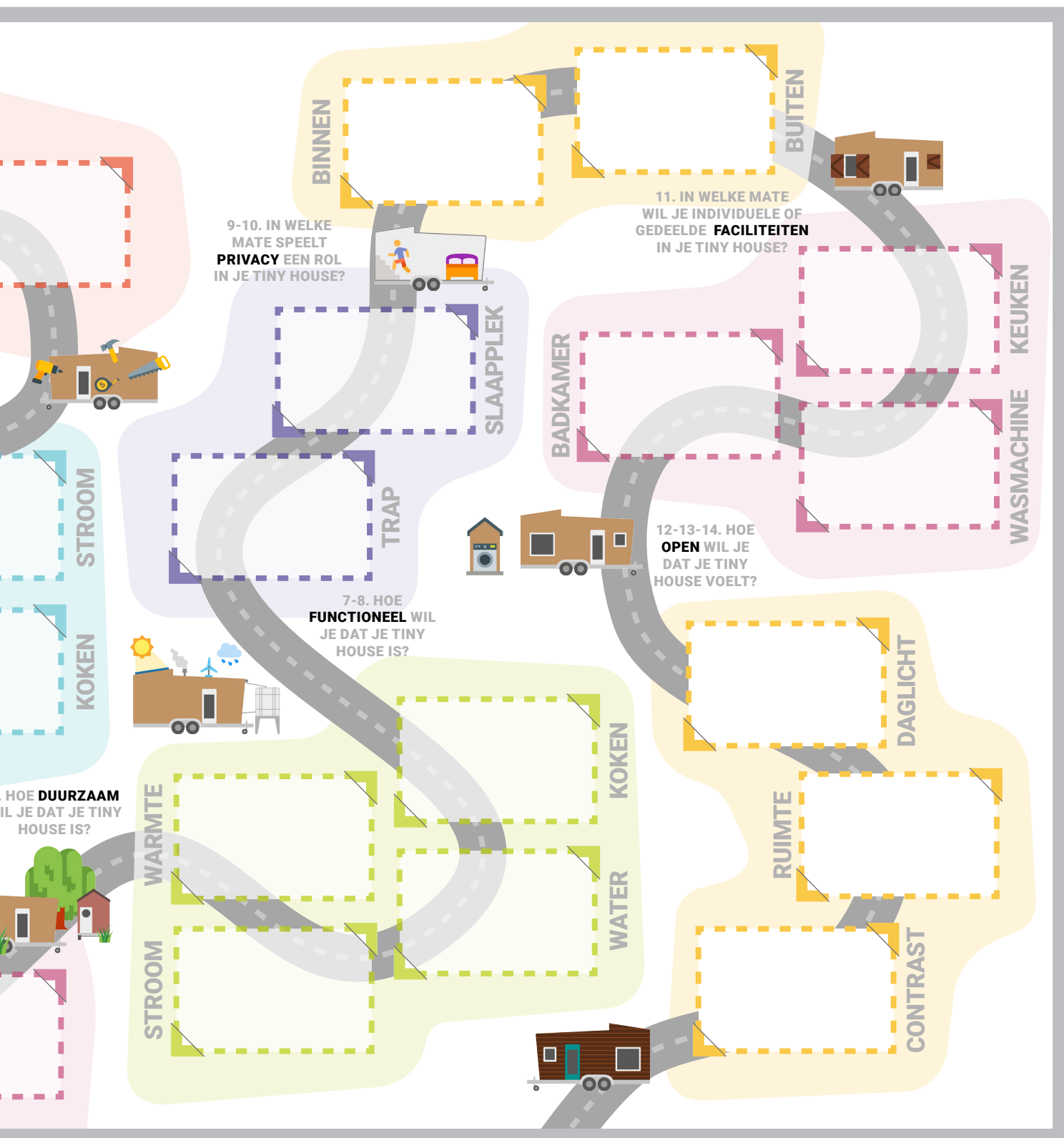


Figure 118. The roadmap with design journey



My choices booklet

Before making a decision about which solution to choose, participants first receive a booklet with information and questions about each of the 12 determinants. Each determinant is also linked to one of the values from the first session. The personal profile that was created there can also help them in answering the questions or make a decision.

After reading the information and answering the associated questions, they are ready to choose the solution that fits them. The booklet serves as an overview of all solutions and can be left in one piece since the determinant cards can be used to put on the design journey sheet.

Determinant cards

After making a decision, the right solution can be found on the determinants cards. Every category has its own strip of cards, that is folded to a stack. From this range, the selected card can be torn off over the tear line and placed in the right spot on the design journey sheet as shown in Figure 122.

Figure 119. My choices booklet with information and questions about all determinants



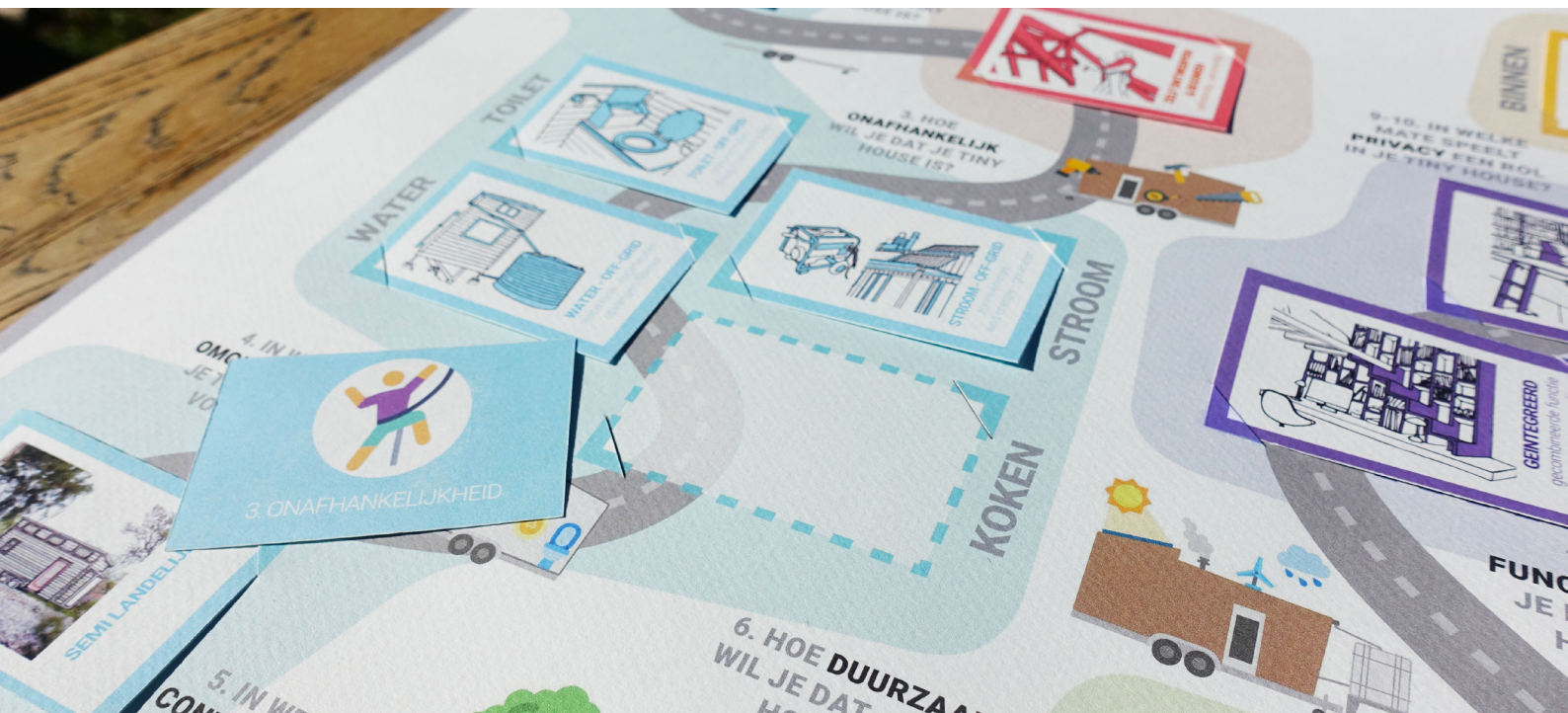


Figure 120. Determinants cards folded into a stack (above)

Figure 121. Strip of determinants cards with a range of solutions (below)



Figure 122. Design journey sheet with determinants cards (below)



10.5 Tiny Roots context

Accessibility

Because the concept Tiny Houses is still very young in the Netherlands, the target group for Tiny Roots is small. Although it is growing rapidly it is not feasible to sell the toolset and let others give workshops or creative sessions with it. With the Tiny Roots toolset, I can cover the target group myself by offering the two sessions ones every couple of weeks/months.

Location

During the test sessions, it turned out that the location in the garden next to the Tiny House worked very well and inspiring. It really contributed to the experience of the sessions. In the future, this effect could be enhanced when offering the sessions at the Tiny House community Kluit. On warm days it can take place outside in the community garden and on colder days in the shared community cottage, and can maybe be combined with a tour around the nine Tiny Houses.

Since it is in Kluit's vision and mission to inform and propagate others about tiny living, Tiny Roots can attribute to this goal offering this to Tiny House dreamers. Also, the sessions can be implemented when organising open days, when the community is open for the public to visit.

Reaching the audience

Within the Tiny House movement in the Netherlands most information can be found online. The most important platforms are Facebook, where people offer each other help, share their stories and information in multiple Facebook groups, and Tiny House Nederland, a non-profit platform that offers information via forums, blogs, and Facebook to everyone interested in Tiny Houses. Reaching the audience through Facebook already proved itself a success when finding participants for the test workshops so this will be one of the means to promote Tiny Roots.

By launching the Tiny Roots website (Figure 123), I can offer all the information about the sessions with pictures, video's, experiences of previous participants and most important: the research behind the Tiny Roots toolkit. The importance of starting with the 'why' part of a Tiny House, instead if starting to design at random will explicitly be explained here. Via this website, people can book the sessions and get in contact. Also promoting through the communication channels of Tiny House community Kluit can be an option.

Another option is to work together with other organisations offering workshops or courses and together form a complete package or program of research and knowledge tools.

Also, the amount of open events around Tiny Housing is increasing. The first Tiny House Jamboree in the Netherlands in 2017 attracted four to five thousand visitors and is (with the next edition already on the agenda) planned to be a recurring event. Next to this, there are also smaller events like open days or gatherings. These kinds of events can be opportunities to promote Tiny Roots with flyers, an information stand or by giving presentations.



Figure 123. Tiny Roots website: tinyroots.nl

CHAPTER 11: FINAL CONCLUSIONS

- 11.1 Conclusion**
- 11.2 Discussion & recommendations**
- 11.3 Personal reflection**



11.1 Conclusion

When reflecting on the created tool Tiny Roots we go back to the initial design goal and objectives stated in the research conclusion.

Design goal:

*I want to **encourage** people **with or without a designing or building background**, to design a Tiny House that meets their **personality**, by creating an **easy to use** exploration tool, focusing on their **ultimate Tiny House living experience**.*

According to the participants of the test sessions, the tool offers a clear overview and made them broaden their view on Tiny Houses. The idea of building a Tiny House became more feasible and one of the participants was even inspired to start building in the near future instead of waiting for 6 years to finish her study first.

It can be concluded that Tiny Roots is easy to use and encouraging, at least for people without a building or designing background. No one who did have a building/ designing background subscribed for the workshop, from which I conclude that they are more confident in what they are doing. Despite that, I still believe Tiny Roots can be an interesting eye-opener for them as well.

Objectives:

Physicality

The physical part of the tool (cutting, glueing, ripping) turned out to be of positive contribution to the experience of the session. Participants concluded that, despite cutting taking more time, it would not contribute to the workshop having the cards printed on stickers that could easily be stuck to the right place. Also, the cutting and glueing were found a bit like a meditation or zen-like activity which created a very open atmosphere.

Group implementation

The group implementation turned out to be the most important factor in the exploration tool. The fact that the sessions took much longer than initially tested with students means that this factor is of great contribution to the workshop. Sharing their stories and inspiring each other was a big part of the sessions.

Learning process

With the focus on learning from each other and themselves instead of only receiving information and knowledge from presentations in more common courses, the participants stayed very focussed during the sessions. They were very interested when others presented their findings and enthusiastic to present their own. It can be concluded that this pro-active setting of learning/discovering works very motivated.

Visuality

When presenting their findings or visions, the participants came up with very different ideas while sometimes using the same pictures or images. Telling a story with images when presenting the moodboard or the roadmap helped them to freely create their own story with their own interpretations.

Trigger

During the test sessions the quotes were found inspiring for the participants because it really gave them insights on how they maybe want to live themselves. The overview of solutions brought by the design roadmap created more confidence in the design process because it clearly showed them which parts they still needed to think about and where the gaps in their design are. It can be concluded that Tiny Roots does function as a trigger to encourage and stimulate people to continue their Tiny House journey with inspiration and confidence.

Interaction qualities:

According to the interaction vision, using Tiny Roots should have the same interaction qualities as:

taking a ride in a hot air balloon above known ground.

Enlightening

The clear overview of choices from the design roadmap made the idea of designing a Tiny House much simpler and more feasible. Also, it gave them insights into alternative options when the solution they had in mind seemed obvious, but turned out not to be the best choice for them. Being pushed to substantiate their choices worked enlightening.

Freedom

When using Tiny Roots, participants were able to design without the boundaries of what people did or built before. They often came to the realization that there was more than just that one option they had in mind. When the range of possibilities grows, also the feeling of freedom in designing increases.

Inspiring

During the sessions, people inspired each other and got inspired by the design possibilities. Reading experiences of people already living in a Tiny House worked really inspiring because they could relate to actual stories instead of just dream about this idyllic idea of living in a Tiny House.

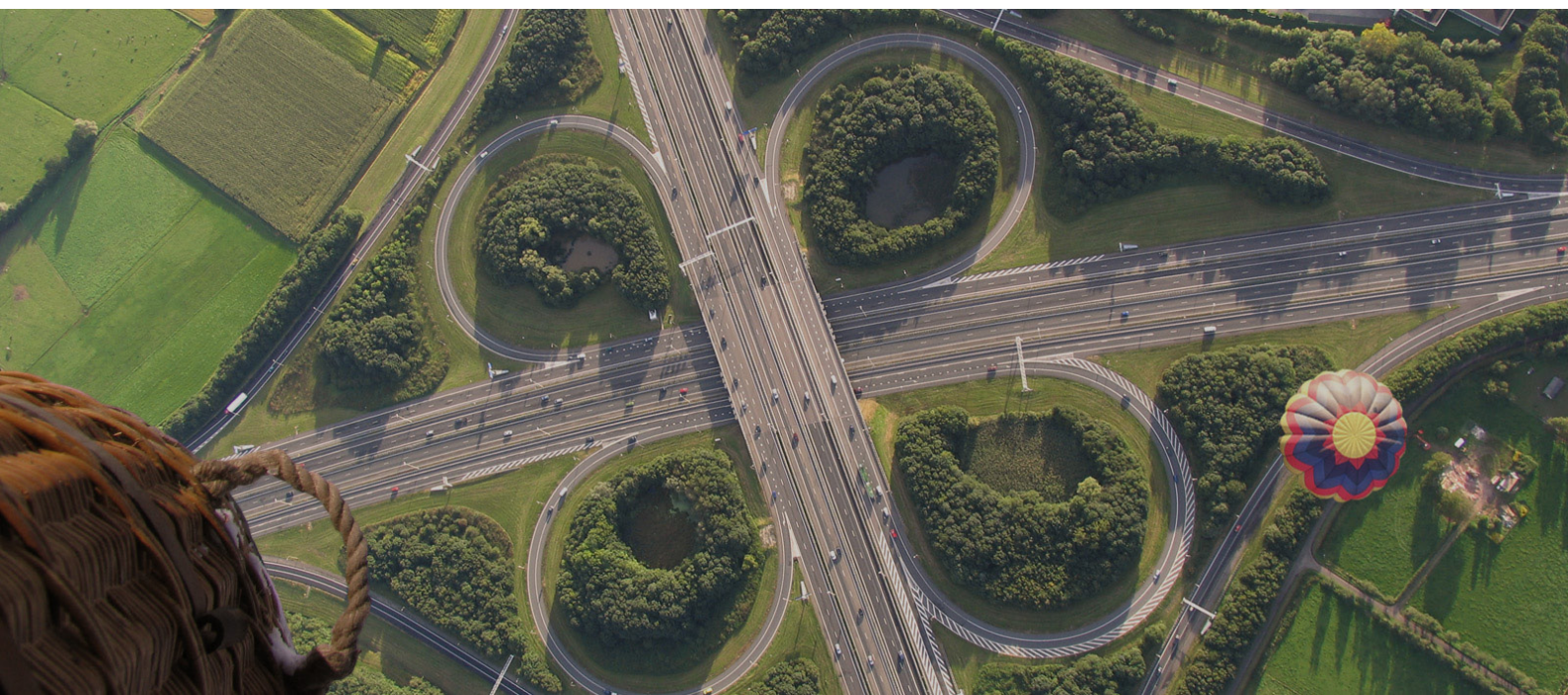
General conclusion

It can be stated that indeed Tiny Roots fills in the 'Why-gap' described in the problem definition. It creates a strong substantiated base for the design process and helps users in designing a Tiny House that fits their personality and lifestyle.

From my own experiences, I can conclude that Tiny Roots is very suitable for starting communities to get to know each other and communicate the expectations within the group. It can help with getting on the same page and form one group vision or mission.

For these reasons, I will continue offering Tiny Roots sessions after this graduation project and see how it will develop itself in the context of the Tiny House community Kluit.

Figure 125. View from a hot air balloon, from ballonvaartcentrumvanmanen.nl



11.2 Discussion & recommendations

Target group

For this project, the focus was on Tiny House residents and dreamers in the Netherlands. Although it was beyond the scope of this study to examine the Tiny House Movement outside the Netherlands, this could be a very interesting target group as well. Since the target group within the Netherlands is not of a great size it could offer opportunities to develop Tiny Roots for other countries as well.

Contextual research

During the contextual research, it was not possible to encompass the entire target group in the Netherlands. When doing research, there has only been contact with singles and couples living in a Tiny House in the age group 20 to 40 years old. Although there are people outside this age range and other types of households like families with young children or teenagers living in a Tiny House, unfortunately, they did not respond to the request of participating in the research. To create a complete map of experiences to use as quotes during the sessions it would contribute to also include these missing target groups in the research.

Roadmap

In the roadmap, the range of solutions per determinant is now limited to a workable amount so only the most usable or obvious solutions are included. To be able to offer the complete set of solutions, more research needs to be done in the possibilities per determinant. Also, these solutions will develop rapidly in the future so for the optimal situation, these need to be updated every ones in a while. In the future, also the number of determinants can be expanded to offer a more complete roadmap.

Extension

Although the third part of the test session, creating a first scale model, was too early for the participants, it could be a valuable extension when adding it as the third session in the series. As a separate session, they have enough time to let the results of the previous sessions sink in and think about their new design. In this program, every session serves as the base for the next session. This way the complete process of why, how and what is covered and the participants really work on to a clear final goal: their own Tiny House design.

Location

During the test sessions, the weather was really nice which made it possible to work outside on large tables next to the Tiny House. During the session with the Kluit members, it was possible to have 13 people doing the workshop in this setting. With bad weather, we would have to search for alternatives. Before moving to the Kluit community and having the shared community cottage to give the Tiny Roots sessions, the location can be an issue.

For the test sessions, people from all over the Netherlands signed up, but possibly this was because it was a free workshop. If people are willing to travel for a paid session remains to be seen. To attract more people to sign up for the Tiny Roots sessions it could be an opportunity to offer a workshop on a location more central in the Netherlands.

11.3 Personal reflection

The last couple of years I was really not looking forward to my graduation project. It was something I kept postponing. Most IDE projects I did the last years were not what I wanted to do and did not make me enthusiastic for a 6 months full time, individual, graduation project. But when compiling this graduation assignment, it gave me the confidence to finally start and finish my graduation project. And it turned out not only less scary than I thought, but it was even a pretty fun project.

Where I was most worried about was writing a complete and scientifically correct graduation report. Writing was never one of my strong points since my focus was always more on the making and creating part of projects. The writing itself I always postponed till the last end and then panicked, because it took me so long to write something that made sense (because both English and writing are not my strong points). For this project, I promised myself to finally try a new approach by keeping track of this report during the whole project and I can state that it worked pretty well.

When looking back at this project I can say that these were not the easiest couple of months. At least I know that after starting this graduation project, there has not been one single boring day since.

When starting this graduation project in February, our own Tiny House building project took off as well. After months of designing it was finally time to put all our time and energy in building our own house: collecting materials, refurbishing windows, flooring, and old wood for the ceiling, burning wood for the façade with the weed burner and finding the best way to strengthen our construction. But then there was this graduation project which was kind of important as well.. :)

Halfway through the year, we got the very good news that (if all goes well) we have found a location to put the house, but of course, starting this Tiny House community also turned out to be a whole project in itself.

Lucky for me these projects were all related to each other and very much in my interest but this made it sometimes hard to focus on this graduation project since what I was researching often gave interesting input for what I was building and the other way around. It turned out to be a lot of switching between projects which kept it very interesting (but also distracting) on both sides.

I can say that this graduation project and building our own Tiny House really strengthened each other. A lot of the research I did for this graduation project was useful for building our own house. We became very conscious about the design choices we made ourselves. Also because of this graduation project I was able to get in contact with a lot of Tiny House residents. Talking to them about their experiences and visiting their houses was not only useful for my contextual research but also gave us a lot of tips, knowledge, and inspiration for our own designing/building project.

The other way around, building and doing research for our own house contributed to my graduation project as well. When doing research for our own house I found out that a lot of people copy each other and go for the same designs or solutions because they have seen it somewhere else or do not know any better. Also because I noticed how valuable the experiences of other Tiny House residents were for us, I decided to not only use them to define the context and values but also use these experiences in the final tool to inspire others and let them relate to these experiences.

At the start of this project I thought it would be hard to be your own target group but as both projects developed itself further, I realized that I was transforming from my own target group: a Tiny House dreamer, to my own expert: a Tiny House resident, which made it even stranger. This was hard when things you just know or experienced need to be scientifically substantiated which is not always possible. For example, when defining the different target groups I just met all these people along my own Tiny House process and talked to them as a Tiny House dreamer myself.

I think this project was a really nice way to finish off my years at Industrial Design Engineering and I am proud of what I have achieved this last half a year. I look back at some intense but satisfying months and I am extremely happy to say that I just finished writing my last report ever!

CHAPTER 12.

APPENDIX

Appendix 1: References

Appendix 2: Questions from experience booklet

Appendix 3: Participants profiles

Appendix 4: Final design

4.1 You-sheet

4.2 Quote cards

4.3 Value cards

4.4 Moodboard pictures

4.5 Roadmap



Appendix 1. References

ABC News (March 2 2015). *The Tiny House Movement - Living Small with Jay Shafer*. Retrieved August 8 from: <http://www.abc.net.au/radionational/programs/archived/newdimensions/the-tiny-house-movement/28093-living-small-with-jay-shafer/6263472>

CBS, (2017). *Grootste Prijsstijging Koopwoningen Sinds Begin 2002*. Retrieved 7 December 2017, from <https://www.cbs.nl/nl-nl/nieuws/2017/47/grootsteprijsstijging-koopwoningen-sinds-begin-2002>

CBS, (2015). *Woonlasten Vormen Bijna 40 Procent Uitgaven Laagste Inkomens*. Retrieved 7 December 2017, from <https://www.cbs.nl/nl-nl/nieuws/2015/28/woonlasten-vormen-bijna-40-procent-uitgaven-laagsteinkomens>

CBS StatLine, (2016). *Particuliere Huishoudens Naar Samenstelling en Grootte, 1 Januari*. Retrieved 17 January 2018, from [http://statline.cbs.nl/Statweb/publication/?DM=S_LNL&PA=37975&D1=0-5,10,15,19&D2=0&D3=0,5,10,15,\(I-4\)-I&HDR=T&STB=G1,G2&CHARTTYPE=3&VW=T](http://statline.cbs.nl/Statweb/publication/?DM=S_LNL&PA=37975&D1=0-5,10,15,19&D2=0&D3=0,5,10,15,(I-4)-I&HDR=T&STB=G1,G2&CHARTTYPE=3&VW=T)

Kenniscentrum Immaterieel Erfgoed Nederland. *Woonwagencultuur*. Retrieved: August 9, 2018 at: <https://www.immaterieelerfgoed.nl/nl/woonwagencultuur>

Rogers, E. M. (2010). *Diffusion of innovations*. Simon and Schuster.

Sinek, S. (2009). *Start with why: How great leaders inspire everyone to take action*. Penguin.

Sociaal en Cultureel Planbureau, (2013). *Met het Oog op de Tijd*. P.35. Retrieved 11 December 2017, from https://www.scp.nl/Onderzoek/Tijdsbesteding/Met_het_oog_op_de_tijd

Stec Groep, (2017). *5 Bewijzen dat Klein Wonen Structureel is op Woningmarkt*. Retrieved 15 Januari 2018, from <http://stec.nl/5-bewijzen-dat-klein-wonenstructureel-is-op-woningmarkt/>

Visser, F. S., Stappers, P. J., Van der Lugt, R., & Sanders, E. B. (2005). *Contextmapping: experiences from practice*. *CoDesign*, 1(2), 119-149.

Appendix 2. Questions from experience booklet

Filled in by current Tiny House residents

WIE WOONT ER (SOMS)?

Huisdieren?

LEEFTIJD:

BEROEP / ACHTERGROND:

HOE ZIET VOOR JOU EEN (WERK)WEEK ERUIT?

HEEFT JE HUISJE EEN NAAM?

Kunnen we jou of je huisje ergens volgen? Waar?

HEB JE JOUW HUISJE ZELF OF DEELS ZELF ONTWORPEN EN /OF GEBOUWD?

Zo ja, van wie heb je hulp gehad hiermee?

WANNEER BEN JE IN JE HUISJE KOMEN WONEN?

OMSCHRIJF JEZELF/ELKAAR:

Welke archetypen passen bij jou? En waarom? Op de achterpagina staan voorbeelden die je evt. kunt gebruiken. Plaatjes mogen ook.

WAT ZIJN PASSIES VAN JE?

DAGBOEKJE:

BESCHRIJF 1 DAG VANAF HET MOMENT DAT JE WAKKER WORDT TOT JE GAAT SLAPEN

Dit kan door middel van een tijdlijn, stripverhaal of iets anders. Beschrijf hierin alle interacties/momenten die in of rondom je huisje plaatsvinden (of op een andere manier ermee te maken hebben). Geef per punt aan welk gevoel je hierbij hebt (positief of negatief). Draagt dit bij of af aan jouw woonbeleving? Gebruik hiervoor de gekleurde stickers.

WELKE VAN DEZE IS JOUW FAVORIET?

Waarom?

* Als er later in de week nog leuke/interessante momenten zijn mag je deze hier later bij schrijven.

OP WAT VOOR MANIER REFLECTEERD JOUW HUIS JOUW IDENTITEIT/ PERSOONLIJKHEID?

Op wat voor manier? Gebruik voorbeelden, tekeningen, plaatjes, foto's.

WAT AAN JOUW HUISJE BEN JE HET MEEST TROTS OP?

Waarom? Gebruik evt. tekeningen, plaatjes, foto's.

BESCHRIJF HET FIJNSTE PLEKJE IN JE HUIS:

Welk gevoel, uitzicht, geluid, geur, materiaal? Gebruik evt. tekeningen, plaatjes, foto's.

WAAROM IS DIT HET FIJNSTE PLEKJE? WAT DOE JE HET LIEFST HIER?

Gebruik evt. tekeningen, plaatjes, foto's.

WAT IS UNIEK AAN JOUW HUIS?

WAT VIND JE BELANGRIJK AAN JE HUIS/ LEEFOMGEVING?

Geef het cijfer 1 aan het belangrijkste en tel door naar het minst belangrijke.

- | | |
|--|---------------------------------------|
| ☐ Flexibiliteit | ☐ Comfort |
| ☐ Onafhankelijkheid | ☐ Delen |
| ☐ Duurzaamheid | ☐ Samenwerken |
| ☐ Privacy | ☐ Creativiteit |
| ☐ Functionaliteit | ☐ |
| ☐ Materialen | ☐ |
| ☐ Daglicht | ☐ |

Comments:

WELKE VAN DEZE IS JOUW FAVORIET?

Waarom?

* Als er later in de week nog leuke/interessante momenten zijn mag je deze hier later bij schrijven.

WANNEER VOEL JE JE HET MEEST THUIS?

Omschrijf de situatie, omgeving, moment van de dag, activiteit etc.

Gebruik evt. tekeningen, plaatjes, foto's.

HOE BRENG JE HET LIEFST JE VRIJE DAG DOOR?

Gebruik evt. tekeningen, plaatjes, foto's.

WAT WAREN VOOR JOU DE MEEST VOORNAAMSTE REDENEN OM OVER TE STAPPEN NAAR EEN TINY HOUSE?

WAAR KEEK JE HET MEEST NAAR UIT TOEN JE DEZE OVERGANG MAAKTE?

WAARDOOR BEN JE POSITIEF VERRAST?

WAT VIND JE OP DIT MOMENT HET GROOTSTE VOORDEEL VAN WONEN IN EEN TINY HOUSE?

WELKE ASPECTEN DRAGEN AF AAN JE WOONBELEVING?

Wat zou er beter kunnen? Zijn er dingen die gewoon of minder bijzonder worden na verloop van tijd? Wat blijft lastig om aan te wennen of valt toch tegen?

OP WELKE MANIER DRAAGT JE OMGEVING BIJ AAN JE WOONBELEVING?

WELK METAFOR ZOU HET BESTE PASSEN BIJ JOUW HUIS?

Bijvoorbeeld: boomhut, onderzeeër, bunker.. Gebruik evt. plaatjes of ondersteun met foto's.

Zijn er nog andere dingen die je graag kwijt wilt?

Appendix 3. Participant profiles

Bernhard (29):

Antropoloog, taalwetenschapper, barkeeper, explorer, Tiny House adviser, Tiny House Architect
Woont samen met Maria in TH community Proeftuin Erasmusveld

DIY

"Het meest trots ben ik op het feit dat ik mijn eigen huis heb gebouwd, een droge warme herberg, een shelter, een thuis"

FUNCTIONAL

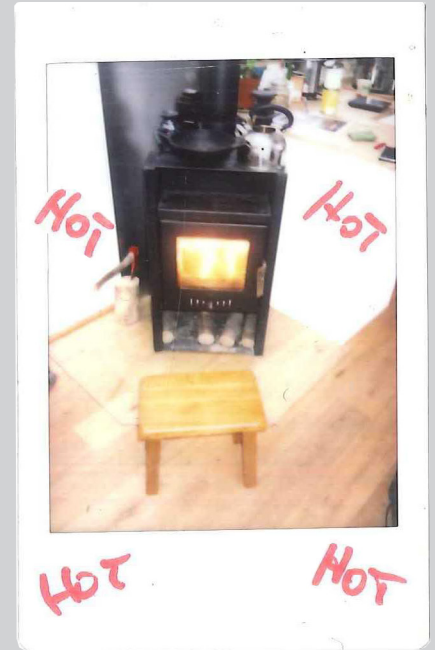
"Uniek aan ons huisje is het uitklapbare dak, zo kunnen we boven ook staan en hebben we extra leefruimte gecreëerd"

EXPLORING

"Het leven is geweldig, en elke dag is een avontuur!"

GREEN

"Ik rij met de elektrische auto naar het voedsel coöperatief om biologische groenten voor iedereen te kopen."



MINDFUL

"Het fijnste plekje is 's ochtends vroeg op het houten stoeltje voor de kachel wanneer ik een vuurtje stook. Mijn lichaam is koud en rustig, het vuur warmt alles op en ik groet de dag met een fijne diepe meditatie."

SOCIAL

"Ik voel me het meest thuis als ik iets doe wat mij gelukkig maakt en ik het kan delen met mensen die ik lief heb."



Sanne (33):

Bouwkunde, Circulaire Economie,
Verduurzamingsadvies bedrijf
Woont in TH community Proeftuin



EXPLORING

"Het leven is een avontuur
met het ontdekken van de
route onderweg"

SOCIAL

"Een omgeving met andere TH
is heel inspirerend, productief en
gezellig"

FUNCTIONAL

MINDFUL

"Het belangrijkste aan mijn
leefomgeving is rust."
"Mijn fijnste plekje in huis
is de bank. Het is fijn om
hier languit te zitten met
uitzicht op de tuin."

GREEN

"Uniek aan mijn huisje is dat het
extreem energiezuinig is vergeleken
met de meeste Tiny Houses. Ik heb
10 cm isolatie en maak gebruik van
warmteterugwinning."

DIY

"Ik voel me het meest
thuis als ik lekker aan
de slag ga met klussen
in het huis, in de tuin
of meubeltjes ga
opknappen"



Maria (29):

Administrator, MA Russian en Eurasian studies

Woont samen met Bernhard in TH community Proeftuin



DIY

"We hebben het voor elkaar gekregen om zelf een huis te bouwen dat een hele goede shelter is voor ons. Daar ben ik het meest trots op."

MINDFUL

"De lage levens/woonkosten maken het mogelijk om te stoppen met mijn baan en me te focussen op mezelf en mijn toekomst."

FUNCTIONAL

"We hebben veel ruimte in de lofts door ons opklapbare dak. Dat is wel uniek aan ons huisje."

SOCIAL

"Samen eten en bordspellen spelen in het woonhuis zijn een leuke manier om met elkaar te socializen."

GREEN

"Zelf eten laten groeien, dieren, gezondheid en duurzaamheid zijn passies van me. De loft is omgebouwd tot greenhouse om zaadjes te planten."

EXPLORING

"Ik hou niet van op een plek blijven voor langere tijd en ons huis heeft de mogelijkheid ons te volgen."



Piek (24):

Student Industrieel Ontwerpen.

Woont in een klein zeilbootje

GREEN

"Ik ben positief verrast dat ik een huis totaal niet mis, niet gek wordt van de kleine ruimte, geen probleem heb met geen eigen douche hebben en dat ik m'n spullen ook totaal niet mis."

MINDFUL

"De kajuit is heel knus. Ik vind het heel fijn als ik me af en toe kan terugtrekken. Je hoort de regen hier tikken, je voelt de golfjes af en toe en je hoort het water klotsen."

FUNCTIONAL

"Het voelt fijn als mijn huisje is opgeruimd en ik weet dat alles werkt, het nergens lekt en alles droog is"

DIY

"Het meest trots ben ik op de motor, omdat ik die helemaal heb uitgepluisd en hem nu ken. Ik was erg trots toen ik zelf de oliefilters had vervangen. Mijn huis is een beetje een hobby geworden"



SOCIAL

"Ik voel me het meest thuis als ik met vrienden op de boot ben of spontane etentjes heb op de boot. Dan klopt het gevoel. Je komt echt in de vakantiesfeer."

EXPLORING

"Ik kijk het meest uit naar de zomer! 's ochtends van de boot afspringen, en om na m'n studie veel te gaan zeilen. Soms zet ik de marifoon aan en dan hoor je andere schepen omroepen dat ze eraan komen."



Ep (40):

Timmerman, Meubelmaker,
Administrateur, Beheerder
Bedrijfsverzamelgebouw

Woont in de tuin van een
woongemeenschap

SOCIAL

"Hoewel ik kan koken in mijn huisje eet ik vaak met de woongroep. Het hebben van een eigen plek en daarnaast ook onderdeel zijn van een gemeenschap bevalt mij goed."

GREEN

"Op een vrije dag besteed ik graag tijd in de moestuin. Deze is 10 m bij mijn huisje vandaan."

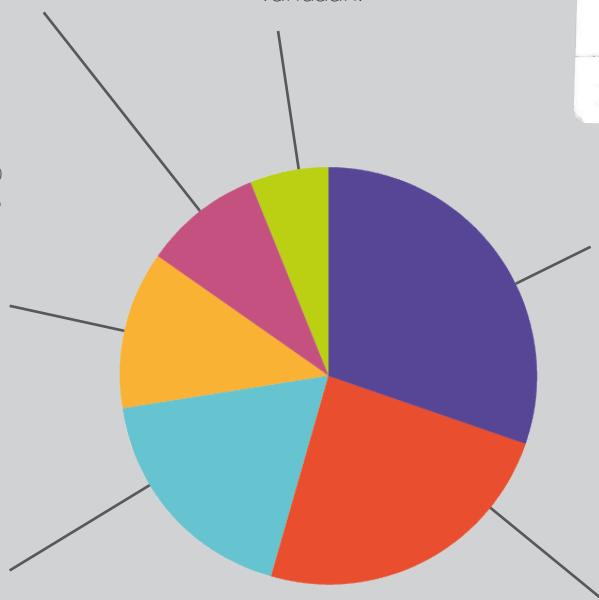


MINDFUL

"Afwisseling tussen rust in huisje en drukte in woongroep bevalt goed! Fijnste sub-plekje is mijn bankje aan mijn tafel. Er is iets rustgevends en comfortabels aan dit plekje. Ik hou ervan om uit het raam te staren en de wereld te overdenken hier."

EXPLORING

"Het voelt wel een beetje als kamperen in mijn huisje. Het heeft wel iets kneuterigs om water te moeten halen in jerrycans, naar een ander gebouw te moeten om te douchen en te koken op slechts twee spiritus pitjes, maar ik vind het heerlijk!"



FUNCTIONAL

"Overdag vouw ik mijn matras op om mijn bed om te bouwen naar het bankje voor aan de tafel."

DIY

"Mijn passies zijn dingen bedenken, maken, repareren en werken met hout. Als timmerman en meubelmaker kon ik helemaal mijn eigen ding doen"



Madelief (28)

Ergotherapeut

en Yvette(33):

Student Biotechnologisch analist

Hebben hun huisje laten bouwen



EXPLORING

"Het grasveld voor de deur is ook heel fijn. Voor de hangmat, voor Fudge(konijn), voor picknicks."

MINDFUL

"Wij hebben geen passies en zijn daar heel gelukkig mee!"

GREEN

"Klein is fijn en genoeg is goed genoeg."

FUNCTIONAL

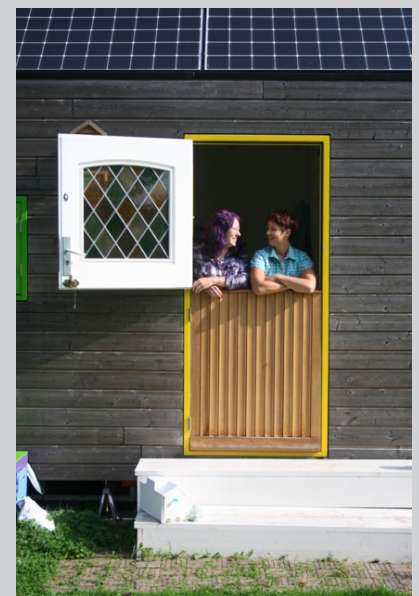
"Een klein huis is snel vies maar ook snel opgeruimd en schoon. Je bent zo klaar met vegen!"

SOCIAL

"We hebben hele aardige buren die altijd hulp bieden als het nodig is." "Omdat de ruimte zo klein is kun je kletsen terwijl de een aan het koken is."

DIY

"Uniek aan ons huisje is onze heerlijke grote slaaploft waarin je kunt staan, de boerderijdeur en de kleurtjes. Wij zijn kleurrijk en ons huis ook. Wij en ons huis zijn uniek, geen 13 in een dozijn."



Pictures by: Bluemonque

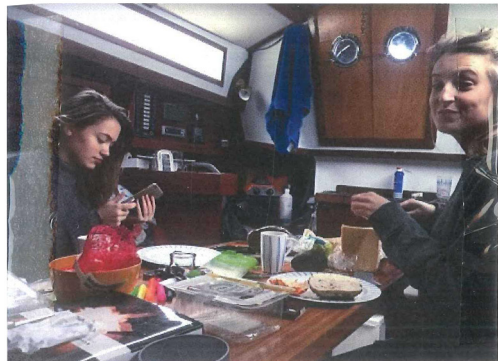
Doris (20):

Student Industrieel Ontwerpen,
grafisch ontwerp

Woont in een klein zeilbootje

MINDFUL

"Ik vind het heel fijn om wakker te worden in een schommelende boot. Met de zon door het raampje en wieg ik een beetje heen en weer. Dat alles zo knus is ingedeeld, het warme licht en heel veel kleine kerstlichtjes maken het ook heel gezellig. Het is echt een nestje geworden."



GREEN

"Met mijn bootje ga ik terug naar de natuur en het ultieme vakantiegevoel"
"Ben nu bezig het vochtgehalte omlaag te brengen dmv planten, zodat het iets gezonder wordt om in te leven."

FUNCTIONAL

"Ik heb geen tv maar mis het ook niet. Laptop/ipad werkt ook goed voor films."

DIY

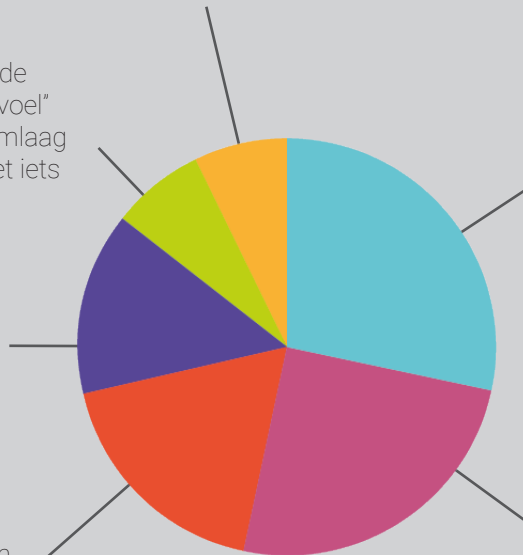
"Het meest trots ben ik op mijn deuren, omdat ik die echt zelf ontworpen en gemaakt heb."

EXPLORING

"Binnenkort ga ik verhuizen naar Rotterdam en vlieg dan gewoon met m'n bootje weg, zonder in te pakken of alles op te ruimen. Heel makkelijk om zo de wereld te verkennen."

SOCIAL

"Ik voel me het meest thuis als vrienden op bezoek zijn en we een beetje kletsen of gewoon met eigen dingen bezig zijn." "Ik zorg dat mijn tent open staat en nodig iedereen uit die langsloopt."



Wendy (39):

Accountmanager Cultuur bij
buitenreclame bedrijf

Timothy (40)

Industrieel Product ontwerper,
Binnenkort Productieleider bij
Wikkelhouse



GREEN

"Door duurzaamheid zijn we
hier niet mee gestart maar dat
is gaandeweg wel belangrijker
geworden."

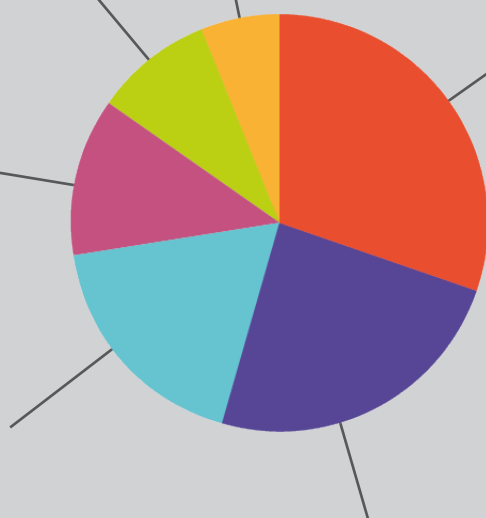
MINDFUL

SOCIAL

"Je kunt je verjaardag
niet makkelijk thuis vieren
maar dat doe je dan in
de kroeg of in de zomer
buiten! We zijn met oud
en nieuw trouwens wel bij
ons thuis beland :)"

DIY

"We waren de eerste in Nederland
met een stalen frame, ook een van de
eersten met een slaapkamer beneden.
Het hoge afwerkingsniveau zie je niet
veel en we hebben een echt lichtplan!
Tim is lichtontwerper geweest dus dat
mocht niet ontbreken!"



EXPLORING

"We zijn flexibel,
sportief, reislustig, in
voor uitdagingen en
open minded"

FUNCTIONAL

"Je kunt je verjaardag
niet makkelijk thuis
vieren maar dat doe je
dan in de kroeg of in
de zomer buiten!"



Linde (30):

Sport & Bewegen, ALO, Docent
lichamelijke opvoeding

Kjeld (30)

Opleiding Film & Fotografie,
opleiding docent levens-
beschouwing, nu vrijwilliger bij
Roggebotstaete

Wonen op Landgoed op basis van
ruilhandel



FUNCTIONAL

"We hebben een relatief 'grote'
tafel in ons huisje. Dat vonden
we belangrijk."

GREEN

"Door de veranda vangen
we dus met een dubbel
oppervlaktewater op in de
watertanks."

SOCIAL

"Het belangrijkste aan je leef-
omgeving is met wie je het deelt en
samenwerken. We wonen op basis
van ruilhandel. Dat betekent dat we
veel doen voor het landgoed waar we
wonen."



MINDFUL

"Het grootste voordeel is de plek,
heerlijk in de natuur! Je leert
zoveel van de natuur. Gebruik van
natuurlijke materialen, keuzes
gemaakt die bij ons pasten."

EXPLORING

"In het weekend gaan we lekker in
de kas (warm) aan het werk. Dieren
voeren, rammen, koeien, wolvarkens
die op het landgoed staan."
'We hebben een tijd in Australië
gewoond en gewerkt en hiermee
gespaard voor de bouw van hun
Tiny House."



DIY

"Wij hebben een veranda
met zelfgemaakte stoelen,
bankjes en vangen
hiermee dubbel zoveel
water op. Dat maakt ons
huisje wel uniek."

Jente (30):

Rechten, Bedrijfskunde (richting duurzaamheid), sociaal ondernemer, Kromkommer

Woont in TH community Proeftuin



FUNCTIONAL

"Hiervoor paste ik op huizen en woonde ik antikraak en verhuisde ik om de haverklap. Nu heb ik eindelijk mijn eigen plekje."

GREEN

"Duurzaamheid vind ik een van de grootste voordelen van het wonen in een Tiny House"

DIY

"Ik ben trots dat ik het helemaal zelf gemaakt heb. Ik dacht dat ik niet persé goed zou zijn in ontwerp enzo maar ik ben super blij met de indeling en de ramen"

SOCIAL

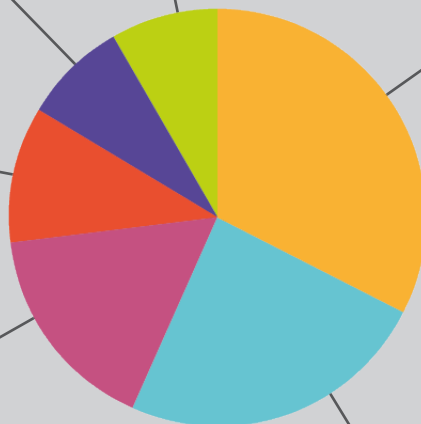
"De hoofdreden was voor mij het leven in een community. De vorm van een Tiny House was minder belangrijk"

MINDFUL

"1 dag per week ben ik bezig met het opstarten van een mindfulness/ yoga/retreats bedrijf"

EXPLORING

"Ik hou van dingen doen die een klein beetje onmogelijk zijn"



Jan-Willem(33):

Architect, Tiny House Academy,
Pseudos Architecture, Woonpioniers

Woont samen met Noortje in
Rotterdam Heijplaat

SOCIAL

"Wel fijn om bij andere conceptuele huizen te staan. We hebben leuk contact met de burens die graag helpen. Vrienden en familie leven erg met ons mee. het is fijn om ze zo trots te zien en overal voor klaar willen staan."

MINDFUL

"Ik voel me het meest thuis op het moment dat ik buiten kan zitten voor het huisje met een lekker speciaalbiertje."

DIY

"Ik wilde uniek wonen. eigenlijk had ik een oude fabriek voor ogen. Maar wilde als architect mijn eigen huis bouwen."

FUNCTIONAL

"Het is fijn om voor alles in huis maar een paar stappen te doen. Aan tafel kun je bij de koelkast, bestek of kruiden zonder op te staan."

GREEN

"Duurzaamheid en het streven naar een circulaire mindset vind ik een van de belangrijkste onderdelen van het wonen in een Tiny House"



EXPLORING

"Het grootste voordeel is het hypotheekloos wonen. We wilden geen huis op basis van een enorme schuld. Nu hebben we vrijwel geen maandlasten"



Noortje (32): zzper: TH tentoonstelling, Museologie, educatie en presentatie in musea, evenementen organiseren. ontspuller.

Woont samen met Jan-Willem in Rotterdam Heijplaat



SOCIAL

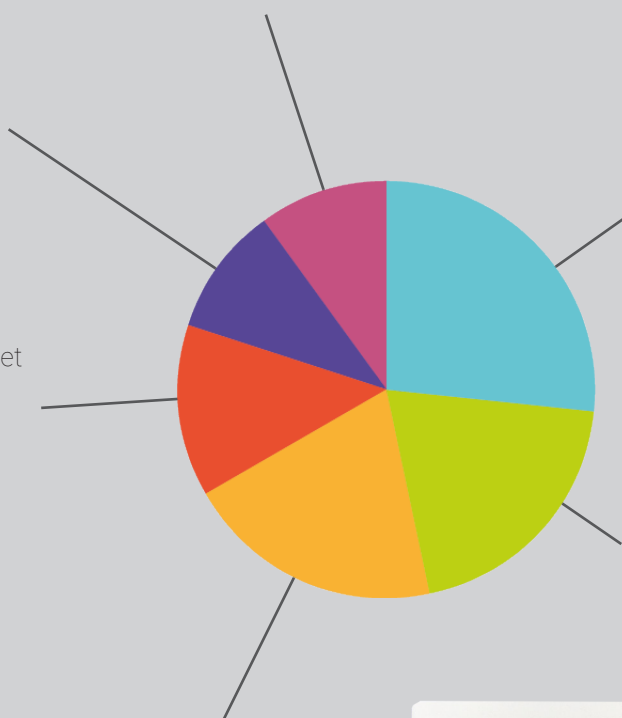
"Een leuke groep mensen heb ik leren kennen, door in de TH movement mee te gaan."

FUNCTIONAL

"Functionaliteit en comfort sluiten elkaar niet uit, ze versterken elkaar."

DIY

"Als je klein woont, moet je ervoor zorgen dat het huis aansluit bij je levensritme. Daarom ben ik voorstander van zelf ontwerpen en bouwen."



EXPLORING

"De nummer 1 reden voor de overstap naar een Tiny House is de onafhankelijkheid, zelfstandigheid en het hypotheekloos door het leven gaan. Leningen zijn de meest stomme en kutte ter wereld. Waarom zou je geld uitgeven dat je niet hebt."

GREEN

"Belangrijk aan mijn leefomgeving vind ik duurzaamheid, in alle vormen: ecologisch, economisch en sociaal"

MINDFUL

"Ik vind het zo leuk om met de seizoenen te leven. Nu alle koude natte maanden gehad, ben ik nog nooit zo blij geweest met de eerste knopjes aan de boompjes,"



Jeroen (25): Master Interieur-architectuur. Interieurarchitect, architectuurgids in Rotterdam
Woont samen met Tessa in Rotterdam Heijplaat

MINDFUL

"Het fijnste plekje is 's ochtends in bed met de zon die door het raam op de koperen lamp schijnt en nog even niets hoeven, want in bed is het het fijnst."

GREEN

"Uniek aan ons huis is dat het 100% elektrisch is, geen co2, 100% off grid, op 12 m2, zeewaardig (zeecontainer)"

EXPLORING

"Ik ben verrast dat ik nog nooit meer ruimte heb gewenst. het heeft nog nooit te klein gevoeld"

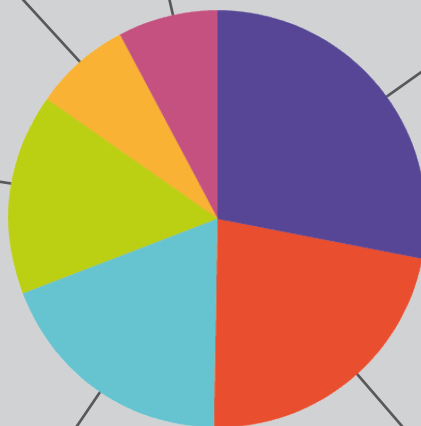
SOCIAL

FUNCTIONAL

"Ik voel me het meest thuis als ik sta te koken. In de keuken werkt alles en is alles wat ik nodig heb op de goede plek."

DIY

"De grootste reden voor de overstap naar een Tiny House is de uitdaging van het ontwerpen en bouwen en het avontuur van het onzekere."



Tessa (32): Bedrijfsleider en teamcoach in een restaurant
Woont samen met Jeroen in Rotterdam Heijplaat



MINDFUL

"Het precies is zoals ik het wil, ik verdien geld met werk dat ik graag wil doen, ik heb de vrijheid en de ruimte om altijd keuzes te kunnen maken."

SOCIAL

DIY

"Het fijnste plekje is de douche, heerlijk, hier merk ik zo goed dat alles klopt, super nice gepapiermacheed met glasvezel"

EXPLORING

"Het allerbelangrijkste onderdeel van het wonen in een Tiny House is voor mij het onafhankelijk zijn"

FUNCTIONAL

"Na 17 verhuizingen wilde ik nu een huis om mee te nemen"

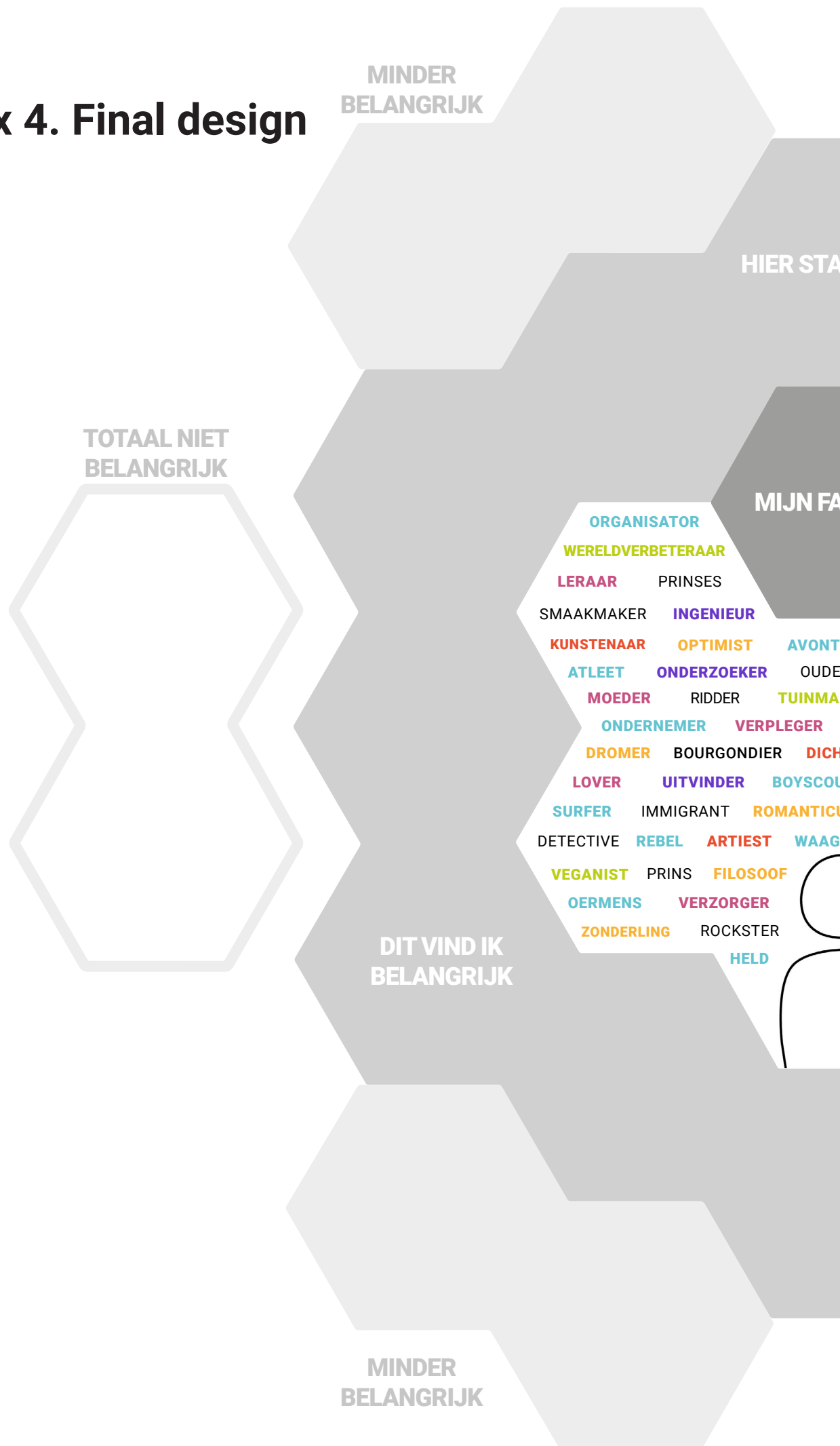
GREEN

"Bijzonder aan ons huisje is het niet hebben van een kacheltje op hout omdat bomen verbranden niet duurzaam is. Al onze energie is zelf opgewekt en elektrisch."



Appendix 4. Final design

4.1 You-sheet



MINDER
BELANGRIJK

IK VOOR

VORJET

SPIRITUEEL

CLOWN VRIEND

NERD BRANDWEERMAN

ONTWERPER TOVENAAR

URIER VADER (MILIEU) ACTIVIST

ZIEL INTELLECTUEEL RECHTER

N CREATIEF HOUTHAKKER

TOMBOY WETENSCHAPPER

ITER HIPPIE CONTROL FREAK

UT ADVocaAT NAVIGATOR

JS VAKANTIEGANGER REGISSEUR

HALS ZOEKER (VRIJHEIDS)STRIJDER

BOSWACHTER FEESTBEEST

MAKER TRENDSETTER

GENTLEMAN ONTDEKKER

VADER

DIT PAST BIJ MIJ

TOTAAL NIET
MEE EENS

MINDER
BELANGRIJK



4.2 Quote cards

Mijn huisje is net als een hond: je moet er goed voor zorgen maar hij is heel **trouw** en luistert precies naar je. Je kunt er lekker mee rondbanjeren, maar ook lekker knus niks doen.

Uniek aan ons huis is onze heerlijke **grote slaaploft** waarin je kunt staan.

Ik vind het leuk om met **voorbijgangers spontaan** over mijn huisje te **praten**. Er is vaak een hele open sfeer en iedereen is enthousiast.

Ons huis reflecteert onze **identiteit**. Wij zijn kleurrijk en ons huis ook. Wij en ons huis zijn **uniek**, geen 13 in een dozijn.

Het belangrijkste aan ons huisje is de **flexibiliteit** en **onafhankelijkheid**. Home is wherever you park it!

We zijn hier **niet mee gestart** vanuit **duurzaamheidsredenen** maar dat is gaandeweg wel steeds belangrijker geworden.

Het grootste voordeel van zelf bouwen is dat je **zelf de expert** bent. Als ik iets wil verbeteren dan kan dat gewoon. we zijn ook **flexibeler** en **creatiever** geworden met alles wat we doen.

Een van de belangrijkste dingen aan mijn huisje vind ik de **duurzaamheid** in alle vormen: **ecologisch**, **economisch** en **sociaal**.

We woonden voorheen in een garage. Koud, donker en onpraktisch. Dit huisje is precies het tegenovergestelde: **licht**, **warm** en **praktisch** ingericht op onze wensen.

We zijn super trots op het **hoge afwerkingsniveau** van ons huisje. We hebben veel aandacht aan **details** geschonken en er is bijna geen hout meer te zien omdat we dat afgewerkt hebben met behang of verf.

Overdag vouw ik mijn matras op om mijn bed **om te bouwen** naar het bankje voor aan de tafel.

Ik voel me het meest thuis op het moment dat ik de **kachel aan steek** of er weer een blok op gooi.

De afwisseling tussen de **rust** in mijn huisje en drukte in de **community** bevalt goed! Hoewel ik kan koken in mijn huisje eet ik vaak **samen** met de rest van de gemeenschap.

Ik ben erg trots op ons **techniekhok**, dat steeds complexer lijkt te worden maar eigenlijk simpeler is dan voorheen gedacht.

In de winter is het het moeilijkst, omdat je soms zonder water, stroom of warmte zit, maar dat is juist een **uitdaging**. Gelukkig weten we precies hoe alles in elkaar zit.

Het is h
om naas
conceptu
te staan. We
contact met
graag help
gezellige l
onmis

Een p
van mij i
doen die e
onmogelijk zi
geen klus/ont
maar ik ben h
eindresultaat
dat ik het he
gemaak

Uniek a
huis is da
bed bened
en een zitho
Dit geeft een
gevoel om
de volledige
gebr

Het is nu
zoals ik he
verdien geld
ik graag wil d
de **vrijheid** e
om altijd **kunnen**

De uitdagi
zoeken na
duurzame o
vond ik erg leu
veel **expe**
in h

Het meest trots ben ik op het feit dat ik alles **zelf bedacht en gemaakt** heb en dat het ook echt werkt zoals ik had bedacht.

Wonen in mijn Tiny House maakt het mogelijk om meer tijd en geld te besteden aan **dingen die ik het liefste doe** en **mezelf te ontwikkelen**.

Mensen komen regelmatig aanwaaien. Gelukkig vinden we het altijd leuk om mensen **rond te leiden**. We hebben zelfs een aparte **open dag** georganiseerd voor de buurt.

Wij hebben geen kacheltje op hout omdat bomen **verbranden niet duurzaam** is. Al onze energie is **zelf opgewekt en elektrisch**.

We hebben een **gaskachel** omdat het **minder werk** is en minder stinkt dan een houtkachel.

Ik voel me het meest thuis als ik 's avonds in bed nog wat **lees bij kaarslicht**. Met buiten de wind die door de bomen waait en de regen die op het dak tikt.

Mijn huisje staat in de tuin van een **woongemeenschap**. Het hebben van een **eigen plek** en daarnaast ook onderdeel zijn van een gemeenschap bevalt mij heel goed.

De belangrijkste eis was dat we **uniek** wilde wonen, eigenlijk had ik een oude fabriek voor ogen, maar wilde als architect mijn **eigen huis bouwen**. Toen kwamen we uit op een Tiny House.

Een klein huis is snel vies maar ook **snel opgeruimd en schoon**. Je bent zo klaar met vegen!

Voordat we gingen bouwen hebben we een tijd in **Australië gewoond en gewerkt** en geld gespaard voor ons huisje. Leven uit een **rugzak** waren we al gewend dus een Tiny House was luxe.

Er is niks beters dan een warme deken, een **goed boek**, een hard matras en een comfortabele rugleuning. Hier voel ik me **veilig**.

Onze voornaamste reden om te kiezen voor een Tiny house was de **uitdaging** van het ontwerpen en bouwen en het **avontuur van het onzekere**.

Mijn favoriete onderdeel van mijn huisje is de voetspomp om water naar de kraan te pompen. Hij is heel **simpel** en **functioneel** en doet me denken aan de caravan waar ik als kind mee op vakantie ging.

Het grootste voordeel van een eigen Tiny House is het **vrije en aanpasbare**: dat ik precies heb wat ik nodig heb en alles **zelf kan beslissen**.

Ik vind het heel fijn als ik me af en toe kan **terugtrekken** in mijn eigen hoekje.

Het mooie van wonen in een TH community is het **groepsproces**. Je kunt zo veel van elkaar **leren** en **uitwisselen**, samen lachen, huilen en **samenwerken**.

We hebben nog geen nadelen ontdekt. Overal is een **oplossing** voor. Je kunt je verjaardag niet makkelijk thuis vieren maar dat doe je dan in de kroeg of in de zomer buiten!

Na 17 verhuizingen wilde ik nu een echt **eigen huis** om mee te nemen. Ik keek uit naar het hebben van **vrijheid** en kennis over je eigen huis.

Ik ben verrast door het **effect** van alternatief wonen op het denken van andere mensen. Ik krijg werkelijk het gevoel dat we mensen **inspireren** tot betere keuzes.

Ik vond het erg belangrijk dat alle **materialen** die ik gebruik voor mijn huisje **milieuvriendelijk** of **tweedehands** waren en lang mee gaan.

Op een vrije dag ga ik graag met de **elektrische auto** naar de **voedselcooperatief** om biologische groenten voor de community te kopen.

We zijn super **trots** dat we het voor elkaar hebben gekregen zelf een huis te **bouwen** dat voor ons een hele goede **shelter** is.

Het meest trots ben ik op de **energiezuinigheid** van mijn huisje. Met 10 cm isolatie, ramen met HR++ glas en warmte terugwinning maak ik **optimaal** gebruik van mijn energie.

Het belangrijkste aan ons huisje was dat we met veel **comfort** in de kleine ruimte kunnen leven zonder iets in/uit te hoeven klappen.

Onze **creativiteit** en **eigenzinnigheid** komen erg naar boven in het ontwerp. Zo reflecteert ons huisje onze **persoonlijkheid** en **identiteit**.

Het liefst breng ik mijn vrije dag door in de **tuin**, met m'n **handen in de klei**! Bloemetjes planten, snoeien, zaaien oogsten!

Het grootste voordeel is dat je het **"echte" simpele leven** kunt proeven en leert over menselijke **basisbehoeften**. Je merkt dat je echt voor jezelf kan zorgen.

Ik keek het meest uit naar het wonen in een **gemeenschap** met leuke mensen.

Ik voel me het meest thuis als ik lekker aan de slag ga met **klussen** in het huis, in de tuin of meubels opknappen.

Uniek aan ons huisje is dat het een van de **kleinere** Tiny Houses is. We wonen met z'n 2en in een zeecontainer van 12 m2. Alles **werkt en past precies**. En er zijn eigenlijk helemaal geen consessies gedaan.

Ik voel me het meest thuis met mijn **vrienden** die er zijn. dan is het compleet echt een vriendschap sfeer.

Ik vind het leuk om zo met de **se** te leven. Als donkere, nat geweest zijn, be zo blij geweest eerste knoe je boor

We hebben ruimte badkamer **dubbel te b** een opklapbla we het ke verlengde nod

Het liefst de dag me diepe **medit** houtkachel te mijn lichaam Hier vo **echte**

M voornaam voor een T is het hebben klein mogelijke **voetafdruk** voorbeeld te ver

Wanneer je zo klein woont, moet je zorgen dat je huis aansluit bij je **levensritme**. Daarom is **zelf ontwerpen** en **bouwen** voor ons zo belangrijk. Je voelt je extra **verbonden** met je huisje.

Samen eten, pizza's maken en bordspelletjes spelen zijn de leukste toevoegingen van het leven in een **community** met geweldige mensen. Het huis alleen zou er niets zonder zijn.

Elke dag is een **vrije** dag. Ik heb elke dag de **keuze** om te doen wat mij en mijn medemensen blij maakt.

Duurzaamheid en zelf **eten laten groeien** zijn echt passies van me geworden. Onze loft is omgetoverd tot **greenhouse** om hier zaadjes te planten.

Mijn werkweek deel ik in op waar mijn **passie** en **drive** op dat moment liggen. Wat wil ik bereiken deze week?

Uniek aan ons huisje is het **uitklapbare dak**, zo kunnen we boven staan en hebben we **extra leefruimte** gecreeerd. Waarom ontwerpen voor de <1% van de tijd dat je ermee op de weg bent?

Een omgeving met andere Tiny Houses is heel **inspirerend**, **productief** en **gezellig**. De **community** is super belangrijk voor je woonbeleving.

Het is fijn om voor alles in huis maar een **paar stappen** te doen. Aan tafel kun je bij de koelkast, bestek of kruiden zonder op te staan.

Ik hou **niet** van **op een plek blijven** voor langere tijd en ons huis heeft de mogelijkheid ons te volgen.

De **omgeving** van ons huisje is erg belangrijk. We wonen op basis van **ruilhandel** op een landgoed met **schapen, koeien en varkens** die we elk weekend voeren en doen dagelijks klussen op het landgoed.

Het belangrijkste voor ons was het zelf **ontwerpen** en **bouwen**. Het is een hele fijne ruimte, het past als een oude jas en je kent letterlijk elke centimeter.

De belangrijkste reden voor een Tiny House was voor mij de **community**. De vorm van een Tiny House was minder belangrijk.

Het voelt een beetje als **kamperen** in mijn huisje. Het heeft wel iets **kneuterigs** om water te halen in jerrycans, in een ander gebouw te douchen en te koken op spiritus pitjes, maar ik vind het heerlijk!

Ik keek uit naar het **doorgeven** van **kennis** en **plezier**. Ik denk dat heel veel mensen op deze manier gelukkig kunnen worden.

Ik keek het meest uit naar de **overzichtelijkheid** van een klein huis. En het **kwijtraken** van alle **ballast** aan spullen die ik door de jaren heen had verzameld.

4.3 Value cards



AVONTUURLIJK

Het **flexibele** en **onafhankelijke** aspect van het wonen in een Tiny House is voor veel mensen een enorm belangrijk onderdeel. De **vrijheid** en mogelijkheid om je huis met je mee te nemen om ergens anders een nieuw **avontuur** te starten is vaak een van de hoofdredenen voor de overstap naar een Tiny house en van grote invloed op de woonbeleving.

Omdat je niet vast zit aan een duur woonhuis ben je vrij in je gaan en staan en het maken van grote beslissingen. Het avontuur, de **uitdaging** en de eenvoud van het leven in een Tiny House spelen een grote rol hier. De **nomadische levensstijl** samen met het **buitenleven** zijn hierbij erg belangrijk. Voor veel mensen is de band met de **natuur** en de **omgeving** van grote waarde. Hierbij speelt de locatie van het Tiny House dus een grote rol.



AVONTUURLIJK



DUURZAAM

Voor sommige mensen is de duurzame kant de belangrijkste reden voor de overstap naar een Tiny House. Het wonen in een Tiny house is de ultieme manier van duurzaam leven. Door je eigen **groene energie** op te wekken, je eigen voedsel te kweken en het verminderen of **hergebruiken** van afval en afvalwater, ligt de focus op het zo klein mogelijk maken van je **ecologische voetafdruk**. Hierbij is het hebben van een **composttoilet** en het hergebruiken van je eigen compost een van de grootste verschillen met een "normaal" huis. Deze **duurzame levensstijl** vertaalt zich vaak verder in **voeding**, het eten van lokale producten, vegetarisch of veganistisch. **Transport**: het niet bezitten of delen van een auto, een elektrische auto of het gebruik van de trein in plaats van het vliegtuig om op reis te gaan. **Consumeren**: door duurzame merken te kopen, tweedehands te kopen, meer te repareren en überhaupt minder te kopen.

Voor deze mensen gaat wonen in een Tiny House hand in hand met zo duurzaam mogelijk leven en iets **teruggeven aan de natuur**. Keuzes die hierdoor worden beïnvloed zijn bijvoorbeeld het wel of niet gebruiken van een houtkachel of het soort isolatiemateriaal dat je gebruikt. De mate waarin duurzaamheid een rol speelt in je huis kan variëren van volledig **off-grid** zijn tot vooral het minder consumeren dat bij een Tiny levensstijl past.



DUURZAAM



SOCIAAL

Voor veel mensen is het wonen in een Tiny House **community** of dorp een heel belangrijk onderdeel van de Tiny House woonbeleving. Het **samenwerken** en leven met gelijkgestemden om een unieke leefomgeving te creëren kan veel bijdragen aan deze experience. **Delen** speelt hier vaak een grote rol: het delen van voorzieningen, het hebben van een **gezamenlijke tuin** of moestuin of een **gedeelde ruimte** om samen te komen voor een maaltijd of spelletjesavond kunnen een groot voordeel zijn wanneer je met meerdere huisjes bij elkaar woont. Binnen deze "gemeenschap" kun je elkaar **helpen**, van elkaar **leren** en voor elkaar zorgen. Het creëren van een **sterke sociale band** kan een van de meest waardevolle aspecten zijn van het leven in een Tiny House.

Daarnaast is het voor sommige locaties vanzelfsprekend om een actieve rol te spelen in de **communicatie** naar buiten toe. Zodra je intrekt in je huisje ben je in feite een expert op dit gebied. Vind je het leuk om **open dagen** te houden en mensen over de vloer te hebben of hecht je meer waarde aan privacy en rust.

De mate waarin iedereen dit onderdeel belangrijk vindt kan enorm verschillen. Sommige mensen vinden het juist heerlijk om zonder buren op een mooi rustig plekje te staan. Voor anderen is het belangrijk om juist de keuze te hebben tussen jezelf terugtrekken in je huisje en het opzoeken van **sociaal contact** met **medebewoners**.



SOCIAAL



MINDFUL

De overstap naar een Tiny House kan zorgen voor een veel **bewustere levensstijl** waarbij je **dicht bij jezelf** blijft. De lage woonkosten maken het mogelijk minder te gaan werken en meer tijd en energie te stoppen in dingen die je belangrijk vindt. Je hebt meer tijd voor familie, je passies of om **jezelf** verder te **ontwikkelen** door nieuwe dingen te leren. Omdat er vaak minder afleiding te vinden is in je huis of je omgeving is het makkelijker om te **genieten van kleine dingen** of je even **terug te trekken** voor een momentje voor jezelf, zoals voor het lezen van een goed boek, een yoga- of meditatie sessie of om gewoon even weg te **dromen**. In een Tiny House is niet alles altijd maar vanzelfsprekend en hecht je meer waarde aan en leer je **leven met de natuur** en de seizoenen.

De **eenvoud** van het leven in een Tiny House en op sommige momenten een stapje terug doen naar de basis kan erg bijdragen aan je woonbeleving. Het meer tot jezelf komen en bewuster bezig zijn en genieten van alles om je heen is voor veel mensen een belangrijk onderdeel van de overstap naar een Tiny House. In welke mate dit een rol speelt voor jouw Tiny House beleving kun je zelf bepalen.



DIY (DO IT YOURSELF)

Omdat veel Tiny Houses zelf worden **ontworpen**, gebouwd of **custom** op maat worden gemaakt, geeft dit een heel andere woonbeleving dan bij een "normaal" huis. Voor sommige mensen is het **zelf ontwerpen** en **bouwen** de belangrijkste factor in de beslissing te kiezen voor een Tiny House.

Het gebruik van je **creativiteit** en de uitdaging om dit nieuwe bouwavontuur aan te gaan is hier de belangrijkste beweegreden. Het leren van **nieuwe skills** en het creëren van iets super **persoonlijks** is hierbij van hoge waarde. Je weet precies hoe alles werkt en hebt het vermogen om onderdelen zelf te **repareren**. Al het onderzoek dat voorafgaat aan het proces draagt bij aan de ervaring en het feit dat je elke cm² om jezelf heen ontwerpt en bouwt, maakt je extra **verbonden** met je eigen huisje. Waar de een voor een kant en klaar huisje kiest of samen met een bouwverwerper aan de slag gaat wil de ander juist alles zelf **uitzoeken** en maken.



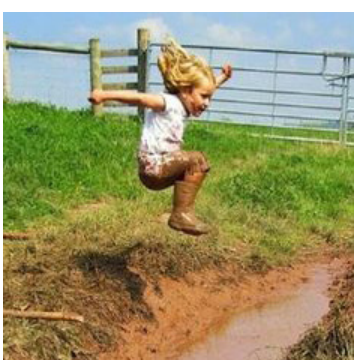
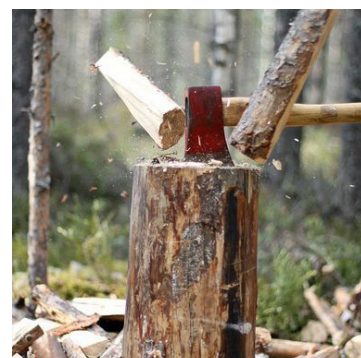
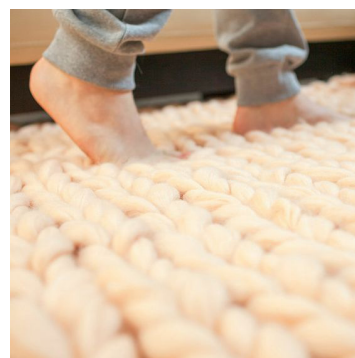
FUNCTIONEEL

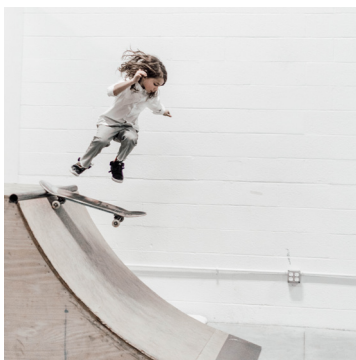
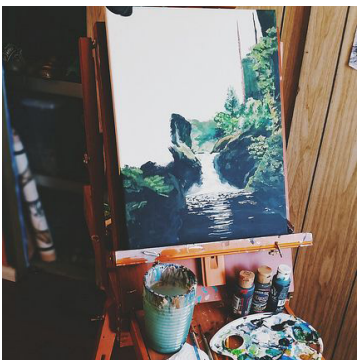
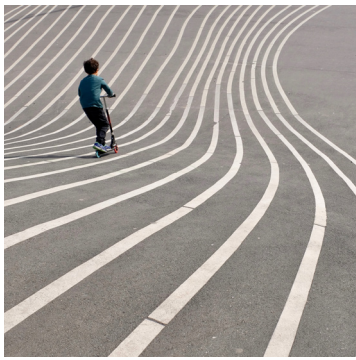
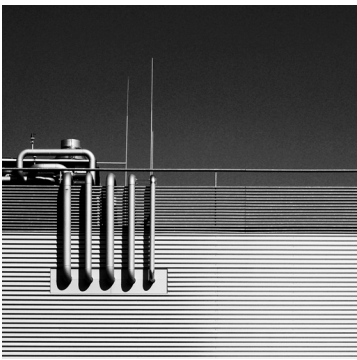
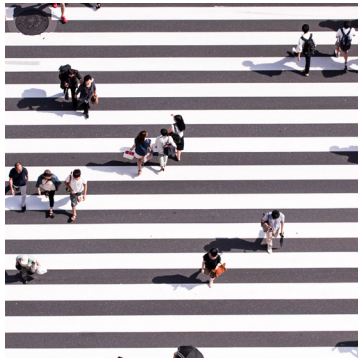
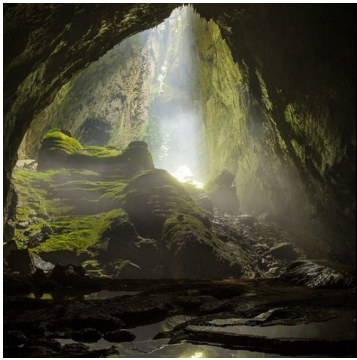
Naast veel veranderingen aan de levensstijl brengt een Tiny House ook veel functionele dingen met zich mee. Klein wonen kan ook heel **handig** zijn. Een klein huis betekent weinig schoonmaken, minder kozijnen om te schilderen, minder vloer om te vegen, geen dingen meer kwijt zijn en minder afwas. Je kunt overall makkelijk bij en **oplossingen** van problemen zijn vaak minder ingewikkeld dan bij een groot huis.

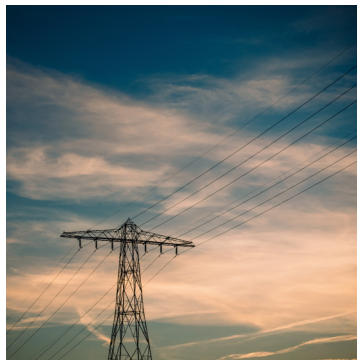
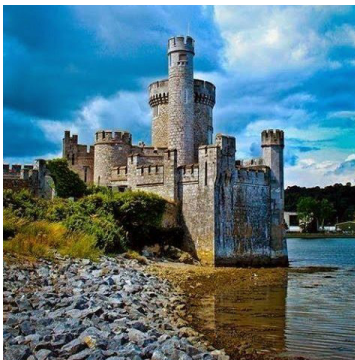
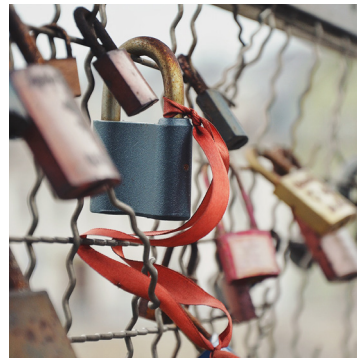
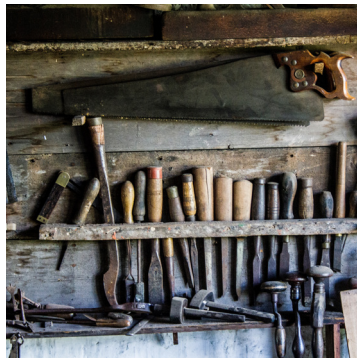
Vind je het belangrijk dat dingen in je huisje **functioneel** zijn of hecht je toch meer waarde aan **comfort**? Dit kan veel bepalen voor het ontwerp van jouw Tiny House. Het kan heel handig zijn om **functies** te **combineren** zodat je bed ook als bank kan functioneren of om **ruimte** te **creëren** wanneer je de trap of tafel opklapt.

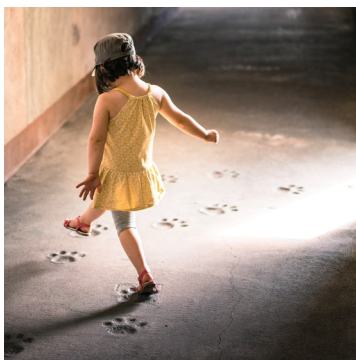
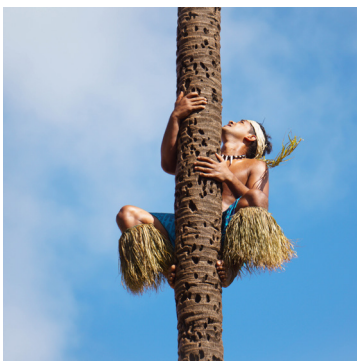
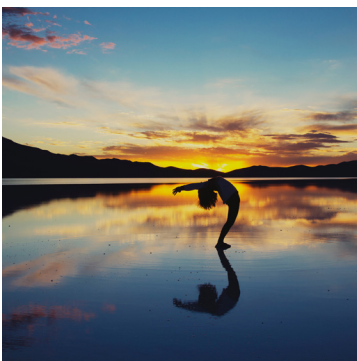
Wat de ene persoon als **praktisch** en functioneel ervaart ziet een ander misschien meer als "gedoe". Voor de een kunnen er nooit genoeg **slimme oplossingen** in hun huisje verwerkt zijn terwijl het voor anderen heel belangrijk is dat het de sfeer heeft van een "echt" huis waar alles een vaste functie en plek heeft. Welke waarde functionaliteit heeft in je huisje is voor iedere (aankomende) Tiny House bewoner anders.

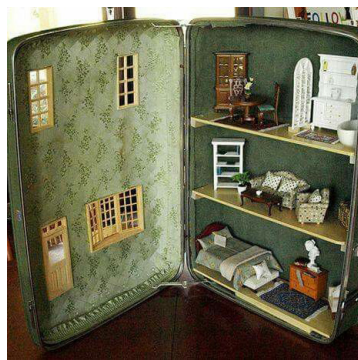
4.4 Moodboard pictures

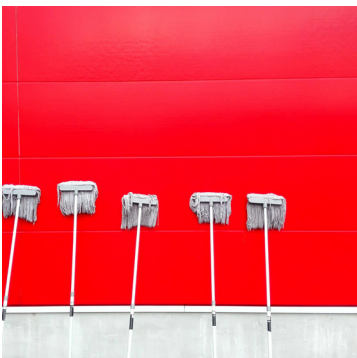
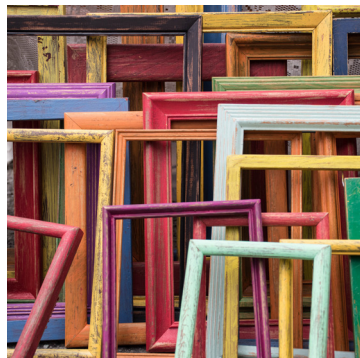
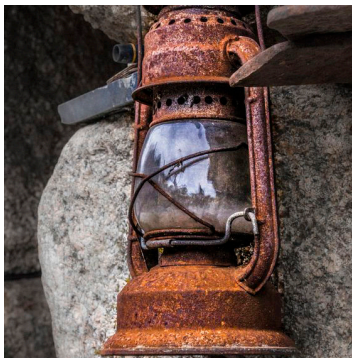
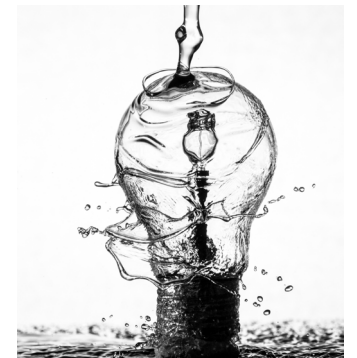
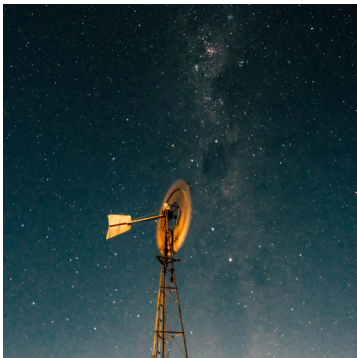
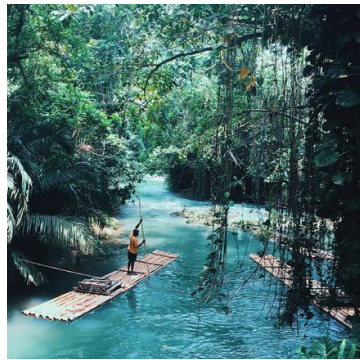
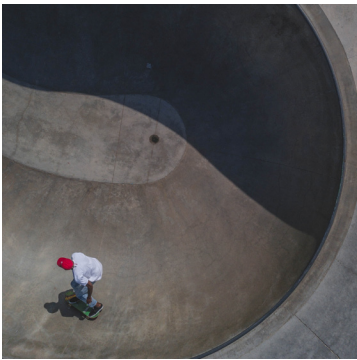






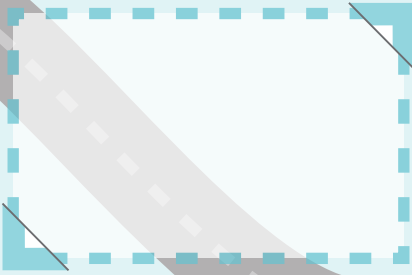




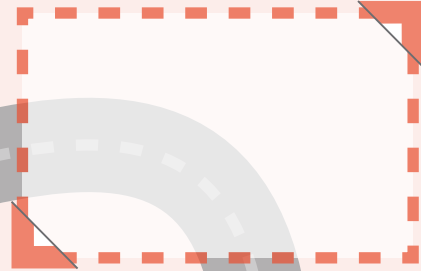


4.5 Roadmap

1. HOE **MOBIEL** WIL JE
DAT JE TINY HOUSE IS?



2. HOE
PERSOONLIJK WIL
JE DAT JE TINY
HOUSE IS?



3. HOE
ONAFHANKELIJK
WIL JE DAT JE TINY
HOUSE IS?



TOILET

WATER

STROOM

KOKEN

4. IN WELKE
OMGEVING ZIE JE
JE TINY HOUSE
VOOR JE?



6. HOE **DUURZAAM**
WIL JE DAT JE TINY
HOUSE IS?

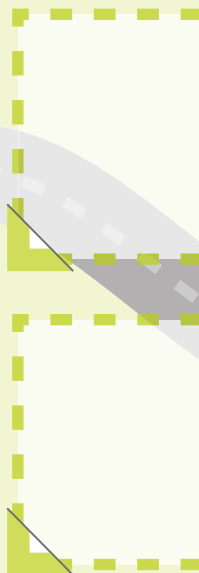
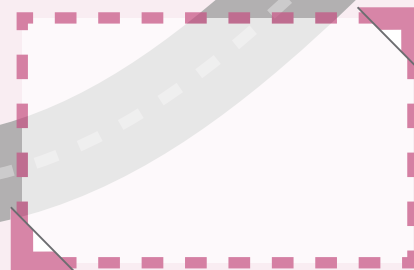


5. IN WELKE
CONTEXT ZIE JE
JE TINY HOUSE
VOOR JE?



WARMTE

STROOM



9-10. MATI
PRIVAC
IN JE TI

IN WELKE
E SPEELT
Y EEN ROL
NY HOUSE?

BINNEN

BUITEN

11. IN WELKE MATE
WIL JE INDIVIDUELE OF
GEDEELDE **FACILITEITEN**
IN JE TINY HOUSE?

SLAAPPLEK

BADKAMER

KEUKEN

WASMACHINE

TRAP

7-8. HOE
FUNCTIONEEL WIL
JE DAT JE TINY
HOUSE IS?

12-13-14. HOE
OPEN WIL JE
DAT JE TINY
HOUSE VOELT?

DAGLICHT

KOKEN

WATER

RUIMTE

CONTRAST





Tiny Roots
by Anne van Essen