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PREFACE



WHO IS OMI?

As long as I remember my grandma has always been an independent and vivacious woman, 1945 she, her mother and her 8 siblings were expelled from the Sudetenland (a former German speaking area, located in today's Czech Republic, which became Czech ground at the end of World War II). Like cattle they were put in trains for days without light or sanitary facilities. They arrived in a small Bavarian town. That is where they started to build up a new life, literally out of nothing. After finishing an apprenticeship as hotel manageress she met my grandfather. They got married and my grandmother gave birth to a little son, my father. They left the small village and moved to Munich.

The marriage didn't work out, my grandparents got divorced when my father turned eight. She never got remarried again.

Ever since my grandmother has been working hard and successfully her whole life. What sounds rather trivial from today's perspective was very uncommon back in these days.

That is how I met her: ambitious and fond. She was always great in organizing things. She was never too late. She was a very controlled person but always with a smile on her face. Her love towards us kids was profound.

Dementia came slowly.

Three years ago, she once got lost on her way home because she couldn't find her street anymore. A person who was always accurate started to forget little but relevant things.

If I call her these days she might tell me the same story five times within 10 minutes.

Luckily her boyfriend moved in with her. Because even though she wouldn't concede it to herself she would not be able to live by herself anymore.

Dementia tiptoed in her life.

A lot of her memories are getting wrapped with a grey cloth, impossible for her to unwrap. She is gradually losing the control about her life.

Every course of the disease dementia proceeds differently. We are lucky because her dementia seems to proceed quite slowly. Next to bad days she also has very good and bright days. She laughs and jokes around.

She is still my beloved Omi. But - and this makes this illness so unpredictable and painful, there is no turning back. Dementia is irreversible and until today an effective antidote hasn't been found.

I can't predict the future, but dementia will change her more and more. The imagination of her in a nursing home staring at a TV all day long hurts me deeply. I am frightened of losing the profound connection we have.

When I started my project, I didn't have a lot of knowledge about dementia. But I remember, I have had this image in my head of people suffering from dementia. I imagined passive and silent people, not being able to recognize anything around them. With whom interaction becomes something almost impossible. My research should teach me better.



OMI AND HER BOYFRIEND DURING CORONA PANDEMIC



"WE ALL WANT TO GET OLD, BUT NO ONE WANTS TO BE OLD."

Quoted by Judith Prem, CEO of the German organization Retla, which organizes events for nursing homes, during an interview I took with her.

In the context of my research on loneliness and the lack of body contact in old age, I came across an interesting topic: the disease dementia.

After exploring the subject in more detail I decided to dedicate my thesis to this disease.

As I mentioned, my grandmother has been recently diagnosed with an early state of dementia, and thus the topic gained also a personal relevance for me.



GENERAL FACTS ABOUT DEMENTIA

Especially modern Western societies are shaped by an increasing life expectancy as well as a constantly declining birth rate.

Due to this demographic development, the world's population is aging currently more than ever before and puts mankind towards new and unexpected challenges ¹.

One of the biggest is dealing with so-called geriatric disorders. Dementia is one of the most popular diseases the older population is suffering from today. In Germany for example approximately 1.6 million people are affected by dementia. Worldwide more than 50 million people are suffering from this disease 2 .



WHAT IS DEMENTIA?

The word dementia has its origin in the Latin word "demens" which means "without spirit " $^{\rm 3}.$

Dementia is an umbrella term used to describe the symptoms that occur when the brain is affected by a number of conditions. Dementia brings a range of symptoms with it. The most widespread ones are the loss of memory, the loss of cognitive abilities as well as the loss of ability to communicate ⁴. For the people with dementia as well as their relatives and friends this disease is a heavy blow of fate. The disease is irreversible, and the symptoms are getting worse in the course of the illness – often until mental, cognitive and communicative capabilities are gone completely.



TYPES OF DEMENTIA

There are three types of dementia which occur most often. The most common one is the Alzheimer disease. Next to that there are Vascular Dementia as well as Lewybody Dementia 5 .



STATES OF DEMENTIA

Generally it can be said that a dementia patient undergoes four different states of the disease.

In the early state the patients recognize a debilitation of the short-term memory. In this state most patients are still able to live by themselves with a minimum of external support. Apportioning of blame is very common in this state (Information retrieved during the online training I was taking to become a dementia assistant -at wohlBEDACHT e.V., 27.02.2021-20.03.2021).

In the mid stage the fine motor skills start to decline, the patients experience trouble finding words and speaking as well as the experience of disorientation. The ability to communicate deteriorates. It isn't possible for the affected person to hold on to social rules (Information retrieved during the online training I was taking to become a dementia assistant - at wohlBEDACHT e.V., 27.02.2021-20.03.2021).

In the progressed stage the patients have lost their capabilities to master everyday life by themselves completely. Often the ability to recognize relatives or other well known persons has vanished. The patient has to be nursed. The sense of shame has gone (Information retrieved during the online training I was taking to become a dementia assistant - at wohlBEDACHT e.V., 27.02.2021-20.03.2021).

In the final stage consciousness as well as muscles decline continuously. It often seems that the persons affected have cut themselves off from the outside world. Patients spend their time sitting or lying with an empty gaze (Information retrieved during the online training I was taking to become a dementia assistant - at wohlBEDACHT e.V., 27.02.2021-20.03.2021).

The effects of the disease weakens the body so much that it finally progresses to death ⁶.

These are generalized observations about the progress of this disease. As I mentioned before the individual course of the disease can vary considerably.



Especially in the German health care system there are dramatic financial bottlenecks.

Unfortunately this often prevents people suffering from dementia from getting a proper therapy. Even though it is proven that special therapies and the stimulation of the senses have a lot of positive effects on the patients or, in the best case, are even able to slow the disease process down 7. Often the patients have to stay in nursing homes for years without too much stimulation and special care. In an interview I made, I was told how much the patients were profiting from listening to a special concert designed for them. Even days later their behavior was more calm and hilarious than before (Retrieved during the interview with Judith Prem, CEO Retla). Due to the memory loss of the person

suffering, the disease can bring a tragic distance between the patients and their relatives. A lot of people who "lose" a beloved person to the disease experience that as very tough. The thought that your own parents aren't able to recognize you anymore is very harmful and sad. Given the fact that dementia is a widespread disease with increasing numbers, there aren't enough options to make the contact between people suffering from dementia and their relatives easier to handle.

During my research I had the chance to get in contact with numerous people who have

experience with and knowledge about the disease. I talked to friends whose grandparents/parents are affected by dementia.

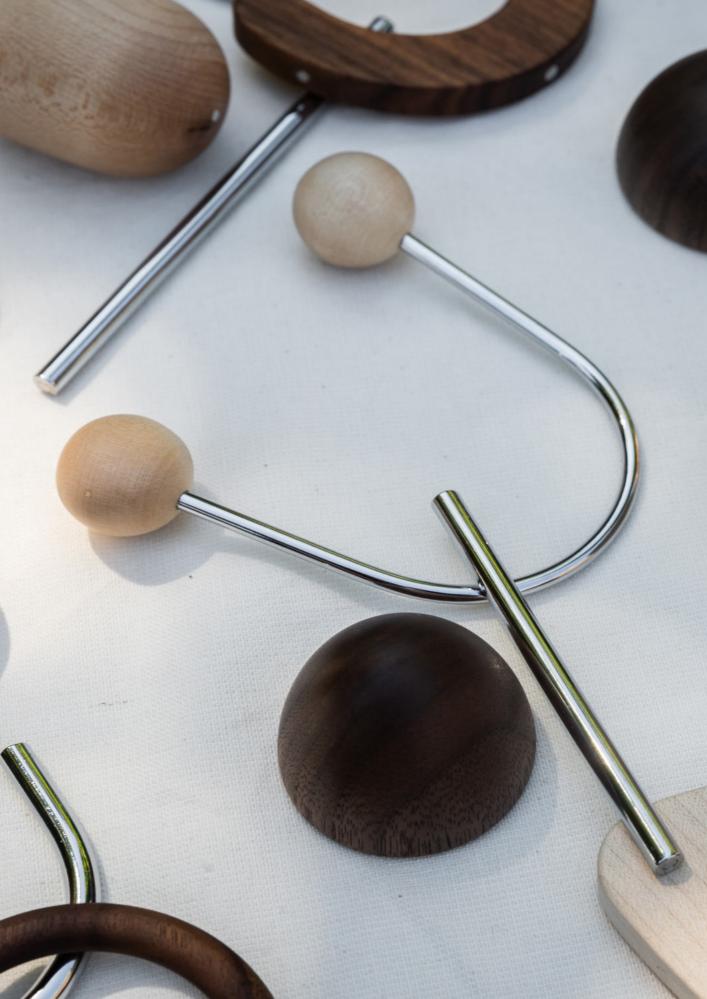
I had the chance to interview people who are working for dementia foundations as

well as geriatric nurses, who are specialized on dementia care. I was even able to follow an online apprenticeship to become a "dementia assistant". Besides nurses, there were people who are caring for a relative suffering from dementia at home in this course.

One thing which came up again and again during this research was the big struggle of not being able to interact with the beloved person suffering from dementia. The progressing loss of communication makes it very hard, sometimes impossible for the relative/nurse to keep up the kind of contact with the patient they used to have. Verbal and non-verbal communication or interaction is one of the essentials in human life. And this is true both for dementia patients and all their contact persons.

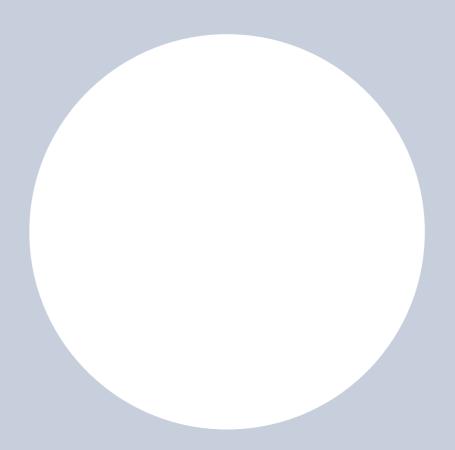


CONCERT IN A HOME FOR THE AGED, ORGANISED BY RETLA $^{\rm 1}$





MAIN PART





FOREVER YOUNG

The gap between old and young is continuously getting bigger. In a performance society like ours, where self optimization gained such great importance, aging and disease do not fit. As a result it is very controversial and questionable how we treat our elderly and how we cope with aging.

On one hand everything possible is done to prevent the aging process. Especially in social media the doctrine has been emerging to stay young, agile and fit – at its best forever. "Anti-aging", a marketing buzzword out of the cosmetic industry reflects the underlying ideology.

And indeed medical research and treatment as well as high nutrition and hygienic standards were able to delay the aging process and death many times over. Diverse pills and treatments help to extend one's lifetime for years.

On the other hand: How do we as Western society treat our elderly? Still one hundred years ago it was quite common to care for our parents/relatives once they got old. In most cases today's lifestyle is not offering the opportunity for people to still care full-time for our aged relatives anymore. Time is such a precious good nowadays, that spending time with elderly is often seen as a burden.

The tragic result of that is a rising age lonesomeness. Today's fast pace makes it hard for elderly to contribute to our society in an "efficient" way. When your social circle slowly vanishes and age related illnesses are ruling out to participate in society, it is likely to become lonely. The disease dementia painfully indicates the difference between ideological claim and reality.

With this project in particular I am (also) aiming to encourage people to rethink the way we are handling age and age related diseases today.

CORONA PANDEMIC - RESEARCH METHODS

"(...) It was about designing things which responded to the women themselves.

So by taking the time to listen to the women and the other citizen experts and really understand their needs and aspirations of their daily life. What we found is in order to generate design solutions that would be appropriate we had tactually design from this question: how might we design for the cook not the cookstove. (...)"

(Quote by Liz Ogbu, taken from the Ted talk "Why I'm an architect that designs for social impact, not buildings." 8)



DOCTOR COMFORTING ELDERLY COVID PATIENT 2

During my entire studies I have been interested in questioning social circumstances and the values of our present society.

It is my vision to have an impact on social problems with my designs. With this project in particular I am aiming to open up a conversation about what grievances are present today, especially regarding the treatment of the elderly and the sick. It has a high relevance for me as a person and for me as a designer to question the way we are proceeding as society. In my eyes we have to ask ourselves, in what kind of society do we want to live in and in what way can I as an individual contribute to a way of living which is fair and sustainable for everyone.

The effects of the pandemic we are facing as a society gives us the chance to come to a point where we have to ask this kind of questions.

The extreme uncertainty, uneasiness and distrust ("social distancing", "will this person infect me eventually, will I infect this person?") we have been experiencing for more than a year now has disclosed that this is quite the opposite of how most people want to live.

The reason I have been putting this photograph of a doctor's "comforting embrace" to an old man in the hospital, is because it was one of the most meaningful, moving and inspiring photos taken during the pandemic for me.

In the beginning of my project I was really struggling with the situation of being locked down. I was certain to focus my bachelor thesis on a social issue - the way we handle a disease like dementia and age in general. The corona pandemic made it impossible for me to get in direct contact with people suffering from dementia as well as their relatives. What I have been asking myself was how will I be able to design something for a target group I am not able to reach in the course of this thesis?

At first this made me extremely uncertain. But I was lucky enough that I had a lot of great people around me who encouraged me to keep on working on this project. At one point I gave myself the freedom to let my perfectionism go and push myself to

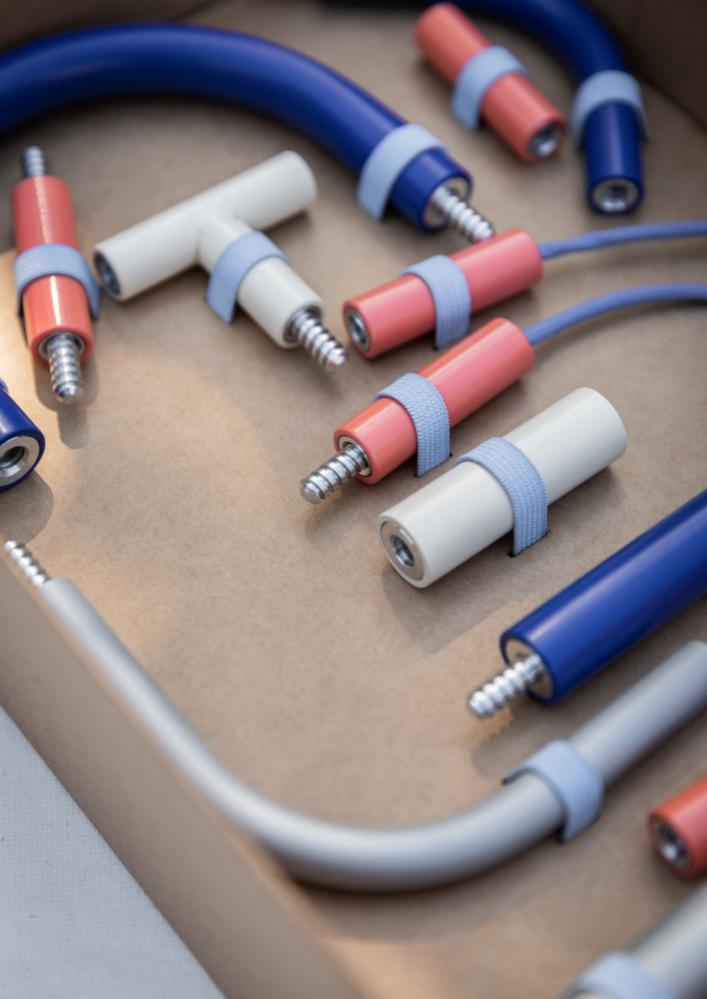
do what's possible to realize a project I am convinced of. Looking back now it would have been hypocrite to give up on my topic in a time where social support and in my eyes creative solution approaches are so much needed. Especially regarding a group of people, for whom the restrictions of the pandemic probably aren't comprehensible to a certain extent. This situation makes it more of a challenge to get relevant input but maybe this offers also opportunities to get relevant insights and information in other ways.

For this project it would have been essential to get in frequent contact with people suffering from dementia.

Dementia predominantly affects older people. This is the reason why it was impossible for me to get in contact with them due to Corona. Especially dementia patients need a lot of attention and devotion. This shortcoming, fuelled by the pandemic, had one positive aspect: The pandemic made these problems visible even more clearly than before.

I am more than grateful of having the chance to get in contact with a lot of different people and institutions dealing with this disease via audio-visual media. I received a lot of very positive reactions from people who are concerned with elderly in general as well as with people with dementia.

This emphasized the relevance of the subject a lot.





Ten years ago Helga Rohra was diagnosed with Lewybody dementia. Ever since she is one of the leading dementia activists, fighting for a better understanding of the malady as well as the rights of dementia patients.

Her book: "Ja zum Leben trotz Demenz – Warum ich kämpfe" is a great way to make this complex disease more comprehensible for a layperson. She played an important role in my understanding this disease better also on a personal level.

"I can no longer live without fear, because the fear of losing everything is always in my neck.

Figuratively speaking it feels like this: imagine that you are looking through the window in your apartment. The window is clear, you can look out. You are used to look through this window several times a day. Suddenly there is a roller blind in front of this window.

You are no longer able to look outside. There is also no possibility to pull up the roller blind (...).

Your feelings fluctuate between anger and despair. You don't understand how the roller blind got there. The only thing you know is that it is there now and you don't have a switch or button to pull it up again. It is a hopeless situation ⁹."

Like this Helga Rohra describes her daily suffering from dementia.

INTERVIEWS

I had extensive conversations with two interesting people in the field.

I had the chance to interview Teun Toebes, a young inspiring person, who is passionate in creating special moments for people suffering from dementia. I really admire his work and I hope to have an exchange with him about my project in the future. As he is living in a nursing home for dementia patients, it could be a possibility to take a visit there in the future.

Further I had a very exciting talk with the interior designer Mireille van Driel. She is specialized in creating the interior design for nursing homes. She also offered me the opportunity to stay in touch in the course of my project.

Another great opportunity for me was the "Deutsche Alzheimer Gesellschaft" (the German Alzheimer corporation). Through them I received a lot of contacts, which I was able to interview. For example Dieter Käufer, chairman of the Alzheimer Gesellschaft Isar-Loisachtal or Ingrid Schmidt-Endrass, who works for the Alzheimer Gesellschaft, Landkreis München e.V. Next to these I also experienced it as very fruitful to talk to people, who actually nurse a dementia patient at home or who have a relative affected by dementia who is living in a nursing home.

Talking to these and others has been beneficial for me in a way that these people are having the direct contact with dementia patients on a daily basis, the contact I have been missing so much in the course of this project.

One of the key elements of my project has been to execute a profound research. There is a lot of literature and research done in this field, which is very helpful. During the last years this topic has also been very present in the media, so I was able to find a lot of information there as well. A book, which has been very helpful, is called "Ich will dich doch erreichen: Begegnungen mit demenzkranken Menschen ermöglichen - Hilfen für Angehörige und Pflegende" by the geriatric nurse Rosmarie Maier. In this book she describes personal encounters with people with dementia. This provides a realistic and comprehensible impression. Another great source is the book "Demenz - was wir darüber wissen. wie wir damit leben". It offers a rather scientific approach to the topic and a lot of interviews with neurologists and psychologists as well as affected people. During my research I took notice of the association "Wohlbedacht e.V. - Wohnen für dementiell Erkrankte" (an association located in Munich, which is focussed on dementia assistance, assisted living for dementia sufferers, care programs for relatives, and training.) I had the chance to participate in an online training to become a dementia assistant. The course was divided in 10 different units.

Each unit focussed on one specific topic such as "support and care", "fun and play - activity concepts", "how to handle emergency situations". Each topic was presented and discussed during the Zoom meetings. After finishing the course I became an approved dementia assistant. This certificate authorizes me to work in institutions focussed on dementia. Especially at "Wohlbedacht" as well as their partner institutions there is an increasing

demand for dementia assistants.

Of course there are also private persons who are looking for dementia assistants.

This offers me the great chance to actually spend time in the field, maybe to do an internship or to actually work as dementia assistant for an institution.

Like this I can continue to refine and plan my products, improve them and fill the gaps my products might have due to the pandemic.

It didn't feel right for me to use this course as a chance to promote my products. It was a chance for me to listen carefully. And that was a crucial thing for me to learn. I learned to listen. And that is how I want to proceed as a designer in the future. I really want to get a feeling for my target

group in the broadest sense. I might have the most colorful ideas but especially in the field of social design this isn't worthy enough if you miss the core requirements of the chosen target group.

This course gave me the chance to understand the struggle, the fear and the joy people who are caring for dementia patients have. It was a great way for me to get a better sense for what I am doing. For me this course has been extremely educational and fruitful.

It gave me self confidence for my practice and gave me the possibility to reflect on the impact I want and am able to have as a designer focussed on social projects. I met a lot of great and open minded people in this course, where I am sure would be enthusiast about testing my products as soon as the corona restrictions will allow.



SPIEL UND SPASS (PLAY AND FUN)

One course unit's topic was "play and fun". During this unit the leader showed us various games and occupation possibilities for people who are nursing a dementia patient at home. Especially this unit was interesting for me. Next to quite simple ideas like sitting on a table and pass a ball around they also suggested a lot of "games" where verbal communication was needed (Information retrieved during the online training I was taking to become a dementia assistant -

at wohlBEDACHT e.V., 27.02.2021-20.03.2021).

A lot of them where focussed on German proverbs. So they were focussed on something in most cases only a German person would be able to understand.

Certainly the founders of these plays have a lot of experience in this field and if these games bring joy - great, of course.

But I realized how I am following a different approach. I wanted my products to be accessible for a broader public and of course also for the dementia patients who aren't able to communicate verbally anymore. Like this I am hoping to address a broader range of people.

Almost all of these games they were showing us were DIY based. Which is a great opportunity especially regarding the financial part. But it takes time and energy to be creative and it takes time to do these things by yourself. In my course a lot of people were nursing a dementia patient at home and were – understandably enough – over exhausted from this "job". So I imagined that having to craft occupation possibilities by yourself next to nursing, would be too demanding.

I see advantages in my products and I am hoping to overcome these points this way.



INSPIRING CONCEPTS AND DESIGNERS

Let me mention some inspiring concepts, designers and inspirational sources, which have been instrumental for my project. First of all I want to talk about the Montessori sense stimulating learning materials. I have had the great luck to grow up with a Montessori education and my mother is teaching at a Montessori school, where working with sense stimulating learning materials is essential. These materials aim to simplify learning in a convincing way. There is a huge range of materials/products which are especially focussed on tactile stimulation through form and texture as well as visual stimulation through color. Next to that they are also stimulating with sound and smell. We have a lot of these materials at home and like this I was able to touch them, play with them and finally analyze them to filter relevant parts for my products. In my eyes a lot of these materials have a timeless and simple design which I experience as very appealing. Inspired by that I wanted to integrate this aspect in my products as well. Another part which has been a huge inspiration for me was the usage of wood as main material for a bulk of the materials/products. Especially when it comes to tactile stimulation, wood is a great material offering a lot of possibilities. Very early I decided to experiment with wood and finally used it as one of my main materials for my product.

There are a lot of great designs and concepts which have been created, aiming to improve the life of dementia patients. Three of them have inspired me personally the most, Gerijanne van Gink, Lanzavecchia + Wai and the Tovertafel by tover.care.

All of them have their very own approach to find innovative solutions.

The Tovertafel is virtual instrument, which beams images on a table and the user can interact with those images. I was very impressed by the way tover.care is designing their products. They call their way of designing Co-Design, which means that people who are working for example in a nursing home are actively integrated in the design process as well as the development of the products 10 .

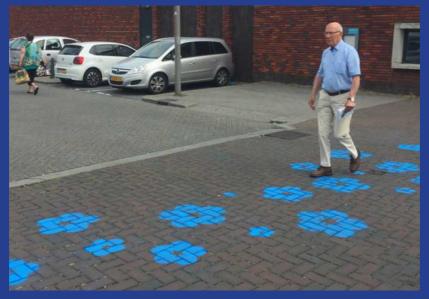
Even if I wasn't able to get in physical contact with people I tried to integrate this way of designing into my process.

"Hack care" is a DIY catalogue helping to adjust homes in a dementia friendly way. In this catalogue the design duo Lanzavecchia + Wai are providing a lot of playful ideas and concepts, among them simplifying the live of people caring for dementia patients at home. In my eyes an innovative and effcient way to support not only dementia patients but also their families ¹¹.

Gerijanne van Gink is a Dutch designer specialized in design for dementia. Next to other interesting concepts, van Gink designed the "Vergeet-mij-niet-pad" (forget-me-not-path). Crosswalks are being marked with images of bright forget-me-not flowers. Like this she is aiming to draw attention to people with dementia as well as elderly in general crossing the street safely. I see it as highly relevant to integrate innovative ideas like this into public spaces. Like this way we treat elderly is reaching a broader public and offers the possibility for people to reflect on these kind of issues ¹².









Out of my broad research I defined ten rules which have been crucial for the development of my product. These rules have been a fruitful guideline during the design process. In the following the list of criteria my design should meet.

IT CREATES A (LASTING) JOYFUL EXPERIENCE, FULL OF EASE AND PLAYFULNESS.

IT IS ENRICHING FOR BOTH PARTIES INVOLVED.

IT WORKS WITHOUT ANY PRESSURE TO SUCCEED. THE ACTION CAN'T BE DONE WRONG. AT THE SAME TIME IT OFFERS THE POSSIBILITY TO EXPERIENCE A SENSE OF ACHIEVEMENT.

IT STIMULATES THE SENSES.

IT ALSO STIMULATES MOVEMENT AND ACTIVITY OF HANDS AND ARMS.

IT OFFERS THE OPTION TO BE USED IN A NURSING HOME OR AT HOME.

AS DEMENTIA OFTEN GOES ALONG WITH DIFFICULTIES TO STAND OR WALK, THE STIMULATED ACTION CAN BE PERFORMED WHILE SITTING.

IT WORKS NON-VERBAL. WORDS CAN BE USED BUT ARE NOT NECESSARY.

IT IS FOCUSSED ON THE ESTIMATION OF PEOPLE SUFFERING FROM DEMENTIA. IT WORKS WITH A FOCUS ON INDIVIDUAL NEEDS OF THE PATIFNT.

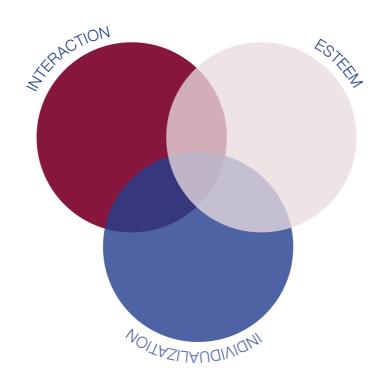
IT IS SIMPLE, TIMELESS AND SMART.



During my research 3 essential terms emerged.

These terms are interaction, esteem and individualization.

I decided to define these terms as pillars of my project. In the following I will lay out how and why I came to this conclusion. Later in this text I will also explain how I was integrating these three pillars into my two product lines.



INTERACTION

Due to the memory loss of the person suffering, the disease can bring a tragic distance between the patient and their relatives or friends. A lot of people who "lose" a beloved person to the disease experience that as very tough. The thought that your own parents aren't able to recognize you any more is very harmful and sad. Given the fact that dementia is a widespread disease with increasing numbers, there aren't enough possibilities to make the contact between patients and their relatives easier to handle. My design is focussed on the interaction of a person suffering from dementia and their relatives as well as any other close contact

persons. Petra Stragies, vice chairwomen of the "Alzheimer Gesellschaft Lechrain", explained that there are lots of products designed for a person suffering from dementia, but that there is a lack of products, which stimulate the interaction of both parties involved. (Retrieved during the interview I took with Petra Stragies, vice chairwomen of the "Alzheimer Gesellschaft Lechrain"). Other people who have a dementia patient in their family gave me the same feedback. A lot of people have their struggles when it comes to interact with their relative suffering from dementia. Her assessment and many other conclusions going in the same direction clearly demonstrate the need of my research and resulting design. The diagnosis "dementia" is a shock for the

people affected. But not only for them, but also for their relatives and friends it is awful. In most cases dementia doesn't only mean that the beloved person

loses his/her memories, but it also means a change of personality will take place. Different types of dementia can result in various behavior changes. These changes can have physical and mental impact on the person's behavior ¹³.

Resulting, interaction between the two involved parties can get exhausting and frustrating a lot of times and for both sides. The person caring is swamped and reacts with impatience and anger and the person suffering from dementia feels overstrained as well and reacts with aggression and defiance.

NON VERBAL INTERACTION

A very difficult part of the disease dementia is the increasing loss of being able to express oneself properly. The effects of this loss can vary a lot. In the worst case it can result in an almost complete loss of speech ¹⁴.

As mentioned this results in a lot of mutual frustration.

So one of the first rules I defined for my project was that the interaction taking place by using my products had to happen without the urge of using speech. Like this I am hoping to simplify the challenge to interact in a smooth and respectful way. This interaction should provide positive effects on both sides.

A special experience with a beloved person is created in a playful and soft way.



When you search for the words "dementia" and "esteem" you will probably find a high number of articles, books and movies about these terms in connection with each other. During all the interviews I took, the term "esteem" kept on coming back as a relevant aspect when it comes to "right" treatment of dementia sufferers. The people I interviewed always came back to the same conclusion. If you want to get in interaction with someone suffering from dementia, esteem and respect of the person is one of the key elements to reach her/ him. Dieter Käufer, chairman of the Alzheimer Gesellschaft Isar-Loisachtal formulated it like this: "It is more than relevant that dementia sufferers keep their dignity in every situation. People enter a new state of life which isn't only bad. People are able to create and to feel proud. People are able to give 15." In my eyes this is a beautiful and true statement. But I have to be honest here. Before I started this thesis project I had a very stereotyped picture of dementia in my mind. Besides other convictions, which turned out to be inadequate in the course of this project, I thought, sooner or later a dementia patient becomes so infantile and dependent that it would be the normal, appropriate, in fact only way to treat him/ her as a kid. That this conflicts with the person's age, experience and dignity is something I realized in the course of this project.

One of the most fruitful and inspiring interviews I took regarding this issue was the one with Doris Kettner, chairwomen of the Alzheimer Gesellschaft Lechrain e.V. Selbsthilfe Demenz. As our interview came

to an end, she looked at me and said: "Frau Schulze, I have the feeling you are a very sensitive and empathetic person. Try to put yourself in a person suffering from dementia, try to understand and estimate them in a gentle way." (Retrieved during the interview I took with Doris Kettner, chairwomen of the Alzheimer Gesellschaft Lechrain e.V. Selbsthilfe Demenz).

Her statement really touched me. It gave me a huge motivation regarding my project.



"SCHLEICH DI MIT DEM GLUMP!" ("GET AWAY WITH THAT TRASH")

When it comes to esteem of a person suffering from dementia I see it as problematic to entertain them with children's toys.

No doubt, dementia patients (may) adopt "childish" behavior patterns as well as infantile traits in the course of the malady. But - to give a person suffering from dementia children toys to entertain them should be questioned.

In most cases, aged people are affected by dementia. These people have developed their personalities, have individual preferences, have their individual history. I see children's toys as inappropriate since they are entertainment objects for beings without a complete and developed personality. Especially considering a lot of today's kids toy designs which are designed in an extremely infantile way.

Of course this may vary, if an individual loved puzzling his whole life, it is great if a puzzle can still be a way to get in contact with this person. I just see it as generally problematic to entertain people with something which isn't designed for their age. In my eyes this has a lot to do with the esteem you give someone.

Giving someone children's toys to keep them occupied might reveal indifference towards the person.

My product intends to overcome this issue. As a starting point it is especially designed for people suffering from dementia. Ingrid Schmidt-Endrass, who works for the Alzheimer Gesellschaft, Landkreis München e.V., told me a story which once again points out the importance of respect and esteem. One of her colleagues tried to entertain a quite passive and calm man

suffering from Alzheimer who was not very talkative anymore, with a very infantile toy for kids. His reaction was surprisingly direct and clear. He looked at her and said: "Schleich di mit dem Glump!" He talked in Bavarian dialect, the sentence translates: "Get away with that trash!".

Schmidt-Endrass told me about quite a few cases like this. Often people suffering from dementia were outraged about the fact that toys designed for kids where given to them to keep them entertained and occupied (Retrieved during the Interview I took with Ingrid Schmidt-Endrass, who works for the Alzheimer Gesellschaft, Landkreis München e.V.).

These reactions show how degrading and painful it can be if your environment doesn't take you seriously anymore.

Of course I am not in the position to judge someone. But I feel like entertaining a grown up with infantile products shows disrespect in a way and takes people suffering from dementia parts of their dignity.

That was also a crucial part of the dementia-assistant course. One of the main messages was: the more you treat the person with respect and esteem, even if the person behaves "abnormal", the further you get and the easier and more joyful the contact can be.



FINDING A MIDDLE COURSE

Having all of this in mind my products are aiming to demand to the right degree. Because of the mentioned points the action taking place should not demand too little from the user. But on the other hand, as dementia patients are struggling with overstraining a lot of times, it should not be too demanding either ¹⁶.

I had to find a way to overcome this dilemma. By being challenged in a playful way my products are offering the possibility to experience sense of achievement to a certain extent. I am hoping that I succeeded to find a solid middle course between these two relevant determinations. Trying my products out in a real context probably will provide more proper insight.



THE RELATIVE'S ROLE

"Just know that I'll always love you.

Even when your best is gone.

I'll always be beside you.

And love you until all that's left is this song."

An extract of a song, Mat Ferries wrote for his beloved wife Clare Ferries, who suffers from early onset dementia ¹⁷.

I have been talking a lot about the special needs of a person suffering from dementia. As I am aiming that my products can be used by dementia patients these needs have to define my product to a certain extent. But I am truly aiming to not only address the dementia patient but also the caring relative at the same time and with equal importance. I have deep respect of people caring for a beloved person suffering from this malady. It is a full-time job which often results in extreme exhaustion and excessive demand. It is not only challenging in a physical way but – and that's the tough part - it is extremely challenging in an emotional way. In a creeping process the carer has to face the loss of a beloved person's personality on a daily basis often for a couple of years in a row. During this research I have read and seen so many moving and heartbreaking stories of relatives having to carry this immense burden.

The strength of these people and their tireless commitment touched me a lot. With my products I am aiming to address the person who is involved with a dementia patient as much as the patient. This was the main reason I decided to design

interactive products.

The design, the aesthetics as well as the stimulating character of the products are aiming to address both parties equally. As I wasn't able to try out my products with people suffering from dementia. I was asking various people around me for their opinions. I gave my prototypes to them and let them play and interact with them. I was surprised how much pleasure and excitement it brought. I received a lot of positive feedback which showed that my products seemed to attract two parties. Even though the interaction of relatives and dementia sufferers gained a lot of importance for me, my product can definitely be used by anyone. I could imagine to see my product used by nursing stuff, friends or in different facilities focussed on dementia care.



INDIVIDUALIZATION – REFERRING TO THE PAST OF THE PERSON

My research revealed that it is very important to keep an eye on the individuality of each person suffering from dementia. A common way to work with dementia patients is the exploration of the person's biography. Getting to know the person's past, learning about his or her former purpose in life (job, hobbies, fascinations) has turned out to be a good way to deal with the person in the present.

Knowing personal details offers the opportunity to refer to the needs of the patient in a daily life routine.

Especially when it comes to meaningful accountation of a person suffering from

occupation of a person suffering from dementia it is a great tool to link an occupation to things which played a leading role in the patient's life.

A very touching example for that is how some elder women suffering from dementia are trying to breastfeed babydolls.

During an interview I took with Doris Kettner, chairwomen of the "Alzheimer Gesellschaft Lechrain", I came across a fascinating story about a former farmer suffering from dementia in an advanced stage. Due to the effects of the malady the old man wasn't able to talk anymore, he was very passive and restrained. One day Mrs. Kettner took a handful of fresh hay and spread it on a table in front of him.

This man, who stopped talking a very long time ago, suddenly started to talk about the hay in front of him. In clear sentences he was able to give a precise explanation about the different grass types, their origins and their characteristics (Retrieved during the interview I took with Doris Kettner, chairwomen of the "Alzheimer Gesellschaft Lechrain").

I am always impressed how my grandmother is still able to recall precise memories about her childhood. She still describes with excitement how she ate chocolate for the first time in her life, little presents given by American soldiers who felt sorry for the German kids.

Stories like this, individual and very specific memories tend to remain somewhere in the person's brains. It seems that there are ways to bring these memories and relating emotions (e.g. excitement, joy) back via appropriate stimulation. Stimulation in this context means stimulation of the senses. Someone who was always interested in music and maybe even worked in this field, will probably better respond to special music therapies than someone who dedicated his time to the automotive sector for example.

So one of the important requirements was to integrate the patient's individuality in terms of preference, passion and experience in my product/s. Of course it is my goal to develop something which is suitable for not only one person, so generalization to a certain extent had to take place.

A direct reference point I had are my own grandparents who always have played a big role in my life. All of them had special hobbies or worked in a certain field which I always saw as characteristic for them. When I think about my grandmother Anna ("Omi"), who suffers from dementia right now, I would describe her as very active and sportive. Her whole life she was skiing, hiking, going to sport schools to train or to do Yoga. She always animated us to stay fit and healthy. Movement became the one

characteristic I decided to work further with. And then there was my grandfather Rudolph. He was an introverted person with great creative talent. He was passionate in drawing and painting. It was his way to communicate. Next to painting he was building furniture and restored antiques. He seemed to have an inner urge to create and to build – something I can relate to very much. I would describe the main passions, activities and jobs of my grandparents as quite common and widespread. This gives me the opportunity to take them as inspiration for my design.

The challenge was to integrate classes of activities in my design. The idea is to imitate certain aspects, movements or parts of these activities by means of the products I am about to design. Besides that, the products should also refer to someone's personality. Is/was the person active, sensitive, pragmatic, playful? In this project I will be focusing on two

different product lines. Like this I intend to address two general types of characters. And like this I intend to find a way to attract personal needs and individual longings.





HOME STIMULATION

It is important for me to see how I can create an interaction which can happen in a playful way. This interaction should not be complicated at all, but it should go along with curiosity, stimulation and excitement. Even if I have not been able to try out my project with dementia patients, it was instructive to me to see how people around me would react on my prototypes. A couple of times I had the chance to hand my prototypes to people who had no clue about my project. Like this I was able to observe how people interact with it very intuitionally and spontaneously. This helped me to improve the pieces I am working with in form, size, shape, material and color. Let me give an example which has been especially exciting for me. For the second product I felt rather uncertain in terms of

material to be used. I had aluminum in my mind, so I made prototypes and gave the pieces to someone to play with. He took them and dabbed the pieces against each other, like this a very nice and surprising sound occurred. This was one of the reasons I decided to use aluminum in the end.

I am convinced as soon as I will be able to experiment with the pieces in a real context and be able to observe what is happening, I will find out quite quickly the aspects to be improved.

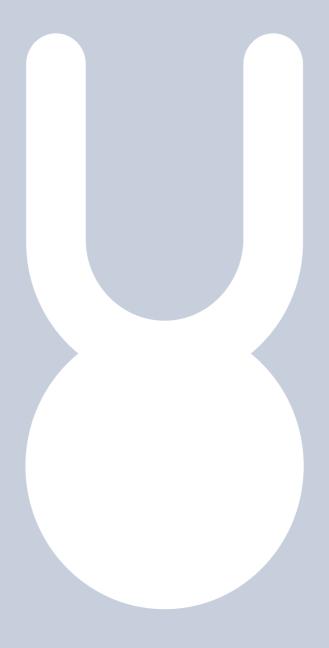


MY PARENTS HAVING FUN INTERACTING WITH PROTOTYPES





CLICKIT

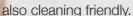






The two chosen materials differ in look, feel and weight. Each material offers its very own haptic. Wood is a rather warm and "light" material, whereas steel feels rather heavy and cold. Like this an exciting sense stimulation takes place. For this product I chose to work with different sorts of wood. To achieve a pleasing color stimulation the wooden pieces are either made of dark wood from nut trees or light wood from maple trees. Because of the chrome plating the steel has got a shiny, silver surface, which corresponds nicely with the similar surface of the magnets.

All materials as well as their surfaces are food safe. I am avoiding toxic substances as well as sharp edges. The reason why is that dementia patients tend to put things in their mouth randomly sometimes. Like this the products are











FORM

Every wooden piece has its very own comfortable and stimulating feel. Like this the objects should offer a certain excitement as well as a tactile stimulation. I invested a lot of time into my form research as I was truly aiming to find forms which have a good grip as well as an appealing look. My forms had to become "lekker" (nice) as we say in Dutch. That's why I chose simple forms with round and "soft" edges. I was prototyping a lot with Fimo as well as aluminum wire to create a big range of forms. I was lucky enough to have some people around me who were willing to interact with the shaped forms. Their feedback as well as the constant observation of how they were interacting with the forms was crucial for me to find out which forms I was choosing for the final objects. The method of filming people interact with the pieces has turned out to be very helpful. Like that I could replay the movie again and again to identify the pieces which weren't fulfilling their purpose entirely and the forms which were preferred towards others. As Fimo is very simple to handle I could adapt the shapes quickly and easily.

There has been quite a step to translate the Fimo forms into wooden forms as wood of course is much harder. The wooden pieces are processed in two different ways. Some are cut out of a flat sheet of wood and others are made by a wood turner. Like this the pieces vary a lot in look and feel. I have chosen to use a simple and geometric form language as this offers the possibility to create a lot of exciting new forms. The steel forms are made of steel rods, either bended or straight.

Like this the steel parts again differ in feel from the wooden pieces. The bended steel form correspond nicely with the "round" wooden forms. The straight small rods offer a tactile opposite.







There are some reasons why I chose magnets as way to connect the objects with each other. Magnets offer a very satisfying and easy way to connect the objects with each other. Magnetic forces fascinate me a lot. Although ferromagnetism (attraction and repulsion) is a quite common phenomenon, the magic prevails. I am convinced that both attraction and repulsion can evoke a great deal of excitement. This makes it some sort of a challenge to explore which pieces are able to hold on to each other and which aren't.

The wooden pieces are equipped with three different intensities of Neodym magnets. Like this, the pieces vary in grip. Some of them can be attached and detached easily, and with some of them it is a little bit more of a challenge. Another very nice effect which occurs when the pieces are being attached to each other is the accompanying sound. Like this the pieces aren't only visually attached but the user is actually able to hear the action taking place.



AIM

Clickit should work as a sense stimulator as well as a tool to interact with each other. It causes excitement, surprise effects and in the best case a feeling of success and pleasure. Without any pressure to succeed I want to offer the opportunity to create something new, something beautiful in cooperation with a partner. Through the stimulation of different senses I am hoping to achieve that this experience might stay in the memory of both parties.

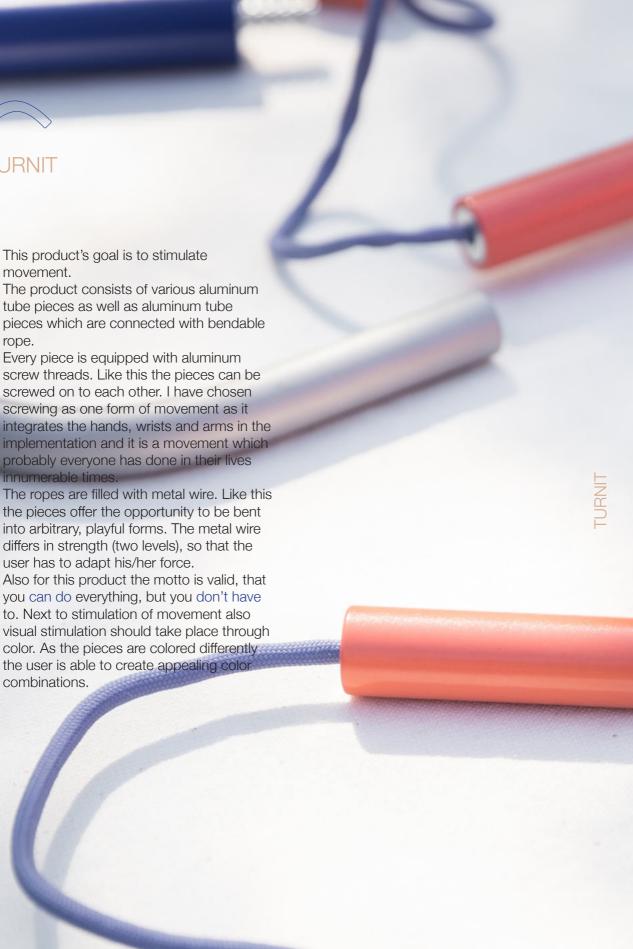






TURNIT





TURNIT

movement.

innumerable times.

combinations.

user has to adapt his/her force.

rope.

This product's goal is to stimulate

tube pieces as well as aluminum tube

Every piece is equipped with aluminum



One of the main reasons I chose aluminum as main material for this product was that it is a high quality material with a variety of sensual characteristics. It has a very nice feel and the temperature varies fast if you hold it in your hands - at first it feels cold, but within a short time it warms up noticeably. As mentioned the aluminum pieces, if beaten or rubbed against each other, gently produce a very nice, calming sound. They are little music instruments the sound varies per piece. In addition to that aluminum is surprisingly light and as I wanted to avoid the usage of plastic as main material, this was the best choice. Similar to the first product a nice tactile stimulation takes place as the materials

(bendable rope and aluminum) vary from each other in feel, grip and look.

The screw thread is made from aluminum as I wanted to keep the pieces as light as possible. Unfortunately aluminum isn't the perfect material for screw threads. As the product goes into production, stainless steel will be the better option.

Here too, all materials are food safe and sharp edges are avoided. The product is cleaning friendly.





FORM

The aluminum pieces are made of tubes of three different diameters. Every diameter offers its very own feel. These are either straight pieces, bent into curves as well as T-pieces. The T-pieces offer the possibility of connecting in different directions, like that a "net" can be created. Similar to the first product I was experimenting with Fimo forms combined with 3D printed screw threads. A special challenge there was to find the right sizes, therefore I handed the pieces to various people to get their opinion about them. I have chosen tubes as main forms because they have a great grip especially when it comes to mounting them onto each other. Even though Clickit and Turnit aren't combinable I wanted to use the same language of form by letting straight as well as smooth and round pieces occur in both products.

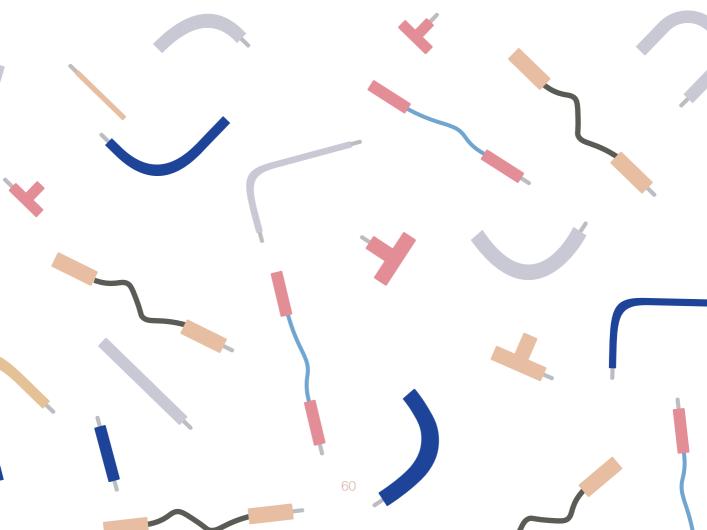




As the illness often goes along with visual impairment, I wanted to work with bright and noticeable colors on the one hand. On the other hand I don't want my product to gain an infantile look. That's why I had to find a good balance between colors which are noticeable but not too shrill.

After a long color research I decided to choose 4 different colors as main colors, plus the color of the rope. Bright blue and dusty terra-cotta pink as main colors and to balance this out a soft beige tone as well as aluminum colour were selected. With this color palette I am hoping to attract both user groups involved to use it. The screw thread made of aluminum as well as the bendable rope have an appealing shiny look. To find a good balance I decided to go for mat colors.

The aluminum pieces are powder coated. This makes the colors extra lasting.





AIM

It is my believe that there can be achieved a lot with aesthetics.

I want my object to bring joy and brighten up the sometimes exhausting day with a dementia patient. I also want this object to brighten up an often not very colorful and bleak place like a nursing home.

Stimulation of movement is essential when it comes to right therapy of dementia patients. I am aiming to contribute to this with this product.





My products offer an interaction without any rules or goals. For me it is very logic on how to "use" the products but for others it might not be. So an essential point is the way the user is introducing the product to the dementia patient. Therefor I decided to design a little "manual". The introduction is relatively simple. In there I recommend to sit on a table together for the first time using it. You open up the box and take out the pieces. I recommend to use the products by just exploring in a playful and soft way. Without any pressure and without the goal to succeed. I recommend to have a gentle interaction and of course to have a lot of fun. Even though I don't want to give any direct instructions I will illustrate the manual with some photos showing the interaction to let the customer see what's possible. I am hoping to find a good balance of giving the right amount of advise, so the customer doesn't feel lost but without being too forcing.

I have been designing these products with the thought that they will be used in a certain way.

But dementia is unpredictable.

In the course I was following, they have been telling us a lot of stories on how dementia patients are totally living in their own world sometimes. Stories about how they change the functions of things, the functions of words and away from all social rules we are having. One of them was for example that a lady started to eat all of the flowers in her garden. She even made colorful salad dishes out of them. In my eyes this is so understandable, all the bright colors are appetite stimulating for

me too. The great thing about this story is, that her relatives didn't try to change that behavior.

Of course they where checking on whether the plants are poisonous but if they weren't they just let it happen. This mindset is a big inspiration for me as a designer and it became a big inspiration for this project in particular. An inspiration in a way that I want to give the users all the freedom to use it in what ever way. They might use all the magnets of *Clickit* to search for every magnetic spot in the house and decorate it with the pieces. And they might use Turnit to perform a little concert as the aluminum pieces are giving great sounds if you beat them onto something or each other. The possibilities are unlimited and offer a lot of own creativity. It is my goal as a designer that there will be interaction as well as the experience of precious moments together and I am more than happy if my products can lead to that.

I am mentioning how my products as they haven't been tested in a real context yet are probably capable of improvement.

Recently I often got the feedback that these two games may be suitable for other contexts too. I haven't had the chance to deepen my research in there, but I got reactions of others telling me that people being handicapped might have pleasure using these products too. In my eyes these products can attract a wide range of target groups and could be used in diverse social facilities for example.

I am planning on visiting those to introduce my products there to see whether they will be well received too.

I mentioned a few times how much import-

ance it has for me that my products are designed for grownups (see Esteem p.34). But also there, I am not aiming to force only a certain age range to use the products. Especially the relation between grandchild and grandparent is a very important one. What a shame if these two can't build up a good relationship due to dementia. Even though my products aren't designed for kids in particular, I am convinced that they have a very easy approach towards the products and the interaction. The unbiased behavior children have in such a context could even stimulate the grownups to interact playful.

I am aiming to develop my products after graduation into these different directions.



SUSTAINABILITY OF BOTH PRODUCTS

Even though I see sustainable design as highly relevant, also other aspects of my design gained more importance during the process.

Some chosen materials are more sustainable than others, but sustainability of the product was only one of the criteria, why I have chosen a certain material. Basic sustainability is achieved as they are both high quality products with a long lasting lifetime. Like this I am trying to contribute in general to make design more sustainable. I am dedicated to extend my knowledge in sustainable materials more in the future. So if my product goes into production, the usage of sustainable materials will gain higher relevance for me.





CONCLUSION





CLICKIT AND TURNIT – AN APPROACH TO FIND A SOLUTION

Yes, my project still misses physical contact with people suffering from dementia and yes, this probably means that my two products are still capable of improvement. So I decided for myself to see this project as a first approach to get closer to my goal - a product/concept with real impact. As I am very much interested in the social sector I could imagine that my products might be used in other social facilities or in another context rather than only for people suffering from dementia. After my studies I hope to extend this idea and create a wider variation of products to reach even more people.

My ideas are first concepts which offer the option of testing and experimenting as well as fine tuning and enhancement once the pandemic situation has improved. For each product I chose a certain way of handling. But of course each concept can be customized if needed. For my first product I chose magnets to connect the different objects. I am personally fascinated with magnets a lot. But of course there are a lot other possibilities to connect the objects.

I could also imagine using a certain plug system as well as connections out of the textile industry such as velcro fasteners of push buttons. Each connection offers its own advantages and challenges. If magnets would be replaced by velcro fasteners for example, there would be even more stimulation of sound added to the product as the disconnection of Velcros make this special sound.

As mentioned, especially inspired by the Montessori learning materials, I will also try to extend my product in the field of sense stimulation such as smell and sound for example.

If there will be a chance to transfer my products in a real context I am planning on eventually extending the implementation of my products. As the family members know the person suffering from dementia best I hope they will be able to decide which product suits both parties best.

The primary intention of my design is that it has a real impact for both parties involved.

The primary intention of my design is that it has a real impact for both parties involved. In my eyes the reference to individual preferences a person had before the outbreak of the disease, is a great way to reach the person deeply and create a connection between the patient and the family member and other closed contacts. In the course of this project I wasn't able to create products which suit every individual need, that's why I decided to generalize them. I hope to still be able to reach a lot of people suffering from dementia with my product. Even more, since it is common sense that a good therapy can help to slow the course of the disease down and can have positive effects on the sick people.



MY PROJECT PLACED IN A PANDEMIC CONTEXT

For me, one of the most touching works of art is called "the artist is present" by Serbian artist Marina Abramovic.

During this performance she is sitting on a table, anyone keen can sit in front of her and look her in the eyes for a minute. It is overwhelming what kind of reactions this one minute causes. People seem to be deeply touched by looking a "stranger" in the eyes ¹⁸.

Even I am touched deeply, though I haven't been experiencing this minute in person. I feel like this one minute is a mirror for what a lot of people experience nowadays. There is this urge to feel connected to others. To have deep, meaningful physical and mental contact with your fellow humans.

Corona virus has forced us to avert as much human contact as possible. Suddenly a society which has developed more and more into an individualistic direction has been forced to get entirely individualistic. This has been tough for all of us. It seems that the whole world's population has been suffering from the limitation of contacts a lot. So these times have shown how much interaction and affection we all need. I personally experienced the lack of body contact as very difficult during this pandemic. This situation has taught me a lot and has shaped me as a designer in a way that I am driven to overcome this alienating effect.

My project aims to show how much joy a rather simple interaction can bring.

I am driven to investigate creative energy and to use design as a tool to facilitate communication and interaction on various

levels in the future. And I really hope that the approach I have chosen now might be a method of resolution. Generally I want to overcome the development towards a completely individualistic, alienated society. I am excited and curious what opportunities might come my way to help form a society driven by respect for each other, animals and environment. Driven by solidarity. Driven by a caring approach. As mentioned next to the practical use, I am hoping that my product will also open up conversations. As Corona virus has shown us communication with each other in whatever way is essential – and healing.



"THE ARTIST IS PRESENT - MARINA ABRAMOVIC $^{\rm 6}$



In the context of disease and mental deficiencies we quickly come to the point where basic questions gain relevance:

What is a life worth living?

Can a seriously ill or handicapped person be regarded as a complete human being?

Who are you, if you have forgotten your past?

Who are you, if you don't find your way around in the presence?

Who are you, if "future" doesn't mean anything to you?

The answers vary according to philosophical, religious and/or ideological perspective. For me and modern democratic societies human life, human dignity and equality are values, which cannot be disputed or diminished (see for example Artikel 1, 2 and 3 of the German Grundgesetz). There are and have been other ideological or religious systems, which define the worth of a human in a different way.

These systems take it for granted that human beings are different in terms of race (which is not a scientific category), in terms of sanity, in terms of efficiency and obedience. These systems have in common that they deny the principle of equality and in the end humanity. Examples for these systems: fascism, totalitarism, capitalism. They have in common that they define who has to be excluded from society due to "wrong" beliefs, "wrong" color, inefficiency or illness – also mental

illness like dementia.

The thought of living without a proper working memory system discomforts most of the people.

It discomforts me. Not remembering essential aspects and guidelines, which make you handle daily life, is a cruel thing. But forgetting the people who are close to you is the thing which scares me personally the most. Without the presence of my family and friends I would feel profoundly lonely. Do people suffering from dementia feel lonely? Or is there no such perception, as the closeness to former partners and family is simply forgotten?

We are all being told how the key to a fulfilled life is living in the here and now instead of in the past or in the future. Isn't that what a late state dementia patient is experiencing? The complete physical and mental devotion to the here and now. Dieter Käufers (chairman of the

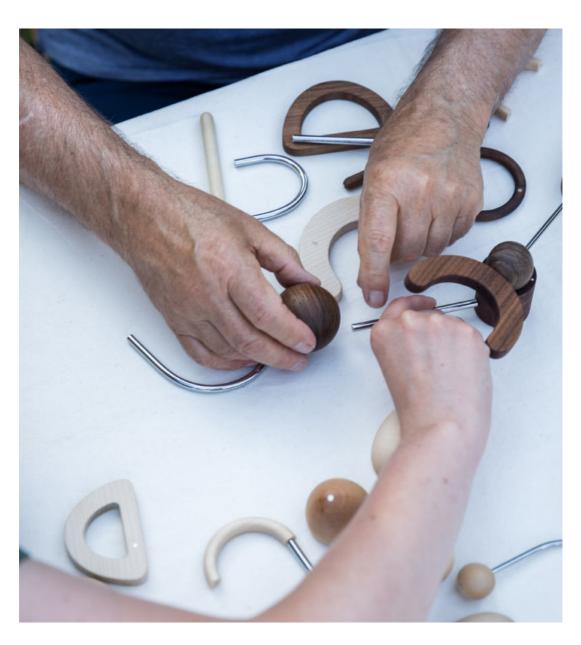
Alzheimer Gesellschaft Isar-Loisachtal) answer to the question whether it is possible to be happy, living with dementia reads as follows:

Yes, that's possible. Because with the disease, people lose their past and also their desire for the future. Healthy people get their feelings of happiness from memories and wishes for the future. If both are no longer possible, you live in the here and now. And that has to do with being happy.

The doctor and psychotherapist Jan Wojnar described this part of life in his book "The world of dementia patients" as the 'phase of the champagne truffle – if I just feel the taste, I'm fine.' ¹⁹.



In the following I want to give a defined summary of what I am aiming with my project in a social context.





Even if this project doesn't work out perfectly and completely in the end – I am convinced that it will initiate a conversation. A conversation about how we as society want to proceed in the future.

A product which opened up a conversation like this during my course, was a discussion about the curing robot "Paro". Paro is a robot seal, which was developed in Japan to support people suffering from dementia therapeutically ²⁰.

The great thing about Paro is, that people with dementia seem to respond very well on the robot. What could be wrong with that? Of course it can be said that dementia patients get sort of tricked. In a way that they might not be really conscious of the fact that Paro isn't an actual real animal but a robot designed to keep them occupied. In my eyes this isn't the main problem. What I see as problematic is the fact that robots like this are being inserted in the health sector to replace real humans. Even though a Paro is asking the price of 5000 Euros plus additional maintenance costs, on long term it is much cheaper than a nurse.

Due to a car accident I had some physical health problems the past years. I had to be nursed at some points. One thing that made it so much easier to handle was the fact that I was nursed by a real person rather than a robot. Even though some situations have been painful I felt blessed that real people tried their best to help me. I enjoyed things like physio therapy. I enjoyed feeling real hands on my skin and I enjoyed to be looked at by a real person. This sounds trivial but looking back I guess this was essential for my healing process. It gives me goosebumps if I imagined that all of the caring had to be done by a robot.

A machine which lives without emotions or affection, a machine which is programmed to fulfill its tasks on the treadmill. This is a question I am reflecting on and I think all of us - we as a society, should reflect on that. Do we want to live in a world where machines replace real human contact? Do we want to live in a world where the profession nurse (as well as a lot of other professions in the social sector) are ridiculously poorly paid with bad working conditions? My answer is: No - I don't want to live like this. I want to live in a society where we support each other and where real physical and mental contact between all limbs of society are evenly important. This question has an ethical as well as an economic and ecologic dimension. Tools like Paro might be a nice addition and I think they shouldn't be demonized from the outset. But I really hope that they will never be used to replace real human contact entirely. My products aim at interaction. My products strive to bring people together. If this project helps to create a precious moment between two parties, I achieved

what I am aiming as designer.



PARO SEAL 7

NEW STATE OF LIFE

Even though the diagnosis dementia is very tough, sad and difficult, it also offers opportunities.

People who have this disease are entering a new state of life, their personality changes. To say it in the words of the author and geriatric nurse Rosemarie Maier: "Even if people with dementia seem to lose contact with themselves and their environment: it is possible to reach them deeply, in the core of their being 21." In this sense my object should support the experience by interacting with the patients in a non-verbal way that this new state of life is not only deficient and negative. Taking the above in account, my object should serve as a therapy tool. Due to financial restrictions, a lot of nursing homes can't provide proper therapy to people suffering from dementia. As the situation for relatives is very challenging as well, it is not uncommon for them to suffer from depression and exhaustion. It would be wonderful, if with the aid of my object all the severity this disease brings for both sides could be put aside for a moment. My project aims to put an eve on the importance of having joy together. By stimulating the senses in different ways my object should help to create an experience that lasts. The object should provide ease and playfulness. I do hope to achieve that going through dementia can be supported in a positive way. This new state of life can bring enrichment. It can eventually help to get to know each other in a different way, in a new way - in a good way.

The world's population is constantly aging. With this project I hope to contribute, that we start to handle "age" differently in our

modern society. I hope to contribute to the discussion about the way people with dementia are treated. It is very likely that one of us or someone close to us will suffer from this malady at one point in life. Until now there is no medication found which is able to stop the course of the malady entirely other ways to handle illnesses like dementia ²².

This project should inspire more effort in the treatment of people suffering from dementia and their relatives.

As mentioned before, it is one of my main goals to develop a product which can be used in a real therapeutical context afterwards. In other words: a product with real impact.

In my eyes the mindset of thinking in possibilities instead of thinking in limitations will have to become more and more important. Especially when it comes to geriatric diseases. This is something I am striving towards as a designer as well. What are ways for us as society to construct a stable framework of possibilities regarding social circumstances? How can those new life states be integrated? How can this be seen as a chance not a detriment? I think too long we have been distinguishing

between healthy and sick. I my eyes only an open and honest conversation will offer a way to overcome our perfectionist image of the healthy, productive and efficient human in the future.



PERSPECTIVE

Finding new and innovative ways to handle geriatric disorders like dementia is and will be a great challenge of our modern society. With this project I am contributing to find playful solutions to handle this problematic. In my eyes age is one of the weirdly treated aspects of our current society. Though it will probably concern every single one of us one day.

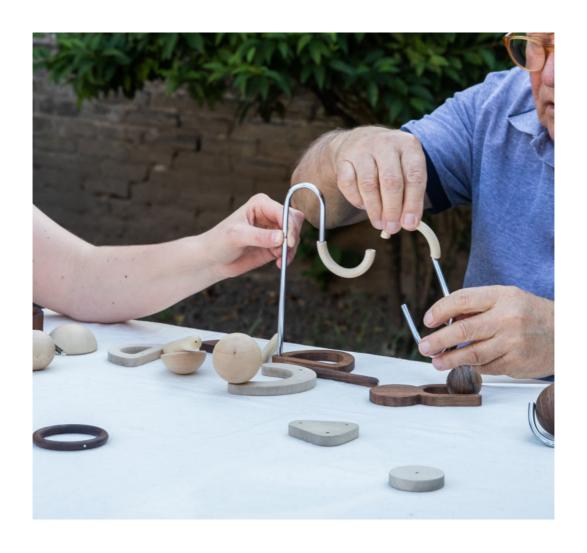
The Corona Pandemic has reflected this problematic in an interesting way my eyes. Young people have restricted theirselves to protect the old and and weaker members of our communal live. Those restrictions haven't been fun for neither of those. Yet maybe this was the umbrage we needed as society to proceed in a way which is sustainable and precious for everybody. I feel like something great has been achieved.

For me this shows and has shown how strong and powerful liaison can be. My product's focus is interaction. These products were designed to bring people together, to make them interact and like this to experience precious moments. Also here, two parties are involved, one of them "stronger" than the other one. My project is an approach to bring people together in a playful way. These products were designed for dementia patients and their family members. For me this is a great starting point. There are much more fields where the possibility for pleasureful interaction is needed in my eyes. Is it the integration of elderly in general or maybe about the inclusion of handicapped people. I see it as urgent to actively reflect on these deficiencies and work on them in the following.

As I mentioned before, I see design as a powerful tool to work on those circumstances. In my eyes design is an active component of the solution process. Looking back I have met so many inspiring and motivated people, following the goal that our society becomes more inclusive. This makes me grateful and gives hope.

I want to finish this text with an extract of the poem "the Hill we Climb", young poet Amanda Gorman was reading during the inauguration of President of the United States of America, Joe Biden.

"We close the divide because we know, to put our future first, we must first put our differences aside. We lay down our arms, so we can reach out our arms to one another ²³."







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SOURCES

- 1: Alternde Menschheit. (2019, July). Zahlenbilder Infografiken Für Grafik Und Medien. Retrieved December 5, 2020 from https://zahlenbilder.de/ welt/international/bevoelkerung/3392/alternde-menschheit
- 2: Die Häufigkeit von Demenzerkrankungen. (2020, June). Deutsche Alzheimer Gesellschaft. Retrieved December 5, 2020 from https://www.deut-sche-alzheimer.de/fileadmin/alz/pdf/factsheets/infoblatt1_haeufigkeit demenzerkrankungen dalzg.pdf
- 3: Diagnose Demenz: Krankheitsbild und Verlauf. (2020, January 10). Bundesministerium Für Gesundheit. Retrieved December, 2020 from https://www.bundesgesundheitsministerium.de/themen/pflege/online-ratgeber-demenz/krankheitsbild-und- verlauf.html
- **4:** What is dementia? (n.d.). DementiaUK. Retrieved December 18, 2020, from https://www.dementiauk.org/get-support/diagnosis-and-next-steps/what-is-dementia
- 5: Bruhns, Lakotta, Pieper, A. B. D. (2013), (p. 27/28). Demenz: Was wir darüber wissen, wie wir damit leben. Goldmann Verlag.
- 6: Bruhns, Lakotta, Pieper, A. B. D. (2013), (p. 22-23). Demenz: Was wir darüber wissen, wie wir damit leben. Goldmann Verlag.
- 7: Nold, S. (2020, October 30). Behandlung der Demenz Welche Therapieformen gibt es? Demenz Forschung. Retrieved December 20, 2020 from https://demenz-forschung.com/behandlung-demenz-the-rapie/#musiktherapie_oder_andere_kreati- ve_taetigkeiten
- **8:** TEDx Talks. (2014, October 20). Why I'm an architect that designs for social impact, not buildings [Video]. YouTube. Retrieved February 19, 2021 from https://www.youtube.com/watch?v=x0MnGZ1gB4k
- 9: Rohra, H. (2016), (p. 24). Ja zum Leben trotz Demenz!: Warum ich kämpfe (1st ed.). medhochzwei Verlag.
- **10:** Ontwerpen samen met de doelgroep Co-design. (2021). Tover.Care. Retrieved February 19, 2021 from https://www.tover.care/nl/tovertafel)
- 11: Stimuleringsfonds. (2017, July 6). Stimuleringsfonds.nl. Retrieved March 5, 2021 from https://stimuleringsfonds.nl/nl/zorg/vergeet_mij_niet_pad_gerjanne_van_gink_en_sanne_janssen/
- **12:** HACK CARE Tips and Tricks for a Dementia-friendly Home. (2020). Lanzavecchia + Wai. Retrieved March 10, 2021from https://www.lanzavecchia-wai.com/work/hack-care/
- 13: Huang, J. (2018, March). Verhaltensbezogene und psychische Symptome der Demenz. MSD MANU-AL Ausgabe Für Medizinische Fachkreise. Retrieved April 21, 2021 from https://www.msdmanuals.com/de/profi
- 14: Danek, A. (2009, January). Sprachstörungen bei Demenz. Deutsche Alzheimer Gesellschaft e.V. Retrieved April 21, 2021 from https://www.deutsche-alzheimer.de
- **15:** Bender, M. (2020, February 6). Demenz auf die Wertschätzung kommt es an. GRN Gesundheitszentren Rhein Neckar. Retrieved April 21, 2021 from https://www.grn.de/aktuelle-meldungen-detail/demenz-auf-die-wertschaetzung-kommt-es-an
- **16:** Mahr, S. (2020). Der richtige Umgang mit Demenz: Leitfaden für Angehörige. Angehörige Pflegen. Retrieved April 23, 2021 from https://www.angehoerige-pflegen.de/der-richtige-umgang-mit-demenz-leitfaden-fuer-angehoerige/

- 17: Attitude. (2018, September 30). Dementia: A Love Letter [Video]. YouTube. Retrieved April 2, 2021 from https://www.youtube.com/watch?v=K0m9B9810ms
- **18:** Movieclips Coming Soon. (2012, June 21). Marina Abramovic The Artist is Present Trailer (2012) Documentary HD [Video]. YouTube. Retrieved May 1, 2021 from https://www.youtube.com/watch?v=Ycmc-EZxdlv4
- **19:** Schäl, W. (2019, October 10). "Es geht um Selbstbestimmung." Süddeutsche Zeitung. Retrieved December 6, 2020 from https://www.sueddeutsche.de/muenchen/wolfratshausen/interview-es-geht-um-selbstbestimmung-1.4635505
- 20: Paro. (2021). Paro Therapeutic Robot. Retrieved May 1, 2021 from https://www.paroseal.co.uk
- 21: Maier, R. (2009). Ich will dich doch erreichen Begegnungen mit Demenzkranken Menschen ermöglichen; Hilfen für Angehörige und Pflegende. München, Kösel Verlag, 2009
- 22: Schäffler, A., & Menche, N. (2020, March 12). Medikamente gegen Demenz (Antidementiva). Apotheken.de. Retrieved January 3, 2021 from https://www.apotheken.de/krankheiten/hintergrundwissen/12539-medikamente-gegen-demenz-antidemen- tiva
- 23: READ: Youth poet laureate Amanda Gorman's inaugural poem. (2021, January 21). CNN Politics. Retrieved May 1, 2021 from https://edition.cnn.com/2021/01/20/politics/amanda-gorman-inaugural-poem-transcript/index.html

PICTURE SOURCES

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- 1: Auf Tournee rund um das Seniorenheim. (2019). [Photograph]. Retla. Retrieved December 23, 2020 from: https://retla.org/auf-tournee-rund-um-das-seniorenheim/
- 2: Houston ICU doctor hugs COVID-19 patient in heartbreaking photo. (2020, November 30). [Photograph]. Msn News. Retrieved December 23, 2020 from: https://www.msn.com/en-us/news/us/houston-icu-doctor-hugs-covid-19-patient-in-heartbreaking-photo/ar-BB1buHIZ
- 3: Steun de actie: Een Tovertafel voor Sint Jozef Wonen en Zorg. (2018, February 24). [Photograph]. Nederweert 24. Retrieved March 12, 2021 from: https://www.nederweert24.nl/2018/02/24/steun-actie-tovertafel-sint-jozef-wonen-en-zorg/
- **4:** Hack Care is an IKEA-style catalogue of DIY adjustments for dementia-friendly homes. (2020, November 15). [Photograph]. Dezeen. Retrieved January 2, 2021 from: https://www.dezeen.com/2020/11/15/hack-care-ikea-diy-dementia-friendly-homes/
- 5: Vergeet-mij-niet-pad | Gerjanne van Gink en Sanne Janssen. (2017, July 6). [Photograph]. Stimuleringsfonds.Nl. Retrieved January 15, 2021 from: https://stimuleringsfonds.nl/nl/zorg/vergeet_mij_niet_pad_gerjanne_van_gink_en_sanne_janssen/
- **6:** Marina Abramovic: "The artist is present", la performance del MoMA. (2014, November 28). [Photograph]. Pinkblog. Retrieved January 2, 2021 from: https://www.pinkblog.it/post/77042/marina-abramovic-the-artist-is-present
- 7: PARO is clinically proven to lower anxiety, stress, pain & depression. (2021). [Photograph]. Paro Therapeutic Robot. Retrieved March 14, 2021 from: https://www.paroseal.co.uk



