

A FINAL MOVE TO YOUR OWN HOUSE

A residential care centre is often the final place where people end up living. This should be the most beautiful place where they have ever lived. In practice this is sadly not the case

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Abstract

Objective – What makes a house a home? Many residents of care centres do not feel at home. 'This is not my own house', is what we heard in many of our conversations with residents. What makes the current houses into homes? Probably not the fact that everyone enters through the same door and has to walk through a corridor devoid of any daylight to get to their room. Residential care centre Cornelia by Allévo in the city of Zierikzee is developing a new building that is aimed towards providing the residents with their own home in the last phase of their lives. A sense of ownership and control.

Background – A lot of people suffering from dementia are able to reside in their own house in the first phase. Once their situation gets worse or their informal carer becomes unavailable, people often end up in a residential care centre. Unfortunately, these people have to move from living independently to living in a small room in which they lose the feeling of having their own place or being able to manage their own lives.

Research question – How can you turn a care home into a home for people with dementia? Every house has a front door, this emphasizes their independence and autonomy. In the new building at Cornelia care centre all residents have their own front door leading to the park. Every visitor can use this front door and residents are able to go in and out of their own volition. The research question examines whether this concept provides a sense of ownership and control to the residents, a feeling of having their own home.

Methods – 93 residencies will be built in the care centre. The residencies have a front door to the outside and a back door to the inside, which is the central area of the building where the communal rooms are situated. With this chosen care concept, the residencies are not immediately situated next to a communal room, resulting into more possibilities to place the residents with like-minded people with the same interests, while also making it possible to switch in between. Visitors can park their cars near the front door or put their bicycles against the outside of their loved one's house. The covered area next to the front door makes for a space to sit outside. There is a small bench and a wooden frame offering enough protection from the sun. The residency is a studio in which the sleeping area is separated from the spacious living room.

Results & Conclusion – Can having a personal front door provide a feeling of an own home for the residents as well as their visitors? Does it help to choose freely when to go outside? Is it nice to be able to choose between different communal rooms to spend your days? This new building at Cornelia care centre is a search for returning ownership to people with dementia.

Keywords: *House | Home | Care | Dementia | Residency*

Many people wish to keep living in their own home until they pass away. Sadly, this is not an option for everyone. Moving to a residential care centre is usually not something to look forward to. Often, there is less space, luxury and privacy, which makes it feel like a downgrade. The feeling of 'being home' loses its meaning and whatever meaning is left is related to the house that was a home before moving to the residential care centre. The freedom to manage your own life, your personal habits and routines often get lost in the process. Instead of having everything to yourself you will find yourself having to share more often than not, like a shared entrance for instance, or a shared living room or kitchen. This feeling of ownership and control is very important to elderly people, something which is easily dismissed but actually makes for an immense change in the final chapter of their lives.

Care institution Allévo intends to turn that final move to a residential care centre into something positive. The idea that moving to a residential care centre is bad has to be changed; moving to a residential care centre is the icing on the cake! Care is important but in reality, it only takes up a rather small portion of the day. The main focus is on everyday life. The residents each have their own residency with all its regular features. A seat on the pavement in front of the residency, their own front door with their house number and a letterbox. The decision for individual front doors gives residents a feeling of their own place and control. In the residency there is a living area with some space for a table and a seating area and there is a sleeping area with a private bathroom. The residency is flexible and offers the owner a lot of space to put personal items. This shows the owner's identity and interests and creates a pleasant living environment with a feeling of ownership.

The elements of a residential care centre that is linked to health care, like providing meals, daily activities and therapy take place in a stimulating environment. The residency is not connected to one specific meeting room which creates the possibility to adjust to the resident's needs and interests or even to switch social group. To get to the meeting rooms in which food is served and eaten and activities take place, you pass green patios and recognisable markers with continuous daylight shining into the corridor.



Figure 1. Design residential care centre Allévo

Design for dementia

People who move to a residential care centre often suffer from mild to worse forms of dementia. Dementia is a disease that can develop slowly but can also suddenly strike, sometimes triggered by a certain event in someone's life. The progression of the disease is something that needs to be taken into account in a residential care centre, but most centres do not have the flexibility to adjust the living environment to the progression of the disease. People with dementia can change in character or need more peace and quiet than before. By not connecting residencies to specific meeting rooms, residents can switch social groups without needing to move within the residential care centre.

Freedom is one of the first things that gets limited for people with dementia. To prevent dangerous situations, measures have to be taken to ensure the safety of the resident and their environment. One of the possible dangers that often comes up is when someone with dementia forgets to turn off the gas after cooking which can cause fires. Or someone with dementia walks out the door without a coat on in the winter and forgets their way home, or even worse. To prevent these kinds of accidents, sections are locked up to make sure residents cannot just wander off, even though elderly people with dementia like to wander around. Wandering around in a familiar environment gives them peace and helps them get their important exercise in [1]. Additionally, fresh air and daylight – especially sunlight – is very important for the elderly because of their deteriorating eyesight which makes their need for enough light greater. To

illustrate; on a cloudy day the luminosity is measured at 1000 to 2000 lux, in a typical living room inside a residential care centre this is around 100 to 150 lux. On top of that, a 70 year old person absorbs three to five times less light than a 20 year old because the cells that are sensitive to light deteriorate with age [2]. The combination of deteriorating eyes and lower luminosity in the elderly peoples' environment is alarming. Enough daylight keeps elderly people active and is good for their sleep pattern. Research shows that 25% of people with Alzheimer's have a disrupted circadian rhythm [2]. By spending 30 minutes outside, elderly people can create more melatonin at night to help them sleep better. Research and experience helped make it so that having enough daylight in the entire building was an important guiding principle in the design for the residential care centre for Allévo.

Another measure that restricts freedom, that usually follows, is not allowing people with dementia to cook anymore because this could lead to accidents. What gets lost is the ritual of preparing a meal, together with the stimulation of various senses that comes with it. This negatively effects the dementia since it is of the utmost importance to keep triggering and stimulating the senses. Smelling herbs, cutting a cucumber and feeling the fluids on your fingers, hearing a bean grinder. These all invoke the feeling of wanting to eat and drink. Including residents in the routine of preparing meals can help increase their appetite. Memories are brought back by stimulating the senses which can be revitalising for older people with dementia. They will be able to recognise specific elements, actions and physical objects which is comforting for them. In other areas of the building senses and memories are being incorporated as well. Corridors become interesting due to recognisable markers which improve orientation in the building at the same time. Residencies will feel more like home by offering the resident the possibility to put personal items by the front door for instance.

The shortage of staff or wanting to protect the residents are two reasons for deciding to take measures like locking sections up. But this should never restrict the freedom of residents who are still capable of going for a short walk outside. By utilizing home automation and re-evaluating our view of dementia a lot can be achieved, even with limited staff occupation.

How do you create the feeling of being home?

How can you ensure that for people with dementia, a home becomes their home? This is the central question in our research for the design for Allévo. Can increasing the feeling of control and ownership contribute to the feeling of being home? And in which ways can the design of a building influence this?

The research of creating a home for elderly people suffering from dementia started with questions care institution Allévo had, but it is also a continuation of an earlier study of dementia, *Ontwerp & Dementie (Design & Dementia)* in which stimulation of the senses was used in order to help elderly people with dementia recognise objects and recall memories [3]. This was tested in multiple phases in care home De Diem in the town of Diemen. Residents of the dementia department joined a smell workshop after which mock-ups were built of the most appealing memories from the results. Examples are a beach house with seashells and sand, a dressing table with perfume bottles and a table with jars and plants for gardening. In the final phase of the study *Ontwerp & Dementie* the dressing table has been developed as a memory place and by creating four dressing tables with different colours, shapes and designs, the study investigated which elements triggered memories for the elderly people. The findings of this study, playing into senses and memories amongst others, are the foundation for the design for the residential care centre for Allévo. By realising the building for Allévo a new phase begins in the current research. The results that will be tested when commissioning the new building will contribute to the development of knowledge.

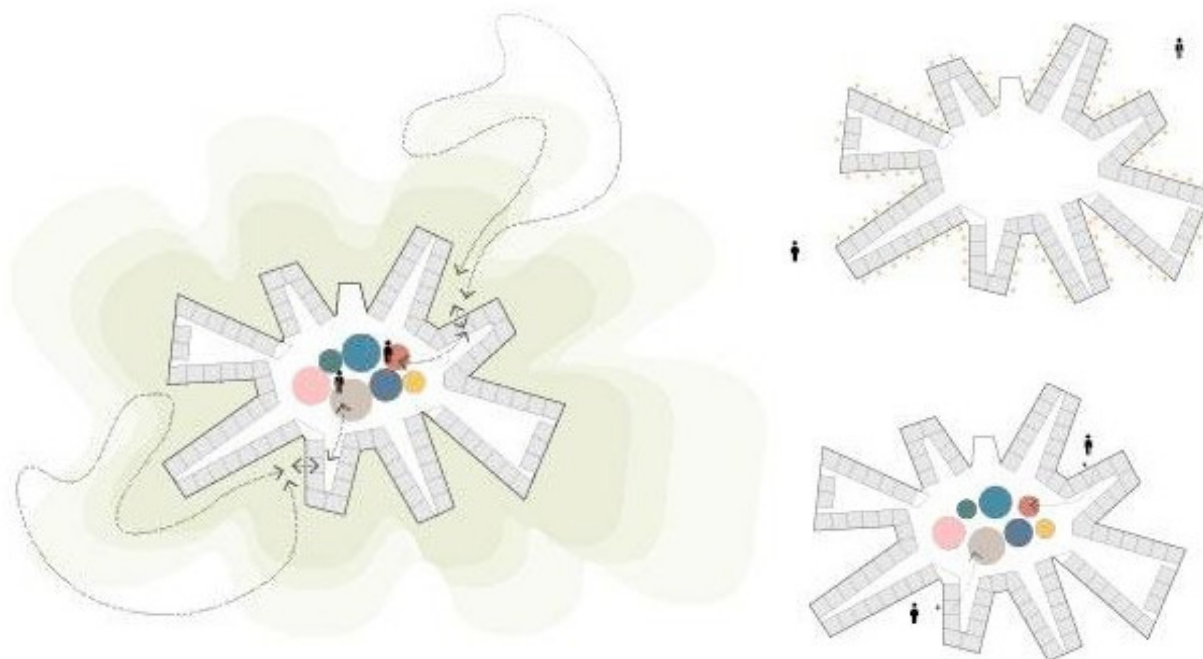


Figure 2. Blueprints building structure, garland of 93 residencies in a green environment with meeting rooms in the central location

The question how a house feels like a 'home' seeps through multiple levels in the design for the residential care centre for Allévo. On a large scale, in the organisational structure, a care concept has been chosen that will focus on the resident and their specific needs. The 93 residencies are positioned like a garland, draped around the central part of the building in which the different meeting rooms are located, giving everyone their own front door (figure 2). With this structure the residencies are not connected to one specific meeting room, meaning a resident can switch social group without having to move. The resident can, depending on their preferences and the extent of their dementia, be placed in a social group in which they feel at home between like-minded people. It is not up to the care centre, but the resident to choose their place to meet others. It also creates more flexibility for staff members because all meeting rooms are connected to each other with connecting doors.

The meeting rooms each have their own themes which play into different interests. There is, for instance, a 'sports rooms' (figure 3) and a 'hobbies & games room' (figure 4). All meeting rooms are suitable for the standard activities like preparing and eating meals and watching television, but the decorations fit the specific theme. Additionally, every meeting room has a special area in which a specific activity can take place. The music room has a seating area with a piano, the workshop has a workbench and a pallet rack (figure 5) and the gardening room has a large flower pot to pick herbs and tomatoes from (figure 6). Other meeting rooms are more focussed on peace, something that residents with a more developed stage of dementia often require. These rooms are themed 'harbour' (figure 7) and 'meadow' (figure 8).

The building structure is catered to older people with dementia. Around the meeting rooms runs a corridor designed for residents to wander around. In this corridor you will find the themes of a number of meeting rooms brought outside of the room to function as recognisable marks which are able to trigger the senses. The 'kitchen' for example, has a window through which freshly baked cookies spread their smell into the corridor (figure 9). A little further you will find the outside of the 'beach room' which is a wall decorated with real seashells that residents can touch (figure 10). The 'coffee house' has a chalkboard on the outside of its wall on which the coffee of the week is being advertised (figure 11). The 'Library' has a large bookcase that comes through the wall (figure 12) and the 'music room' has a window which serves as a rack for LP records with speakers beside it from which songs can be heard (figure 13).



Figure 3. Sports room, bench in the corridor



Figure 4. Hobbies & games room, old Dutch games



Figure 5. Workshop, pallet rack with artworks



Figure 6. Gardening room, flower pot to pick from



Figure 7. Harbour, nautical room



Figure 8. Meadow, natural materials



Figure 9. Kitchen, smell of cookies in the corridor



Figure 10. Beach room, seashell wall



Figure 11. Coffee house, chalk board in the corridor



Figure 12. Library, bookcase through the wall

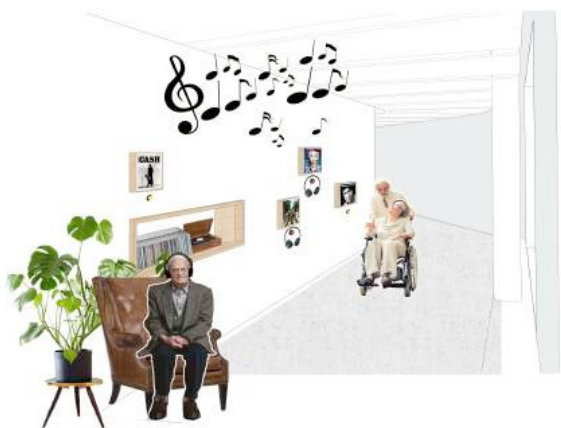


Figure 13. Music room, speakers in the corridor

The garland of residencies around the meeting area makes it so that all residencies have their own front door both on the inside, connecting to the central part of the residential care centre, as well as on the outside, connecting to the garden. A personal front door where residents can receive guests, retrieve their own mail and go outside for a short walk in the garden. The front door is shaded in a niche with a pergola for the wind. There is a wooden frame hanging in front of the bedroom window that can be used for seating while providing extra shade on sunny summer days (figure 14). There is a broad sidewalk running parallel to the façade around the building which gives access to the surrounding gardens. These elements in the design show that a lot of attention was paid to the outside of

the residency in order to make the transition from inside to outside as smooth as possible. This encourages the residents to use their own front door which increases their feeling of ownership.



Figure 14. Personal front door, smooth transition between inside and outside

Care institution Allévo sees every resident as an individual and for each person they look at which measures are necessary. Allévo is planning on working with home automation with controls put into either bracelets or necklaces. This technology can be configured to be able to open certain doors while not working for others. Around the building, a zone can be configured in which the residents can walk around safely and freely with the help of GPS tracking, without having to put fences around the terrain.

The front door on the inside of the residency is made recognisable for the residents. Every corridor has an accent colour that corresponds with a painted strip on the wall next to the front door. Located inside this coloured strip is a glass showcase with wooden shelves which residents can position for their own personalised layout. In this glass showcase residents can put their personal items like plants, photographs or figurines (figure 15). The coloured strip combined with the glass showcase with personal items makes every residency recognisable for the residents and makes the corridor into an interesting area.



Figure 15. Glass showcase, recognisable mark next to the front door on the inside of the building

The layout of the residency is flexible and can be used by either one resident or a couple. The living and sleeping areas both have a large window looking out over the garden and the two areas are divided by a multifunctional cabinet. This cabinet offers privacy in the sleeping area without blocking all sight, so when the resident is bedridden they can still communicate with the seating area. In the cabinet there is space for a TV set up which can be turned to face either the seating area or the bed (figure 16). There is room in the other compartments for personal belongings. In the living area there is enough space for a table with some chairs and a seating area. This gives the residents their own place and the possibility to receive visitors.

The concept with all its elements of recognisability, keying into the senses of the residents and offering them the possibility to personalise their living environment has been developed with the hope of contributing to the feeling

of being home for the residents of the residential care centre. These are elements that help create a feeling of ownership and control. These elements make up the foundation of the research on the feeling of being home.



Figure 16. Residency, living and sleeping area divided by flexible cabinet

Research methods

The research is following the design of the residential care centre and because the residential care centre is currently still under construction not all results are in yet. But the research methods on how to view the results have been determined. These methods concern both the preparatory phase as well as the commissioning phase.

Open day

To gain good insight into what goes on at the residential care centre the architects spent a day in the residential care centre prior to the design process. The architects followed several staff members like a caregiver, a physiotherapist and a policy manager during their everyday tasks. Aside from conversations with staff members, the communal living rooms and brasserie were observed as well.

User dialogues with staff members and representative of the residents' committee

User dialogues took place during different phases of the design process in which the architects went through their plans for the building structure as well as the layout together with staff members of Allévo and the representative of the residents' committee. Different designs were discussed, like the layout of the residencies, the themes and the layout of the meeting rooms and the brasserie. During the look & feel workshop, the guiding principle for the interior design was determined with the help of mood cards with images and text. Further along into the design process there was an evaluation of feedback during which all materials and finishes were tested against the guiding principles that were determined during the look & feel workshop.

Since not all current residents were approachable at all times and most likely would not all be moving into the new building, the architects started a dialogue with the representative of the residents' committee. This way, the voice of the residents was still heard and it allowed for the possibility to include certain wishes the residents had into the design.

The wishes of the staff members and residents were talked over with the policy makers and managers and tested against the new care view of Allévo to see whether they fit into it. The guiding principles to not connect the residencies to the meeting rooms and to provide a personal front door for every resident – on the ground floor – were talked over with the management before they were further developed. These guiding principles will not only affect the building, the organisational structure has to be adjusted for this to work as well.

Questionnaires

The research question whether residents in a residential care centre feel more at home in a building where control and ownership is the founding principle seems simple to answer when you would ask the residents themselves, but that is actually not the case. The residents that will move together to the new building will notice the differences but for the residents that will be new in the residential care centre there is no comparison to the old situation. Additionally, we are talking about residents with dementia who, as the disease develops, often change and do not

have an unequivocal opinion themselves. Because of this, the staff members of Allévo and the caregivers that deal with the residents on a daily basis are called upon to determine the effects of the concept.

The caregivers will receive questionnaires on two separate occasions, prior to moving (during the old situation) and after the commissioning of the new building. These questionnaires will consist of statements for which the caregivers can indicate to what extent they agree or disagree as well as questions about the behaviour of the residents together with a subdivision about the expectations for the concept of the new building and how it actually played out in practise (in comparison with the old situation).

Observations

To expand their knowledge and experiences, the architects themselves will start observing after realising the design with the focus being on the residents. They will look at which interventions in the design have the expected effect on the behaviour of the residents and which do not as well as how these interventions can be optimised. Aside from observing specific cases or specific areas there will be an overarching structured observation in which things like how many residents wander around the building, how many residents stay in their residencies during the day or how many residents go for a short walk in the garden will be looked at.

Results & Conclusion

The research question cannot be answered at this time. As soon as the new building is completed, we can continue our research and measure the results. The personal front door and the freedom of choice to go outside is an aspect that carries a lot of expectations. No more closed off sections on the third floor of a care home in which a green environment with fresh air and enough daylight is far out of the resident's reach. The possibility to switch meeting rooms and the distinctive additions to the corridors and the residencies to create a feeling of recognisability are elements that should stimulate the feeling of ownership and control. After years of research and dialogue on this theme the time has come to realise the concept with enough confidence.

There are no results yet, but there are expectations. The sense of ownership will mainly be reflected in the homes. The display windows on the side of the inner door can start working as a showcase from the corridor, just like the widened windowsill next to the outer door. The cupboard that separates the living area from the sleeping area also offers possibilities for placing personal items. In anticipation of the sense of ownership, we expect that the sense of self-direction will be triggered by the front door on the outside of the home. The goal is for the resident to use this door just as in a normal home; to receive visitors, to greet the postman or to take a stroll through the gardens. In this way the resident will be less confronted with the fact that they live in a care institution. The gardens are designed to stimulate movement and to develop a better day and night rhythm through exposure to daylight. The variety of short and long walking routes and the many entrances and exits in the building are designed to offer the elderly residents the opportunity to exercise based on their personal fitness abilities. Local residents are also welcome to walk in the gardens. The contact between the neighbourhood and the residents can bring liveliness and create more social contact.

A lot of attention has been paid to the decoration of the meeting rooms in the central part of the building. By linking these to themes, we have tried to make them more attractive to residents. The hope is that these residents will revive certain activities or memories that evoke themes that make them feel comfortable and possibly delay the dementia disease.

When realizing the design for the Allévo residential care centre, many conclusions can be drawn that contribute to research into the effects of spatial design on dementia. In the following, it can be interesting to investigate how, with this target group, movement can be stimulated more and how the spatial structure of a building can contribute to this. You can also look at how the building can open itself more to the outside in order to attract local residents for more social contact. This allows society to come into greater contact with elderly people with dementia, so that even in everyday situations elderly people with dementia (also at an early stage of dementia) can count on more understanding and attention from their community.

People who suffer from dementia is a large target group for our architectural firm that we will be working with more and more in the future which provides us even more reason to start looking into how the built environment

can affect this disease and how we can make the environment more pleasant for residents of residential care centres. All in all we are hoping that in a few years they will feel like their final home was the nicest!



Figure 17. Entrance square residential care centre Allévo

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