Developments of assisted living facilities for mentally disabled people from the interbellum period until present day

Towards the transition of assisted living facilities for mentally disabled people from healthcare institutions to a real home

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Abstract
Over the course of the 20th century, healthcare in general has seen many beneficial developments (e.g. medicine, procedures, hygiene etc.) However, when looking at assisted living facilities for mentally disabled people, a development towards an environment that largely resembles hospitals can be observed (den Duik 2015). Since the main purpose of these institutions is not to heal but to accommodate, the question arises how these institutes can strive to provide a real home for its inhabitants. This thesis presents several design considerations that may serve useful within the design process to aid into reaching this goal. These considerations are based on studying the Thomashuizen concept which was initiated by Hans van Putten with the same goal in mind. This concept is compared to the Rudolf Steiner clinic as a historical precedent from the interbellum period which is known to deviate from other historical conventional examples. After a thorough analysis, the concepts of scale, context, image and pragmatism were identified as aspects that could be considered when designing an institute that provides assisted living for mentally disabled people. A small scale may be adapted to provide a family community and more attention per inhabitant, the typologies of the farmhouse and the mansion complement this scale and fit into either the urban or rural context, while at the same time they carry the image of a home. Furthermore a pragmatic approach can be used to design space syntax in order to avoid complex interventions and thereby harming the overall image of a building.

Introduction

Presently 409 healthcare institutions that provide assisted living facilities to people with mental disabilities are registered in the Netherlands (Statline 2020). One of these institutions is the Thomashuis organization. The main goal of the Thomashuis organization is to provide its inhabitants with a lovely home. This homelike feeling is as, if not more, important as the healthcare aspect that is included in the concept. The initiative behind the Thomashuis was formed after its founder Hans van Putten was searching for an assisted living group for his son. When looking at the conventional institutions that facilitated these groups Van Putten concluded that even though they might have been excellent in the caretaking aspect, most of the facilities didn't really provide a home where one wants to spend a considerable part of his or her life.

This "lack of homeliness" can be further illustrated when looking at *Burger versus Staat. Een onderzoek naar de invloed van het volksgezondheidsbeleid op de ontwikkeling van particulier initiatief naar semi-private organisatie* (den Duik, 2015). This study maps the evolution of the healthcare system in the Netherlands and further highlights the main critiques on the modern day healthcare system. Many of these evolutions are rather beneficial: Medicine and treatments evolved to a level where a lot of diseases were either treatable or controllable, treatment facilities became more sterile and more people had access to healthcare in general. These developments however are mostly linked to environments where the main purpose is to heal a patient. Both caretaker and patient desire a situation

where a hospital stay can be as short as possible. Therefor these environments are mostly designed in such a way that the caretaker can do its job as efficient as possible. This often includes areas that are as sterile as possible and as accessible as possible, resulting in the use of easily cleanable surfaces, large and wide hallways, enough space around beds and an abundance of aiding equipment.

So how does this relate to facilities that provide assisted living? While the aspects described above might be ideal for institutions like hospitals or medical rehabilitation centres that strive to heal patients, it might not be the case for institutions that serve the purpose of providing a home for its inhabitants.

The Thomashuis can be considered as a reaction to the contemporary sterile and hospital-like environment that most conventional institutions have adapted. However it is also interesting to look into assisted living institutions that existed before this so called "sterile standard". One example of such an institution is the Rudolf Steiner Clinic in The Hague which operated following the principles of the anthroposophical movement. As described by Van der Ree (2003) antroposophism has influenced organic architecture. Therefor looking back at the anthroposophical movement can result in clear architectural criteria that might still serve a purpose in modern day healthcare architecture.

With the goal of shedding light on new possibilities to further develop facilities that accommodate assisted living groups, this thesis seeks to answer the question:

How can contemporary assisted living groups for mentally disabled people in the Netherlands further develop when comparing them to the Thomashuizen and historic precedents from the interbellum years until the late 20th century?

To provide a reasonable comparison between contemporary and historic examples of assisted living groups for mentally disabled people, the scope of this thesis is restricted to the Netherlands and won't take into account examples from before and after the interbellum period. The research will revolve around architectural concepts and principles and will look into the way they resonate with the caretaking principles of the mentioned examples. Therefor the main research question is divided into the following sub-questions:

1. What is the main caretaking concept of the Rudolf Steiner clinic and the anthroposophical movement of the 1920's?
2. What architectural elements (material, space syntax, building type, atmosphere) do the Rudolf Steiner clinic and the anthroposophical movement of the 1920's follow?
3. What caretaking concepts are used in the Thomas house concept?
4. What architectural elements (material, space syntax, building type, atmosphere) does the Thomas house concept follow?
5. What are the general experiences and opinions on the Thomas house and the Rudolf Steiner clinic in the 1920's of the end users?

This research strives to provide a historical base to understand the development of contemporary assisted living groups for mentally disabled people. By doing this, a comparison can be made between contemporary examples and the historical precedent. Following known modern day criticism and end user opinions the research will conclude with providing an architectural theoretical framework that can be used to further develop assisted living groups for mentally disabled people.

The Thesis will discuss the cases in a chronological order:

Chapter 1 and 2 will discuss the caretaking principle of the Rudolf Steiner clinic as well as its connection to organic architecture in order to find an answer for the first two sub questions. Chapter 3 and 4 serve the same purpose, but will look into the Thomas house concept in order to find an answer to sub question 3 and 4 In chapter 5, further end user opinions on the Rudolf Steiner Clinic and Thomas House concept will be discussed in order to find an answer for the last sub question and provide the research with measurement of the success of the two principles. In conclusion, chapter 6 will answer the main research question of the thesis and will try to formulate an objective framework with the purpose of assisting in the further development of modern day healthcare Facilities that provide living to mentally disabled people

Chapter 1: *Healthcare Principles of the Anthroposophical movement and the Rudolf Steiner Clinic.*

Ten years after Wim Zeylmans van Emmichoven got introduced to the anthroposophical movement via Marie Tak, the construction of the Rudolf Steiner clinic in The Hague under supervision of architect Jan Buijs started in 1927. The design of the Rudolf Steiner Clinic followed the healthcare principles of the anthroposophical movement. Before The influences of this movement on the architecture of the Rudolf Steiner clinic will be analyzed, this chapter will discuss the main healthcare principles behind the anthroposophical movement.

The anthroposophical movement follows concepts that are deeply philosophical. Rather than focusing just on the corporeal body, the anthroposophical movement describes humans as having a physical form, an astral form and an ethereal form and therefor argues that humans are deeply connected to the cosmos (Steiner, 2003). Antroposophism strives to reach a more complete and objective understanding of the human subconsciousness, something that isn't directly visible to us and therefor can't always be clearly observed. This clear observation is important because it is this aspect that conventional healthcare, before as well as after the rise of the anthroposophical movement, mainly focusses on.

Steiner (2003) argues that this understanding of the subconsciousness or the "I" as an aspect of the subconsciousness, is crucial to not only understand the fundamental manifestation of both physical and mental illnesses, but also to be able to classify them in a better way. As mentioned before, Steiner describes humans as having a physical, an astral and an ethereal form. He describes these three forms as being connected to different forms of the human being. The Physical form is connected to the lower organs (e.g. the stomach which plays an important role in the practices of the movement) The Astral form is connected to the main nerve, system which is located in the spine, and the ethereal form is connected to brain. While Steiner (2003) has very detailed views on most organs and parts of the body, this thesis doesn't serve the purpose of describing the entire anthroposophical movement and will therefor further focus on how these principles as described by Rudolf Steiner, influence the healthcare principle of the Rudolf Steiner clinic.

First of all, influences of the Physical form can be seen in the nutrition and medicine that were preferred by the clinic. While inhabitants of the clinic and followers of the movement weren't obligated to strictly follow this doctrine, a clear preference for non-treated and vegetarian food over meat can be seen (Verbrugh, 2004). Steiner (2003) describes the "I" as not inherently good or evil, but rather as initially good but corruptible by, as he calls it, "Luciferin influences". He further illustrates this by looking at lions which are solely carnivorous. He describes how meat unchains the aggressive and maniacal tendencies that living beings have and therefor can "corrupt" the physical form. Steiner (2003) however warns that this vegetarian diet shouldn't result in malnourishment and that the physical strength of humans should always remain intact. As for medicine, an attraction of the

anthroposophical movement to homeopathic medicines can be seen (Verbrugh, 2004). This is the case because of the same reason at it being a more natural source for medicine.

What is striking about the influences of the astral and ethereal form on the healthcare principles is that they aren't very clear in a scientific sense. When describing these forms it is made very clear by Steiner (2003) that these forms play a significant role when discussing mental illnesses or disabilities. However, when Steiner talks about these forms, it is always more about understanding them and therefor their manifestation in mental illnesses rather than treating them. Two factors, however, can be taken into account when relating these forms to healthcare: What undesired effects conventional forms of treatment (in the 1920's) might have and how the illnesses might be prevented entirely.

Steiner (2003) doesn't necessarily warns society about conventional treatment, he rather tries to provide insight on the effects. Earlier it was stated how meat can "unbind the chains" of the "Luciferin" influences on the subconscious when talking about the physical form. In the same way, chains can be unbound for these influences on the astral and ethereal form as well (it isn't specifically stated how this happens, only that it is the case for people suffering from mental illnesses). Steiner (2003) argues that this "unbinding of chains" results in people experiencing a feeling of freedom. Although this is often observed by the public as symptoms like mania, aggressiveness, idiotism or madness, Steiner illustrates how a recovered patient described his illness as a state of freedom, a state that he sometimes even preferred over his "healthy" state. Conventional healthcare mostly concerned itself with trying to cure these symptoms and therefor, willingly or unwillingly, suppressing this feeling of freedom. According to Steiner this could result in the patient becoming depressed, antipathic and irritated with its curer. Whether mentally illnesses should be treated differently or not and if patients should be simply giving the space to experience this "freedom" in the eyes of Steiner, doesn't become clear from Steiner's writings.

That being said, the topic of prevention is a very dominant aspect of the anthroposophical doctrine which can be linked to pedagogy. Steiner describes childhood as going through stages of seven years each. He argues that in each stage a child should have the freedom to develop properly according to the stage he is in. In the first stage of childhood Steiner promotes ideas like not forcing a child not to read so it can be able to fully observe the universe through its senses (resulting in this not occurring until the age of eight). Steiner (2003) also emphasizes the role of a strong family calling it "the necessity of a warm nest". In this family it is important that the child isn't only provided with the necessary love, but also is provided with a structural rhythm which leaves room for sufficient night rest, nutrition and daily activities. The lack of this family in the early years of a humans life can result in further traumas or mental illnesses as well as It can have negative influences on the development of autism or other mental disabilities that occur from birth. Providing patients with a home is an interesting aspect that can be seen back later when discussing the Thomas houses even though this doesn't originate from a movement or doctrine like the anthroposophical movement.

The views of Rudolf Steiner and the anthroposophical movement on healthcare don't necessarily emerge in architecture. However the overall philosophical doctrine finds a connection with architecture that is hard to measure using conventional methods like form and ornamental studies. However, when one still tries to approach Anthroposophical architecture with these methods, some elements can still be defined as "constants" within the architecture. This will be explained deeper in chapter 2.

Chapter 2: *The Architectural Influences of anthroposophical architecture on the Rudolf Steiner clinic in The Hague.*

While this chapter will focus on clear architectural elements of the Rudolf Steiner Clinic in the Hague, it is crucial to first explain how anthroposophical architecture can be approached when it Is compared to the general perception of architectural styles. Anthroposophical architecture - differently from conventional movements - isn't in fact fundamentally based on principles of form or use or materials, but on a philosophical conviction that architecture should facilitate the user in connecting with the superconscious cosmic universe. This principle is best explained by Ella Kuijpers in her thesis: *De relatie tussen Rudolf Steiners architectuurfilosofie en de fysieke antroposofische architectuur als de essentie van en de voorwaarde tot het bestaan van de antroposofische architectuur* (2015).

Kuijpers (2015) explains how anthroposophical architecture is often assessed through the observation of its form typologies. Like organic architecture, the use of curved shapes and spaces can be seen, rather than a clear rational structure that consists of straight lines. However, these forms are often a result of the philosophical conviction rather than a fundamental typological aspect. In theory, Anthroposophical architecture could manifest itself in any shape or form as long as it relates to the environment and the purpose of providing a connection with the cosmic universe (Kuijpers, 2015).

Although it is now elaborated that Anthroposophical architecture can't be directly measured through clear and physical elements, it is often the case that anthroposophical architecture results in the use of organic curved forms and, especially under Steiners influences, uses very specific colour elements in the interior. These elements will therefore be further analysed when looking at the Rudolf Steiner clinic in the Hague.

First of all the Steiner Clinic's exterior is meant as husk, It shouldn't be the main object of interest but instead should facilitate the function and the user's needs (van der Ree, 2003). This husk in its turn helps the user to connect to the greater universe. This is often approximated (instead of achieved since Steiner stated that his ideal architecture was unachievable) by looking at the context in which the building is placed in. In the case of the Steiner clinic in the Hague, this results in curved organic shapes rather than structured straight shapes (van der Ree, 2003). Furthermore Steiner valued windows since they helped to establish this connection stronger. How this translates into the shape of the windows is unclear (Kuijpers, 2015). The roof of the clinic played a major role in the final shape of the clinic as a whole (Teunissen, 2020)

This shape of the roof freed architect Jan Buys from his rational and structured way of approaching architecture. An element that can be deduced from this, is that a connection with the context (which in Steiner's case also had a deeper philosophical meaning) is valued in anthroposophical architecture.

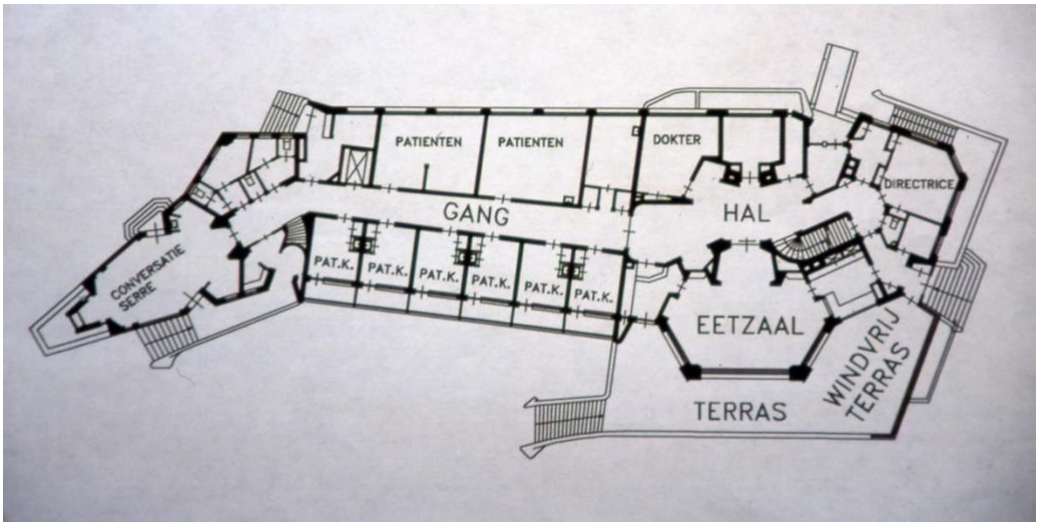


Image 1: floorplan of the Rudolf Steiner Clinic, from: 'Notes on the Rudolf Steinerkliniek', typoscript (unpublished), Marcel Teunissen, The Hague 2020

A more tangible element that is used in the clinic is colour (Teunissen, 2020). Specific colours were used to amplify certain emotions, feelings and physical processes within the body. Red was used as a colour that was thought to be beneficial for the patients metabolism, green would have a neutral effect, purple would influence the entire body and blue would influence the thought process of the patient (Teunissen, 2020). This view on the effects of colours was used in a way that entire rooms, furniture included, would be designed with only one colour.

One last element that was implemented in the new Steiner clinic, was that functions were located in such a way in the building that they would serve the needs of the patients. Physically handicapped patients were for instance located on the ground floor to avoid the necessity of elevators (Teunissen, 2020). This element will also be discussed later when analysing the Thomas houses.

Chapter 3 and 4 will further focus on the Thomas houses as an example of a present day and less conventional form of a caretaking home. Later, the elements that were highlighted in this chapter will be compared to the contemporary Thomas houses.

Chapter 3: *Healthcare Principles behind the Thomas Houses concept.*

It has been stated that the Thomas houses concept can be seen as a less conventional approach to a contemporary facility of assisted living for mentally disable people. While in the end a comparison will be made between the Thomas houses and the previously discussed Rudolf Steiner clinic, in order to derive elements from it that can be implemented in contemporary assisted living facilities, first the differences between the fundamental drivers of the two concepts need to be explained.

With the Rudolf Steiner clinic it was very clear that the principle as a whole could be connected back to the philosophy of the anthroposophical movement. Although this philosophy didn't always manifest itself in both healthcare and architectural elements in a concrete way, the basic principles and believes of the movement are very well documented and elaborated. The Thomas houses however, can't be linked to a clearly defined

philosophical or scientific movement in this way. The Thomashuizen, on the other hand, were formed as a concept by Hans van Putten, as a means to provide his son with a home rather than a hospital-like environment. Therefore, it is important to realize that the elements that will be discussed in this thesis regarding both the healthcare principle and the architecture of the Thomas houses are in reality not followed or implanted in an absolute way but in a more nuanced way.

That being said, the Thomas houses still show some elements that can be seen in almost every example of a Thomas house and clearly show that there is a main vision behind the concept that differentiates itself from conventional contemporary assisted living facilities for mentally disabled people. The elements that will be discussed in the following paragraphs are found from a first-hand source in the form of a lecture and Q&A session by Hans van Putten that took place at the Delft University of Technology regarding the Heritage and Architecture design studio of September 2020. The architectural elements that will be discussed in chapter 4 are further elaborated by looking at different examples of the Thomas houses in connection with the information that was provided during the lecture.

The main principle for both healthcare and architecture that shapes the Thomas houses concept is providing its inhabitants with a home instead of a healthcare facility. The Thomas houses are linked to an umbrella organization that differentiates each house into three different concepts: The herbergier concept, the Thomas op kamers concept and the Thomashuis concept. The Herbergier serves as a living facility for elderly that are suffering from dementia or other mental diseases, Thomas op Kamers provides independent living facilities for adults with a mild mental disability and the Thomashuis provides a small scale living facility for adults with a mental disability (group sizes are around 8 inhabitants depending on the specific Thomashuis).

A new Thomas house is founded from the initiative of what the Thomas houses call " a healthcare entrepreneur". These entrepreneurs are mostly couples or life-partners with a passion and vision for providing healthcare. The entrepreneurs can choose to develop one of the three concepts of the Thomas houses. The main umbrella organization helps the entrepreneurs by providing them with a suitable building and matches them with possible inhabitants. While the main vision of the Thomas houses has to be followed through in every establishment, the entrepreneurs are encouraged to implement their own visions as well and are also encouraged to learn from other entrepreneurs as well. Apart from the entrepreneurs, the Thomas houses strive to have at least 3 healthcare workers per 4 inhabitants. This aspect is deemed to be very important to provide suitable and sufficient healthcare for every individual inhabitant.

One way the Thomas houses try to create a homelike environment, is by trying to make the living situation as normal as possible. Within the houses inhabitants have a family like in a relationship. They eat together and if is possible they help with chores and cooking. They engage in activities together. Furthermore, as a mandatory condition, the entrepreneurs live on the premises of the Thomas house. This way the Thomas house doesn't only become their job, it becomes their way of living. The context in which the Thomas houses are set also helps them to make the living conditions as normal as possible. The Thomas houses never aim to isolate themselves from society, no matter if the house is set in a rural or an urban environment.

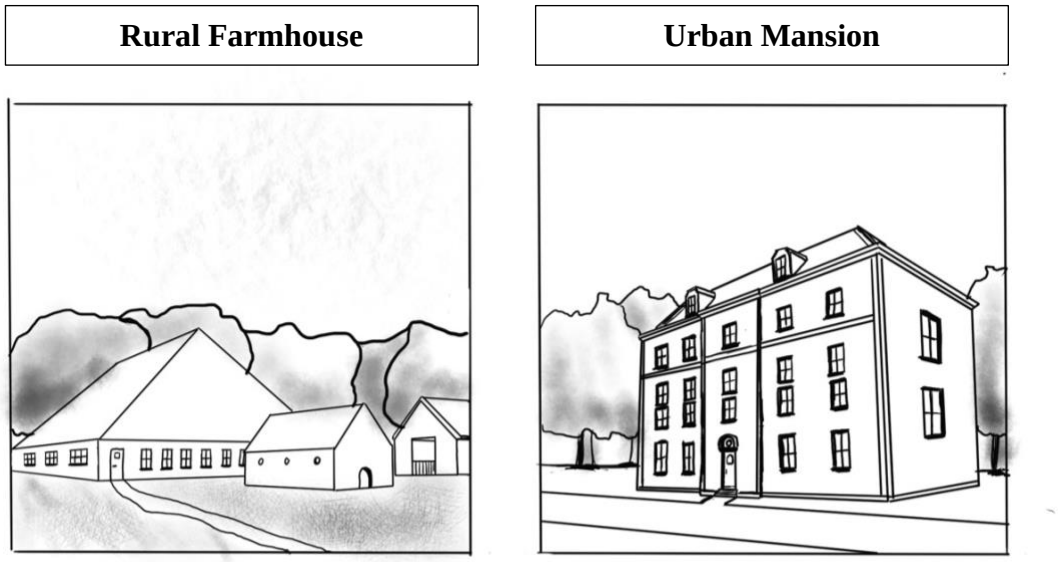
These visions on healthcare and creating a normal "homelike environment" are closely connected to the architecture of the Thomas houses. The architectural elements of the Thomas houses will be further discussed in chapter 4.

Chapter 4: *Architectural elements in the Thomas Houses concept.*

As was discussed in chapter 3, both the healthcare principles and architectural elements within the Thomas houses concept aren't based on a clear philosophy. However, when looking at the majority of the Thomas houses, a lot of similarities can be found. Together with the information that was provided by Hans van Putten, this chapter will focus on identifying these reoccurring elements by looking at various examples of Thomas Houses.

First of all the general typologies of the Thomas houses will be discussed. Secondly, the use of materials will be analyzed. Lastly, the interior of the Thomas houses will be discussed, with an emphasis on choices that were made by healthcare considerations.

In view of all 118 Thomas houses that exist today, a distinction can be made between two architectural typologies. These two typologies are, with the exception of a few examples, mostly linked to a specific context. This can either be the urban context or the rural context. The urban context includes both large scale cities as smaller scale villages, while the rural context mostly includes semi secluded farms that are connected to either a village or a composition of multiple farms. For the urban context, the Thomas houses can be characterized as "Mansions" and for the rural context they can be characterized as "Farmhouses" with or without the presence of a farm yard.



Drawing 1: Typologies of Thomas Houses, Own drawing

These two typologies aren't listed as a criterium for being suitable for a Thomas house, but they are present in every Thomas house. This is further elaborated when looking at the following examples of some of the Thomas Houses:

Rural Farmhouse

Image 2: Thomashuis Breezand, from: Thomashuis. (2021). Thomashuis Breezand [Foto]. Thomashuis.nl. https://www.thomashuis.nl/vestigingen

Image 4: Thomashuis Beesd, from: Thomashuis. (2021). Thomashuis Beesd [Foto]. Thomashuis.nl. https://www.thomashuis.nl/vestigingen

Image 6: Thomashuis Coevorden, from: Thomashuis. (2021). Thomashuis Coevorden [Foto]. Thomashuis.nl. https://www.thomashuis.nl/vestigingen

Urban Mansion

Image 3: Thomashuis Ijmuiden, from:Thomashuis. (2021). Thomashuis Ijmuiden [Foto]. Thomashuis.nl. https://www.thomashuis.nl/vestigingen

Image 5: Thomashuis Andel, from: Thomashuis. (2021). Thomashuis Andel [Foto]. Thomashuis.nl. https://www.thomashuis.nl/vestigingen

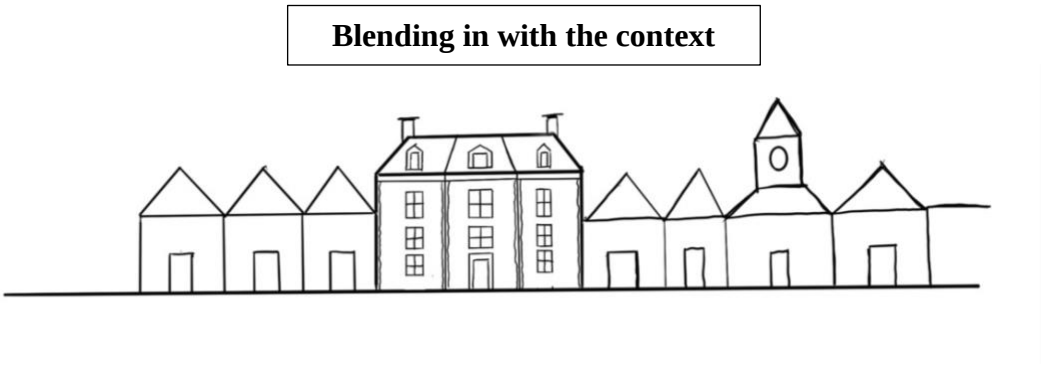
Image 7: Thomashuis Dongen, from: Thomashuis. (2021). Thomashuis Dongen [Foto]. Thomashuis.nl. https://www.thomashuis.nl/vestigingen

Based on the fact that this consistency doesn't arise from a criterium, it is interesting to analyse why these two typologies occur most often In the Thomas House concept. Multiple factors can be considered when looking at the general concept of the Thomas houses and the statements made by Hans van Putten.

The first factor that can be considered is scale. As was mentioned in chapter 3, The Thomas houses on average accommodate 8 to 9 residents as well as space for the healthcare entrepreneurs. Regarding similar contemporary institutions that follow a more conventional approach to assisted living, it can be seen that these often involve larger scale buildings, housing multiple living groups that can accommodate up to 20 patients per group (Den Duik, 2015). This often results in a custom designed building or a building that is more comparable

in scale to a medium sized apartment building. The mansion or farmhouse typology wouldn't fit this scale but facilitates the needs of the Thomas house concept adequately. Mansion and Farmhouses however, are not the only building typologies that meet this suitable scale. Small industrial buildings or old storage houses for instance are known to be redeveloped into housing and could be a sufficient alternative for the Thomas houses. Furthermore, small churches could fulfil the same purpose and would be a logical choice since a lot of churches are vacant in the Netherlands right now (Fijter, 2019) Therefore, other factors apart from scale need to be considered.

An element that may provide a deeper understanding to why the Thomas houses often can be categorized within these two typologies, is the core principle of providing a real home. According to Hans van Putten, this should be achieved by considering warmth and the Dutch "gezelligheid"- which is best translated as cosiness – as the driving factors for choosing a home. Although these elements can't be assessed in an objective way, one can argue that within the Dutch context, the typologies of the Mansion and the Farmhouse are considered to be best suited to provide this warmth and cosiness. Churches for instance, would not meet these criteria, due to the deeper religious meaning and feeling they always carry with them even after renovation (Anker, 2019). Taking both the aspects of scale and providing warmth and cosiness into account, Mansions and Farmhouses can be seen as an adequate option for the Thomas house concept. Furthermore it was stated by Hans van Putten that it is essential for the Thomas houses and its inhabitants to be part of and blend into society. In both the rural and urban context this might explain the occurrence of these two typologies, since they meet the necessary scale to fit in with their surroundings.



Drawing 2: Blending in with the context, own drawing

Looking closer at the two typologies, not only can they be classified as Mansions and Farmhouses, but more specifically as Mansions and Farmhouses with a building style that is typical for the first half of the 19th century. A very simple explanation for this choice of building style is that the Thomas houses are mostly housed in redeveloped buildings.

The use of materials within the Thomas houses is largely determined by both the criteria of warmth and cosiness as well as the typologies of the Thomas houses. In view of the use of materials, Hans van Putten states that he prefers the qualitative and sound materials of wood and brick that establish this warm feeling but also show a sign of real craftmanship in contrast to a very clinical feeling of smooth and sterile surfaces that are typically used in hospital-like environments. This can often be seen with the use of exposed wooden beams, fine ornamentation or just wood and brick in general. Images 7,8 and 9 show three examples

of Thomas houses that illustrate how a Thomas house is often more comparable to a regular home then to a needly designed clinical environment:

Image 8: Thomashuis Etten Leur, from:

Thomashuis. (2021). Thomashuis Etten Leur [Foto]. Thomashuis.nl. https://www.thomashuis.nl/vestigingen

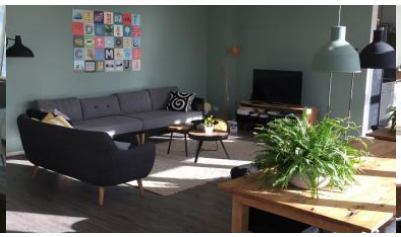


Image 9: Thomashuis Leiderdorp, from:

Thomashuis. (2021). Thomashuis Leiderdorp [Foto]. Thomashuis.nl. https://www.thomashuis.nl/vestigingen

Image 10: Thomashuis Overloon, from:

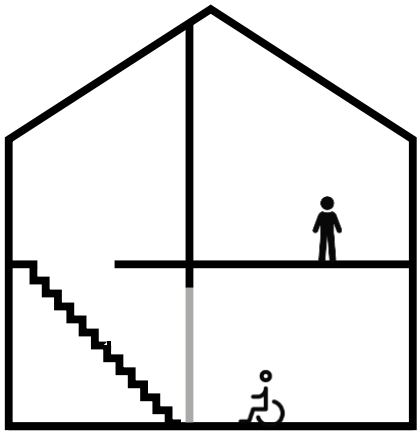
Thomashuis. (2021). Thomashuis Overloon [Foto]. Thomashuis.nl. https://www.thomashuis.nl/vestigingen

Apart from the choice of materials in the interior, the exterior use of materials in a Thomas house is largely determined by design of the existing building.

The interior and space composition of a Thomas house, has a close relation to the healthcare principles behind the Thomas house concept. A hospital-like environment has to be avoided. However, the house still needs to be suitable for providing the necessary healthcare for its patients. A few ways that indicate how this is achieved, have already been discussed. For example the small scale of the houses makes it possible to give each patient the attention he or she requires. Furthermore the integration of private living quarters of the healthcare entrepreneurs in the Thomas houses guarantees that the patients are supervised day and night.

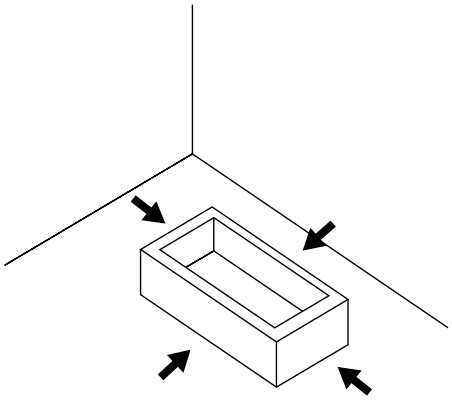
One other element that is present within each Thomas house is the simplicity of space syntax. When designing a healthcare institution, architects are often urged to immediately take into account where the elevators should be. When Hans van Putten was asked about this his response immediately illustrates how this approach of simplicity is implemented: “Why go through the hassle of constructing an elevator in a building when it might threaten the spirit of the building? If a Thomas house for instance needs to accommodate both physically and mentally disabled inhabitants, simply situate the rooms for those who cannot use the stairs on the ground floor and the rooms for those who can on the first or second floor.” A similar approach is used for bathrooms and bedrooms. Instead of using high tech constructions that help patients get in and out of the bathtub, the bath is simply placed in a way that it is easily accessible for both the inhabitant and the caretaker from all sides. Complementary to this, a lot of conventional institutions implement these tools to make everything as easy and quick for the patient as possible. While this is not necessarily a bad approach, according to Hans van Putten there is value in not implementing these tools. A physically disabled inhabitant might struggle longer to get out of bed, to get clothed or to even open a door, but he or she is doing it in a way that resembles how a non-disabled person would do it. This feeling of normalness and accomplishment might be worth the extra half an hour spent on doing things to an inhabitant.

Space Syntax



Drawing 3: the layout is adjusted to the type of inhabitant, own drawing

Accessibility



Drawing 4: Placement of a bathtub to benefit the accessibilitu, own drawing

In conclusion both the healthcare principles as well as the architectural elements that are connected to the Thomas house concept can be related back to the principle of creating a homelike environment that is connected to society. As can be seeniIn the references, an architectural typology is used that can be associated with a home and fits the scale of the concept while at the same time it blends into either it's rural or the urban surroundings. In the interior, simple solutions are implemented that do not clash with the concept of creating a home but at the same time accommodate the needs of its inhabitants.

Conclusion

The goal of this thesis is to aid in the further development of contemporary assisted living facilities for mentally disabled people. This future development is deemed necessary due to the fact that, over the course of the last 50 years, these facilities have transitioned into institutes that resemble hospital-like environments rather than homes. This occurrence could both be seen in architectural as well as caretaking principles. Therefor two examples of assisted living facilities that deviate from this development towardsinstitutional environments have been analyzed: First of all the Rudolf Steiner clinic as a historical precedent which predates this development and is known to be a less conventional example of a caretaking institute, due to its ties with the anthroposophical movement. And secondly the Thomashuizen, which can be seen as a contemporary example of a less conventional caretaking institute that strives to be a home for its inhabitants above all else.

A comparison between these institutes, looking at both architectural and caretaking principles, could provide new insights that may help both architects and healthcare institutions with making decisions in the design process of these institutes. By comparing a historical and a contemporary example, an assessment can be made of what principles could still be implemented in a present day context and what principles may no longer be suitable in a present day context.

Note that this thesis does not argue that conventional assisted living institutes for

mentally disabled people are providing healthcare in an inappropriate or ineffective manner and that these less conventional examples are superior or of higher quality. It is only argued that the analysis of these examples may provide insights In how one could develop these facilities as a home rather than a clinical institute. This could be desired, since these institutions do not strive to heal their inhabitants but instead, try to provide a place where inhabitants can live their live as comfortable as possible.

Now that both the Rudolf Steiner clinic and the Thomashuizen have been analyzed, the comparison can be made In both healthcare- and architectural principles.

First of all the comparison between healthcare principles will be made. Initially, one could argue that making any comparison at all regarding these principles can be very difficult. The Steiner clinic holds strong ties to the anthroposophical movement and therefor, a lot of the healthcare principles are based on its philosophy. This philosophy does not necessarily provide strict and clear principles. For example, the anthroposophical movement has certain views on the cosmos as a whole and how the human body is connected to it. While it is argued that one should strive to achieve an organic connection to this cosmos, which the clinic also tries to do for its inhabitants, it is not made clear how this can be achieved in terms of the provision of healthcare. In contrast, the principles of the Thomashuizen are very clear and quantifiable. Clear criteria are set for: the amount of caretakers per inhabitant, what is expected of the healthcare entrepreneurs, living group sizes and the overall role of the umbrella organization. Different from the Steiner clinic, the Thomashuizen are not connected to a strict philosophy, but rather to a humane vision or goal which is more comparable to those of (local) governments, corporations or educational institutions.

It is hard to assess the value of the philosophy of the anthroposophical movement within the Steiner clinic. However, when looking at the criteria that where mentioned for the Thomashuizen and comparing them to the Steiner clinic in practice, similarities can be found. These can be mainly seen in the scale of the institutions and the amount of caretakers per inhabitant. Although there is still a difference in scale between the two institutions (40 inhabitants in the Rudolf Steiner clinic and 8 per Thomas house), both can be considered as relatively small institutions when comparing them to conventional contemporary institutions (although they are often divided into different departments, one institute could have several hundreds of inhabitants). This principle was purposefully implemented in the Thomashuizen concept, due to the conviction that small scale living groups would sooner develop a bond that is comparable to a family and therefor contribute to the main principle of providing a home.

This aspect of creating a family is the last striking similarity between the Thomashuizen and the Steiner clinic. The Steiner clinic also had a very strong conviction that a warm and loving family could aid in the prevention and further development of mental illnesses. Albeit due to different convictions, both institutes value the aspect of creating a home and providing one with a family.

When looking at the architectural elements of the Steiner clinic and the Thomashuizen, a clearer comparison can be made. Although it was stated that Anthroposophical architecture cannot be defined as an architectural style and fundamentally does not have clear elements and forms that should be followed when designing anthroposophical architecture, certain reoccurring elements can be seen in manifestations of anthroposophical architecture. Therefor the architectural comparison is clearly divided into multiple categories: typology, scale, context, space syntax and interior.

Two typologies can be defined when looking at the Thomashuizen: the rural farmhouse and the urban mansion. Such a clear typology cannot be seen within the Steiner

clinic, however the overall architectural style strongly resembles that of organic architecture as can be seen in the round shape that adapts to the functions and the husk function of the roof. Where the Thomashuizen mainly depend on the renovation and redevelopment of existing buildings, the Steiner clinic building is custom designed with a clear vision of fitting into the context. Strong organic curved shapes can be seen in the design of the clinic whereas the Thomashuizen need to fit their functionalities within existing constraints. A similarity can be found in the use of material between the two case studies. Both show a preference for the use of brick and wood. This aspect is specifically mentioned with the Thomashuizen as a beneficial element to creating a home like feeling.

Scale is an aspect that was also mentioned in the comparison of the healthcare principles. Especially for the thomashuizen, the scale of the building is specifically chosen to be suitable for accommodating 8 to 9 inhabitants, an aspect that is crucial to establish bonds similar to that of a family. The Steiner clinic is considerably larger in scale yet still relatively small compared to contemporary institutes. In both cases this choice in scale show that more attention can be given to individual inhabitants within the building and a smaller scale community can be housed.

Context is an aspect that is of great importance for both the Steiner clinic and the Thomashuizen, however in different ways. For the Steiner clinic, context relates to the cosmic universe as a whole. The design should fundamentally strive to achieve a connection to this context. While this concept is rather vague and subjective, it results in a vernacular form of architecture in which the roof of the clinic plays an important role. Choice of form and material make it appear as if the building arises from the surrounding landscape. Further implications on how the building should relate to the surrounding societal context are not given. In contrast, this societal context is perhaps the most important aspect for the building choice of the Thomashuizen. The Thomashuizen strive to be a part of society and therefor to be connected to it.

Although space syntax is only mentioned briefly in the example of the Steiner clinic, a similarity with the Thomashuizen can be found. A pragmatic approach is used. Rather than choosing to use severe design interventions, simple solutions are implemented. For example, rather than using elevators, physically disabled inhabitants are simply situated on the ground floor.

A difference can also be seen in the interior design of the two case studies. The Thomashuizen merely try to establish a homelike feeling which can be related to the Dutch concept of “gezelligheid” (coziness). In contrast, the Steiner clinic’s interior designed is heavily based on the study of colors. Entire rooms make use of only one color in order to trigger specific emotions. This concept can be related to present day developments of special treatment chambers. For instance resting chambers specifically designed to sooth autistic inhabitants. This can serve as a valuable implementation in contemporary assisted living institutes.

Now that the comparison has been made between the Rudolf Steiner clinic and the Thomashuizen, general aspects can be identified that could be considered beneficial for the future development of assisted living institutions for mentally disabled people. This will provide us with an answer to the main research question of this thesis:

How can contemporary assisted living groups for mentally disabled people in the Netherlands further develop when comparing them to the Thomashuizen and historic precedents from the interbellum years until the late 20th century?

In general, striving to create a home rather than a hospital-like environment is something that should always be considered when looking at healthcare institutions that strive to accommodate their patients or inhabitants rather than to heal them. This goal can be strongly perceived within the Thomashuizen concept and to a certain degree within the Steiner clinic. A lot of the healthcare principles within the Steiner clinic are based on a very firm philosophy. The value of this philosophy can only be assessed in a subjective way since it is not backed up by any empirical evidence. However the importance of a warm family emerges from the philosophy and is further supported by psychological contemporary research. To obtain a result of a home with a family-like community, the most important aspects to consider from both the researched case studies are: scale, atmosphere, context and pragmatism. In conclusion the following list of considerations is composed and could serve as a helpful tool in the future design of assisted living facilities :

- **Scale:** Designing institutions on a smaller scale may result in establishing family bonds within the living group. Furthermore, small scale facilities combined with enough personnel per inhabitant allows for more specific attention and care that can be given to individuals.
- **atmosphere** Within Dutch society, a certain choice of materials and typologies are associated with the concept of a cozy home. In both the researched case studies it can be seen that this can be established through the use of brick and wood to establish a warm image over clinical convenience (the latter indicating that, although hygiene and safety are important, they should not compromise the overall image of the building and its interior). Furthermore the typologies of the farmhouse and the mansion can be seen as appropriate buildings to accommodate the scale of the institution while at the same time they maintain the image of a home.
- **Context:** these typologies furthermore fit into the surrounding context of either the rural or the urban context. This “fitting in” principle can prevent isolation of the institutes from society and may result in more engagement of the institutes within societal activities.
- **Pragmatism:** One should consider how to approach space syntax as well as the functional layout of individual spaces on their own. Often designers immediately engage in thinking about elevator placement or the integration of special aiding tools. Some if these issues may have simple solutions that do not compromise the overall image of the building to heavily.

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