TINY HOUSES

A HISTORY THESIS ON THE TINY HOUSE MOVEMENT

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Date 15 - 04 - 2021

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KEYWORDS

Tiny House, Tiny House Movement, Contemporary Lifestyle, Environmental Sustainability, Housing Shortage

ABSTRACT

With a shortage of over 300,000 homes, which will be even more in the coming years, the Netherlands has a social problem that needs to be solved (NOS, 2021; Bremmer & ten Teije, 2020). The Netherlands also needs to take more progressive measures in the field of sustainability in order to meet its goals. The relatively young concept of "tiny house" offers solutions for this (Obbink, 2020; Shearer & Burton, 2019; The International Institute for Industrial Environmental Economics, 2013). However, because it does not yet have global recognition and the tiny house movement is still very young, there is a need to first understand what a tiny house entails, where this movement comes from, and what the reasons are for people to switch to this lifestyle. With the answers to these questions, a more concrete look at the Netherlands will be undertaken. Literature research will be conducted and existing research based on surveys with tiny house enthusiasts will be used to provide answers to the above. This thesis contributes to the interdisciplinary literature on this topic. With the outcome that tiny houses can offer solutions to the housing shortage in the Netherlands and in the field of environmental sustainability, it is recommended to conduct deeper research in the future to get an even better grasp on what ways tiny houses can contribute to this.

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1. INTRODUCTION

This chapter will outline the context of this thesis, giving the objectives and research questions. Next, the contribution of this research will be named and finally, an outline of this report will be given.

Everyone has heard of it: the modern term "tiny house". It is a worldwide phenomenon that originated in America. The so-called tiny house movement came about at the end of the last century and has been known in the Netherlands since 2015. It is a trend to buy and own less and less instead of more and more, as was the case for years. There is a wide variety of current users of a tiny house, as well as those who are interested. Because it is still relatively young, some fairly common questions need to be answered if the movement continues to develop. Where did this movement suddenly come from? What does a tiny house actually entail? Can tiny houses offer solutions for the future? This thesis provides answers to these questions.

At the outset, it is important to acknowledge that the concept of tiny houses discussed in this thesis is a phenomenon limited to developed countries, such as America, Australia, and some countries in Europe. There are many countries in the world where the vast majority of the population lives in small, often self-built houses, without amenities such as gas, water, electricity, or sewage. This is not due to choice, but a necessity due to poverty and lack of opportunity (Shearer & Burton, 2021).

The purpose of this thesis is to gain a better understanding of the relatively young concept and movement. There will be an insight into how the movement came about and what can be considered a tiny house. But also what the reasons are for people to want to live in a tiny house. In addition, insights for the Netherlands will be outlined.

The thesis will answer the following questions:

- 1. Where does the tiny house movement come from?
- 2. What is the definition of a tiny house?
- 3. What are the motives and barriers to living in a tiny house?
- 4. Can tiny houses be a solution for the Netherlands?

This thesis answers the above questions based on a literature review and previously conducted surveys in the US, Australia, and the Netherlands. It contributes to the interdisciplinary literature on the subject and demonstrates the importance of further research into tiny houses, as they can provide solutions to social problems.

First, the tiny house movement will be outlined. In doing so, the history of the movement will be given in chapter 2, and other movements that influence it will be highlighted. Next, an appropriate definition and characteristics of a tiny house will be considered. It should be said that there is not one global definition, as it is still a young phenomenon and each country may have its own rules.

Chapter 3 looks at the contemporary tiny house lifestyle, first outlining people's motivations. There is a difference between people who want to live alone and by themselves and people who strive for a community with like-minded people, and this is briefly highlighted in chapter 3.2. Then the motives and barriers for people in America and Australia are highlighted, and the differences of these will be named.

The final chapter focuses on the movement in the Netherlands. A brief description of how this movement came about in the Netherlands will be given, and then the motives and barriers for Dutch people will also be mentioned. Finally, chapter 4.2 will examine whether tiny houses

offer solutions to current Dutch problems. First, the current housing shortage in the Netherlands will be addressed and show how tiny houses can provide a solution to this, followed by environmental sustainability in the Netherlands. Finally, highlighting how more and more municipalities in the Netherlands are becoming interested in tiny houses and that some are even opening up test sites to provide for further research will be done.

In the end, it can be concluded that in general, tiny houses can offer a solution to the current housing shortage problem, but that further research into this is advisable. As well as conducting future research on the environmental sustainability of a tiny house in the Netherlands. Tiny houses will generally contribute to a more sustainable society, but further research on this is also desirable.

2. THE TINY HOUSE MOVEMENT

Tiny houses have become extremely popular in recent years, especially in the United States and Australia (Shearer & Burton, 2021; Mangold & Zschau, 2019; Shearer & Burton, 2018; Kilman, 2016). Until this century, a "the bigger, the better" mentality prevailed, but recently a shift in this attitude has been detected (Shearer & Burton, 2021, Mangold & Zschau, 2019; The International Institute for Industrial Environmental Economics, 2013). Business Insider Inc. wrote an article last year saying that tiny homes have become "undeniably popular during the Coronavirus pandemic" and claiming that "more than half of Americans would consider living in a tiny home" (Business Insider, 2020). People have become aware that things can also be smaller. Superfluous spaces are no longer the trend and "the bigger, the better" has been (partly) replaced by "less is more". Where did this change come from all of a sudden? In this chapter, this will be briefly examined by first looking at the history of smaller houses from the last two centuries in general, followed by the country of origin of the contemporary tiny house movement. Secondly, there will be a search for the definition of a tiny house followed by the characteristics of a tiny house.

2.1 BRIEF HISTORY OF THE TINY HOUSE MOVEMENT

The American Jay Shafer is seen as the 'founder' of today's tiny house movement. He built his first tiny house, an eight-squaremeter hut on wheels, in the United States in the late 1990s. His mobile home is recognized as the archetypal style for tiny houses (SOURCE). Because more and more people wanted to live this way after Shafer, the worldwide concept of tiny housing was born in the United States (Tiny Home Builders, n.d.).



Jay Shafer in front of his first Tiny House

Until recently, after Shafer, many others slowly occurred and the global concept of tiny housing originated in the United States. In this case, we are talking about the modern concept as we know it, the tiny house movement. But tiny houses as such have existed for years, centuries. In the time of hunters and gatherers, people already lived in small homemade huts. And a tiny house on wheels was already common in many areas, just think of the Vargo or Gypsy wagon from the 16th century in Europe. Similarly, mobile home (trailer) parks have been around for years, dating back to the 1800s. According to Shearer and Burton (2018), in contrast to modern tiny houses, these are not seen in Australia as the hip trend against consumerism, but as the precursors of the slums.



Gypsy Wagon

However, the trend to live smaller, which was not labeled as such at the time, has been there since around 1850, according to Dr. April Anson (2014), an assistant professor of Public Humanities at San Diego State University. According to her, a search for "freedom" emerged in America at that time and was a counter-reaction to consumerism. This trend aimed at a more individualistic and simpler life. The famous 19th-century writer Henry David Thoreau influenced the trend towards smaller living by writing a book about it: 'Walden; or, Life in the Woods' (1854). The text reflects his experience of a simple life in a natural environment. He lived for two years, two months, and two days in a self-constructed cabin in the woods as a (social) experiment and spiritual journey of discovery. It was also seen as a manual for self-reliance (Walden, Wikipedia, n.d.). Thoreau's reasons for living on a smaller scale are currently also motives for many people to exchange a 'normal' house for a tiny house. Besides the financial

benefits, this also has to do with the environment. But Thoreau went even further than that, arguing also on a spiritual level. According to him, living smaller is better for the soul and large houses are a worry and even a burden for owners. What he wants to show is that you should use what you need, rather than consume what you can afford and simplify things rather than complicate them (Diguette, 2017).

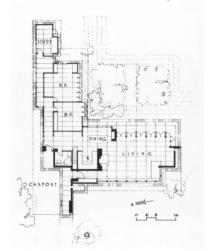


Replica of Thoreau's Cabin

Another influential time on the way people thought of dwellings, was the post-war period. Designing after WOII was a turning point for many architects and urbanists. Technologies and materials developed during the war were given other purposes and were used for the return to civilian life. There was a focus on many innovative technologies, electronics, and cars from the war. There was a huge entry of women into the labor force, which affected the design of the domestic spheres. In addition, women became busier, and running the household was not necessarily the first priority anymore, which meant that houses had to be more efficient. The pursuit of modernization in this reconstruction led to a rehousing that can be said to have influenced the view of household qualities (Cohen, 2016).

In 1954, the world-famous and influential architect Frank Lloyd Wright wrote the book 'The Natural House', in which he describes what a suitable home for a family in a democracy should be. This book describes modest houses for people of limited means. He provides readers with a step-by-step plan for building the "Usonian Houses", a simple method that allows one to build a frugal yet beautiful home themselves. These "Usonian Homes" are typically small homes with one story, little storage space, and no garage. They are often L-shaped and very enclosed to the public road, but rather open to the backside since that is private land.

At the time, Wright's vision had a great influence on the scalability of housing and the way people dealt with it (Jacket, 2017). This was mainly to do with the large-scale villas, and the popularization of the signature-architects XL. But his Usonian Homes are instead a good example for what at the time was an indication to go in a different direction, a new trend that was at odds with the large-scale luxury homes.







Paus-Leighey House, Usonian House by Frank Lloyd Wright

Another event with a direct impact on the way people wanted to live was the environmental

movement that started in the 1960s. From this period onwards, concerns arose about air and water pollution, among other things. Because smaller houses have less impact on the environment and are therefore often more sustainable, the environmental movement is for many an incentive to live in a smaller home (Kilman, 2016; The International Institute for Industrial Environmental Economics, 2013). More on the sustainability of tiny houses follows in chapter 4.



Signs of protest describing the problems
Related to air pollution

But where does the most recent turning point come from where humanity is increasingly leaning towards the "less is more" rather than the "the bigger, the better" mentality? Where in 1978 the average single-family house in America was still 165 m², in 2007 this average rose to over 230 m². So until recently, the floor area of an average single-family house in America continued to rise, until the global economic recession. According to Dr. Anson, the tiny house movement is a direct response to this global housing crisis (Anson, 2014). This impact did not go unnoticed in Australia either, where, like in America, tiny houses were quickly perceived as a solution to the unaffordability problem in the housing market (Weetman, 2018). The housing market collapsed and an average home was no longer affordable for many. They were forced to live on a smaller scale in order to make ends meet. The high unemployment rate, unaffordable housing costs, and the decline in credit that resulted from the global financial crisis may be the reason for the rise of the Tiny House Movement. Also, J. Ford and L. Gomez-Lanier, respectively Masters and Assistant Professor in Textiles, Merchandising, and Interiors, College of Family and Consumer Sciences at the University of Georgia claim that the general interest in "minimizing, de-cluttering, and downsizing" from the 19th-century romantic era and the 20th-century credo "less is more" are a direct result of the post-crisis period of 2008 (2017).

Besides financial reasons for living smaller, according to Weetman, Anson, and Evans, it also has to do with the sustainability of homes (Lima, 2020). Ford and Gomez-Lanier (2017) even state that the main assumption is that in tiny houses "homeowners can reduce the environmental impact and increase affordability by reducing their spatial footprint". At the end of this chapter, an elaboration on the motives for people to switch to a tiny house will be given.

It has become more accessible today to buy a tiny house or build one yourself. Television programs, like 'Tiny House Nation' from Fox and shown on Netflix, 'Tiny House Hunters', 'Tiny House Big Living', and 'Tiny House Paradise' on Discovery+, and 'Tiny House World' on IMDVTV, have made tiny houses very popular. There are many websites and YouTube channels, such as the most popular channels 'Living Big In A Tiny House' and 'Tiny House Expedition',

about building one. There are also more and more companies that build and sell tiny houses or help with self-building and provide plans and/or building kits. According to The Spruce, a website offering practical, real-life tips and inspiration for your home, the overall best tiny home builder company is 'Minimaliste', because of the beautifully crafted, the flexibility of the design and the sustainability of tiny houses on wheels (Treece, 2021).



Tiny House Nation (whatsnewonnetflix.com, 2021)

From the above, as well as the general assumption of Ford and Gomez-Lanier (2017), it can be concluded that the movement has arisen mainly to increase the affordability of housing by reducing the spatial footprint and reducing the environmental impact.

2.2 INFLUENTIAL LIFESTYLE MOVEMENTS

There are several movements in human history that share the same ideals as the tiny house movement. Mangold and Zschau found through literature research that examples of other movements that have influenced the tiny house movement include "Thoreau's transcendentalism, the back-to-land movement, pragmatism, environmentalism, voluntary simplicity, downshifting, as well as minimalism". Here, the voluntary simplicity movement and minimalism have the most influence on the American tiny house movement concerning self-understanding and cultural values (Mangold & Zschau, 2019).

2.2.1 VOLUNTARY SIMPLICITY MOVEMENT

According to Mangold and Zschau, the voluntary simplicity movement stems from earlier movements. Transcendentalism is one of them. This is a literary and philosophical movement from the 1830s and 1840s that propagated new ideas in the field of philosophy, literature, culture, and religion. Its adherents supported the idea that man was at his best when he lived independently and self-sufficiently (Wikipedia). According to Mangold and Zschau, the history of the voluntary simplicity movement also includes religious groups such as the sixteenth-century Puritans and the seventeenth-century Quakers.

American author, speaker, educator, consultant, and media activist Duane Elgin calls voluntary simplicity a way of life that is "outwardly simpler and inwardly richer" (Elgin and Mitchell 1977). According to Grigsby (2004), the goal of creating a "more fulfilling life" is achieved with voluntary simplicity by "reducing clutter and minimizing activities that one does not find meaningful". Reasons for people to join the voluntary simplicity movement may vary. Where for one it is about environmental awareness, for another it may be about personal growth. Another argument is being closer to nature, but usually, a combination of the above reasons is central (Grigsby, 2004). According to both Alexander and Ussher (2012) and Boujbel and d'Astous (2012) who have both done research on the voluntary simplicity movement, followers of the voluntary simplicity lifestyle are happier than people who have not adopted this lifestyle.

2.2.2 MINIMALISM

Minimalism is a philosophy that, as the name suggests, is about living simply by eliminating unnecessary things from life so that the focus can be on the things that matter, the things that really matter and have value (Mangold & Zschau, 2019). Jason Rodriguez wrote a research article on the minimalist movement in the US in 2017. In it, he claims that this movement is merely an individual reaction that is mainly about reducing consumption. According to him, there is no collective interest in tackling the capitalist system (Rodriguez, 2017).

However, naming one definition for minimalism is difficult because the reason for joining this movement may differ from person to person. In any case, the common denominator of all definitions is to stop having unnecessary things in order to live a meaningful and happier life (Mangold & Zschau, 2019).

2.3 DEFINITION AND CHARACTERISTICS OF A TINY HOUSE

Because it is still a relatively young concept, there is limited information available and few academic papers have been written on the definition of a tiny house. Shearer and Burton (2018), in their article, have managed to articulate the typology of tiny houses and describe the defining characteristics which allow a tiny dwelling to be considered a tiny house. Nevertheless, to date, there is no globally recognized definition. The definition differs per country, community, or association. Shearer and Burton have researched the broad spectrum of tiny houses and have come up with a typology for tiny houses in Australia. In the Netherlands, a foundation was established in 2016: Stichting Tiny House Nederland, which prescribes what they consider to be a tiny house. In this thesis, in addition to the characteristics of Stichting Tiny House Nederland, those of Shearer and Burton are also used as starting points for tiny houses, as the tiny house movement is most developed in Australia (Shearer & Burton, 2018).

Stichting Tiny House Nederland describes a tiny house as "a new form of housing with a clear underlying philosophy. They are small, fully-fledged and detached houses with a floor area of up to 50 square meters, with the smallest possible ecological footprint. People live permanently in tiny houses and they are not meant to be used for recreation" (What are (not) Tiny Houses?, 2020). A distinction is made between two types: transportable and non-transportable tiny houses.

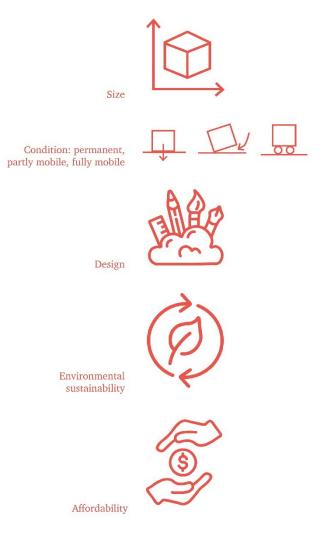
Tiny houses are defined as small dwellings with corresponding characteristics. They can also be mobile or permanent. Small flats are not included. Although they can be 'tiny', they generally have few characteristics in common with the tiny house.

The first and most obvious characteristic, and the one that every country agrees on, is the size: tiny houses are small. The rule for the maximum size may vary. According to Shearer and Burton, it must consist of less than 40 square meters. According to Appendix Q of the US-based International Residential Code (IRC), a "comprehensive, stand-alone residential code which establishes minimum regulations for one- and two-family dwellings and townhouses using prescriptive provisions and is founded on broad-based principles that make possible the use of new materials and new building designs" (International Code Council, s.d.), this must even be less than 37 square meters, which is based on "the maximum possible size that can be built on a trailer base toward by a standard vehicle" (Mitchell, 2014).

In Europe, the weight of a tiny house is considered rather than its size, due to transport regulations that require it to weigh less than 3.5 tonnes (Tiny Houses Consulting UG, 2018). The IRC does not specifically require a tiny house to be detached. This means that according to those standards, a small flat of less than 37 square meters falls within the concept of a tiny house. However, most people in the tiny house movement do not consider a studio apartment to be a tiny house. As mentioned earlier, the description of Stichting Tiny House Nederland states that it must be a detached house of no more than 50 square meters. Meeting a specific size or weight does not necessarily make you a tiny house. The next requirement has to do with the degree of mobility.

The degree of mobility can be divided into three types: fully mobile (on wheels or a trailer), partly mobile (on a temporary foundation, skids, etc.), and permanent (fixed to the ground, on a foundation). Each region, country, or community also has its own rules in this area. For some, a tiny house only belongs to the movement if it is partially or fully mobile. For the purposes of this thesis, tiny houses can fall into any of these three categories. The degree of mobility also influences the legal status. A mobile tiny house often belongs to the category of campers or caravans, while a permanent tiny house is legally considered a home (Shearer & Burton, 2018).

For many people, design is also a critical point in being able to call something a tiny house. Because you only have a limited amount of space, it has to be designed as conveniently and efficiently as possible. In addition, many tiny houses exude innovative architecture. Many tiny house owners have also been the builder. In doing so, they are (completely) in control of the construction, layout, and design and, according to Anson, this reflects the "Do It Yourself" philosophy



Potential characteristics for a Tiny House

whereby the builders want to live in it themselves (Anson, 2014).

When designing a tiny dwelling, in addition to the use of space, the use of materials must also be considered. This often goes hand in hand with the sustainable trend of recent years. It is popular to make your tiny house as sustainable as possible.

The trend in recent decades towards more sustainable living has had an impact on the way people want to live, as explained in the previous chapter on the history of tiny houses. The number of possessions is decreasing and it is becoming more and more normal to share or rent things, which can reduce the amount of space needed to live. This combined with the need to reduce our environmental footprint makes a tiny house suitable housing. The degree of environmental sustainability is therefore also an important requirement for being able to call a dwelling a tiny house. They can be built with natural or recycled materials, have lower water and energy requirements and, because they are much smaller than average homes, emit fewer substances during the construction and production of the materials (The International Institute for Industrial Environmental Economics, 2013; Shearer & Burton. 2018).

One aspect that is also considered is the affordability of the house. Indeed, for many, this is (one of) the main reasons for living smaller (Shearer & Burton, 2018). The question is whether the price of the structure is or should be a characteristic of a tiny house. However, even though a tiny house in itself is generally considerably cheaper than a standard house, the cost per square meter of a tiny house can be close to or even higher than that of a normal house (Shearer et al., 2016). Besides, some people want a tiny house for weekends or as a holiday home. Their main

driver is then not necessarily the financial benefits, but that does not mean that theirs could not be a typical tiny house. Also, the prices of tiny houses vary, depending on the materials, the technology, sometimes even the location. For this thesis, it is not a requirement to be below a certain price to be able to call itself a tiny house. Also, affordability does not have to be the main driver of the owner, even though it is the main reason for people to buy.

Furthermore, a tiny house can be viewed from both a technical and social point of view. According to Verhoeven's essay on the tiny house movement in the Netherlands, written at the University of Twente, examples of both aspects are as follows:

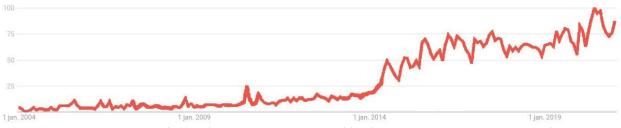
Social aspects can contain the effective use of space, a good design to meet the needs of the residents, and serving as a vehicle to a lifestyle that the resident wishes to pursue.

Technical aspects can consist the design, the floor area, and the materials (University of Twente, 2019).

All in all, it can be concluded that there is no global academic definition for this movement. Each country, foundation, or association may have its own requirements and definition, which is why the tiny house movement can currently be seen as a popular phenomenon. Perhaps in the future, there will be a general definition, but for now, it is still a wild term that changes with every country.

3. THE CONTEMPORARY TINY HOUSE LIFESTYLE

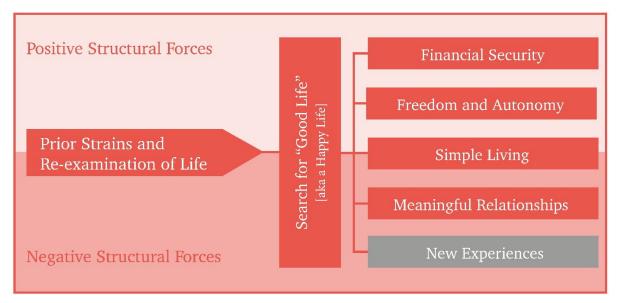
The search term 'Tiny House' has been used frequently in Google in recent years. The graph showing this search term on Google between 2004 and 2021 shows that this line increases enormously from 2014 onwards. The previous chapter described how the global economic recession of 2008 prompted many people to switch to a tiny house. Mangold and Zschau (2019) conducted an exploratory study of the most important motivations for people in the United States. Including the financial reasons, five motivations emerge strongly in the interviews they conducted with various people from twelve different states. This chapter will look at these motivations and thereafter focus on America and Australia, describing the main drivers and barriers for each country.



Google search term 'Tiny House' worldwide, 1-1-2004 to 1-1-2021 (Google, 2021)

3.1 MOTIVES FOR THE TINY HOUSE LIFESTYLE

Mangold and Zschau (2019) claim that there are no systematic studies on people's motives for living in a tiny house. Hence they conducted research into the most important reasons for people to switch to the tiny house lifestyle. They found concepts such as "downsizing", "cheap(er)", "more self-reliant", "nurture deeper relationships with friends and family", "embrace a simpler life", and "more affordable lives". In general, they can conclude that the people interviewed are engaged in a deep-seated search for the "Good Life". With the results, they created a simple conceptual model for the appeal of the Tiny House Lifestyle, as shown in the conceptual model below. They claim that the tiny house movement is a new attempt to answer an ancient inquiry: How can one live a Good Life? A tiny house lifestyle would be used by people to achieve a Good Life. As in the study by Boeckermann et al. (2018), sustainability concerns appear to be secondary motivations for people. Their individualistic and pragmatic view of simple living is more important. As is autonomy, as well as experiences and relationships as a means to happiness. Therefore, from their research into the most important reasons for people to switch to this lifestyle, the five clear focal points emerge: financial security, freedom and autonomy, meaningful relationships, simple living, and new experiences (Mangold & Zschau, 2019). These five drivers are briefly discussed.



Simple conceptual model for the tiny house lifestyle appeal (Mangold & Zschau, 2019)

3.1.1 FINANCIAL SECURITY

Directly or indirectly, all Americans interviewed referred to the goal of being financially secure. This included reducing spending, saving money, and paying off debts.

3.1.2 FREEDOM & AUTONOMY

The majority of all respondents, 83 percent, indicated a desire to have control over their own lives. They themselves want to determine where the quality of life should lie. For many, it is a desire to have more time and money, or even to get away from "contemporary slavery" which they say consists of long working hours, debts, mortgages, and a life based on consumption. They want to free themselves completely from this and regain autonomy to "enjoy life more".

3.1.3 MEANINGFUL RELATIONSHIPS

Broadening horizons in the social field also features strongly in the results. Both strengthening family bonds and building new relationships are the underlying thoughts here. Meeting new people and generally spending more time with people contribute to a happier life, according to many, and can be achieved by adopting a tiny house lifestyle. They see this lifestyle as a means to strengthen existing relationships and at the same time "naturally" create new ones. Therefore, it can be concluded that despite the independence that often comes with living in a tiny house, people still attach great value to social aspects.

3.1.4 SIMPLE LIVING

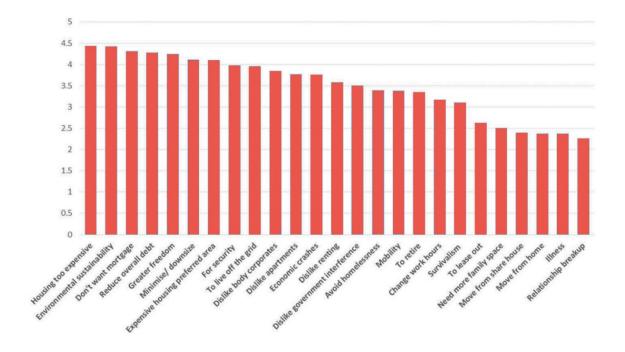
The people interviewed by Mangold and Zschau all seem to want a simpler lifestyle in a smaller space. It is often mentioned that they want to only own the essential necessities. Clutter is something they want to let go of and everything they have ever bought is reconsidered. A dichotomy can be drawn between the interviewees' reasons for a simpler life. Everyone gave their personal interest as a reason in the first place, varying between arguments such as simplifying daily life, having a more functional house, or saving money. But some had

environmental arguments for this choice, in addition to personal reasons. This is just under half, namely 43 percent. They want to live a more environmentally conscious life and/or reduce their carbon footprint. What Mangold and Zschau conclude is that people's environmental reasons are of secondary importance. Their personal benefits come in the first place.

3.1.5 NEW EXPERIENCES

Gaining new experiences also came up for everyone in the interviews. For some, this means pursuing (new) hobbies or passions, and for others, it means traveling and seeing (new) things. Many talk about wanting to spend more time outdoors and for some this goes hand in hand with playing a sport. Living in the now, living in the moment, and having experiences, is what for the vast majority of these tiny house lovers is the path to happiness.

Mangold and Zschau conclude that a simple and autonomous way of life, where personal experiences and relationships are important, is unique to this lifestyle. Environmental reasons are also part of this, but are often secondary, according to them.



Main drivers for building tiny houses, a multi-national survey analysis in theoretical context (Shearer & Burton, 2018)

3.2 LONE-WOLF VS. COMMUNITY

The pioneers of the tiny house movement had motives that, apart from potential environmental reasons, concerned them personally. They wanted to change their lifestyle or escape modern society. Freedom and independence were generally the main motivations. Their house was self-sufficient or even mobile. As this concept grew, however, people increasingly clustered together, so that tiny house enthusiasts can now be divided into two types: the original "lone-wolf" and the community-seekers, those who wish to live in a community with like-minded people. The lone-wolf no longer needs to flee from society, but can now join a community of peers. Tiny

house owners do not necessarily have to be alone anymore; they can also be families, seniors, and even students (Bartlett, 2016).

In a tiny house community, 'involvement' is central. While the house can still be self-sufficient, independent, and mobile, the owner seeks support, involvement, and togetherness from likeminded people. They share the same philosophy of life and that is what binds them together, and what can make this type of community close-knit. We will now look at the lifestyle within a tiny house community in the USA and Australia.

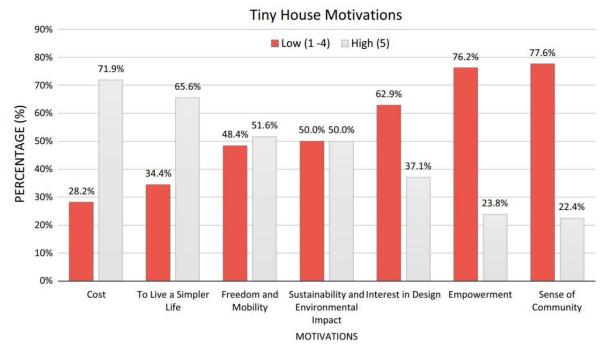
3.3 TINY HOUSE LIFESTYLE IN THE USA

According to Mangold and Zschau (2019), the trend of this global phenomenon is particularly impactful in America. In the previous chapter on the genesis of the tiny house movement, it can be read that the founder is from America and that this country has developed the furthest and fastest so far. For that reason, we will now look at the tiny house lifestyle in America. Firstly, the motives of Americans, derived from a survey, will be briefly mentioned, and thereafter, the barriers to this movement in this country will be listed.

3.3.1 MOTIVES FOR AMERICANS

Boeckermann, Kaczynski, and King (2018) wrote a scholarly article for the Journal of Housing and the Built Environment that examined the motivations and satisfaction of tiny house residents in America. To examine motivations, living arrangements, and satisfaction, they conducted a Tiny House Community Survey in 2017. From this, they were able to conclude that the main reason for Americans to live in a tiny house is related to cost. A whopping 71.9% of those surveyed gave this motive the highest score. Charlie Kilman writes in the Undergraduate Journal of Humanistic Studies for Carleton College, that saving money is the biggest motivator (2016). According to him, people like to own their own home, despite it being very small. And tiny houses are a good solution for many in this regard, as they are more affordable compared to "normal" houses. The economic factors are followed by "the desire to live more simply with less consumerism." In third place are freedom and independence. It is striking that exactly half of those surveyed indicated that sustainability and environmental impact is a motive for switching to a tiny house, while for the other fifty percent this motive is not perceived as important. Less than 25% say they do it for empowerment and a sense of community (Boeckermann et al, 2018).

Furthermore, another interesting result is the fact that the people who are most satisfied with their tiny house have a simple lifestyle as a high motive. A correlation with respondents of this motive as the only one can be seen with the satisfaction of their house (Boeckermann et al, 2018).



Tiny House motivations frequencies (Boeckermann et al, 2018)

3.3.2 BARRIERS IN THE USA

The websites 'treehugger.com' and 'thetinylife.com' both write about the biggest barriers for people to switch to the tiny house lifestyle. In these, 'land' is mentioned at the top. Many people do not have their own land and it is expensive to get it. Besides, people generally like to live in or near a city because of their work and to be close to amenities and facilities. Often the purchased land is the most expensive part of the tiny house which makes living in a relatively cheap house, suddenly a lot more expensive (Alter, 2018 & Mitchell, 2020).

Another significant issue is the laws and regulations. Each country has its own rules, and each municipality may have minimum requirements for the square footage of a house, for example (Alter, 2018). Tiny houses encounter obstacles to urban integration due to current regulations that discourage building tiny houses and even make it impossible in some urban places in America by prohibiting it there (Krista, 2018).

Another potential obstacle is wages. People often need a loan to buy a home. To purchase a tiny house, loans are often not easily provided because banks feel that they do not have a good resale value. However, there are loans available to purchase recreational vehicles and trailers, but the downside is that the interest rates on these are very high (Alter, 2018 & Mitchell, 2020).

Surely, there are many more barriers for a lot of people, but these are the three barriers that can be an obstacle or even a real problem for the greatest number of people. In addition to land, laws, and loans, "social pressure" and "fears" are also given as reasons for not starting a tiny house (Alter, 2018 & Mitchell, 2020). However, these are such personal reasons that this thesis leaves them aside.

3.4 TINY HOUSES LIFESTYLE IN AUSTRALIA

3.4.1 MOTIVES FOR AUSTRALIANS

In an article by Shearer and Burton published this year, they report on a study of the attitudes of people in Australia who are interested in tiny houses. Those interested are different types of people: from young people of the "millennial" generation to older, single women, which is increasing in Australia and whose risk of becoming homeless is increasing, due to not having accumulated enough pension (Shearer & Burton, 2021; Petersen & Parsell, 2015).

The reason for people to want to switch to a tiny house is in several aspects. Shearer and Burton's (2021) research shows that the motives of Australians are close to the motives of Americans. For example, economic factors are also number one among those down-under. House prices of detached houses in Australia have increased dramatically since the COVID-19 pandemic (Wiesel et al, 2020).

Environmental sustainability is given as another important driver. People are more aware of their ecological footprint and therefore, want to live in a more sustainable house. It is the second most important driver for Australians to switch to a tiny house (Shearer & Burton, 2021).

Freedom is the third motive given. It must be said that this term can be taken very broadly. For some, this means being able to live free of debt. But also less or no obligations of work belongs to the subject of freedom. The majority of Australians who participated in this survey indicated a preference for a tiny house on wheels, rather than a permanent or semi-mobile home. This fact can also be related to the need for freedom. In addition, a number also indicated to prefer to spend their money on experiences rather than material possessions, whereby you can say that it is about freedom of choice in what you do with your money. Freedom from regulation also came out strongly. Although further on it can be read that, according to this brief research into the barriers in Australia, this is not always easy for everyone.

3.4.2 BARRIERS IN AUSTRALIA

According to Shearer and Burton, some barriers can get in the way of people in Australia's dream of a 'tiny house on wheels' (THOW) tremendously. The building regulations of local governments play a big role in this. What makes it tricky is that each local government in this country may have its own rules regarding this concept. This makes it a complex one, as these regulations can vary greatly. More conservative municipalities are less open to this movement or even have a negative attitude towards it (Evans, 2018). Local Australian governments impose restrictions that impact on tiny houses and as a result, there is a lot of advocacy for the THOW to be designated a caravan rather than a permanent home. Many local councils have agreed to this, but as a result, there are currently restrictions on the length, height, width, and weight of such a THOW, which in turn greatly hinders builders for that reason. Therefore, they are often only allowed on designated caravan sites. Besides, only limited periods are allowed to live in the caravan, but this also varies by municipality and government. There is a lot of searching by supporters of the tiny house movement for ways to get around these periods so that it is possible to live in a caravan, or THOW, for longer periods. The potential option of renting out backyards on which a THOW can stand was raised by the Tiny House Resource Guide, as was the creation of tiny house villages or lot housing (Bares et al., 2017). Residential zones with a certain density or caravan parks already exist today. However, again there are all kinds of minimum standards attached to them.

Then there is a financial barrier for Australians. Namely, it is not easy to obtain conventional housing finance so this usually demands a relatively fixed income or own savings. Buying land to put the tiny house on is often the most expensive cost of everything, but it is not necessarily necessary for a tiny house resident to also directly own the piece of land. However, it's not always easy to find a piece of land to rent that first of all, within the laws and regulations, one is allowed to live on, and where you also get permission from the owner to stay on it with your tiny house. The owner may also have to deal with all kinds of rules that suffered for him if he wants to rent out his piece of land to a tiny house resident. Therefore, they are often not very interested in renting it out to someone with a tiny house (Shearer & Burton, 2021).

It can be concluded that economic factors and cost are the number one reason for people in both countries to live in a tiny house. It is striking that the second most important factor for Australians has to do with environmental sustainability, while in the American survey only half indicated that this is one of their important reasons. The assumption that Australians are more environmentally conscious can be made here. For Americans, leading a simple life is number two. For both countries, freedom is put at number three. However, this is still a broad term and can be interpreted in different ways.

Furthermore, both countries have more or less the same barriers: obtaining land to live on, both because of the cost and because of building regulations, is the biggest obstacle.

4. TINY HOUSES IN THE NETHERLANDS

4.1 THE TINY HOUSE MOVEMENT IN THE NETHERLANDS

4.1.1 BRIEF HISTORY OF THE TINY HOUSE MOVEMENT IN THE NETHERLANDS

The Dutch have been rather timid on this subject and the tiny house movement came to the fore a little later, as for the rest of Europe. The Dutch pioneer is Marjolein Jonker, who started building in February 2015 and officially became the first Dutch person to live in a tiny house in May 2016. She then built her own mobile, bio-based and self-sufficient tiny house and is now working as an ambassador for the Tiny House Movement (Wie is Marjolein, 2017).

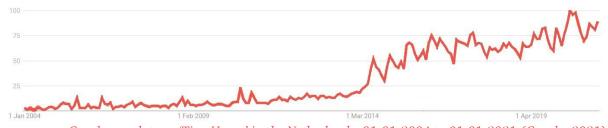
There has been a steep rise in the average size of homes in the Netherlands over the past fifty years, while the average size of families is getting smaller and smaller, and in addition to these

larger homes, people continued to improve in material wealth (Jonker, 2017). The Dutch pioneer Jonker says that a change is currently taking place where people realize that happiness cannot be found in the amount of space or the number of possessions. Additionally, many people have financial problems or even serious debts because of this consumerism lifestyle. And so in recent years, this movement has been increasingly embraced by the Dutch.



Dutch pioneer Marjolein Jonker (Jonker, 2017)

4.1.2 MOTIVES FOR DUTCH PEOPLE



Google search term 'Tiny House' in the Netherlands, 01-01-2004 to 01-01-2021 (Google, 2021)

From the survey in 2018 by 'Tiny House Nederland' (Jonker, 2020) in which 873 tiny house enthusiasts participated, some data can be extracted. This shows that the motives for switching to a tiny house are very diverse. Nature and freedom came up most often. In addition, financial reasons were also often given, this had mostly to do with the cost since tiny houses are generally cheaper than an average 'normal' house. But for some, it was a desire to be financially independent or to be financially flexible. Motivations such as environment and sustainability were also mentioned. What is striking about the data is that a clear difference can be made between older respondents, mainly people over 50 whose children have left home, and young people who are still at the beginning of their careers. Here, the older ones had often lived in a conventional house for most of their lives, and have experienced that they have too much space left over after the children have left home. This is a valid reason for the desire for a tiny house

for many of these older people. Among the young people, the desire for a tiny house is related to the (too) expensive owner-occupied houses on the one hand, and to the waste of money of continuing to rent on the other. This is an argument for them to be able to buy a house without having to take out a huge mortgage (Jonker, 2020). USP Marketing Consultancy, a Dutch market research firm for construction, installation, do-it-yourself and residential sectors, concurs with this data from Tiny House Netherlands: their results also show that the largest group of interested people are both young people up to 35 years of age and the so-called empty nesters (50-75 years). According to them, tenants are also particularly interested and as many as 29% of social tenants have the ambition to potentially live in a tiny house (Forschelen-Janssen, 2020).

Furthermore, it can be taken from the survey that all respondents, both young and old, would have a need to live in a community with like-minded people. In doing so, Jonker (2020) states that they can make their point by showing the world that there are alternatives to "living in a consumer society".

4.1.3 BARRIERS IN THE NETHERLANDS

The Netherlands has legislation that imposes an environmental permit on any type of dwelling based on the 2012 Building Code (Bouwbesluit 2012). This sets out the minimum requirements that the house must meet, such as safety, usability, technical requirements, health, energy efficiency, minimum dimensions of living space, and protection of the environment. This does not take into account tiny houses specifically. However, it is possible to deviate from these requirements, provided it can be demonstrated in writing that it is at least equivalent to the established requirements. One advantage most tiny house owners have is that private structures are treated more leniently. On the other hand, if it turns out that there is too little surface area per occupant, or the minimum insulation standards are not met, it often seems difficult in practice to get a permit for a tiny house (Tiny House Movement, n.d.).

Besides, the land on which the tiny house will be located must be intended for living. It is not possible to place your tiny house on, for example, a farmer's pasture since it is not zoned for a living but for agricultural purpose (Jonker, 2017). This is also the main barrier in other countries (Lima, 2020). In Chris Wenban's view, who wrote an article for the National Planning Institute Australia Journal 'Australian Planner', a professional journal for planners and built environment professionals (News – Planning Institute of Australia, 2021), the growth of the tiny house industry is being held back by the lack of available land on which the dwellings can legally stand in various countries.

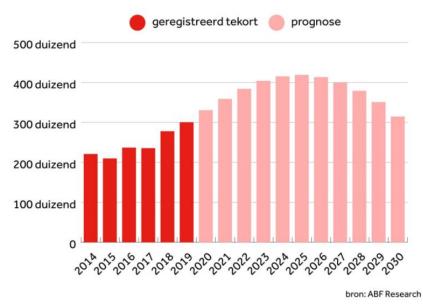
In Lima's research into tiny houses in the city of Rotterdam in the Netherlands, she encountered that the search for (affordable) land to use for a tiny house, appears to be a major barrier for people. Municipalities are establishing tiny house communities, often as test areas. These communities allow tiny house owners to live on a piece of land without having to take out a loan. The disadvantage is that these locations are often only made available temporarily, for example for a trial period of ten years. This has a direct effect on the tiny houses, so it is required that they have a certain degree of self-sufficiency (Lima, 2020).

4.2 TINY HOUSES AS A SOLUTION FOR THE NETHERLANDS?

Now that the main drivers and barriers for Dutch people have been identified, it is interesting to see if tiny houses can offer a solution for the Netherlands. There are two main aspects to focus on: the current housing shortage and environmental sustainability. According to USP Marketing Consultancy, these are the two biggest challenges for the housing sector in the coming years, and in any case, they can be solved with tiny houses (Forschelen-Janssen, 2020).

4.2.1 CURRENT HOUSING SHORTAGE

According to Dutch public broadcaster NOS, there is a "screaming shortage of housing" (NOS, 2021). Thirty-four organizations are calling for one million homes to be built in ten years. The research bureau ABF Research says the housing shortage is now at about three tons of homes, reports NOS (2021). This shortage will continue to rise, according to the research firm. The forecast shows that there will be a peak in 2025, and from then on the shortage will slowly decrease. Organizations and experts attribute the increase of this shortage mainly to the collapse of new construction due to the credit crisis, while the population continued to grow (NOS, 2021).



Housing Shortage in the Netherlands (NOS, 2021)

According to the Dutch newspaper Trouw, building new dwellings is the only remedy (Obbink, 2020). This is where tiny houses could be very interesting since the construction time needed to build a tiny house is many times smaller than a traditional house. Where a traditional house takes months, sometimes years to build, a tiny house can be built by a professional in 120 hours and by a DIYer in 500 hours (about 63 days) (Storgaard, 2018).

David Bremmer and Stefan ten Teije (2020) conducted research for the Dutch newspaper AD into the causes of the housing shortage. They conclude that there is a need to look at alternative, innovative forms of housing to alleviate this housing crisis. According to them, those forms should be sustainable (Bremmer & ten Teije, 2020). This brings us to the next aspect for which tiny houses may offer a solution.

4.2.2 ENVIRONMENTAL SUSTAINABILITY

Early last year, the headlines were full of it: "The Netherlands is the least sustainable country in the EU" (Mersbergen, 2020). When it comes to the share of renewable energy in a country's energy economy, the Netherlands is at the bottom of the list of EU countries (Mersbergen, 2020). So this is where a lot of work needs to be done. As described above, the next few years will see a large amount of new construction to reduce the housing shortage. The more sustainable this can be, the better it would be to achieve the goals. Here too, tiny houses can play a role. In chapter 4.1.2 it can be read that sustainability is a factor that plays a part in the decision of the Dutch to switch to a tiny house, so people are already aware of the sustainable advantages that the lifestyle brings. What kind of environmentally sustainable aspects are there to a tiny house? Obviously, tiny houses are tiny and so less material is needed in the building process. So generally speaking, all tiny houses are already a lot more sustainable than an average house, thanks to their size. Then it is also possible to go a step further and to build tiny houses with recyclable, second-hand, or natural materials (Shearer & Burton, 2019; Van de Valk, 2020; The International Institute for Industrial Environmental Economics, 2013). Wood is often used in the construction of tiny houses, which is overall a sustainable building material (Shearer & Burton 2018). The use or even dependence on fossil fuels is reduced in tiny housing because the homes require less energy to heat and cool. Again, one may choose to go a step deeper by implementing applications that allow the home to be energy neutral and selfsufficient (The International Institute for Industrial Environmental Economics, 2013). Crawford and Stephan recently conducted scientific research on the life cycle greenhouse gas emissions of a tiny house, and their potential to reduce emissions. Their study shows that a tiny house can result in at least a 70% per capita reduction in greenhouse gas emissions over its lifetime, compared to a traditional Australian house (Crawford & Stephan, 2020). In contrast, a traditional house has the capacity to accommodate more people. But according to this research, it would then require at least ten occupants to have a lower outcome than a tiny house. This is hardly common in the country of research, Australia, as in most other developed countries, as the current average family size there are 2.6 people (Crawford & Stephan, 2020). In addition, there are aspects in many other areas that contribute to sustainable design. For example, as a resident, as a result of having a small house, you will automatically be able to own less stuff. This makes your lifestyle more sustainable. Thus, there are still numerous sustainable possibilities to think of a tiny house, also on a socially and economically sustainable level. It would be interesting if further research could be done on this, specified for the Netherlands given the goals to be pursued.

4.2.3 THE FUTURE OF TINY HOUSES IN THE NETHERLANDS

USP Marketing Consultancy states that one in five Dutch people would like to live in a tiny house. They have researched that 20% of the entire Netherlands finds the tiny house concept interesting and might want to live in one themselves (Forschelen-Janssen, 2020).

Besides the fact that more and more people would like to live in them themselves, it can be concluded from the above that tiny houses do offer a solution to both the current housing shortage problem and helping to achieve sustainable goals. However, barriers may still be thwarted, as it must be accessible for more tiny housing to be developed in the Netherlands. The legislation would have to be adapted or made more flexible to meet the needs of tiny house communities. However, it does appear that municipalities are becoming more interested in tiny houses (Forschelen-Janssen, 2020), which is a step in the right direction. Trials of tiny houses are already being conducted in several municipalities in the Netherlands to discover what it can mean for liveability, sustainability, and the housing shortage (Moen, 2018). In some places, there are even already plans for the realization of a community, where facilities can be shared.

For example, the construction company Heijmans was allowed to place 57 'ONE' homes in the municipality of Nijkerk in 2017. Previously, they have put 78 homes in various locations in the Netherlands (Heijmans, 2017). And also recently news reports keep coming in different municipalities about the interest in tiny houses.



Placement of Heijmans' ONE dwelling (Heijmans, 2021)



Heijmans ONE dwelling (Heijmans, 2021)

DISCUSSION

This thesis provides interesting information about tiny houses. It creates insight into the genesis of the tiny house movement, why people have become supporters of this movement, why there is a need for this counter-reaction to today's society, and what this movement is all about. This was done through a thorough literature review.

Based on the literature review, the definition of a tiny house was also identified. However, there is no generic definition that applies worldwide, so it cannot be concluded what *exactly* a tiny house is or what it should look like *specifically*. The definition and characteristics of a tiny house for this thesis, are based on a broad Australian study by Shearer and Burton (2018), as Australia is a leader in this movement. It cannot be said that this is *the* definition of a tiny house, this is different for each country, association, or community. Perhaps in the future, a global definition for this concept will emerge.

To research the contemporary lifestyle within the movement, the motivations for people to want to live in a tiny house were mapped out using literature research and the results of existing surveys. Following, America and Australia were outlined and literature reviews were used to look at their specific motivations and the barriers that each of the countries face. More research could be done to further identify these barriers for each country. Especially since in the different states in the US and the different local governments in Australia, the rules can vary greatly.

Research was also done into the tiny house movement in the Netherlands. In doing so, a brief and concise history was noted based on the literature review. The motivations of the Dutch were also taken from the results of previous research, which included a survey of tiny house enthusiasts. Further research could be done on the different types of interested people. In this thesis, a global picture of the motivations is given, but it could also be interesting to study different population groups in more depth and to compare them in order to get a better picture of the Netherlands specifically.

Finally, more literature review has been done to look at the possibilities for solving two important current problems in the Netherlands. For both the current housing shortage and environmental sustainability, research has been done based on recent newspaper reports and previous scientific research. However, it is recommended that more extensive research be conducted in the future, which can go deeper into both aspects than was possible for this thesis.

CONCLUSION

The tiny house movement is a movement that has become hugely popular in recent years and originated in the United States. The way of thinking that involves a desire for less instead of more can be traced all the way back to the mid-19th century when a quest for "freedom" was already underway in America as a counter-reaction to consumerism. Over the years, this desire has expanded more and more, to the current movement that the world now has. But necessity also led to this, such as the houses that had to be built soon after World War II.

From the 1960s onwards there has been an environmental movement that has made people aware of their impact and ecological footprint. Sustainability has since become an important concept and certainly plays a part in the creation of this movement.

At the end of the last century, more and more tiny houses came into existence because of people who had a need for them from their own perspective. The factor with the greatest influence and which may have been the most important in the creation of the movement was the global economic crisis starting in 2007. Financial problems forced people to downsize. A search for affordable homes combined with sustainability ensued. From this research, it can be concluded that there are people who have been consciously working to break through consumerism since the 19th century, but since the current century, the financial crisis and the search for sustainable homes have caused the tiny house movement to develop at a rapid pace.

Another important conclusion for this thesis has to do with the definition and characteristics of a tiny house. Because there is no global definition (yet), everyone can decide on the definition themselves. What is a tiny house for one country, does not necessarily apply to another country. It is still a wild term, a rough diamond that must be polished if it is to receive the same recognition worldwide. For now, it can mainly be called a very popular phenomenon.

As far as the motives for choosing a tiny house are concerned, *financial security* is at the top, followed by *freedom* and *autonomy*. But also *meaningful relationships*, *simple living*, and *new experiences*. The biggest difference between Americans and Australians in their motivations can be found in environmental sustainability. This argument ranks second among Australians, while among Americans it was mentioned by only half of those surveyed.

For both countries there are more or less the same obstacles, namely getting land available. This has to do with both financial reasons and building regulations.

From the research into the Dutch tiny house interested parties, it appears that the main reason for a tiny house has to do with nature and freedom. It is striking that financial reasons are placed in second place, in contrast to America and Australia. Costs, but also financial independence and financial flexibility are only on the list after nature and freedom. Environmental sustainability is given as the third argument. Also interesting is that all interviewees wish for a community in which they could live.

Also for the Netherlands applies that land and building regulations can be a barrier to the lifestyle.

From this thesis, it can be concluded that tiny houses, in general, can offer a solution for the current housing shortage and the demand for more sustainable buildings in the Netherlands. The fact that more and more municipalities are interested in tiny houses, and even test sites are being realized, is a hopeful sign for the future. To find out how tiny houses can best respond to the housing shortage, further research should be conducted. It is also recommended to do further research on the sustainability of tiny houses. This thesis has contributed to the interdisciplinary literature on this topic and shows the importance of further research on tiny houses as it can provide solutions to social problems.

REFERENCES

LITERATURE

Alexander, S., & Ussher, S. (2012). The Voluntary Simplicity Movement: A multi-national survey analysis in theoretical context. *Journal of Consumer Culture*, *12*(1), 66–86. https://doi.org/10.1177/1469540512444019

Alter, L. (2018, 11 oktober). Why Hasn't the Tiny House Movement Become a Big Thing? A Look at 5 Big Barriers. Geraadpleegd op 8 april 2021, van https://www.treehugger.com/why-hasnt-tiny-house-movement-become-big-thing-look-big-barriers-4851019

Anson, A. (2014). "The World is my Backyard": Romanticization, Thoreauvian Rhetoric, and Constructive Confrontation in the Tiny House Movement. From Sustainable to Resilient Cities: Global Concerns and Urban Efforts, 289–313. https://doi.org/10.1108/s1047-004220140000014013

Bartlett, J. (2016). *Big City, Tiny House*. Carleton University. https://doi.org/10.22215/etd/2016-11406

Boeckermann, L. M., Kaczynski, A. T., & King, S. B. (2018). Dreaming big and living small: examining motivations and satisfaction in tiny house living. *Journal of Housing and the Built Environment*, *34*(1), 61–71. https://doi.org/10.1007/s10901-018-9616-3

Boujbel, L., & d'Astous, A. (2012). Voluntary simplicity and life satisfaction: Exploring the mediating role of consumption desires. *Journal of Consumer Behaviour*, 11(6), 487–494. https://doi.org/10.1002/cb.1399

Bowen, P., Edwards, P., Lingard, H., & Cattell, K. (2014). *Workplace Stress, Stress Effects, and Coping Mechanisms in the Construction Industry*. Geraadpleegd op 19 december 2019, van https://ascelibrary.org/doi/full/10.1061/%28ASCE%29CO.1943-7862.0000807?casa_token=DCMAp_VELZ8AAAAA%3AJjO-RVnURMT6Ay-WVoFWbcXRLLw2fPTzsxxdj76XGu- focfEFTKoXDk-ci-5Xyo2NeJKrKW1kI

Bremmer, D. (2020, 5 januari). In Holland staat een huis, maar niet voor iedereen: vijf oorzaken voor de woningnood. *AD*. Geraadpleegd van https://www.ad.nl

Brian Levy. (2017, 3 maart). Geraadpleegd van https://minimhomes.com/team/brian-levy/Builders, T. H. (z.d.). *About Jay Shafer*. Geraadpleegd op 16 maart 2021, van https://www.tinyhomebuilders.com/about-jay-shafer

Cohen, J. L. (2016). *The Future of Architecture Since 1889*. Amsterdam, Nederland: Amsterdam University Press.

Cooper, C. L. (1986). Recent research and the emerging role of the clinical occupational psychologist. *Bulletin of the British Psychological Society*, *39*, 325–331.

Crawford, R. H., & Stephan, A. (2020). Tiny house, tiny footprint? The potential for tiny houses to reduce residential greenhouse gas emissions. *IOP Conference Series: Earth and Environmental Science*, 588(2), 1–5. https://doi.org/10.1088/1755-1315/588/2/022073

Diguette, R. (2017, 14 maart). Lessons from the first 'tiny house' evangelist, Henry David Thoreau. Geraadpleegd op 21 maart 2021, van https://www.washingtonpost.com/lifestyle/home/lessons-from-the-first-tiny-house-evangelist-henry-david-thoreau/2017/03/13/3dddc69e-02d0-11e7-b1e9-a05d3c21f7cf_story.html?utm_term=.08d80b37891f
DTNL. (2021). Marktcijfers koopwoningen | NVM. Geraadpleegd op 15 maart 2021, van https://www.nvm.nl/wonen/marktinformatie/

EenVandaag. (2016, 23 mei). *Eerste Tiny House in Nederland in Alkmaar*. Geraadpleegd op 15 maart 2021, van https://eenvandaag.avrotros.nl/item/eerste-tiny-house-in-nederland-in-alkmaar/

Evans, K. (2019). Exploring the relationship between visual preferences for tiny and small houses and land use policy in the southeastern United States. *Exploring the relationship between visual preferences for tiny and small houses and land use policy in the southeastern United States*, 81(2019), 209–218. https://doi.org/10.1016/j.landusepol.2018.10.051

Ford, J., & Gomez-Lanier, L. (2017a). Are Tiny Homes Here to Stay? A Review of Literature on the Tiny House Movement. *Family and Consumer Sciences Research Journal*, *45*(4), 394–405. https://doi.org/10.1111/fcsr.12205

Ford, J., & Gomez-Lanier, L. (2017b). Are Tiny Homes Here to Stay? A Review of Literature on the Tiny House Movement. *Family and Consumer Sciences Research Journal*, *45*(4), 394–405. https://doi.org/10.1111/fcsr.12205

Forschelen-Janssen, V. (2020). *1 OP DE 5 NEDERLANDERS WIL IN TINY HOUSE WONEN*. USP Marketing Consultancy. Geraadpleegd van https://www.usp-mc.nl/nl/inzichten/1-op-de-5-nederlanders-wil-in-tiny-house-wonen-900/

Friedman, K. (2008). Research into, by and for design. *Journal of Visual Arts Practice*, 7(2), 153–160.

Gunning, J. G., & Cooke, E. (1996). The influence of occupational stress on construction professionals. Building Research & Information, 24(4), 213-221. https://doi.org/10.1080/09613219608727532

Heijmans. (2017, 20 december). *135 Heijmans ONE-woningen in Nederland*. Geraadpleegd van https://www.heijmans.nl/nl/nieuws/135-heijmans-one-woningen-nederland/ *Impact of China-Africa Investment Relations: Case Study of Ethiopia*. (2009). Geraadpleegd van https://publications.aercafricalibrary.org/xmlui/bitstream/handle/123456789/355/china6.p df?sequence=1

International Code Council. (z.d.). *Overview of the International Residential Code (IRC)*. Geraadpleegd op 1 april 2021, van https://www.iccsafe.org/products-and-services/icodes/2018-i-codes/irc/

Jacket, D. (2017). *The Natural House*. Geraadpleegd op 21 maart 2021, van http://www.steinerag.com/flw/Books/b0992.htm

Jonker, M. (2017a). *Wat is een Tiny House*. Geraadpleegd op 11 april 2021, van https://www.marjoleininhetklein.com/mijn-tiny-house/wat-is-een-tiny-house/

Jonker, M. (2017b, 23 maart). *Omgevingswet 2018 – wat betekent het voor Tiny Houses?* Geraadpleegd op 11 april 2021, van https://www.tinyhousenederland.nl/omgevingswet-2018-wat-betekent-het-voor-tiny-houses/

Jonker, M. (2020, 16 januari). *Uitslag enquête 2018*. Geraadpleegd op 11 april 2021, van https://tinyhousenederland.nl/uitslag-tiny-house-nederland-enquete-2018/

Krista, E. (2018). Integrating tiny and small homes into the urban landscape: History, land use barriers and potential solutions. *Journal of Geography and Regional Planning*, 11(3), 34–45. https://doi.org/10.5897/jgrp2017.0679

Lima, R. I. (2020). *Tiny houses: Searching for a place in a tight housing market. A case study on tiny houses in Rotterdam*. Geraadpleegd van https://theses.ubn.ru.nl/bitstream/handle/123456789/10272/Lima%2c_Robyn_1.pdf?seque nce=1

Maas, T. (2021, 15 maart). Makelaar pleit voor meer tiny houses aan de Rijndijk in Millingen. *de Gelderlander*. Geraadpleegd van https://www.gelderlander.nl

Mangold, S., & Zschau, T. (2019). In Search of the "Good Life": The Appeal of the Tiny House Lifestyle in the USA. *Social Sciences*, 8(1), 26. https://doi.org/10.3390/socsci8010026

Mersbergen, C. (2020, 25 januari). Nederland is het minst duurzame land van de EU, hoe kan dat? *Het Parool*. Geraadpleegd van https://www.parool.nl

Mitchell, R. (2020, 28 april). *Top 5 Biggest Barriers To The Tiny House Movement*. Geraadpleegd op 8 april 2021, van https://thetinylife.com/top-5-biggest-barriers-to-the-tiny-house-movement/

Moen, N. (2018, 10 januari). *Stijgend aantal proeven met tiny houses*. Geraadpleegd van https://www.gemeente.nu/ruimte-milieu/wonen/stijgend-aantal-proeven-met-tiny-houses/ More than half of Americans said they would consider living in a tiny home in a new survey as the lifestyle increases in popularity amid the pandemic. (2020a, 12 december). Geraadpleegd op 11 april 2021, van https://www.businessinsider.com/survey-reveals-why-tiny-homes-have-become-so-popular-2020-

12? international = true & r = US&IR = T#:%7E: text = Tiny%20 homes%20 have%20 become%20 undeniably, comes%20 new%20 tiny%20 home%20 trends. & text = As%20 a%20 result%2C%2079%25%20 of, same%20 for%20 a%20 traditional%20 home.

More than half of Americans said they would consider living in a tiny home in a new survey as the lifestyle increases in popularity amid the pandemic. (2020b, 12 december). *Business Insider*. Geraadpleegd van https://www.businessinsider.com

 ${\it News - Planning Institute of Australia.} \end{cases} \begin{tabular}{ll} Colling{\columnwidth} Planning{\columnwidth} Institute of Australia. (2021). Geraadpleegd op 13 april 2021, van https://www.planning.org.au/news-archive/australian-$

planner#:%7E:text=Australian%20Planner%20is%20a%20professional,planning%20news%2 C%20opinion%20and%20research.

NOS. (2021a, 17 februari). *Schreeuwend tekort aan woningen, wat moet eraan gedaan worden?* Geraadpleegd op 14 april 2021, van https://nos.nl/artikel/2369109-schreeuwend-tekort-aanwoningen-wat-moet-eraan-gedaan-worden.html

NOS. (2021b, 17 februari). Schreeuwend tekort aan woningen, wat moet eraan gedaan worden? *NOS*. Geraadpleegd van https://nos.nl

Obbink, H. (2020, 9 september). Zo kwam Nederland aan een tekort van 331.000 woningen. *Trouw*. Geraadpleegd van https://www.trouw.nl

Oyedele, L. O. (2013). Analysis of architects' demotivating factors in design firms. *International Journal of Project Management*, 31(3), 342–354. https://doi.org/10.1016/j.ijproman.2012.11.009

Rodriguez, J. (2017). The US Minimalist Movement: Radical Political Practice? *Review of Radical Political Economics*, 50(2), 286–296. https://doi.org/10.1177/0486613416665832

Shearer, H., & Burton, P. (2018). Towards a Typology of Tiny Houses. *Housing, Theory and Society*, *36*(3), 298–318. https://doi.org/10.1080/14036096.2018.1487879

Shearer, H., & Burton, P. (2021). Tiny houses: movement or moment? *Housing Studies*, 1–23. https://doi.org/10.1080/02673037.2021.1884203

Shearer, H., Coiacetto, E., Dodson, J., & Taygfeld, P. (2016). How the structure of the Australian housing development industry influences climate change adaptation. *Housing Studies*, *31*(7), 809–828. https://doi.org/10.1080/02673037.2016.1150430

Storgaard, M. (2018, 17 december). *How Long Time To Build a Tiny House? (Examples & Numbers*). Geraadpleegd van https://www.godownsize.com/how-long-does-it-take-to-build-a-tiny-house/

The International Institute for Industrial Environmental Economics. (2013). *Growing Tiny Houses: Motivations and Opportunities for Expansion Through Niche Markets*. IIIEE Master thesis. Geraadpleegd van https://lup.lub.lu.se/student-papers/search/publication/4196241 tilman, H. (2016, 2 augustus). *Blog – Architectuur, een vak dat nooit slaapt*. Geraadpleegd van https://www.dearchitect.nl/architectuur/blog/2016/08/architectuur-een-vak-dat-nooit-slaapt-101107944

Tiny House Movement. (z.d.). In *Wikipedia*. Geraadpleegd op 11 april 2021, van https://nl.wikipedia.org/wiki/Tiny_House_Movement#Nederland

Transcendentalism. (z.d.). In *Wikipedia*. Geraadpleegd op 29 maart 2021, van https://en.wikipedia.org/wiki/Transcendentalism

Treece, K. (2021, 9 april). *The Best Tiny Home Builders of 2021*. Geraadpleegd op 11 april 2021, van https://www.thespruce.com/best-tiny-home-builders-5092126

University of Twente. (2019). Tiny House Movement and LCA of Tiny Houses in the Netherlands: Case Study of Tiny Houses in the Netherlands. Geraadpleegd van http://essay.utwente.nl/77234/

USP Marketing Consultancy. (2020, 25 mei). *1 op de 5 Nederlanders wil in tiny house wonen* | *USP MC*. Geraadpleegd op 12 april 2021, van https://www.usp-mc.nl/nl/inzichten/1-op-de-5-nederlanders-wil-in-tiny-house-wonen-900/

Van de Valk, K. (2020). Housing shortage & tiny living: Evaluating Tiny Houses as a sustainable answer to relieve the housing crisis in the Netherlands. Master's Programme Sustainability Science, Policy and Society, Maastricht Sustainability Institute (MSI) Maastricht University. Geraadpleegd

https://www.academia.edu/44533271/Housing_Shortage_and_Tiny_Living_Evaluating_Tiny Houses as a sustainable answer to relieve the housing crisis in the Netherlands

van der lugt, P., van den dobbelsteen, A., & abrahams, R. (2003). Bamboo as a building material alternative for Western Europe? A study of the environmental performance, costs and bottlenecks of the use of bamboo (products) in Western Europe. Bamboo as a building material alternative for Western Europe? A study of the environmental performance, costs and bottlenecks of the use of bamboo (products) in Western Europe, 2003(2), 205–223. Geraadpleegd van https://www.bambooteam.com/pablo/2003%20JBR.pdf

Walden. (z.d.). In *Wikipedia*. Geraadpleegd op 16 maart 2021, van https://en.wikipedia.org/wiki/Walden

Wat zijn Tiny Houses (niet)? (2020, 6 februari). Geraadpleegd op 1 april 2021, van https://tinyhousenederland.nl/ik-wil-tiny/wat-zijn-tiny-houses/

Weetman, V. M. (2018). Resistance is fertile: exploring tiny house practices in Australia. *Australian Planner*, *55*(3–4), 232–240. https://doi.org/10.1080/07293682.2019.1636837

Wie is Marjolein. (2017). Geraadpleegd op 11 april 2021, van https://www.marjoleininhetklein.com/over-marjolein/wie-is-marjolein/

IMAGES

Jay Shafer in front of his first Tiny House

https://tinyhousetalk.com/the-small-house-book-by-jay-shafer-my-review/

Gypsy Wagon

https://www.gypsycaravantheatre.com/history

Thoreau's Cabin (replica)

https://www.pri.org/file/pic1jpg-8

Paus-Leighey House, Usonian House by Frank Lloyd Wright

https://franklloydwright.org/site/pope-leighey-house/

Usonion House, floor plan, by Frank Lloyd Wright

https://www.australiandesignreview.com/architecture/frank-lloyd-wright-usonian-low-cost-co-op-housing/

Signs of protest describing the problems related to air pollution

https://rachelcarsonenviromovement.weebly.com/the-movement.html

Tiny House Nation

https://whatsnewonnetflix.com/usa/1616594/tiny-house-nation-2019

Own drawings for potential characters for a Tiny House, from Mangold, S., & Zschau, T. (2019). In Search of the "Good Life": The Appeal of the Tiny House Lifestyle in the USA. *Social Sciences*, 8(1), 26. https://doi.org/10.3390/socsci8010026

Google search term 'Tiny House' worldwide, 1-1-2004 to 1-1-2021

Own design for the 'simple conceptual model for the tiny house lifestyle appeal' (Mangold & Zschau, 2019)

Mangold, S., & Zschau, T. (2019). In Search of the "Good Life": The Appeal of the Tiny House Lifestyle in the USA. Social Sciences, 8(1), 26. https://doi.org/10.3390/socsci8010026

Own design for the 'Main drivers for building tiny houses, a multi-national survey analysis in theoretical context (Alexander & Ussher, 2012)

Alexander, S., & Ussher, S. (2012). The Voluntary Simplicity Movement: A multi-national survey analysis in theoretical context. Journal of Consumer Culture, 12(1), 66–86. https://doi.org/10.1177/1469540512444019

Own design for 'Tiny House motivations frequencies' (Boeckermann et al, 2018)

Boeckermann, L. M., Kaczynski, A. T., & King, S. B. (2018). Dreaming big and living small: examining motivations and satisfaction in tiny house living. Journal of Housing and the Built Environment, 34(1), 61–71. https://doi.org/10.1007/s10901-018-9616-3

Dutch pioneer Marjolein Jonker

https://www.marjoleininhetklein.com/over-marjolein/wie-is-marjolein/

Google search term 'Tiny Houses' in the Netherlands, 01-01-2044 to 01-01-2021

Housing Shortage in the Netherlands NOS. (2021b, 17 februari). Schreeuwend tekort aan woningen, wat moet eraan gedaan worden? NOS. Geraadpleegd van https://nos.nl

Plaatsing van Heijmans ONE woning https://www.heijmans.nl/nl/nieuws/135-heijmans-one-woningen-nederland/

Heijmans ONE https://www.heijmans.nl/nl/heijmans-one/

Own picture of a newspaper article about Tiny Houses in Millingen