Mental Well-being // Healing Architecture
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Fontys Hogeschool van de Kunsten Tilburg
Graduation project
Augustus 2019
COMMUNITY ROOM

Here you can drink, talk and read

Opening hours:
Monday to Friday: 12.30 pm to 9 pm
Saturday and Sunday: 3 pm to 8 pm

You can sign in for:
• a reading
• a workshop: dancing, clays, mandala drawing, painting etc.
• yoga/meditation lessons

Without signing in you can:
• do yoga/meditation on your own
• follow yoga/meditation classes with the help of a screen
• boxing
es weint
Nach Paul Klee
TARGET GROUP

Young adults and adults with mental problems/mental disorders as:
* Burn out, divorce issues and other life crises
THESIS

Architecture can be supportive in the treatment of mental difficulties by evoking thoughts and emotions.
RESEARCH

**Literature:**
- Emotions
- Yoga
- Meditation
- Mindfulness
- Architecture
- Sensory architecture

**Questionnaire:**
Mental landscape

**Design:**
- Scale models
- Express emotions by spatial arrangement
- Express feelings by ordering blocks

**Interviews:**
Client mental health care Psychologist;
(Psychotherapist and mental health care manager)

**Experts:**
- Water expert
- Technical engineer
- Plants expert
the number of Dutch people that use mental healthcare

- 63% people that don’t use mental health care
- 30% people dependent on mental health care: schizophrenia, bipolar disorder, psychoses
- 7% other people that use mental health care

source numbers: Damiaan Denys
source article: “Het is niet normaal om mooi en succesvol te zijn en alles onder controle te hebben” NRC Frederiek Weeda 21 september 2018
CONCLUSIONS INTERVIEWS

- alarm button to ambulant sGGZ
- professional in sGGZ
- referral letter

need for mental health portal:
- to prevent:
  - problems get bigger
  - relapse
- to cure:
  - referral letter
  - helping activities

- overloaded by target group which isn’t ill
- 7% of the people with psychiatric problems really need them
- WMO and health insurers are the designated financiers

sGGZ is too expensive for target group; according to them the target group isn’t ill
When the target group has an overstimulated nervous system, the following helping activities can be beneficial:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoga*</td>
<td>Asanas (postures) and breathing</td>
</tr>
<tr>
<td>Meditation*</td>
<td>Visualizations, relaxation exercises and breathing; focus on body</td>
</tr>
<tr>
<td>Mindfulness*</td>
<td>Learn to keep more distance from feelings through self observations; from thinking: ‘I’m scared’ to thinking: ‘I have an anxious feeling’</td>
</tr>
<tr>
<td>Reading</td>
<td>Increases insight into one’s own situation</td>
</tr>
<tr>
<td>Talking</td>
<td>To recognise, connect and identify</td>
</tr>
<tr>
<td>Boxing</td>
<td>To get rid of energy</td>
</tr>
</tbody>
</table>
Walking increases physical and mental well-being

Writing* has an enlightening effect

Drawing* express feelings by visualisation

Clay modeling* express feelings by visualisation

Music* express feelings by hearing

Dancing* express feelings by moving

* optional as a workshop
HIDFAWAY
MENTAL HEALTH PORTAL

READING TALKING WORKSHOPS

REINFORCE CLIENT

PROFESSIONALS

YOGA MEDITATION MINDFULNESS

REDUCE SOCIAL MEDIA BE PATIENT HAVE TRUST

14
We know the target group

We know how to reinforce the target group

But what will be:
- the location?
- the architecture?
QUESTIONNAIRE > MENTAL LANDSCAPE

nature 57.5%

walking through the forest

silence & sounds of nature

being in the mountains or hills

sitting and watch the sea or lake
where do people go if they feel tense?

- social (6,5%) or individualistic (18%) activity // 24,5%
- visiting a church, monastery or mosque // 8%
- specific activities in sports, art or music // 10%
WHAT HAVE I LEARNED FROM THE MENTAL LANDSCAPE?

People are recovering from:

- visit to church / monastery or mosque
- alone at home / in bed / under shower
- 57.5% looks for nature! A walk in nature, natural sounds, mountains, sitting on the beach or other water, silence
the number of hours of silence we need in one day to develop new cells in the hippocampus (part of the brain associated with memory, emotion and learning)

source numbers: A 2013 study on mice published in the journal Brain, Structure and Function
source article: 'Science Says Silence Is Much More Important To Our Brains Than We Think' Lifehack Rebecca Beris
Architecture analyse of a church and monastery:

• Introvert building
• High building; raises up to the sky (God)
• A little light comes from above (the dark symbolizes acknowledge/ and light the knowledge: God)
• Location: in the centre of the town/city district
• Corridors with arcades, walking space, water and open space
• Stained glass windows and sculpture tell stories (people used to be illiterate)
TRANSLATED TO MY PROJECT PEOPLE NEED:

**People need:**
- silence
- privacy (claustrum)
- walking space
- central location
- sensuality
- green
- water
- nature

**My vision:**
Eventually you must find peace within yourself, you must learn this, it’s part of the healing process. This process starts in a densely built environment.
GROOT PARADIJS

Enclosed place

Groot paradijs

residential

offices

mixed: residential & offices

hotel/restaurant/cafe

museum

bike route: slow lane

underground parking/square

green

GROOT PARADIJS

22
Groot paradijs was a rural area in the 16th century, from 1786 till 1965 an industrial area. Until 1990 it’s wasteland, then it became part of the urban tissue with residential and office buildings.

Hideaway would be an oasis (with a smile to the 16th century) in the busy center of Eindhoven
THE ADVANTAGES AND DISADVANTAGES OF GROOT PARADIJS

- In the center of Eindhoven.
- Close to a busy cycle route along the Dommel river, which flows through a natural environment.
- Quiet environment.
- Surrounded by buildings.
- Clastrum.
- Hidden square.
- The construction site belongs to the municipality.
- Windows of the surrounding buildings face the square.
- The architectural quality of the surrounding buildings isn’t attractive.
- The square is the roof of a parking garage. The technical engineer must approve it.
We know the target group

We know how to reinforce the target group

We know the location

But what will be:
- the architecture?
We can influence emotions.

The house for all senses gives a layout for the interior; by this the architect influences emotions. I’ve translated this to HideAway (p27).

The experts teach the client to consciously deal differently with emotions and feelings by the helping activities.

We have primary and secondary emotions:
Primary (automatic and unconsciously) - hypothalamus is involved
Secondary (influenced by environment and culture) - the orbitofrontal cortex is involved
Secondary emotions can influence primary emotions and vice-versa.
<table>
<thead>
<tr>
<th>Emotions</th>
<th>Room</th>
<th>Emotions</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyper</td>
<td>Corridor</td>
<td>Overstimulated</td>
<td>Boxing/Shower/Yoga</td>
</tr>
<tr>
<td>Aggressive</td>
<td>Soundchamber</td>
<td>Agressive</td>
<td>Boxing</td>
</tr>
<tr>
<td>Delusions</td>
<td>Bathhouse</td>
<td>Chaotic</td>
<td>Shower</td>
</tr>
<tr>
<td>Loneliness</td>
<td>Reading</td>
<td>Loneliness</td>
<td>Loge/Community</td>
</tr>
<tr>
<td>Depressed</td>
<td>Garden</td>
<td>Depressed</td>
<td>Corridor</td>
</tr>
<tr>
<td>Fear</td>
<td>Reflectionroom</td>
<td>Fear</td>
<td>Yoga/Loge/Meditation/Mindfulness</td>
</tr>
</tbody>
</table>

**house for all senses**

psychiatric environment

**HIDF AWAY**

mental health portal

translated:
THE TOOLS OF AN ARCHITECT TO EXPRESS HIS VISION ARE:

- Form
- Order
- Measure
- Colour
- Intensity
- Material

SENSES

- Eye
- Ear
- Nose
- Skin
- Muscle
- Tongue
- Skeleton

EMOTIONS

- Fear
- Joy
- Sadness
- Anger
- Disgust
- Surprise

Physical Change

Thoughts

Reaction
Personal experience

Lord’s Ark Church
Architect: Wojciech Pietrzyk

FROSE POLYPHONY OF THE SENSES SURPRISE
THE HEALING EFFECT OF ARCHITECTURE

The healing effect of HideAway can be provoked by creating an environment that A) feels natural B) responds to the needs C) touches the senses.

THE TOOLS

Material:
- brick as a recognisable material, painted with ‘kalei’, for a minimalistic and harmonious effect
- concrete for a trustful base
- wood for a warm feeling and tactility
- corten steel for strength
- water for a surprising and calming effect, touchable, to withdraw negative energy
- plants for connection
- artificial light for dramatising and influencing

Form:
- round shapes of the arches stands for safety and embrace
- the building is contrary; it’s both open and closed; extravert (downstairs) is inviting and introvert (upstairs) gives privacy
**Colour:** colors will be earthly

**Order:**
- arcades symbolises the forest and increases resilience
- the design focuses on 1) feelings  2) the functions of the different spaces

**Measure:**
- arches are human sized; 1) to sit; 2) to walk through
- columns are human sized to hide behind; one or two shoulder widths
- scale of the building is spacious (ceilings and doors are higher then the norms) ‘gives space to emotions and thoughts’
- the building is out of scale on the square; it’s not a pavilion; it’s present and confident

**Intensity:**
- intensity of elements to provoke emotions like the water curtain
- monolithic because it isn’t distracting but effective
- the sounds of water from a distance makes people curious
EPILOGUE

No, this building isn’t energy efficient; sustainable, but responds well to the needs of people. I’ve consciously opted for all functionalities that can contribute to the well-being of people in our society. In the first instance it costs a lot of money but in the longer term it saves many costs in the mental health care. That’s also a form of sustainability.
ACKNOWLEDGEMENTS

Hereby I want to thank Jan Willem van Kuilenburg, Pieter Feenstra and Teo Bähler a lot for their knowledge, patience and wisdom during the supervision of my project HideAway.
Mental Well-being // Healing Architecture
The pressure on mental healthcare is growing every day. Waiting in line doesn't help people, and continuing their journey keeps the flame alive. In the rush, where everyone runs from early in the morning until late in the evening, a place to dwell upon feelings is needed. A place to hideaway and to connect to the self and like-minded people. A place to find support, consolation or simply silence. Hideaway is a place for introspection in the middle of the dense city of Eindhoven. It is a journey that takes people to experience the self and the contemplative characters of nature. It is like a walk in the forest and a walk along the water. Hideaway is a proposal to bring people to their inner world by architecture. It is a claustrum, Latin for an enclosed place, that embraces time for healing.

 graduation project by Manja Adriaens

FHK Master of Architecture + Urbanism Tilburg - Mentor: Teo Bähler - Tutors: Jan Willem van Kuienburg + Pieter Feenstra - 23th of august 2019
Location Position

Groot Paradijs is a square on top of an underground parking in Eindhoven near to the slow lane, a bicycle path that moves along the Dommel river. It connects the Technical University with the High Tech Campus and the Brainport. A logical location to reach the large target group. At the same time, a central position in the city promotes intensive use, since it is next to the City hall in a mixed development.

“Junkspace is what remains after modernization has run its course, or more precisely, what coagulates while modernization is in progress, its fallout.”

architect Rem Koolhaas
The estate Het Paradijs covered the area between the Dommel, the Paradislaan and the Wal. On the estate, which probably dates from the 16th century, there was a country house, a coach house and stables, surrounded by gardens and grassland. The Rundgraaf river that nowadays ends in Veldhoven, coming from Eersel and Bergkeijk is a fishing stream that was part of the Paradijs landscape, next to the dommel river. From 1786 till 1965 a textile factory stood here and from 1928 till 1961 a milking factory. Both buildings have been demolished. The area remains undeveloped for a long time and is used as an event site until the apartment complex ‘Groot Paradijs’ on the Paradislaan rises in the 1990s on this spot. Now the street is called Groot Paradijs. Also a number of houses have been demolished for the apartment complex.

“Someday and probably soon, there will be a need for what is missing in our big cities: silent and spacious outstretched places to think, places with tall, long colonnades for bad weather or sunny weather, where no noise penetrates [...] new buildings and public gardens, which as a whole express the essence of contemplation and embody [being aside]. [...] We want to see ourselves in stone and plant, we want to walk in ourselves, when we walk in these gardens and halls.”

philosopher Friedrich Nietzsche 1882
Location Analyse

Groot Paradijs is a square in the centre of Eindhoven, this is very positive to reach a lot of people. The beautiful Dommel river, park and slow lane are an attractive surrounding for the target group. The square is only reachable by foot, and therefore leaves a lot of noises outside. It is between buildings which makes it a silent place in the busy city. Being hidden from the busy city is an attractive state, it helps people to turn into their inner worlds. Walking around the place can be meditative. The square is surrounded by apartments and offices, which look down onto the square. This is the biggest issue to tackle, to create privacy for visitors of Groot Paradijs.
Motivation Personal
During a burn out I visited a Nurse Practitioner Mental Healthcare (POH GGZ in Dutch) for therapy and I took yoga- and meditation lessons. But when I visited a church in Polen, during my study architecture, I had an overwhelmed feeling (light and dark on the stone surfaces), that calmed me and strengthened me during my study architecture. Now, I visit more often a Church (without believing in God) and I know that architecture has the ability to heal.

Wojciech Pietrzyk Lord’s Ark Church

Architecture Analyse

"You enter, the architectural spectacle at once offers itself to the eye. You follow an itinerary and the perspectives develop with great variety, developing a play of light on the walls or making pools of shadow," the purpose of all this being to help us "learn at the end of the day to appreciate what is available."

architect Le Corbusier

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"A walk through a forest is invigorating and healing due to the constant interaction of all sense modalities; Bachelard speaks of ‘the polyphony of the senses’.”

architect Juhani Pallasmaa in The eyes of the skin
Aldo van Eyck Pastoor van Arskerk

Dom Hans van der Laan Benedictus Abbey

Jan de Jong Priorij Emmaus

Peter Zumthor Kolumba Museum
Concept
Hideaway is situated on an enclosed square called Groot Paradijs. The program is lifted so the square continues under the building. The architecture is introvert. The perforated brick facade, the patio and the arches reveal the inner world by visual, sound and smell of water and plants. The arches on ground floor invite people for a meditative walk in the shade along the water garden. The route continues upstairs in the raw concrete construction and along the perforated brick facade that allows light to enter for the plants to grow and to satisfy peoples curiosity. The garden walkway gives access to the inside of the building. The wooden interiors embrace a patio of light with arch shaped windows to sit in. The water garden on the square is experienced on the first floor as well because of a water curtain coming from the roof. The water creates privacy inside, gives a touch of nature outside and makes the building disappear when looking on top of it because of the sky’s reflection.
The pressure on mental healthcare is growing every day. Waiting in line doesn’t help people, and continuing their journey keeps the flame alive. In the rush, where everyone runs from early in the morning until late in the evening, a place to dwell upon feelings is needed. A place to hide away and to connect to the self and like-minded people. A place to find support, consolation or simply silence. Hideaway is a place for introspection in the middle of the dense city of Eindhoven. It is a journey that takes people to experience the self and the contemplative characters of nature. It is like a walk in the forest and a walk along the water. Hideaway is a proposal to bring people to their inner world by architecture. It is a claustrum, latin for an enclosed place, that embraces time for healing.

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View from City Hall (Wal Street) to Groot Paradijs Square

View from park (Paradijslaan) to Groot Paradijs Square

HIDE AWAY
“a claustrum for the mind”
03 view from square to forest of columns

HIDEAWAY
"a claustrum for the mind"

04 view from colonnade to water garden
a claustrum for the mind
"A cloister for the mind"
view from stair to water wall and boxing space

"a claustrum for the mind"

view in the boxing space
view from entrance to hostess in the communal space

view in the communal and workshop space

"a cloister for the mind"
HIDE AWAY

"a claustrum for the mind"
HIDE AWAY
“a cloister for the mind”
**Hide Away**

"a claustrum for the mind"

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17 View in one of the loges

18 View from loge to water garden
Hideaway uses water as a contemplative element, and at the same time for sustainable reasons. Rainwater is collected on the roof of the building. The water buffer on top of the building helps to keep the building cool inside, but is also a mirror to the sky for the residents living around Hideaway. It seems that the water overflows on the edge of the roof inside the patio, which creates a big water curtain. This creates privacy between interior spaces and creates space to contemplate and to cool down in the mist.

How does the water system work?

First of all, the rainwater is collected on the roof. A control system, an online platform, calculates the rainfall and makes sure that there is always space to collect the rain without overflowing. This control system also knows when there is water needed for the water curtain. The water pump gets a signal from the control system, and pumps water of the dirty roof through the UVC filter to clean the water and get rid of algae. From the UVC filter the water goes to the clean roof, the boxing space and the plants in the walkway. The water falling from the roof is collected in a water basin on ground floor. The water falling in the boxing space falls in a second water basin and is collected in a storage tank in the basement. The water in the tank can be used to flush the toilets or to create a water curtain during dry days. The control panel gives a signal to the water pump in the basement when a lot of rain is expected to release it in the sewerage system.

Hortus Conclusus

Hideaway is a walkway in nature. On groundfloor around the water garden, on the first floor in an enclosed garden, a hortus conclusus. The walkway on the first floor has an outside climate and leads to all the interior spaces. Daylight enters through an open brickwork facade and a gap in the ceiling that creates a dramatic flood light along the wall and plants. This gap allows rain to enter as well to water the plants. The plants also receive water from the water system. The walkway is full of shadow to experience the light that enters. This means that the plants also need to grow well in shadows. The plants climb along the wall and escape to the outside of the building through the open brickwork.

Which plants are in the project?

Climbing plants:
- Parthenocissus (Virginia creeper)
- T. rachelospermum (Star jasmine)
- Plants: Helleborus niger (Christmas rose)
- Polypodiopsida (Ferns)

Philbrick studio architecten