

Positive Design

Delft students design for our well-being

Desmet, P.M.A.

DOI

[10.5281/zenodo.14367524](https://doi.org/10.5281/zenodo.14367524)

Publication date

2024

Document Version

Final published version

Citation (APA)

Desmet, P. M. A. (2024). *Positive Design: Delft students design for our well-being*. Delft University of Technology, Faculteit Industrieel Ontwerpen. <https://doi.org/10.5281/zenodo.14367524>

Important note

To cite this publication, please use the final published version (if applicable).
Please check the document version above.

Copyright

Other than for strictly personal use, it is not permitted to download, forward or distribute the text or part of it, without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license such as Creative Commons.

Takedown policy

Please contact us and provide details if you believe this document breaches copyrights.
We will remove access to the work immediately and investigate your claim.

Positive Design

Delft students design for
our well-being

Volume 3

Pieter Desmet



Positive Design

Delft students design
for our well-being

Volume 3

Pieter Desmet

2024

ISBN: 978-94-6384-660-8

Faculty of Industrial Design Engineering

Delft University of Technology

Delft, The Netherlands

Content

Preface	7
Link & Twinrider Love of sports as design inspiration	8
Light & Shadow A chandelier as a walk through the forest	14
One last time to the beach Design for a last wish	18
The Story Table Meet your fellow citizens at the City Shop	24
Mix-A-Body-Match A board game for families in India about the menstruation taboo	28
Prana Your luminous meditation assistant	34
Unravel (Re)discover your daily routine as a source of pleasure	40
Forest Withdraw into your concentration bubble for a bit	46
Huggle Your first aid kit for emotional injuries	54
References	58
Colophon	59

Preface

Since 2015, I have had the pleasure of writing a regular column for the Dutch Journal of Positive Psychology, in which I present projects that explore how design can enhance well-being. In 2018, the first 10 columns were published as Volume 1, followed by Volume 2 in 2020.

For those who have read the previous volumes, welcome back! And for new readers, I'm excited to introduce you to this latest collection of nine inspiring projects from students at TU Delft's Faculty of Industrial Design Engineering, written between 2020 and 2022.

What stands out in this collection is its diversity. From helping people rediscover joy in their daily routines to creating tools that support emotional resilience, each project offers a fresh perspective on what it means to design for positive impact. Some focus on personal well-being, like meditation aids or products for emotional recovery, while others address broader social challenges, such as helping children with ADHD find focus in the classroom or tackling cultural taboos.

Despite their variety, these projects share a common purpose: improving lives through thoughtful design. They remind us that design isn't just about solving problems—it's also about creating opportunities for growth, connection, and happiness.

As you read through these columns, I hope you find inspiration in the creativity and empathy these students have brought to their work, and perhaps a new way of looking at how design can support human flourishing.

Pieter Desmet

Link & Twinrider:



Love of sports as design inspiration



Design by Gina van der Werf

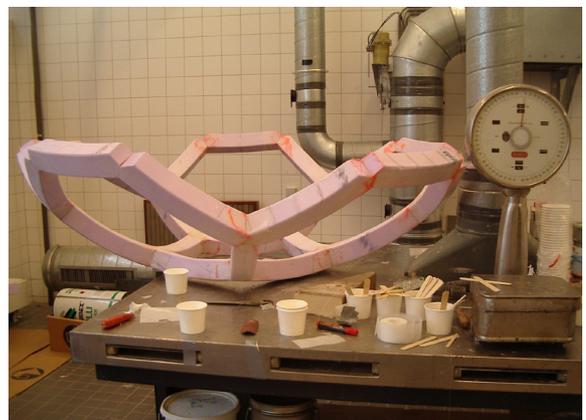
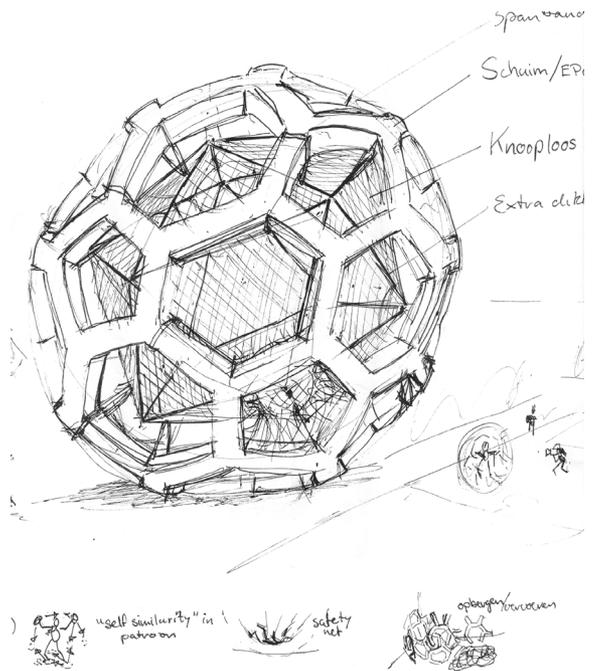
Develop sports equipment for blind children. And make sure to create an exciting athletic experience so to make children enthusiastic about sports. In short: Make exercise fun.

Fifteen years ago, this was the starting point for designer Gina van der Werf's thesis project. This assignment suited her to a T. Besides being a designer, she's a passionate athlete—with a preference for adrenaline sports such as snowboarding and mountaineering. Exciting and challenging athletic experiences are her bread and butter. With her design, Link, she managed to convert her personal experiences into a form that optimally suits the capabilities and interests of blind children. Step into Link and explore your balance between challenge and control.

Challenge is Exciting

In order to understand the target group, Gina spent two months working as an assistant at a school for children with a visual impairment. She observed classes and spoke with the children and teachers. What she soon noticed was the vital importance of proprioception (self perception): activities with direct physical feedback, such as pushing, pulling and balancing, give blind children the confidence that they need to stay in the experience. They enjoy the sensations they experience on a trampoline, treadmill or swing.

But the many safety limitations eliminate the excitement. This safety, no matter how important it is, hinders the challenge and therefore the fun and athletic development. Challenge is exciting! When snowboarding, Gina also experiences this intersection between challenge and control. And that's why she wanted to use her design to give blind children the chance to seek out a little bit of risk—to experience how you can play with letting go and taking back control.



Link sketch and prototype in construction



Children test the Link prototype

Walking, Falling, Bouncing and Rolling

Link is a ball with a two-meter diameter in which a child can stand, hang and walk. The ball has a hard exterior in the shape of a truncated icosahedron (football) and a flexible interior sphere. Because the interior sphere consists of a safety net, you can grab it, push against it, pull on it or hang from it. The double ball ensures a safe and soft landing. You can walk, fall, bounce and role to your heart's desire. By moving, you put the ball in motion, and the ball in turn puts you in motion, etc. In Link, you can explore the boundaries of your control in a safe way. You determine the challenge level. You can swing gently and carefully try out and experience the ball, but also run or even make somersaults. This allows blind children to explore what's exciting to them; letting go of control and subsequently regain it.

From Link to the Twinrider

Gina's passion for snowboarding inspired her to focus on the interaction between challenge and control. In her own words: "To develop as an athlete, it's important to learn what can go wrong and particularly how you can influence this. This means seeking out some risk, but within safe margins." She also experiences this in her role as a snowboarding teacher. This frequently gives her the opportunity to teach snowboarders with an impairment.

Five years after graduating, she met a student with cerebral palsy, a developmental disorder that is characterised by motor disorders. Her student had great trouble standing and walking, but was determined to snowboard—not to sit-ski. Gina was impressed with his perseverance and enthusiasm about taking a single curve. At the same time, she was frustrated that she couldn't do more for him. This gave rise to her idea of developing a sit-snowboard: the Twinrider.



The Twinrider

The first version was a makeshift model made with a few bars and an old snowboard. During a test, operating the snowboard with handles instead of your feet proved to be a good option, but the support certainly wasn't optimal yet. Many prototypes later, the Twinrider was born: The first snowboarding system for wheelchair users that truly feels like snowboarding. The base is a support frame and two handles that are mounted on a regular snowboard. The board is operated by moving your weight; the seat moves with it. With the handles, you can tilt and twist the board to steer it more precisely. This also allows you to feel what the snow does to your board, something that standing snowboarders feel with their feet.

Safety and Risk

Gina told me about her vision of risk: "With Link, I took the position that it's good for blind children to take risks because I've seen how demotivating overprotectiveness can be. In Link, children can challenge themselves and yes, this sometimes includes losing control. But risk is only suitable if any possible consequences are clear and acceptable. In Link, you can fall softly, just like falling in fresh powder snow." She incorporated this vision into the design of the Twinrider: "Some risks make it fun. When going into a curve, you accelerate, with the chance of losing control and falling. You can feel that in your body. The adrenaline makes you more alert and that boosts the learning process." The essence is that the athlete determines how big the challenge is—by choice of terrain—the Twinrider itself is responsive yet sturdy: "That is the autonomy I strive for, with my lessons and my products."



Gina builds her first version of the Twinrider

Link and Twinrider offer the freedom to explore and test your own boundaries. For athletes without impairments, this freedom is a given, but that's not always true for all athletes with an impairment. Marc Francis, the proud owner of the first Twinrider, is a huge fan: "It gives me a sense of freedom and excitement. This snowboard has given me the opportunity to fulfill my dream of descending the slopes with my family and friends."

Gina has only just begun to explore the tension between a safe versus a challenging sports experience. I can't wait to see what sport she will be working with next.



The Twinrider in action (Demi from Up adaptive sports in Kaprun, Austria)



Gina van der Werf (photo) designed Link 2005 as graduation project for the Design for Interaction master's degree at TU Delft for Stichting Bartimeus.

Supervisors were Paul Hekkert, Marieke Sonneveld and Theo Rooden (TU Delft) and Babette Hamburger and Marten van Doorn (Stichting Bartimeus). With her company Prodaptive, she developed the sit-snowboard for which she received a Dutch Sports Innovation Award in 2016. <https://prodaptive.nl/>



Light & Shadow: A chandelier as a walk through the forest

Design by Wim aan de Stegge

Light in the darkness

On New Year's Eve 1813, Londoners witnessed an historic event. That very evening, the state-of-the-art gas lighting of Westminster Bridge was first lit. New ground had been broken, with light in the city at night! This momentous occasion was to be the launchpad of a structural transformation in the appearance of urban areas.

By 1900, gas lighting had reached almost every city in Europe and North America. However, even faster than its emergence, the gas light disappeared again from our streets and houses. The reason for this no secret: the invention of the cheaper and safer electric light. Nowadays, we can no longer imagine life without the omnipresent cheap, safe and effective light that comes from electricity.

Light and Shadow Design

Conventionally, a lighting designer begins with the following question: how can I create the best possible light quality given the possibilities of the light source? However, with the evolution of modern LED technology, these possibilities are now infinite. Virtually any colour and light effect can be created, including movement and other forms of dynamic expression. Even shadows are no longer just a side effect of lighting; in dynamic light textures they are an integral part of the design. This fact inspired designer Wim aan de Stegge to develop a wellbeing-driven lighting design. The result is a chandelier that makes a sophisticated connection between the building and its surroundings. (Aan de Stegge, 2020).



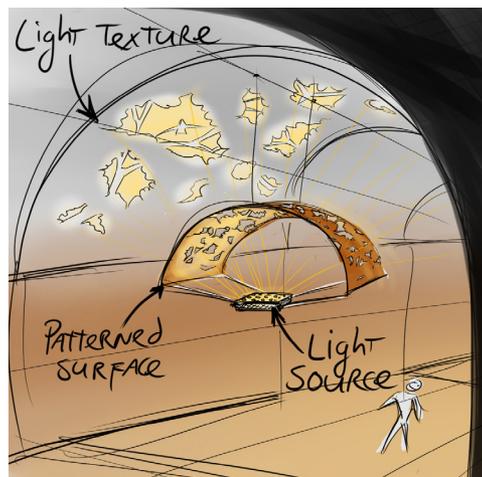
The Design Integrated in the Hoge Veluwe Park Pavilion (photo by Stijn Bollaert)

Nature as a Human Necessity

The American biologist Edward Wilson introduced the idea that people have an innate connection with the natural environment (Wilson, 1984). He launched the “biophilia hypothesis”: the inherent human need for life forms and other natural elements. Biophilia is stroking the cat, walking barefoot in the grass, an office overlooking the park, and flowers in the house. Fulfilling this need has many positive effects on well-being. For example, the presence of plants in hospitals has been shown to reduce depression and pain in patients, improve mood, and accelerate recovery (for an overview, see Soderlund & Newman, 2015).

Biophilic Design

Social ecologist Stephen Kellert (2008) translated the biophilia hypothesis into a series of design principles: biophilic design with the aim of strengthening man’s connection with his natural environment. Wim was inspired by the two core principles: naturalism and place-attachment. Naturalism is the integration of natural elements in man-made designs. This may either be direct (with daylight or views of natural elements), indirect (with cultivated nature such as pot plants) or symbolic (with representations or images of nature). Place-attachment is the connection between the built environment and the local ecology; the relationship between a building, mankind, and the environment.



Design sketch and prototype



The Design Integrated in the Hoge Veluwe Park Pavilion (photo by Stijn Bollaert)

The Biophilic Chandelier

Wim designed a chandelier for the Hoge Veluwe Park Pavilion in Otterlo. The chandelier projects a dynamic light texture onto the vaulted ceiling of the visitor centre. The chandelier combines a powerful LED matrix as a light source with a curved surface that has been laser-cut into a pattern. Dynamic lighting effects are created by means of video material from the natural environment. The light texture connects the architecture with the surrounding nature park. The play of light and shadow gives the experience of walking on a forest path with the foliage of the trees as a vaulted ceiling. Wim deliberately chose an abstracted pattern. It is therefore not a literal projection of foliage but a symbolic representation. This makes branches and leaves recognisable, but at the same time the light also enters into a logical relationship with man-made architecture.

Science and Intuition

For Wim, the project was a personal quest for a good balance between knowledge- and intuition-driven design: "As a designer, especially in the field of lighting, I have to embrace my intuition. That is not to say that science has no value in my design process, quite the contrary! However, reality can never be completely captured by the rules of a scientific model, and where science ends, I have to use my intuition". With this combination, he created a convincing form of poetic technology. Two centuries ago, the revolutionary gas lighting of Westminster Bridge represented a victory for mankind over the limitations of nature. The biophilic chandelier embodies a new significance for lighting: light as a connection between the artificial and the natural. And so light and shadow have definitively gained a firm foothold in the positive designer's repertoire.



In 2020, **Wim aan de Stegge** (photo) researched the concept of biophilic light patterns as a thesis project for his *Integrated Product Design* master's degree. He conducted his initial research in association with Signify. He applied insights from this research to Beersnielsen Lichtontwerpers' chandeliers for the Hoge Veluwe Park Pavilion (Otterlo).

The supervisors were Sylvia Pont and Erik Jepma (TU Delft), Laura Taylor (Signify) and Sjoerd van Beers (Beersnielsen). The design won a DARC and LIT lighting design award in 2019. Wim is currently working as a lighting designer at Mandala, a lighting design studio in New Delhi. Thanks to Beersnielsen for providing the photographs of Stijn Bollaert.



WensAmb
Brabant



One last time to the beach: Design for a last wish

Design by Chenyi Shao

What are you doing this weekend? Perhaps a day at the beach. Getting some fresh air. Or coffee with family, visiting a museum or concert. These kinds of outings are pretty self-evident for many of us. But that is not the case for everyone. For people who do not have much longer to live, such a simple outing can be far from evident.

Then it may even be a last wish: one last time to the beach. Feeling the sand and hearing the sound of the sea one more time. Fortunately, the WensAmbulance can make this happen. With a team of volunteers, it transports the terminally ill to their favourite place one last time.

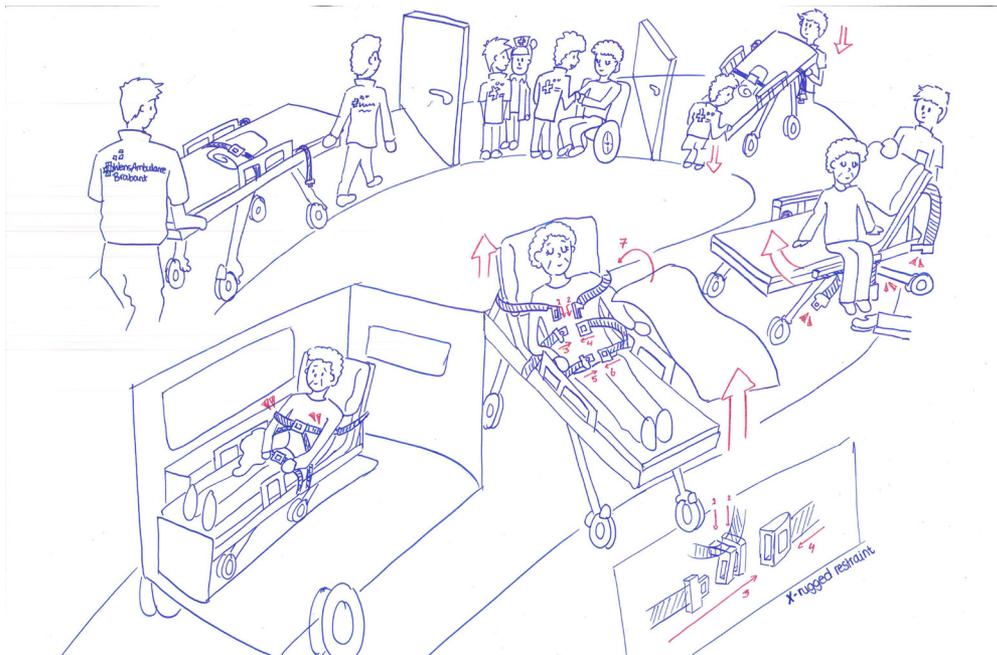


Interior of the WensAmbulance

One last wish

The Netherlands has a network of regional WensAmbulance foundations. These offer seriously ill people, with a limited life expectancy, the opportunity to say goodbye to life in a personal way. Each individual has their own perspective of a 'good death,' but many people who know that their

lives will end shortly value a sense of completion. Letting one last wish come true in the final stage of life can therefore make a significant contribution to the quality of life. With accompanied ambulance transport, the WensAmbulance helps to fulfil such a wish—sometimes a final unique life experience for their clients.



The first part of the wish ride (from pick-up to taking a seat in the transport)

The wish ride

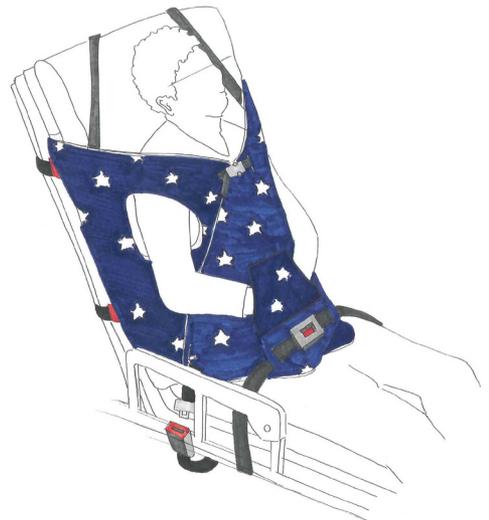
Inspired by the Wish Ambulance, designer Chenyi Shao set out to explore how to optimise the wish ride. She carefully mapped out the entire wish journey, from pick-up, the actual ride to the desired location, including the return journey. She found multiple leads for improving the experience. She chose to redesign the belt system of the stretcher used for transportation. The current system is optimised for regular ambulance use—not for wish rides. One requirement is central for an ambulance ride to the hospital: safety. This is guaranteed with a double belt: an X-belt over the shoulders in combination with a hip belt that straps the patient to the stretcher.



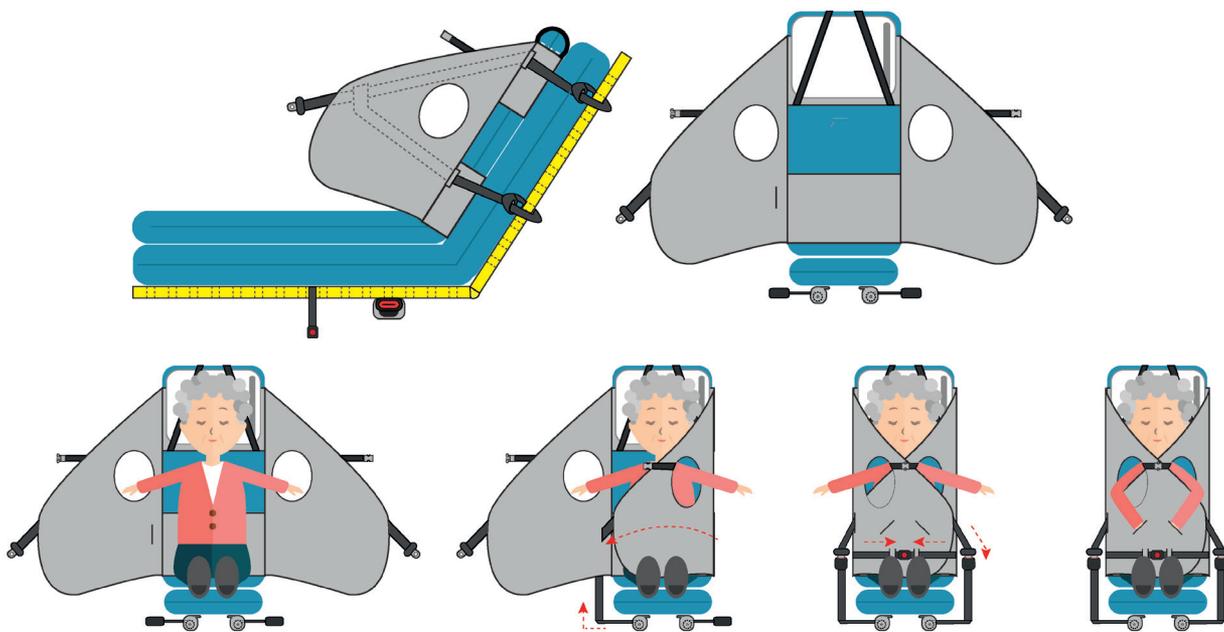
Compromise in the use of the belt system during a wish ride

Patient versus client

Safety is of course paramount for a wish ride, but comfort and freedom of movement are just as important. The regular stretcher and belt look stiff and sterile. They give a client the appearance of a 'passive' patient, which can cause feelings of shame. In addition, negative associations from previous ambulance experiences can generate feelings of anxiety. Because the stretcher is too hard and uncomfortable for wish rides, an extra mattress and pillow is used. This is pleasant, but it also has its disadvantages: due to the extra volume, the belts cannot always be properly positioned, which has a negative effect on safety and comfort. In addition, the X-fixation is not always applied during the ride to give clients more freedom of movement.



Design sketches



The interaction of an embrace

The wish ride shawl

Chenyi designed the 'wish ride shawl: a combination of a blanket and a seat belt. The shawl has a friendly and homely appearance. The material is soft and warm; it feels like an embrace. It reduces the 'passive patient' association, and therefore feelings of shame and fear prior to the wish ride.

The shawl fixates and at the same time provides room for movement. This supports the interactions between the client and the other passengers (a professional volunteer and family member). The overall experience is much more that of a group of people on the way to a meaningful destination,

than that of an 'object to be transported'. The client can easily operate the belt buckle themselves, for example to hug loved ones when saying goodbye. Many clients want to take a nap to rest on the return trip. The shawl provides the necessary stability and comfort. The pockets allow clients to fix their hands and keep themselves warm in an intuitive and pleasant way. Finally: because the cushion cannot move during the ride, the volunteers no longer have to put it in place during the trip, which in turn has a positive effect on their own safety.



Prototype of the wish ride shawl

Designing to serve

Sometimes a design is grand and conceptual. But not always: a design can also be modest and serving. Although they are less prominent or eye-catching, they are certainly no less important. Because even a small intervention can have a major impact. That's how I view Chenyi's contribution.

The WensAmbulance gives people an opportunity for feelings of fulfilment. It is not about the journey, but about the destination. And yet, the ride is also part of the total experience. Every moment counts. In a modest way, Chenyi supports this experience with her shawl. If you don't pay attention, you don't see it. And that is precisely the beauty of her design: the power of modesty.



Chenyi Shao (photo) developed the shawl in 2018 as a graduation project for the Integrated Product Design master's programme in the "Design for End of Life Lab" for the WensAmbulance Brabant. The initial assignment was to optimise the mattress, because the wish ride was physically too strenuous for many clients. In consultation with the support team, it was decided to broaden the project by mapping all factors of discomfort.

Supervisors were Marieke Sonneveld and Jeske Weerdestijn (TU Delft), and Ton van Pinxteren (WensAmbulance Brabant). Chenyi is currently studying veterinary medicine at the University of Ghent.



The Story Table: Meet your fellow citizens at the City Shop

Design by Koen van der Loop

Antwerp has a City Shop: “Are you looking for a nice Antwerp souvenir or delicious local products? Then, at the Stadswinkel, you’re in the right place”, according to the website. This matches my view of a City Shop quite well.

Rotterdam also has a City Shop. But you won’t find a couple of bottles of ‘Harrie’, a box of ‘Rotterdammertjes’ or a nice postcard there. You go there to apply for your passport or to renew your driver’s license.

It is the place where you, as a citizen, can go for all municipal matters: benefits, taxes, parking, permits; from reporting a move to registering a birth.

Municipal Services

Each municipality recognises the challenge of maintaining and strengthening its relationship with its inhabitants—the citizens. This relationship determines its legitimacy and, thus, also the results that can be achieved for the community (see Smith & Kuenkel, 2018). The City Shop plays a vital role here.

This is the place for direct and personal contact. The place where you, as a citizen, do not turn to 'the government' but to an actual person. Approachability and inclusiveness are key. In total, Rotterdam has seven City Shops. The largest is located at City Hall, Coolingsingel 40. The imposing National Monument was completed in 1920 and withstood the devastating war. It is a symmetrical building designed by Henri Evers, with an impressive tower above the central hall as a real eye-catcher.

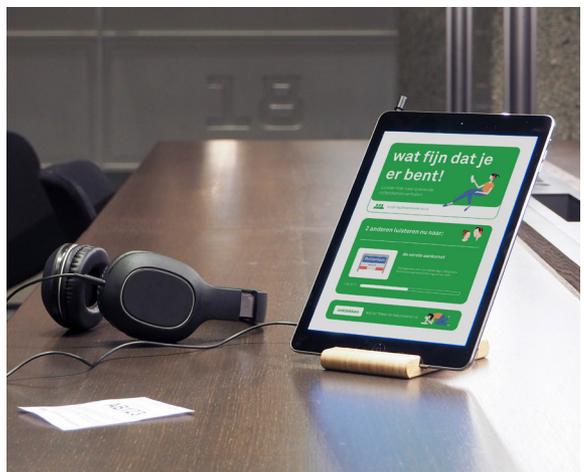
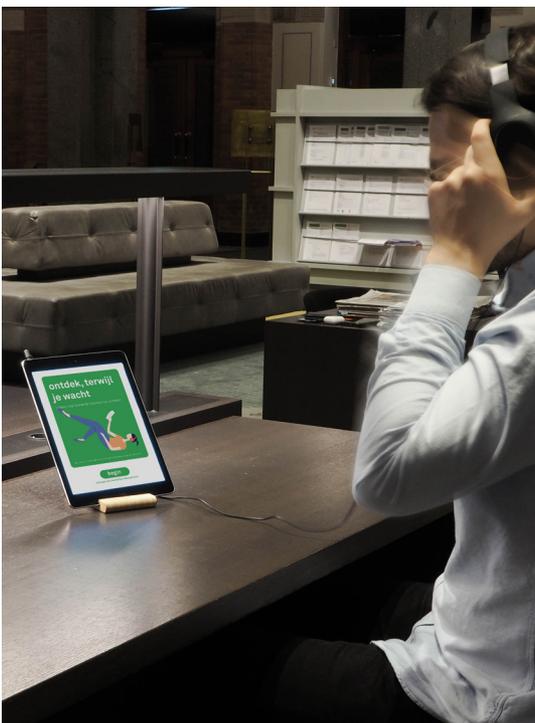
Well-being at the City Shop

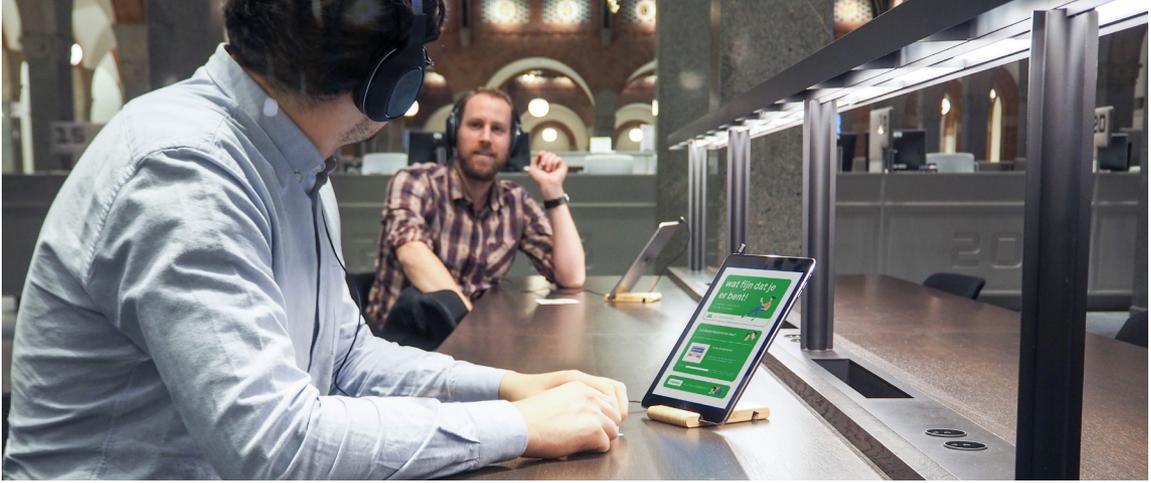
Designer Koen van der Loop asked himself the following question: What can I do to strengthen the well-being of the people who come to the City Shop? He spoke to eleven different visitors and created an overview of their positive and negative experiences. Frequently felt emotions are dissatisfaction and frustration, but there is also trust and hope (see Van der Loop, 2019).

Following the ideas of positive psychology, he decided to focus on strengthening those positive feelings. And as a basis for his design, he chose the need for community.

Community: Being part of and accepted by a social group or entity that is important to you. Rather than feeling you do not belong anywhere and have no social structure to rely on.

This desire to belong is a fundamental human need (see Desmet & Fokkinga, 2020) and an appropriate starting point for wellbeing at the City Shop. After all, this is the 'home of the community'. For his design, he was inspired by the power of story-telling. A community is shaped and defined by shared stories. Everyone has their own unique story. By listening to each other's stories, you can connect with each other and, in this way, with a community. With this, the idea for the Story Table was born.





The Story Table

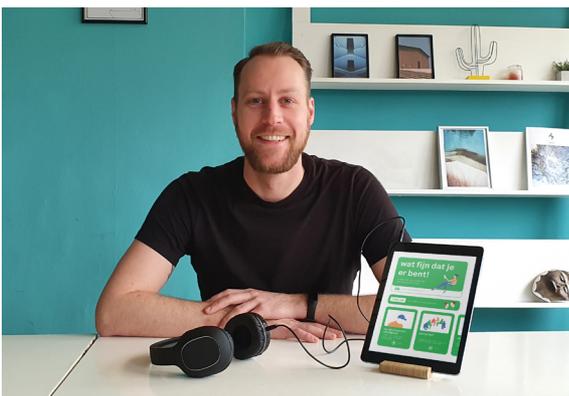
“Is it my turn yet?” You are probably familiar with the stifling atmosphere of a waiting room. Checking the call numbers on the screen every few seconds. The Story Table offers comfort and convenience. Its design consists of a tablet, headphones, and a simple stand. Placed on the communal table in the waiting area. You enter your call number and then you can relax: the tablet will notify you when it’s your turn.

Now that you have some time to spare, you can use it to listen to a story shared by a fellow citizen. You can choose from various stories. These are not just any stories—they are stories in which fellow citizens tell you about their world of experiences and feelings. Tales you can identify with. It is as if you are being read to and, for a short while, you find yourself in the world of the other. You will receive a subtle notification when it is almost your turn for your appointment. Straight away, you can indicate whether you want to receive a link to continue to listen to the story at home. You will then see at which counter you can report for the service you came for.

No images for a while

Koen is familiar with images; as a designer he gives for to the visual. Using video images to accompany his Story Table would have been the obvious choice. After all, we are all familiar with the temptation of motion picture.

Surprisingly, he deliberately chose to work solely with audio. In his own words: “I have experienced how intimate and moving it can be to purely listen to someone’s story. Your own imagination comes to life while listening. This is much more personal than watching video images. And for me, that is the key to connection.” In line with this choice, it was also obvious for Koen to make the interface as simple as possible. Excessive features were unnecessary. While standing in front of City Hall, I feel small at the sight of Evers’ tower. Over 70 metres high. But once inside, listening to the stories of my fellow citizens, for a moment, I feel taller than the tower: as large as all Rotterdammers put together.



Koen van der Loop designed the Story Table in 2019 as graduation project as part of his master's degree Design for Interaction in collaboration with the Municipality of Rotterdam.

Supervisors were Jeroen van Erp and Pieter Desmet (TU Delft). Koen is currently working as a freelance UX designer in Rotterdam.



Mix-A-Body-Match: *A board game* *for families in* *India about the* *menstruation taboo*

Design by Petra Salarić

A short Facebook post. When she read it, Petra Salarić had never imagined the impact it would have on her choices as a designer. The post referred to a project about the influence of imagery in the media on the stigma surrounding menstruation.

This made Petra think. She realised how little she, herself, knew about this subject and about the influence menstruation has on her own life. That insight, she later told me, ignited a feeling of

responsibility; the feeling she had to do something with this, both as a woman and a designer. It was the beginning of an incredible design trip. She immersed herself into the history of menstruation, studied holy writings and conducted fieldwork in India. And all of this was eventually brought together in *Mix-A-Body-Match*: a progressive card game about puberty for parents and their children.

The menstruation taboo

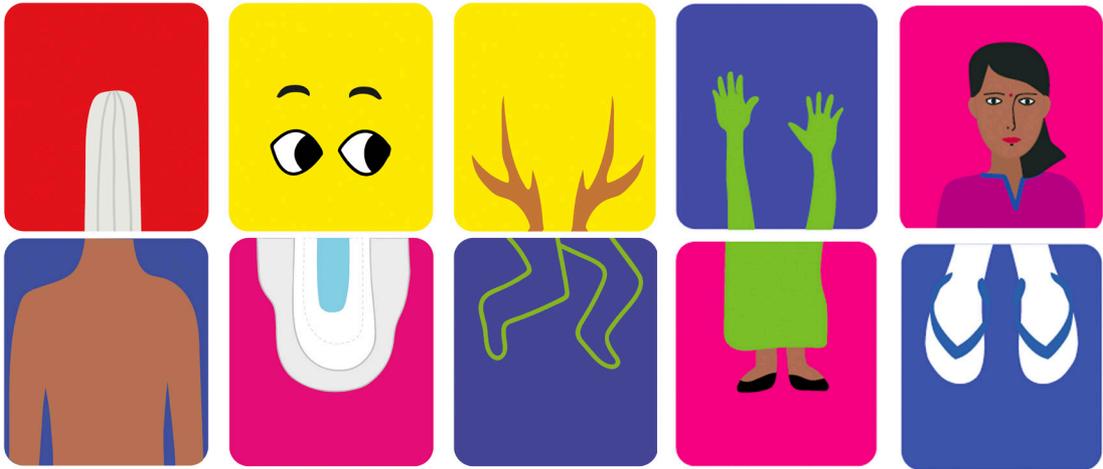
After reading the Facebook post, Petra signed up for the Design for Emerging Markets course and saw an opportunity to further develop her knowledge about menstruation. For context, she chose India. Menstruation has a complex meaning in this diverse and culture-rich society. She interviewed both Indian women and men to gain insight into how menstruation influenced various aspects of the lives of women in India, with the related social stigmas and health problems. An important insight gained from these first interviews was that in order to be able to address these problems properly, men need to be involved. India is a patriarchy, and men have a great influence on the lives of women, but they often don't have the required knowledge about menstruation to have the ability to support women.

The trip to India

The next step was a trip to India. By now, Petra was so deeply involved that she chose the subject to be the starting point for her graduation project. She immersed herself in the history of menstruation in India, the relation to religion, media, tradition, education, nurturing and family. She spoke to experts, teachers, doctors and families. This complex, culturally layered society still has many taboos when it comes to menstruation. The image has been shaped over many years by various influences such as religion and traditional upbringings, to myths that are created by the lack of knowledge and driven by fear. There is no regulated education on puberty and girls often do not learn how to safely handle their menstruation.



The Mix-A-Body-Match card game



Examples of card mixing

The family is the basis

Petra took on the challenge of creating a design to support education about menstruation that involves men as well. Because menstruation is a very sensitive subject in India, it was important to work in a safe context. This brought her focus to the family. Family relations are very important in Indian society, and the way menstruation is treated in the family home often has a great influence on girls' and women's experiences. During her research, she found a correlation between the positive attitude of girls towards their menstruation and their freedom to discuss this with both parents, also before she actually starts her cycle. She therefore set out to design something that could facilitate the dialogue between all family members before the girl starts menstruating. So not just mother-daughter but also father and even brothers and sisters. The choice for a game was easily made as this enables you to work with a light-hearted way of interacting.



Example pages in the explanation booklet

The game

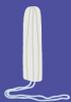
The strength of a game is that all family members are explicitly brought together by a fun activity. This works as an ice breaker when it comes to addressing sensitive subjects, providing a positive atmosphere.

For the design, Petra worked closely with nine families from Bangalore. This is how a card game was born: Mix-A-Body-Match. At the core, it consists of 75 cards. The graphic design is based on patterns and colour combinations of Indian sarees. Each card has a drawing on it. Some refer to changes during puberty (such as chest hair, sperm, menstruation, body odour and breast forming) and others are more general (such as a spoon, flip flop, sun, dancing, flower and ear).

The box also contains a booklet with the rules, an explanation of the images and more information about puberty and menstruation. The game is very simple. The cards are distributed among the players. A game leader is appointed. This person chooses a card and places it on the table. All other players put down a card as well.

The goal is to create a combination with the game leader's card that is as funny as possible. The players then proceed to explain what the combined image means. The game leader gets to decide which combination is the funniest. There are various options on how to earn points but the essence of the game is to stimulate humour.

WHAT IS ON MY CARDS



Tampon is an insertable sanitary product. It can be used for 4-6 hours. Useful side of a tampon is that it can be used while doing water sports, too.

Hair growth is one of the physical changes that happen to boys and girls. **Facial hair** is one of the physical changes that occur in puberty mostly to boys.



Breast growth is one of the physical changes that occur, mostly in girls.

Pimples is an often issue of many teenagers. Some teenagers can have an even more serious situations, with acne.



Biggest change for girls in puberty is the start of **menstruation**.

The **hair growth** also can happen in the underarm area and the pubic area.



During puberty, many teens get **oily skin** which happens due to the strong work of the oil-producing glands.



Boys get very hairy in puberty. **Chest hair** occurs, for some a lot for some not at all.

The behaviour in puberty can change to - the hormones can cause **mood swings**.



Menstrual cup is an insertable reusable type of a menstrual product. The cup can be used up to even 12 hours!

There is an increase of **sweat** during puberty due to the work of our sweat glands.



Those menly muscles on you! The **muscle growth** occurs in puberty, mostly to boys.

Increase of sweat can also bring a certain **body odour** (BO) in puberty.



Example pages in the explanation booklet

Normalising menstruation

Of all the game-types Petra tried, the Mix-A-Body-Match was the favourite as it created the best atmosphere; it is fun and it normalises the changes that puberty brings as being a normal part of growing up. The design is surprisingly simple: a box with some cards with funny drawings on them. And yet, this is a small revolution. Family members are having fun together and can talk about sensitive subjects such as the physical changes that come with puberty—including menstruation. A father on the test panel said to his young daughter whilst playing the game: “It is a sign of fertility. So how can something that you were born out of be bad?” Petra told me she found the project to be an incredible and impactful trip. A trip that has not yet been concluded. She is currently talking to the Bibliothèques Sans Frontières Foundation to research how the game can best be launched.



Families play the Mix-A-Body-Match card game



Petra Salaric (photo) developed Mix-A-Body-Match in 2019 during a self-initiated graduation project for the master's programme Design for Interaction. The project was made possible by the TU Delft Global Initiative.

The supervisors were Jan Carel Diehl and Pieter Desmet (TU Delft). Petra is currently working on her PHD at Loughborough University (UK). Her research topic is the influence of online communication on the forming of intimacy during the early stages of romantic relationships. In addition, together with Bibliothèques Sans Frontières, she is researching the possibilities to further develop and implement the Mix-A-Body-Match game.





Prana: Your luminous meditation assistant

Design by Gijs Spierings

An idea for a new design can arise in the most unexpected places. Like on top of a mountain. In 2017, design student Gijs Spierings made a hiking trip in the Annapurna mountain range of the Nepalese Himalayas. In this grandiose setting, he came across a man who enthusiastically told him about the meditation retreat he had recently attended.

Just two weeks later, Gijs visited a Vipassana retreat centre himself, in Yangon, Myanmar. No phone, no music, no snacks, no talking—just silence. For ten days. Here he learned the power of meditation. Observing your own thoughts, emotions and sensations, without judgment or attachment. It was an eye-opening experience.

Although Gijs had not foreseen it at the time, this experience turned out to be a catalyst for the research that, four years later, would lead to his design of Prana: light as a supporting medium for meditation.

The Dark Side of Meditation

In the years following his retreat, Gijs developed a deep appreciation for the practice of meditation, due to the positive effects it had on his overall well-being. And he is not the only one, of course. Meditation in its many guises has been practiced for thousands of years. Whereas previously it was primarily practiced in Eastern countries, meditation is now firmly anchored in Western society. Research confirms the powerful effects of regular meditation, such as reduced anxiety and stress, alleviating depression, improving sleep and memory, and lowering blood pressure (Sharma, 2015). However, recent research has also revealed some of the more darker sides of meditation. For example, meditation may also lead to negative emotions and even an increase in stress, especially in novice practitioners (Schlosser et al., 2019).

Common complaints include anxiety when failing to form and maintain meditation habits, frustration from slow progress, and disappointment from the lack of noticeable results. Gijs shared these experiences. He struggled at first to find a form of meditation that suited him and he experimented with many different meditation apps. In the years after his first

introduction, he eventually developed a routine that worked for him. Motivated by this personal quest, he decided to explore how, as a designer, he could create something that offers a helping hand to those who practice meditation.



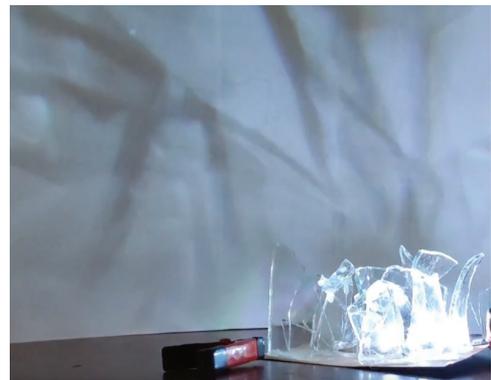
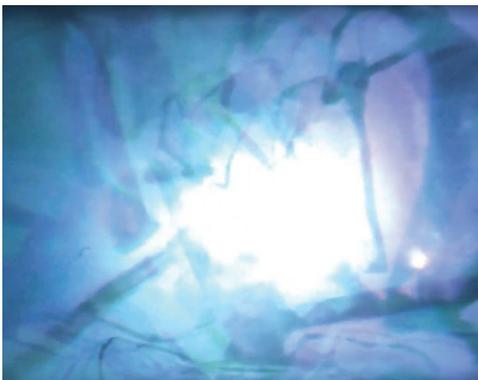
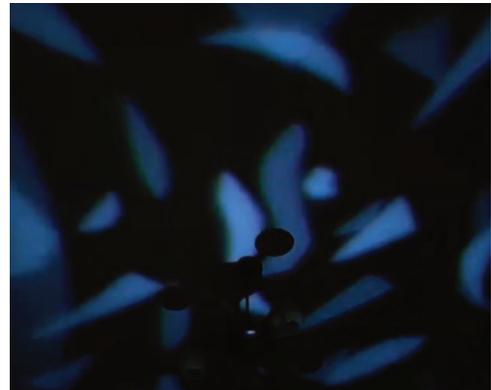
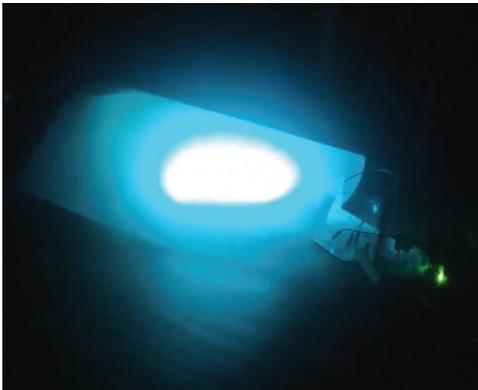
Creative Session With Meditation Practitioners

Designing With Light

Gijs set himself the goal of supporting meditation with the help of light. One source of inspiration was the American artist James Turrell. Turrell has gained global fame with his fascinating light installations. The often sculptural and geometric shapes he uses create a sense of depth and distort our perspective. His work is sometimes described as a meditative experience. If you are interested in experiencing one of his works for yourself: one of Turrell's Skyscapes can be admired in the Voorlinden museum in Wassenaar. In order to incorporate light into his design, Gijs developed several prototypes by means of a simple yet effective test device. Using this device, he performed hundreds of experiments with the effects of light colours, dynamics, and patterns. He also conducted research with a diverse group of meditation practitioners.



Light Experiments



Light Experiments



Gijs' project crystallised into a light installation that supports three phases of meditation, each with their own light effects:

(1) Getting into the right state of mind

Light creates an atmosphere that helps one feel at ease. This supports a tranquil start to the meditation session. You are guided into a relaxed state, both mentally and physically, thus preparing for the meditation. Furthermore, the light motivates you in a subtle way to not forget that you're practicing meditation.

(2) Supporting the focus

During meditation, light helps you maintain focus. A subtle hint of light makes you realise you are getting distracted, which helps to regain focus. This reduces the chances of getting lost in your train of thought, and makes you aware of the mind starting to drift.

(3) Transition to everyday life

Light guides you back to everyday life in a calm way. To prevent you from quickly falling back into day-to-day thoughts and emotions, the meditation session concludes with a transitional moment.

The final design was named Prana (Spierings, 2021). Prana is a Sanskrit term meaning life force, energy, or vitality. Prana is also used to refer to breath. Every physical breath brings about a corresponding movement of Prana throughout the body. Gijs' Prana is an interactive wall lamp. It can be best described as a meditation assistant that communicates using light. The lamp acts as a personal guide during a your journey through meditation.



Light As a Natural Experience

When Gijs told me about his idea for his design project, I was quite sceptical. I believe there is something fundamentally conflicting in the relationship between meditation and technology. But when I saw Prana in action, I was immediately sold. It is actually almost impossible to describe in words, you simply have to experience it yourself. Prana is enchanting. It immerses the room in a tranquil atmosphere and creates magical patterns and aesthetic lighting effects—all without making you feel like you're looking at a device. It is similar to experiencing a natural phenomenon, such as a sunset or the northern lights. Prana helps you without being overly explicit or overbearing. I see Prana as an expression of love. After all, love is an “intense feeling of deep affection” or a “great interest and pleasure in something”, and Gijs has achieved both with his design: he has combined a deep affection for the user of his design with a great pleasure in the research and design process. Prana is difficult to describe with just photos. If you want to get a proper impression, take a look at the video (https://youtu.be/QuHX_ONOh24).



Gijs Spierings (photo) developed Prana in 2021 as part of a self-initiated graduation project for the Design for Interaction master's degree.

His supervisors were Sylvia Pont and Pieter Desmet (TU Delft). Gijs is currently working with a start-up (called Glimp) developing a device to support the mental well-being of first responders. He is also an independent entrepreneur with a focus on lighting design and graphic design. His plan is to continue to develop Prana in the future.

COOKING WITH HARMONY

Cooking with harmony focuses on balance, elegance, and harmony in food. Emphasizing our need for beauty in life, this group of cards includes ways to approach cooking in a way that is artistic and visually pleasing.



WHY 137

COOKING WITH EASE AND SIMPLICITY

Cooking with ease and simplicity focuses on purity, saving time and cost in a way that is comfortable. Emphasizing our need for comfort in life, this group includes subtle ways to get your cooking to be the simplest, most relaxing and without overcomplication.



How do you feel like cooking?

COOKING BEYOND YOURSELF

Cooking beyond yourself focuses on joy and fun with other ingredients or cooking techniques. Emphasizing our need for versatility in life, this group includes creative ways to get your cooking beyond the usual and embracing cooking with ingredients in ways that are unique and fun.



WHAT & HOW?

These cards are designed to facilitate an explorative journey for you to experience how these fundamental concepts can be brought upon through cooking and expand the enjoyment you get from it. For this, we have combined some initial information, a splash of trivia, and a dash of facts.

The cards will give you tips to approach cooking in a new way, as well as suggestions that will be helpful in your kitchen. We believe differences in cooking styles, we had

Initially, we focused on a few key concepts that we thought would be most helpful to you.

With a focus on these concepts, we hope you will find it easy to try these things with any of your ingredients and we will have fun.

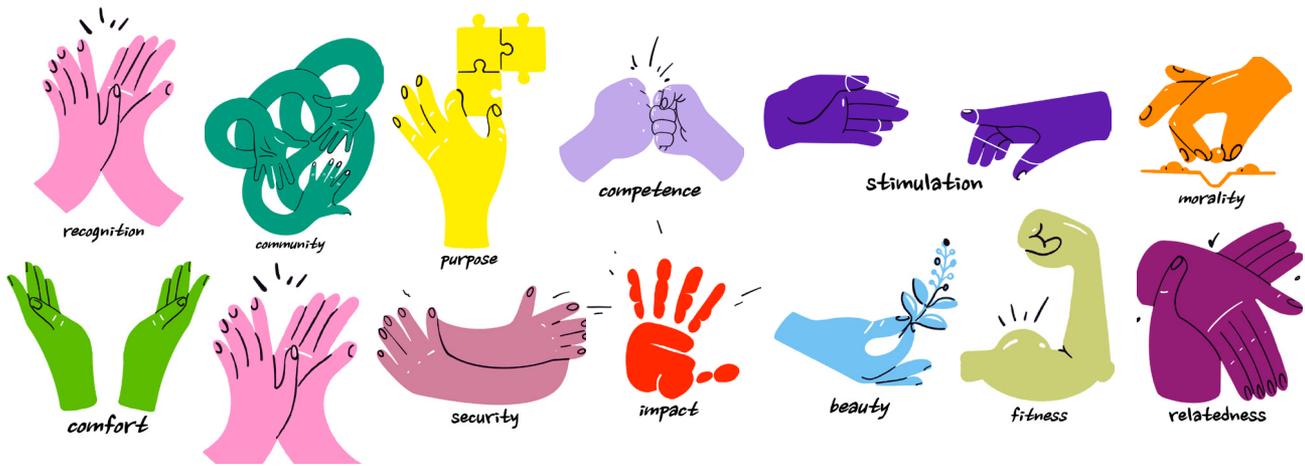
We expect cards you will enjoy. As a result, we think you will love them.

Unravel: (Re)discover your daily routine as a source of pleasure



Design by Ezgi Orçun

Languishing—the feeling of stagnation and emptiness. You don't necessarily feel depressed, but somewhat joyless, feeling a bit 'meh'. In our vast emotional repertoire, it doesn't immediately grab the attention. Regardless, it is the dominant mood of 2021, according to psychologist Adam Grant (2021). Grant published an article in the New York Times about this mood during the pandemic. People muddle through their days, looking at their lives through foggy lenses. Aha, I thought. So that's what I've been experiencing these past months - a similar pattern I noticed among my colleagues and students too. A stifling sense of indifference. Designer Ezgi Orçun certainly didn't let it get to her. She chose 'languishing' as the subject for her final project: "How can I help young adults rediscover their enthusiasm in times of the pandemic?" The result is 'Unravel': an aid to rediscover your daily routine as a source of pleasure.



Pictograms for 13 Basic Needs (designed by Ezgi Orçun and Asude Çelik)

Under the spell of the pandemic

On 30 January 2020, the World Health Organisation declared the COVID-19 outbreak a global health crisis, and shortly thereafter a pandemic. Within two months, about half of the world’s population was living in some form of lockdown. Curfews, quarantine, closed restaurants and similar social restrictions. These so-called ‘Nonpharmaceutical Interventions’ (NPI) have drastically affected our daily lives, with a shockingly negative impact on the well-being of many (Ruiz, 2021). They prohibit activities that contribute to our well-being, such as travelling, going out, family events, visiting museums: all essential for fulfilling kinship, stimulation, autonomy, meaning, competence and other primary psychological needs.

Moments of pleasure

With the pandemic underway, Ezgi’s first idea was to design something that would help people develop new routines to replace activities that were no longer possible. We’re no longer able to go to a concert for excitement—so what can we do in stead? You can’t go out for dinner with friends to connect—so what *can* you do? Ezgi had 20 young adults keep a diary of the fun moments during their daily routines. She then asked them to reflect on those moments: which need(s) were fulfilled? As a helpful tool, she provided an overview of 13 fundamental needs (see Desmet & Fokkinga, 2021). This research resulted in a collection of hundreds of so-called ‘pleasure moments’. And it gave her a surprising new insight: the invitation to reflection itself turned out to be an effective intervention. Her respondents appreciated the small everyday moments of pleasure much more deeply, precisely because they were asked to think about the relationship between pleasure, deeper needs and well-being.



Inspired by the 'beauty' tip card, respondents came up with a challenge: how can we serve leftovers from yesterday as aesthetically pleasing as possible?

(Re)discovering existing routines

Her research gave Ezgi new insights. She abandoned the idea of helping people develop new routines to replace what was no longer possible. Instead, she focused on creating fun in the routines that people have. This resulted in the creation of 'Unravel': a set of 39 cards that allow you to (re)discover daily activities as a source of pleasure. She started by exploring the routine of preparing a meal. She created a series of two to four cards for each of the 13 basic needs. Every card gives a specific tip on how to fulfill that need while preparing a meal. The cards also feature an inspiring image and a QR code for a website with extra information and tips. A few examples are shown on the right.

On a journey of discovery in your familiar routines

Unravel was designed as a month-long voyage of discovery. It consists of a square box containing the tip cards and a set of fridge magnets. When you open the box, it unfolds into a small poster. The cards are then placed in the middle. The poster provides a brief explanation of each fundamental need. For the first step, you choose five cards that appeal to you. You then place these on your fridge. Every day you pick one to experiment with. After several days - when you're ready to do so - you can replace one card with another from the set. This way, Unravel contributes to your well-being in two ways. First, it gives you the pleasure of carrying out little experiments. This is the main pleasure, but second, the information on the cards also gives you insight into the relationship between pleasure and your deeper needs. You get to know your own needs and how to fulfill them in the context of cooking.



COOKING WITH THE FLOW

Do I know where to start?

Everyone has their own ways in life that defines who they are. Let it be changing some ingredients or the technique used, every recipe is also cooked differently by each person.

Today, prepare a dish in your own unique way. Take a traditional recipe as a starting point for a daring exploration.

Autonomy

Being the cause of your actions and feeling that you can do things your own way.



COOKING WITH HARMONY

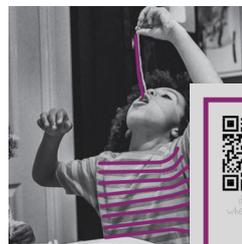
Do I know where to start?

Every season is beautiful in its own way. The things we enjoy changes as well as what we eat as one season follows another.

Today cook with a seasonally signature ingredient to celebrate the nature and the fresh produce that come with it. For instance, prepare a cherry pie and bring it outside to enjoy the beautiful weather in June.

Beauty

Seeing elegance, coherence and harmony in both the world and your direct environment



COOKING WITH A MEMORY

Do I know where to start?

Our memories involve the love and warmth of our relationships. How can you evoke this feeling through cooking?

Prepare a dish that reminds you of your childhood and cherish the memories that come with.

Connectedness

Having warm, trusting relationships with people you care about.





Forest: Withdraw into your concentration bubble for a bit

Design by Shion Ito

It was a sunny spring day, a lovely time to be outside. I was inside, in a meeting—significant effort was required to keep my attention. I'd rather look out the window at the cherry blossoms. Getting distracted, dreaming away or alternatively being restless and unable to sit still.

Sound familiar? No doubt; everyone has trouble concentrating from time to time. For some children, however, this is a daily struggle. But how do you deal with this in the classroom, an environment with constant stimuli and distractions? Designer Shion Ito designed a mini-forest where you can retreat for a while to find your inner peace again.

Sit still for once!

Every child has trouble concentrating from time to time. For example, during a lesson they may miss things the teacher says, or there may be times when their heads are full of thoughts. In some children, this sense of chaos and lack of concentration and peace of mind dominates. These children may struggle with ADHD (Attention Deficit Hyperactivity Disorder). This may manifest itself in different ways. Some children are hyperactive and impulsive, while other children are more introverted and appear dreamy. The common denominator here is having trouble keeping one's focus. There are many potential sources of distraction: sounds, movements, thoughts, objects and people. Shion Ito set out to design something that would help children maintain focus in the context of the classroom. He had the opportunity to do this together with an actual class, in which two children had ADHD. A week long, he observed class dynamics and spoke to the children and teachers. He tested his ideas together with the children, a process which naturally resulted in a final design.



Communication Cards

Turning one's back

Shion saw that children in the classroom are often encouraged to collaborate on assignments. This encourages interactions that contribute to the development and enjoyment of the learning experience. At the same time, these interactions can be a major challenge for children with concentration problems. The current solution is a table with a closed screen around it, so that the child can isolate themselves from the group for a while in order to concentrate. This is an effective method, but at the same time children often view it as a negative experience. The reason for this is that it makes them 'turn their backs' on the other children. In other words, they feel as though they are rejecting communication with others. There is a hard division between either being part of the group (with the risk of being overstimulated) or having a place of concentration (but being isolated from the rest of the class). Shion's goal was to break through this hard separation with a more friendly and flexible form of separation.



Separation or Rejection



A Trip To the Forest

One initial idea was a set of cards with the words “I want to concentrate” on one side and “I want to work together with you” on the other. The initial responses were positive, but not in the way Shion expected. Although the children soon lost interest in the texts on the cards, they really enjoyed pinning them between the desks. He therefore decided to take that pleasure as the starting point for a new design. The result is Forest: a set of forest-themed figures, and a slot profile that attaches to the table. The figures slide into the profile, in order to create a personal separation. With different shapes, you can choose how sealed off your partition is, and thus how significant your contact with the rest of the class is. The parts are made of wood and are painted with soft colours, matching the theme of nature and calming to the eye. They are abstract shapes of trees, plants and animals. This gives one the freedom to choose how high and how dense the forest is. At the same time, it is not a hard and therefore ‘unfriendly’ partition. When Shion tested his new design with the children, he particularly enjoyed seeing that they didn’t create their own little bubbles, but rather created them together with the others. In doing so, a space is created for concentration without breaking the bond between the children.

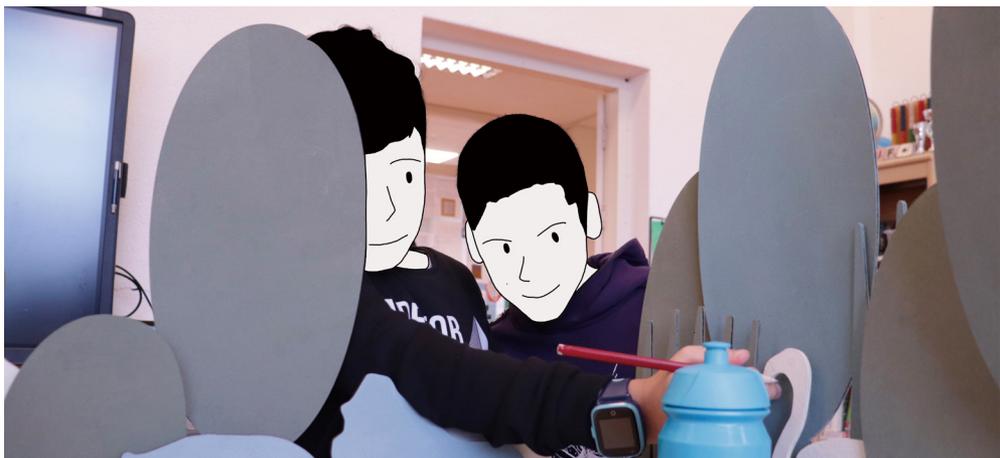


Forest: a set of forest themed figures and matching slot profile.

The Power of the Average

In her book 'Diagnosdrift; hoe onze labelcultuur kinderen tekortdoet' ('Diagnostic drive; how our label culture is failing children Bloemink', 2018), journalist and writer Sanne Bloemink drew attention to 'the power of the average'. If children fall outside the range of the average, a diagnosis and possibly a label will follow. On the one hand, this has its benefits, such as recognition and access to help or therapy. On the other hand, there are also disadvantages. The drive for a diagnosis that problematises anything that deviates from the average does not recognise the beauty of diversity.

In addition, children may start to behave according to their label: "I'm not even going to try and concentrate because I have ADHD and I'm not going to succeed anyway." What I like about Shion's approach is that he didn't create a design with just the children with ADHD in mind, but rather the whole class: for all children, so that they can work together in a pleasant and social way. His forest helps children to find focus through their connectedness, not through isolation or polarisation. In my view, this makes his design a celebration of diversity with a sensitive eye for both the individual and the community.



Creating bubbles of concentration together.

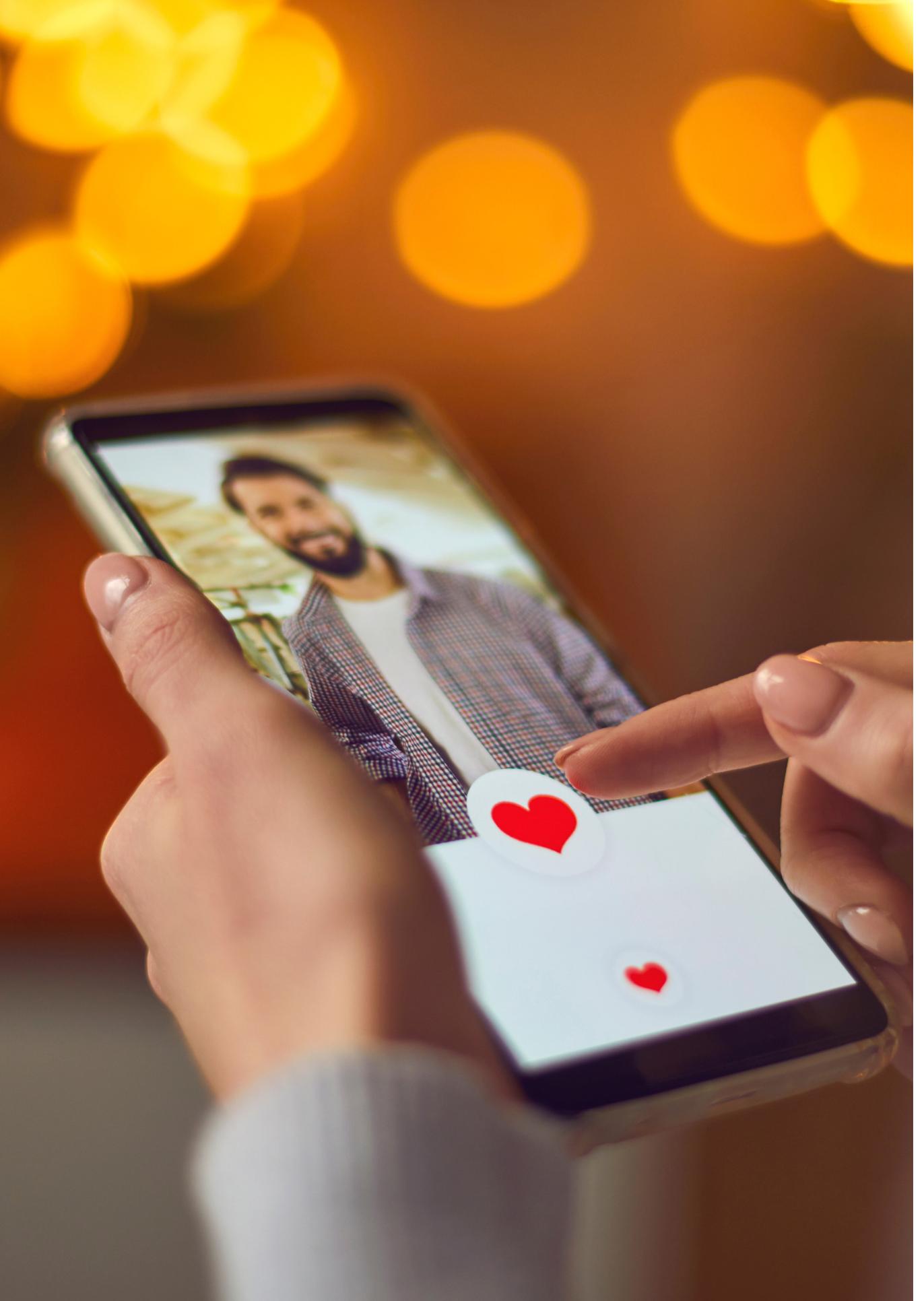


Creating bubbles of concentration together.



Shion Ito (photo) developed Forest in 2022 as part of a project course (“Exploring Interactions”) for the Design for Interaction master’s programme. Supervisors were Maurizio Filippi and Heleen Bouman.

Special thanks to Ingeborg de Wolff and Wilma Hokke from primary school Kronenburgh in Rijswijk, and all the children who participated in this project.



Huggle: *Your first aid kit for emotional injuries*

Design by Erika Hajdu

Swipe left and swipe right. Congratulations—A match! The match leads to a chat, then a date, an exciting evening. “I had a good time. Will we see each other again?”

These days, we can look for some fun, excitement, romance or perhaps even a life partner with a simple click or swipe. Dating has never been easier, and the pond that we fish in is bigger than ever. The companies behind dating apps advertise success stories about passionate love and happy endings.

But the temptation also has a dark side. There is growing concern about the volatile behaviour that is encouraged by these digital interactions and its negative effects on our well-being. Designer Erika Hajdu researched the small emotional wounds that may form during online dating. She subsequently designed Huggle, a product that helps us heal those wounds through self-compassion.



Dating with a click or swipe

The rise of online dating

For me personally, 1994 represents the year of the festive opening of the Channel Tunnel. This new link between England and France was celebrated as a symbol of European unity. What completely passed me by at the time, however, was another event that had an even greater impact on personal connections: the launch of kiss.com, the world's first photo-based online dating service. In 1994, the number of couples who met online was negligibly small. So how did you find a partner back in those days? Through your network of family or colleagues, of course. But Kiss.com paved the way for a radically new approach, and that approach became mainstream 15 years later thanks to rise of smartphones. Today, less than 30 years later, as many as 40% of all couples worldwide have found each other through online dating (Rosenfeld, 2022)—facilitated by more than 1500 different services and applications. However, along with this overwhelming success criticism is also mounting. For example, dating apps are said to reduce love and intimacy to consumer goods, leading to an impoverishment or “McDonaldization” of romance. Today there is an increasing belief that online dating can also be accompanied by all kinds of negative emotions. Over time, these emotions can eventually lead to negative self-image, anxieties, and even addiction and depression (Salaric, 2022).

A first aid kit for emotional injuries

You likely have a first aid kit at home. Disinfectant and some adhesive bandages. Indispensable when it comes to minor injuries, a cut or scratch, for example. But what about our emotional injuries? Failure, guilt, rejection and loss are just as much a part of everyday life as the occasional chafed elbow. These experiences are often not traumatic but, if neglected, can have a major impact on our emotional well-being. According to psychologist Guy Winch in his book “Emotional First Aid” (2013), we can easily put a bandage over a cut, but we don't have a first aid kit for emotional wounds. That idea inspired Erika. She set herself the goal of designing a first aid kit for emotional injuries suffered during online dating. To gain insight into those wounds, she came up with a diary survey to identify the negative emotions of 13 young people while they were dating online. She summarised her insights in a set of 14 flashcards depicting common emotional injuries. She then interviewed five experts to determine what the best coping mechanisms are for those injuries. Ultimately, she chose self-compassion as the foundation for her design: a positive and caring attitude towards yourself.

Huggle: A Pill for Self-Compassion

Huggle is a collection of brightly coloured pill-shaped containers dedicated to self-compassion. The 'pills' come in a glass jar that you place in a visible place in your home. Each pill is packaged in a biodegradable mycelium coating and wrapper. The wrapper shows when you can open which pill. For example: "Are you feeling down because your match isn't replying? Open me!" or: "Are you feeling down because your match is not responding to your proposal to meet up? Open me!" You take a pill, break it open, tear and peel off the mycelium. In the pill, you will find a piece of paper together with a mini exercise.



Pills for self-compassion



Pills for self-compassion

For the exercises, Erika combined the insights from her own research with the work of Guy Winch and that of the self-compassion expert Kristin Neff (2003). The pills come in three different colours, each with their own kind of instructions:

Orange: Reflection pills

These pills help you to see your negative experience in a different light by way of focused reflections. For example, "How can I take a balanced view of this situation?" or "What is the voice in my head saying? What can I say to that voice to calm it down with compassion?"

Red: Action pills

These pills help you to let go of your negative experience through courses of action. These may include actions to make you feel good, such as "Let's put my favourite clothes on today" or actions focused on the interactions during dates, such as "Let's express my needs clearly and calmly and listen to their point of view."

Green: Connection pills

These pills help you to call on your support network. You give the pill to a friend to initiate a conversation so that you feel a sense of connection. The pill contains sentences that can spark a conversation, such as "My best memory of you is..." or "The things I like to do with you are..."

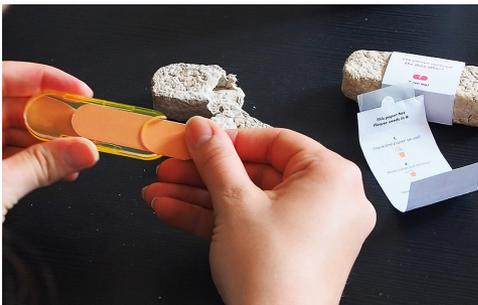
1. Jar of pills



2. Choose a pill



3. Open the pill



4. Read the assignment



5. Make a note



4. Save the pill



First aid for emotional injuries

It is completely up to you to choose a colour, depending on what you feel like at that moment. After opening the pill, make a note on the slip of paper if you wish. Following the exercise, you put the paper back in the pill, and then the pill back in the glass jar. Placing the pill jar in a prominent place in your home acts as a visual reminder to take good care of yourself while dating. You can always remove a pill from the jar and reread it. Or you can leave it in your bag or pocket, so you have it on hand whenever you need it.

“Don’t let it get you down”

In her research, Erika discovered a taboo on the hurt we can suffer when dating online. For example, your match stops responding in the app or doesn’t show up for the first date. The general attitude is often one of “oh well, that’s just part and parcel of it all; don’t let it get you down.” But if you look deeper, these small instances of rejection can build up to a negative self-image or a fear of dating, precisely because they are pushed aside or ignored. Your heart is not necessarily broken—it is just a scratch. You won’t have to go to the doctor, but a bandage can do a lot of good. Emotional first aid can help you deal with that ‘invisible’ pain, recover from it more effectively, and build resilience so that you can maintain a positive attitude to dating. Huggle is all about resilience through self-compassion. It won’t help you find a life partner, but it will help you safeguard your personal well-being in that search for some love. Because let’s face it: loving someone else starts with loving yourself.



A reminder for self-compassion



Erika Hajdu (photo) created Huggle in 2022 as part of a graduation project initiated by Hazal Ertürkan (TU Delft) for the master’s programme Design for Interaction. Her supervisors were Hazal Ertürkan and Pieter Desmet (TU Delft).

The following experts provided additional advice: Laura Sels (Ghent University), Tila Pronk (Tilburg University), Tessa Dekkers (University of Twente), Nils Keesmeekers (Maastricht University) and Marsha Goei (Breeze). Prior to her education in Delft, Erika studied at the University of Leeds (M.Sc. Design) and the Budapest University of Technology and Economics (B.Sc. Industrial Design Engineering). She also worked as a media designer at Helios GmbH in Germany.

References

- Aan de Stegge, W. (2020). Biophilic light Texture: Applying biophilic design principles to lighting design (Master Thesis TU Delft).
- Bloemink, S. (2018). Diagnosedrift: Hoe onze labelcultuur kinderen tekortdoet. Amsterdam: Amsterdam University Press.
- Desmet, P.M.A., & Fokkinga, S.F. (2020). Beyond Maslow's pyramid: Introducing a typology of thirteen fundamental needs for human-centered design. *Multimodal Technologies and Interactions*, 4(3), 38.
- Grant, A. (19 April 2021). There's a Name for the Blah You're Feeling: It's Called Languishing. *The New York Times*.
- Hajdu, E. (2022). Emotional first aid for broken hearts: Translating psychological strategies into a tangible form (Master Thesis TU Delft).
- Ito, S. (2022). Forest: Desk partition that balances connection and seclusion (Student Thesis, TU Delft).
- Kellert, S.R., Heerwagen, J.H., & Mador, M.L. (2008). *Biophilic design: The theory, science, and practice of bringing buildings to life*. Hoboken: Wiley.
- Maslow, A.H. (1987, p. 136). *Motivation and Personality*, 3rd ed. Longman: London.
- Neff, K. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and identity*, 2(2), 85-101.
- Orçun, E. (2021). Designing for Well-being in the context of Covid-19: Converting daily activities into [un]conscious pursuits of joy (Master Thesis TU Delft).
- Rosenfeld, M.J., Reuben J.T., & Falcon, M. (2022). How Couples Meet and Stay Together [Computer files; retrieved 22-06-29]. <https://exhibits.stanford.edu/data/catalog/ns-183dp7831>. Stanford: Stanford University Libraries.
- Ruiz, M.C., Devonport, T.J., ... & Robazza, C. (2021). A cross-cultural exploratory study of health behaviors and wellbeing during COVID-19. *Frontiers in psychology*, 11, Article 608216.
- Salaric, P. (2019). How can design for well-being lower the taboo of menstruation in India (Master Thesis TU Delft).
- Salaric, P., Cain, R., Zitkus, E., and Visch, V. (2022) Tinder and heartbeats: Wellbeing in the use of dating applications, in Dan Lockton, et al., (eds.), *DRS2022: Bilbao*, 25 June - 3 July, Bilbao, Spain.
- Schlosser, M., Sparby, T., Vörös, S., Jones, R., & Marchant, N.L. (2019). Unpleasant meditation-related experiences in regular meditators: Prevalence, predictors, and conceptual considerations. *PloS one*, 14(5), 1-18.
- Shao, C. (2018). One last wish: Improving the experience of a ride with the "wish-ambulance" (Master Thesis TU Delft).
- Sharma, H. (2015). Meditation: Process and effects. *Ayu*, 36, 233-237.
- Smith, N., & Kuenkel, M. (2018). *Finding a more human government*. Londen: Centre for Public Impact.
- Soderlund, J., & Newman, P. (2015). Biophilic architecture: a review of the rationale and outcomes. *AIMS environmental science*, 2(4), 950-969.
- Spierings, G. (2021). An exploration of light as a supportive medium for meditation (Master Thesis TU Delft).
- Van der Loop, K. (2019). The future of the municipal service center: A focus on experience and wellbeing. (Master Thesis TU Delft).
- Wilson, E.O. (1984). *Biophilia*. Massachusetts: Harvard University Press.
- Winch, G. (2013). *Emotional first aid: Healing rejection, guilt, failure, and other everyday hurts*. Penguin.

Colophon

This booklet was produced by the Delft Institute of Positive Design (TU Delft), which aims to advance the understanding of how products and services can be designed to promote human happiness. Our researchers develop knowledge, tools, and methods to support sustainable well-being in design.

Credits

Originally written for the Dutch Journal of Positive Psychology (www.tijdschriftpositievepsychologie.nl), the nine columns have been translated for this edition. Texts by Pieter Desmet. Cover photo by Stijn Bollaert. Additional images from Shutterstock or provided by the designers of the featured cases, unless mentioned otherwise. Graphic design and production by Willemijn van Hagen.

Additional resources

Download a free digital version of this booklet and the previous two volumes at www.diopd.org

Visit our website for more tools and a library of open-access research on design for well-being.

Designer bios

Note that the designer bios included in the columns have not been updated since the original publications. For the most current information, please contact the designers directly.

Terms of use

Booklet: Published under a Creative Commons CC BY-NC-ND 4.0 license. Share freely for non-commercial purposes, with proper credit, without modification. Full license details at: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

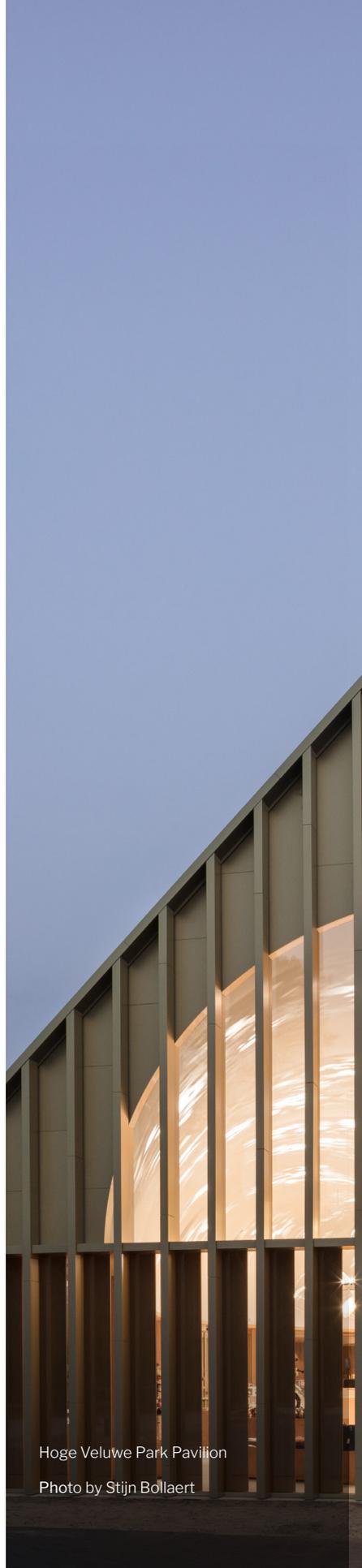
Images: Copyrights for all images remain with the designers, unless stated otherwise. No reuse without written permission.

Reference

When referencing this publication, please use: Desmet, P.M.A. (2024). Positive design: Delft students design for our well-being, Volume 3. Delft, Delft University of Technology. ISBN: 978-94-6384-165-8



DELFT INSTITUTE OF
positive design



Hoge Veluwe Park Pavilion

Photo by Stijn Bollaert