

HARVESTING WATER, TOGETHER

An interactive installation
enhancing social cohesion



Joshua Veldheer



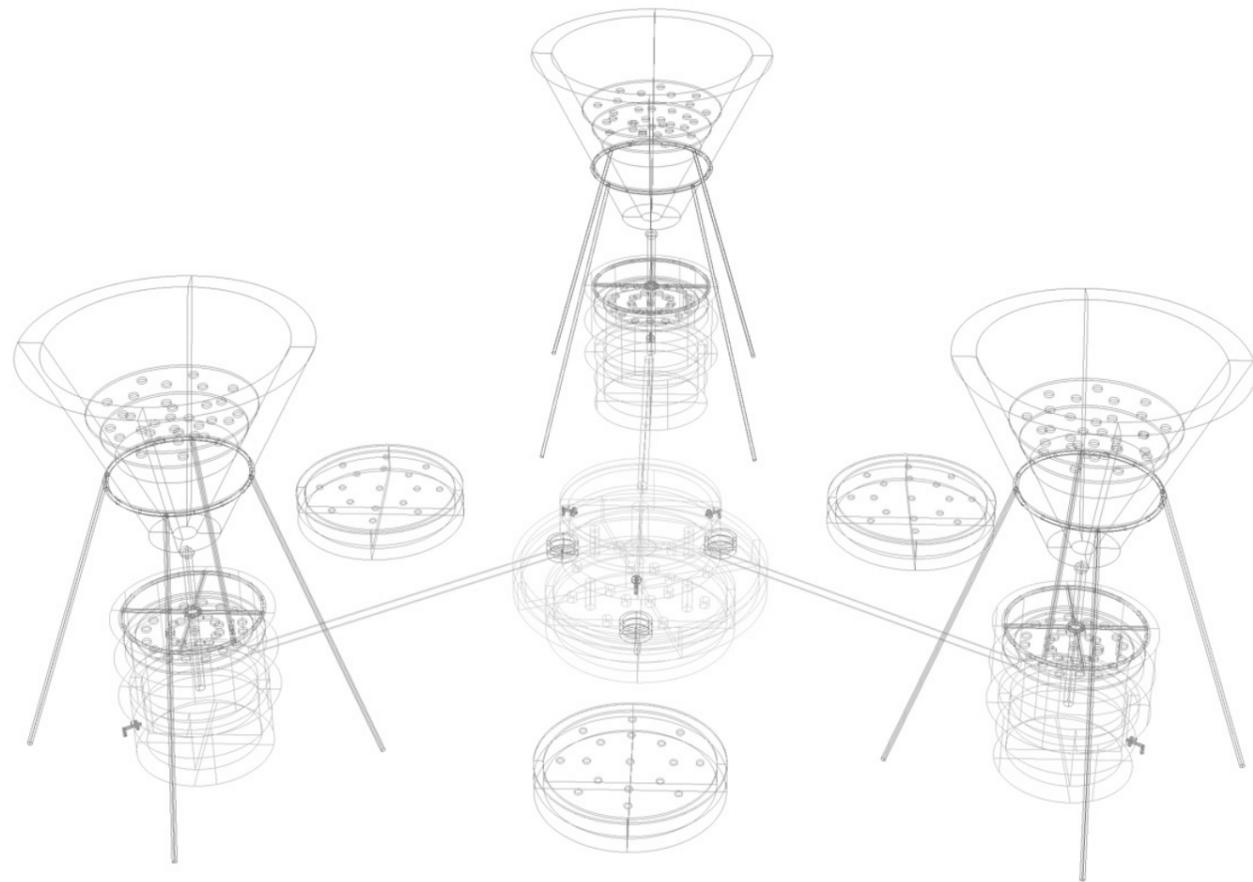
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Introduction

01

Introduction



HARVESTING WATER, TOGETHER

An interactive installation enhancing social cohesion

WHAT

A playful interactive rainwater harvesting installation, that invites the user to find social cohesion, through the creation of an inclusive “space” where everyone works together in order to make the installation work.

WHY

Through the installation a community is formed, created by team work and a collective effort that could lead to a sense of belonging. At the moment of interacting with the installation people will share their values, by participating in the common goal: harvesting rainwater. It evokes the opportunity to learn and act together and to take more time for both activities and relaxation.

The installation is linked back to the location in which it is placed: the Genneper Parken. It values the rainy environment and uses different elements that the area has to offer.

FOR WHOM

Harvesting Water, Together aims to bring people together. In this sense the installation is meant to be accessible for everyone. In addition to this it is located in a public park, where everyone visiting or passing by could choose to interact with the installation and other users. The topic of rainwater harvesting is interesting for different age groups, young kids can learn about it in a playful way, adults can learn through interacting or observing the installation. It can be used by tourists or neighbors, since it can be a one-time visit and interaction, or a weekly visit, where users can witness the growth of the vegetable gardens and the long term rainwater harvesting.

HOW

The installation contains various parts with which people can interact, for example, the pressure system that leads the gathered water to the centered fountain, the taps from which people can take water and the small greenhouses that people can water or observe growing. By following the described steps within the installation, the users will be able to move water from one place within the installation to another. Creating a playful mechanical system, which teaches people the importance of rainwater harvesting and working together. It is possible to approach the installation individually, however it is even more fun to do it together. In this way the water flow goes faster and multiple people can be part of the process, contributing to the creation of social cohesion.

First research

02

First research



Interactive products that stimulate human interactions

My research started off with the following question: what are examples of interactive design projects in and around Eindhoven?

First of all to get a broader perspective on this specific topic, human interaction, leading to social cohesion.

I decided to compare various interactive designs with each other, in order to gain a better understanding of what is necessary to create a user-oriented design result.

Two examples that I looked into were the Strijp-S swings and the Van Gogh-Roosegaarde cycle path, located in Eindhoven. They are both examples of interactive design installations, executed in a very different way.

More often in our adult life we revert to the open-mindedness of our youth. While a company like Google introduced slides for its employees, more and more swings are appearing at Strijp-S in Eindhoven. For example, in the “front garden” of the Ontdekkfabriek, various basket swings hang along the Leidingstraat; a technical tour de force in which the swings are carried by winged fantasy creatures in bright colors.

The Van Gogh Path is a bicycle path inspired by Vincent van Gogh’s Starry Night painting and glows at night. It consists of thousands of twinkling stones that charge during the day and glow at night. The project forms a part of Smart Highway, a concept of interactive and sustainable roads designed by Daan Roosegaarde.

The incentive is to make smart roads by using light, energy, and information that interact with humans.

As a city of innovation, many examples of iconic interactive design projects are to be found in Eindhoven. Although the initiatives are very different they have one thing in common: the strong focus on how the world around the initiatives will interact with them. In their unique ways the designs are able to positively affect the human experience.

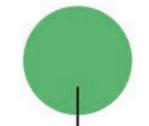
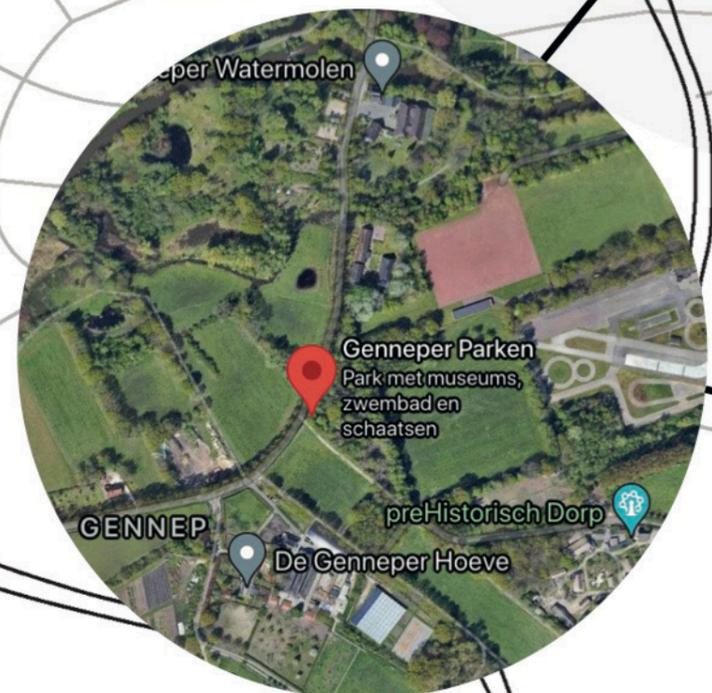
The interactive designs can strengthen a sense of connection with our personal environment and the people around us.

As a design student I consider the human design interaction to be an interesting topic to focus on as I believe that the aforementioned projects have the potential to improve the quality of human life in the 21st century.

The location

HARVESTING WATER

An interactive installation enhancing social cohesion

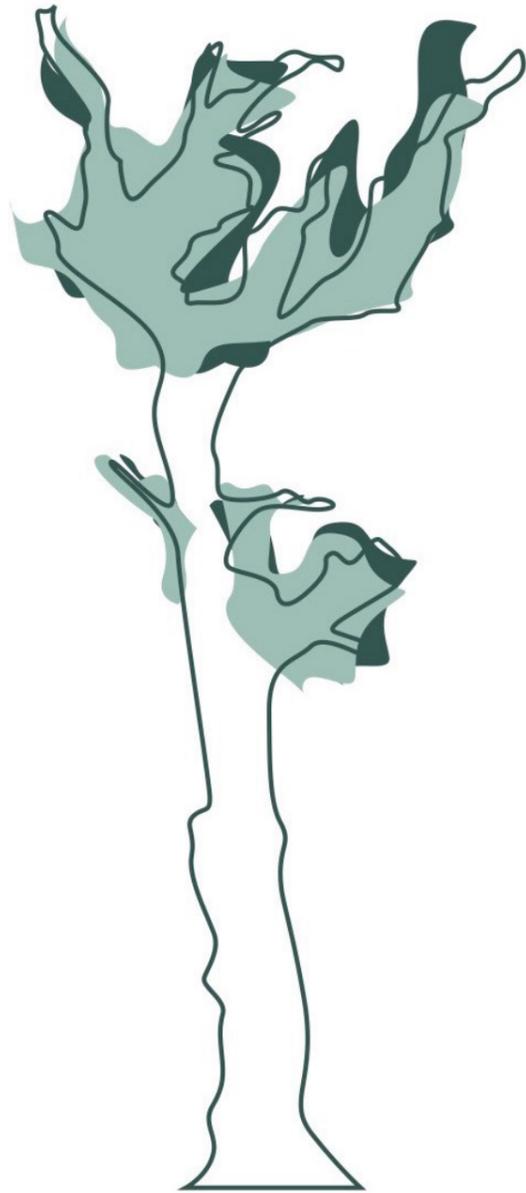


Genneper Parken



03

Location



Genneper Parken

Genneper Parken is a unique natural area located in the south of Eindhoven. It is a park in which sports, culture and recreation come together.

The Genneper Parken area is located in and along the rivers Dommel and Tongelreep, the Tongelreep that especially managed to retain its natural character. This stream valley area is part of the ecological main structure of the Netherlands. Several shorter walking routes have been set out here and you can also walk along the Tongelreep to Aalst and beyond.

Whether you are looking for a day out with your family, friends or partner, Genneper Parken always has something to offer with its eleven very diverse accommodations.

You can play mini golf at Paviljoen Genneper Parken and then go back in time to pre-Historisch Dorp or take a walk through nature.

In addition to this you have the Heempark Frater Simon Deltour, which is a botanical garden that houses hundreds of native plant species on a site of three hectares. These are grouped into twenty Brabant landscape types. This park has been managed by volunteers since 1983.

The Genneper Hoeve is an organic farm that is open to the public. It attracts a lot of visitors, that range from tourists to neighbors.

The Genneper Watermill (also called the Genneper molen), is a national monument, located along the Dommel. It is an undershot mill that was used as a flour mill. The mill was painted and drawn several times in the nineteenth century by the artist Vincent van Gogh. This is one of the reasons I chose this location for my installation.

Since the intention is to bring people together with my installation, it seemed interesting to me to choose a nature area that attracts different types of groups of people. This allows various people to come into contact with each other and experience my installation. In addition, the park is about nature, water and recreation, all elements that come together in Harvesting Water, Together. Because of this, placing my water harvesting installation within the Genneper Parken will be ideal. My goal is to challenge people to work together and let them learn more about collecting rainwater.

INTERVIEW 1



Do you visit this park often?

Woman 1: This is actually my first time visiting the Genneper Parken. I just moved to Eindhoven 4 months ago so I am still discovering new places. However I really like this park so I am sure I will come visit it more often. It has a great environment full of beautiful nature and fun places for the kids. They already love the farm, ice cream shop and watermill.

Woman 2: I come here at least every weekend. I actually live very close by and me and my kids love coming here. Because of the farm, the space to run and play around. They always make new friends and I occasionally meet new people. It is a really beautiful and friendly park with nice plants especially during spring now.

Do you think this park is an inviting, welcoming place for everyone?

Woman 1: Yes I think so, from what I have seen so far and from what I have heard from my friend. All types of people seem to visit the park. I see teenagers picnicking together, older people taking a walk or sitting on a bench, kids playing together at the farm and parents talking with each other.

Woman 2: I definitely agree with her. I always feel comfortable being here. It is a safe space full of different activities. People can come here to calm down, or to be active. You see young people sporting, some people spend a whole afternoon fishing or relaxing and others simple pass by for an ice cream. I would say it is very inclusive.

What is the reason for your visit to this park today?

Woman 1: I came here today to visit her. With the beautiful weather like this we thought it would be nice to go outside into nature. Since I moved here

so recently she wanted to show me this park, with the farm and the pretty plants. And I am happy she did because I will definitely come here more often.

Woman 2: The weather. When the sun is shining like this I find it important to go outside and appreciate it. Also to give my kids the opportunity to have fun in the sun.

What is your favourite spot in the Genneper Parken and why?

Woman 1: The farm, it is the perfect place for my kids to play and discover, but even for us adults it is fun. Seeing the sweet animals while being outside. Next to this I also enjoyed seeing the watermill working, however this is more observative.

Woman 2: For me it would also be the farm. It is a super fun place for everyone. You can go milk the cows, feed some animals, look at all the different

kinds of farm animals. It is interactive and cheerful, perfect for a day out.

Do you feel connected to other visitors within the park?

Woman 1: Yes for sure. For the kids especially it is easy here to meet other children and to play together. As a mother I then as well get to meet their parents and have a short talk. Other than this I greet people passing by. Everyone seems quite friendly.

Woman 2: Yes I agree with her. Children have the opportunity to play and meet each other here. Especially since we are from the neighborhood, we already know some people that visit more often like we do ourselves.

Would you appreciate an interactive installation being placed in this park, that stimulates the social interaction

between people?

Woman 1: Yes I think it would be a good addition to the park. It really fits the atmosphere and it would be great for connecting people from the neighborhood that come here more often. Also to stimulate adults to interact more and have a fun talk about the installation afterwards.

Woman 2: definitely. I am myself an engineer and know how impactful good installations can be. I really appreciate designs that enhance togetherness and community building. Having it placed here would really make sense, with the other activities going on.

Would you like to get more in contact with other visitors in the park?

Woman 1: Off course. I always like to meet new people. Especially since I am new to Eindhoven and don't know so many people yet. It would be great to have the opportunity to get in closer contact with

some nice visitors here.

Woman 2: Yes for sure. It would be nice to get in closer contact with for example some neighbors and also get to know people that have special reasons for occasionally visiting this park.

What do you know about harvesting water and would you like to learn more about it through an installation?

Woman 1: I don't know so much about it. I do know that it is a very important thing to do, in order to help the environment and climate. An installation that teaches us more about this would be super interesting. For adults to get inspired and maybe start doing it themselves and for children to become aware of this act and to know it is something to invest in for the future of our planet.

Woman 2: I know the basics about it, also because I am an engineer

like I mentioned before. A system that explains the act of harvesting water clearly would definitely be valuable to this park. It would be fun to interact with and learn about it at the same time, for people from all ages. I also think it would make sense in this park, since it is such an welcoming place with already elements like the watermill and various lakes.

INTERVIEW 2



Do you visit this park often?

Woman: We used to come here very often, with our children and when we were a bit more active. Lately we haven't visited that often, however now that we did we realise we should continue coming here more since it is so beautiful. We come here to relax and for this there are not a lot of benches which is a shame and makes us visit a little less.

Man: Yes like my wife mentioned, we used to come here way more often. But it also depends on the seasons, now with the nice weather we tend to pass by more frequently. It is nice to go for a walk here and sit down on a bench, enjoy the surroundings.

Do you think this park is an inviting, welcoming place for everyone?

Woman: Yes I think so, today I have seen a lot of different people passing

by. At the farm there are more children with their parents and in the nature areas there are adults or teenagers enjoying the sun and nature.

Man: It is, yes. When we were walking we for example passed a woman in an electric wheelchair, and on the other side of the road there were children running around. The visitors are very diverse. When I look around I notice tourists visiting the watermill and neighbors passing by the farm.

What is the reason for your visit to this park today?

Woman: The Tulip fields. We read in the local newspaper that they are blooming beautifully in the Genneper Parken. We wanted to check it out with our own eyes and it was very magical. We took a lot of pictures and enjoyed walking around all the pretty flowers.

Man: Yes exactly, the tulip fields. Every year they bloom beautifully and we

thought it would be valuable to go and see them with our own eyes. We realised we should continue coming here more often, it's good for our mental health, not staying inside all day.

What is your favourite spot in the Genneper Parken and why?

Woman: The Tulip fields during this season. I also really appreciate the farm. However like I mentioned before we used to visit the farm more often with our children back in the days. It is interesting to see how these interests change over time, since we have been living here for so long already.

Man: I think for me it would be the vegetable garden, close to where we are sitting now. Every now and then I pass by to get some vegetables, or admire the growing process of these plants. In general I also appreciate walking around and enjoying the greeclean fields of grass,

surrounded by the aligning trees.

Do you feel connected to other visitors within the park?

Woman: Yes I do. We all greet each other when passing by. When there is the opportunity to talk a bit more, we do so, but it is mainly on a friendly distance, which I already like.

Man: I feel the same way, also since we have been living here for so many years now we know some of the neighbors that sometimes visit the park. With them we have longer conversations, to other people that pass by I say hello.

Would you appreciate an interactive installation being placed in this park, that stimulates the social interaction between people?

Woman: Yes definitely. I think stimulating interactions between people is always a positive thing. Also since it is a popular park for a lot of neighbors. To support meeting and socialising here, would be a beautiful addition to the park.

Man: Depends on the installation, but from what you just showed us I think stimulating interaction makes sense. It is a great way to combine education with meeting and talking to new people. It would be interesting to combine various age groups and visitors with different purposes for coming to visit the park.

Would you like to get more in contact with other visitors in the park?

Woman: Sure. It is always nice to meet new people, especially if you have the choice and option to do so. I think it would be valuable to make this park even more inclusive through creating more

cohesion.

Man: Yes I think so. I also like to go to a park for myself, to be quiet and on my own or just with my wife, but it is good to have the opportunity and availability. Especially now during corona, we have been so disconnected from others, meeting new people would be much appreciated.

What do you know about harvesting water and would you like to learn more about it through an installation?

Woman: I sometimes read about this subject. How important it is to harvest rainwater for your own household and not to waste it for no reason. It would really help the climate, dry seasons and countries that lack the accessibility to water. Having an installation that educates people and children about this topic would be very useful, inspiring and maybe even

important.

Man: Yes I also know a thing or two about it. Like my wife just told you, it is very important for the climate and the environment and I feel like there is little common knowledge around this topic. Having people learning about this urgent subject, through experiencing and observing would be fun and challenging. In a way you invite people to think while relaxing. I am also very open to learning more about it and be a part of the interaction with the installation when it will be ready.

Social Cohesion

04

Social Cohesion

“I think it was that people who lived here could partake and do something together. Because when people do something together, it is... they feel that they are, eh, part of buildings and paintings... that they are part of it and then they leave it and not destroy, otherwise some places could be destroyed. When people do it together they respect it.”

- Karl 1, 11/02/2018

Essay by Els Bergman and Judith de Heer
Social Cohesion and Everyday Built Environments - Utrecht

The definition

Social cohesion refers to the extent of connectedness and solidarity among groups in society. It identifies two main dimensions: the sense of belonging of a community and the relationships among members within the community itself.

Social cohesion refers to positive social relationships – it is the bond that binds people.

A socially cohesive society works towards the wellbeing of all its members, fights exclusion and marginalisation, creates a sense of belonging, promotes trust and offers its members the opportunity of upward mobility.

I would think about socially cohesive communities as societies where people respect each other even if they disagree, and where they can disagree without feeling unsafe and disrespected.

It is a very essential element within our society. Cohesive societies are politically stable and focus on economic growth and business development. For example through building social capital, cooperation and trust between individuals of a society. Strong social cohesion itself is built over years, not overnight. However with various initiatives, such as installations focussing on enhancing community building and supporting the growth of inclusivity, positive changes will appear.

Social cohesion does not only have a positive impact on the bigger scale, it also embraces personal wellbeing, both subjective and objective. Feeling included, within a neighborhood, city or any kind of environment makes people feel like they are not alone and that they are not left behind. This has beneficial effects on people's lives, in the long and short term. High levels of social support are proven to positively influence health outcomes through behavioral and psychological pathways. It may for example help people to stick to healthier diets and reduce emotional stress.

04



How can we achieve social cohesion

If we want a socially cohesive society it is important to address inequality and we should ensure that all people have access to opportunities, particularly to education and employment.

Societal affluence, a small gap between the rich and the poor, a low poverty rate, progress towards a knowledge economy, a secular culture, and a value climate of post-materialism are conditions conducive to social cohesion. It all starts with giving people equal access to opportunities. Not only to make them feel even, but to make people feel respected, since they are taken in consideration.

You can build solidarity by ensuring that people feel included, that their voices are heard, and by emphasising shared values and common goals.

In order to achieve social cohesion it is important to create genuine bonds between people. It all starts with that, trust and respect, no longer seeing people as tools to be utilised, but as real humans with feelings and emotions.

Next to this it is important to form unity, in diversity. Every society has diversity and this must be accepted and embraced, in order to create essential balance.

These requirements seem to be simple and practical things, however they must be developed in culturally sensitive ways within each society.

If we do not know our neighbours for example, we may find it hard to appreciate their customs. Talking to your neighbour can overcome basic misunderstandings. A conversation can go a long way.

The ultimate goal would be a respectful community where people feel safe to express their culture, sexual orientation or religion without fear, and where we can debate contentious issues constructively.

While many principles of cohesive societies are relatively simple, to put them into practice and to practise them well can be difficult. Barriers must be overcome and narratives created, recreated, and told many times in different ways to various audiences.

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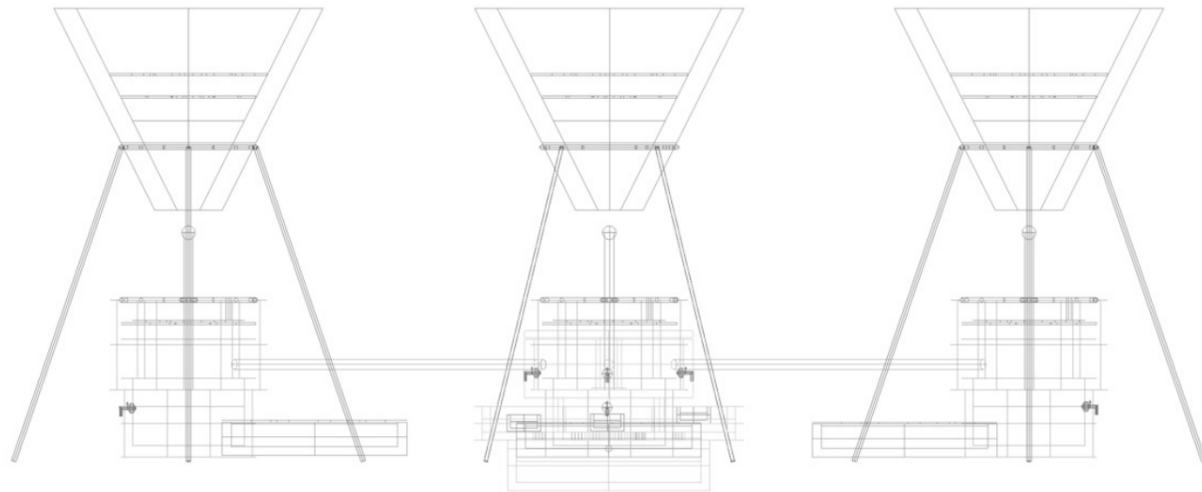
Social cohesion and design

A lot of bigger and smaller scale design projects about social cohesion have been created or are going on at the moment. Projects around social cohesion stem from the concern about the social cohesion crisis, and purposive collaborative activities in order to rebuild social links. Public space, in its role as the main stage for social interactions between strangers, clearly plays a role in facilitating or limiting opportunities for social cohesion.

Recent experiences have shown that social integration, inclusion and cohesion can be promoted through urban planning and design measures at different scales, including national spatial frameworks, regional planning, city-wide planning, neighbourhood design and public space design.

Supporting social cohesion through spatial solutions can enhance urban equity and set off an upward spiral, which has a positive effect on social developments - a so-called "spatial fix" to social problems.

The urban scale, and the space where activities take place, is normally the neighbourhood that people live in. Therefore I have chosen to focus Harvesting Water, Together on this urban level. It can be considered an initiative for neighbourhood rebuilding and creating a social cohesive space, where every person is accepted. A space where people can learn and work together, for fun and educational purposes.



Harvesting Water

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Harvesting water

“Life depends on water and availability of water depends on you.”

- Best Paani

What is water harvesting?

Rainwater harvesting is the collection and storage of rain, rather than allowing it to run off.

There are various methods on how to harvest rainwater. However it is mainly collected from a roof-like surface and redirected to a tank, cistern, deep pit (well, shaft, or borehole), aquifer, or a reservoir with percolation, so that it seeps down and restores the ground water. It is often used for watering gardens, livestock, irrigation, domestic use with proper treatment, and domestic heating. The harvested water can also be committed to longer-term storage or groundwater recharge.

It is one of the most effective ways to save water and has many benefits for both individual humans and the whole environment.

There are many different rainwater harvesting systems, but the process is generally quite simple to setup and maintain, which makes it a popular solution for households, farms, commercial and industrial organisations alike.

Many systems and publications look at individual systems for a single house. Sometimes larger systems like sport arenas, apartment blocks and office buildings are described. A typical rainwater harvesting system contains a rainwater catchment (mostly roof tops), a storage tank and some treatment options (like filters or disinfection elements).

Harvesting rainwater can have a significant impact on urban water management. Especially since the climate is expected to change in the coming decades and as a consequence, it is likely that the balance between dry and wet periods will change.

Rainwater harvesting can not only be used as an adaptation measure against periodic water scarcity and reduction of drinking water use. It can also be seen as a strategy to be included in urban water cycle management. It may reduce the city's external water demand, alleviate water stress on the area, reduce non-point source pollution, reduce treatable urban runoff volume, prevent flooding and help to alleviate climate change.

05

Why water harvesting?

Rainwater harvesting has many benefits but the main one is that it is a sustainable water management practice that can be implemented by anyone on many different levels, from a simple rain barrel to a comprehensive rainwater harvesting system that integrates with an irrigation system or household plumbing.

Harvested rainwater is the perfect candidate for irrigation use in addition to so many other water uses. By using rainwater harvesting systems to supply water for some, or all of our water needs, you can reduce our dependence on municipally treated water.

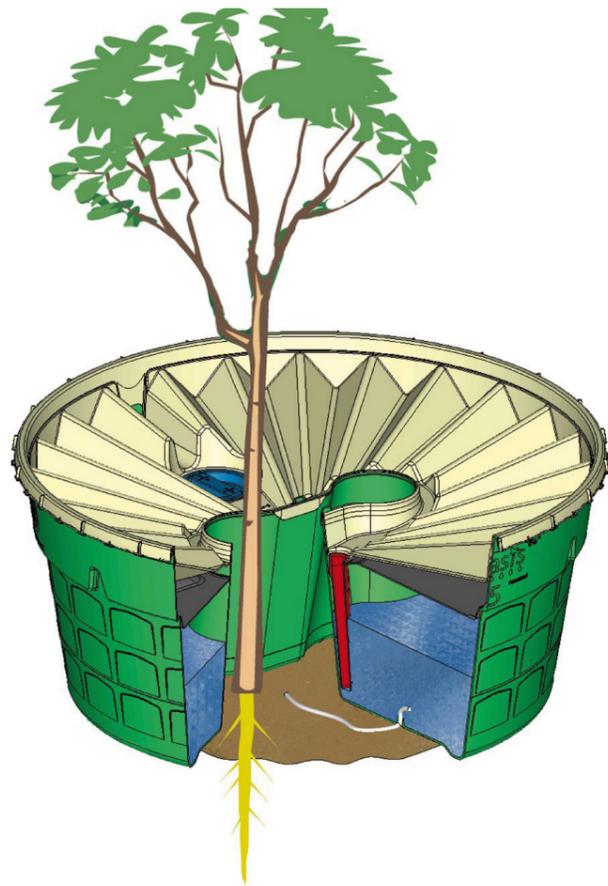
Overall, rainwater harvesting is viewed as a practice that is socially acceptable and environmentally responsible all the while, promoting self-sufficiency.

Collected rainwater provides the independent water supply during regional water restrictions, and in developed countries, it is often used to supplement the main supply. It provides water when a drought occurs, can help mitigate flooding of low-lying areas, and reduces demand on wells which may enable groundwater levels to be sustained. It also helps in the availability of potable water, as rainwater is substantially free of salinity and other salts.

In regards to Urban agriculture, rainwater harvesting in urban areas reduces the impact of runoff and flooding. The combination of urban 'green' rooftops with rainwater catchments have been found to reduce building temperatures by more than 1.3 degrees Celsius.

Rainwater harvesting in conjunction with urban agriculture would be a viable way to help meet the United Nations Sustainable Development Goals for cleaner and sustainable cities, health and wellbeing, food and water security.

05



A Dutch invention called the Groasis Waterboxx is also useful for growing trees with harvested and stored dew and rainwater.

Examples of rainwater harvesting



In 1992, American artist Michael Jones McKean created artwork in Omaha, Nebraska, at the Bemis Center for Contemporary Art that created a fully sustainable rainbow in the Omaha skyline. The project collected thousands of gallons of rainwater, storing the water in six daisy-chained 12,000 gallon tanks. The massive logistical undertaking, during its five-month span, was one of the largest urban rainwater harvesting sites in the American Midwest.



Frankfurt Airport has the biggest rainwater harvesting system in Germany. The system helps save approximately 1 million cubic meters of water per year. This system collects water from the roofs of the new terminal which has an area of 26,800 square meters. The water is collected in the basement of the airport in six tanks with a storage capacity of 100 cubic meters. The water is mainly used for toilet flushing, watering plants and cleaning the air conditioning system. - 1993



Waterfull is an effective private upper-well that can be integrated in the home environment as a multi-season water collector as well as a shading element. In the reality of global warming and evident lack of water in many areas around the world, Waterfull creates a self-sufficient platform that enables the home-user to collect dew and rain water for everyday needs. Doing so, one is able to make use of the natural abundance available in his surroundings.



Instead of using the roof for catchment, the RainSaucer, which looks like an upside-down umbrella, collects rain straight from the sky. This decreases the potential for contamination and makes RainSaucer a potential application for potable water in developing countries. Other applications of this free-standing rainwater collection approach are sustainable gardening and small-plot farming.

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How do we harvest water?

Rainwater harvesting systems can range in complexity, from systems that can be installed with minimal skills, to automated systems that require advanced setup and installation.

Rainwater harvesting is collecting the run-off from a structure or other impervious surface in order to store it for later use. Traditionally, this involves harvesting the rain from a roof. The rain will collect in gutters that channel the water into downspouts and then into some sort of storage vessel.

The basic rainwater harvesting system is more of a plumbing job than a technical job, as all the outlets from the building's terrace are connected through a pipe to an underground tank that stores water. There are common components that are installed in such systems, such as pre-filters (see e.g. vortex filter), drains/gutters, storage containers, and depending on whether the system is pressurized, also pumps, and treatment devices such as UV lights, chlorination devices and post-filtration equipment.

Rainwater is safe to drink if the consumers do additional treatments before drinking. Boiling water helps to kill germs. Adding another supplement to the system such as a first flush diverter is also a common procedure to avoid contaminants of the water.

In the Gansu province, for example, solar water disinfection is used by boiling harvested rainwater in parabolic solar cookers before being used for drinking. These so-called "appropriate technology" methods provide low-cost disinfection options for treatment of stored rainwater for drinking.

Harvesting rainwater means that you take control of the water supply and save a lot of money, and that you're not dependant on urban infrastructure. The harvesting system can be designed and configured according to your needs and uses, both in the house and outdoors in the garden and landscape.

Relation to the VGNP

06

Relation to the VGNP

Van Gogh National Park and Harvesting Water, Together

One of the reasons for focusing my installation Harvesting Water, Together on the topics of social cohesion and water harvesting, is the relation it has with the Van Gogh National Park.

Within the Van Gogh National Park Nature, Biodiversity and landscapes are under high pressure. And the area will be facing great challenges: the changing climate, the building of houses, businesses, highways, the energy tasks, and the challenges for agriculture and food production.

In many places a lot of people already put in much work to preserve and strengthen nature and the landscapes. Governments, social organisations, volunteers, citizens and companies, work together and aim to make a difference. More than ever now it is important to search for these collaborations and connections. To inspire, help and challenge each other. In order to face the challenges of the VGNP area and to utilise it at the same time.

If people and companies work together we can create new opportunities and start cherishing, strengthening nature, landscapes and help reverse the decline of biodiversity.

Encouraging people to work together and connect through my Harvesting Water, Together installation, connects to the mentioned elements that the VGNP is aiming for. It can be considered a metaphor for the importance of people and companies working together, since mainly together you can achieve optimal results.

Harvesting Rainwater has an important and positive effect on climate change, it directly affects the environment around it and supports nature and humans in the long and the short term.

Traditionally rainwater harvesting has been used on a small scale. Most common applications are garden or landscape irrigation, toilet flushing or laundry washing. In the Dutch situation the driving force for application of Rain Water Harvesting is to cope with climate change within cities, primarily to solve extreme precipitation situations, but the stored rainwater can be used in periods of drought.

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With my installation I try to convey the message of the importance of harvesting rain water. To show how easily it can be done, how fun it can be and to create more awareness around the possibilities of harvesting water in any kind of area.

In 2020 13 major regional organisations within Eindhoven had a clear, joint message, "From now on, use less water and store rainwater for as long as possible. Our (ground) water needs it. The current drought means we can't delay."

Warmer temperatures mean quicker evaporation and stream water has either dried up or is extremely low. The groundwater level acutely low in most places too. Natural areas, parks and public greenery are drying up. All the while, gardens are being sprayed, swimming pools are being filled, and crops are being irrigated.

People are, therefore, urged to save water. Through for example collecting rainwater in buckets or by making your garden, driveway, and roof greener.

Global climate change has already had an influence on Eindhoven, such as flooding after heavy rainfall, drought and high ground water table etc.

Some new strategies should be proposed, such as legislation, renewal of physical spaces, publicity of awareness for water, new technology for rainwater collection and new reward systems.

My installation encourages people to take nature into account, by preventing drought and collecting rainwater together.

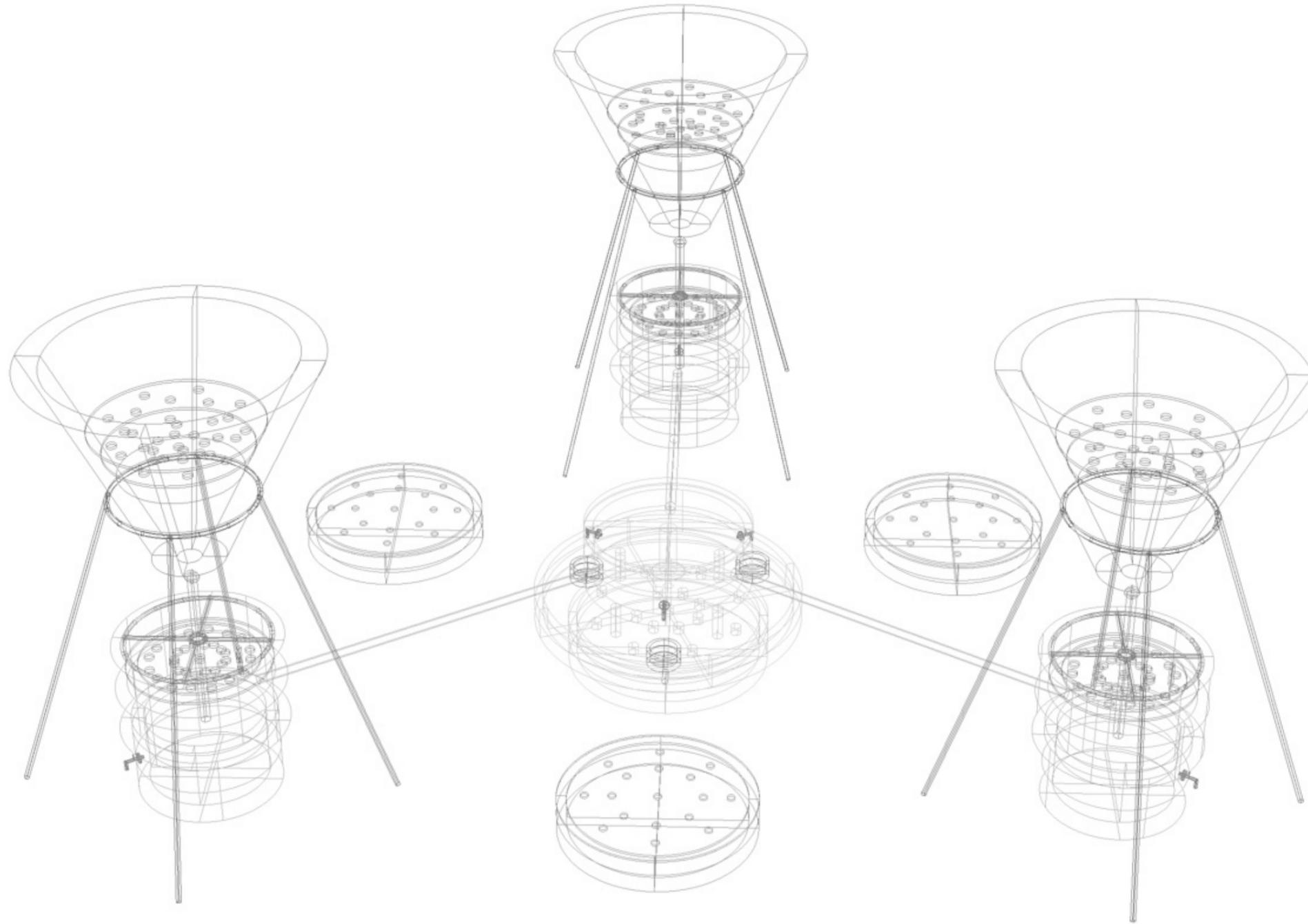
Combining the importance of rainwater harvesting with enhancing social cohesion felt like a logical thing to do. Not only is my goal to encourage people to gain knowledge around harvesting water, I also intend to stimulate people to interact with each other and create a sense of belonging. Whether you visit the installation to observe, analyse or interact with, there will always be possibilities to discuss the subject with other visitors, to challenge each other to make the installation work and enjoy other people playing.



My design process

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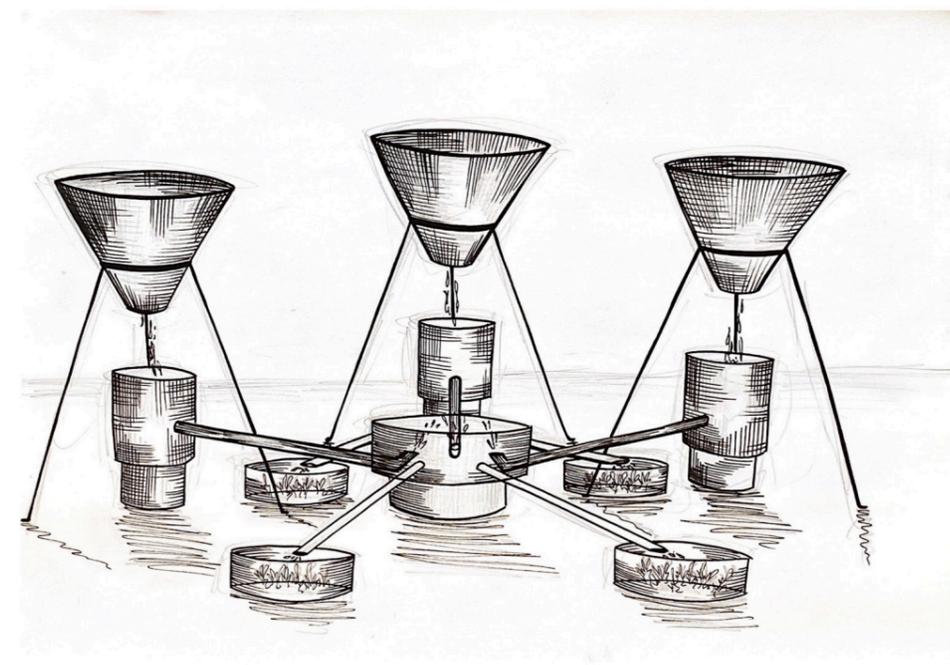
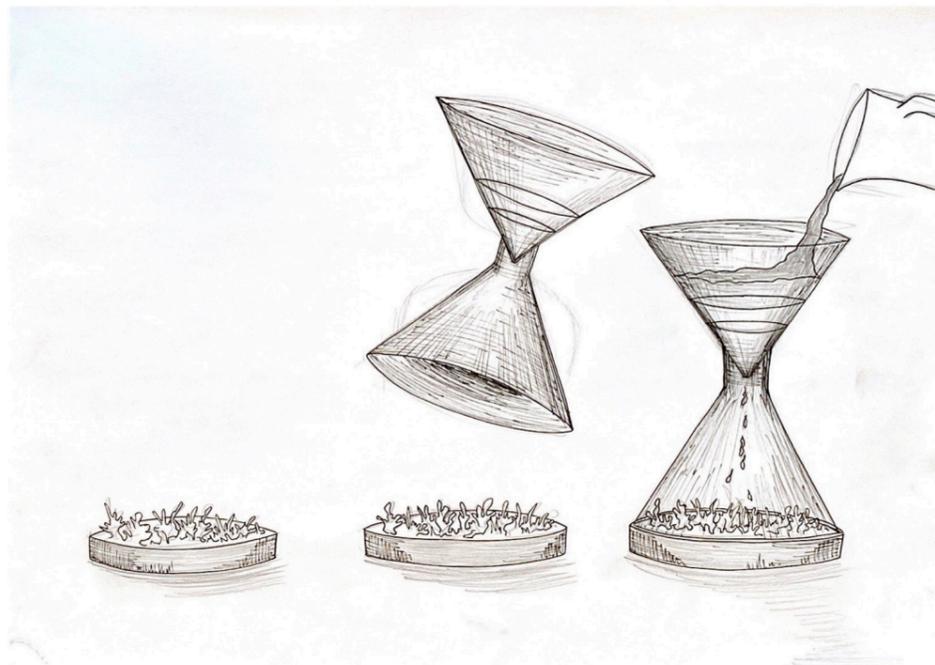
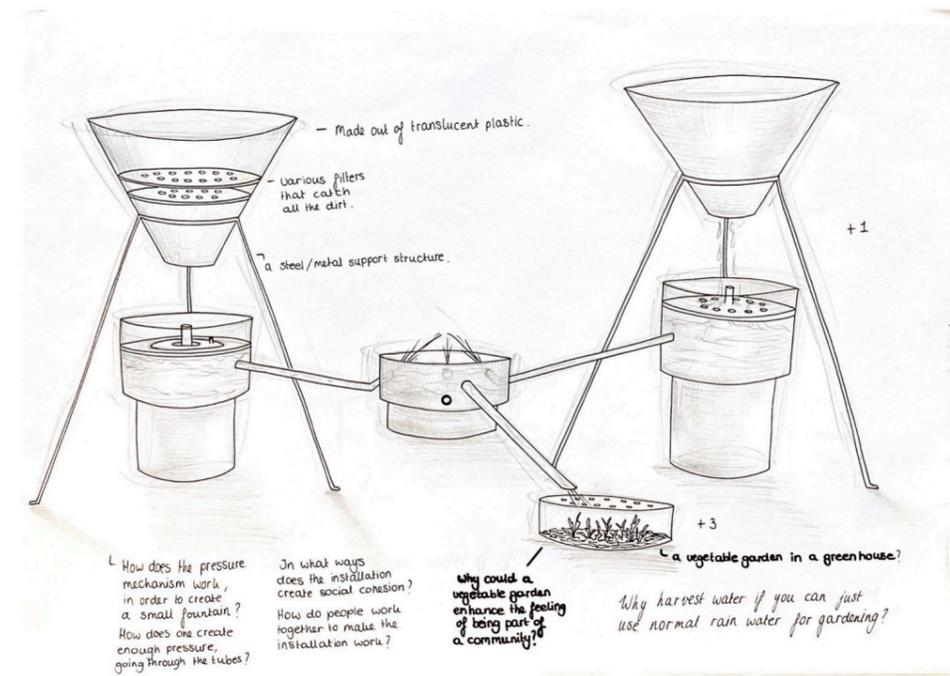
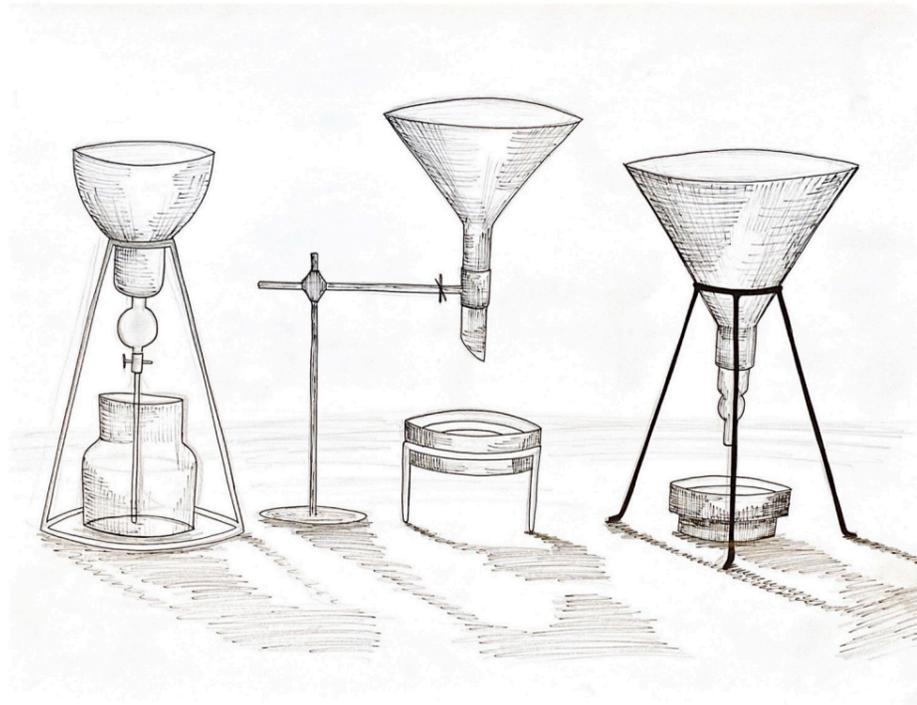
My design process



Inspiration moodboard



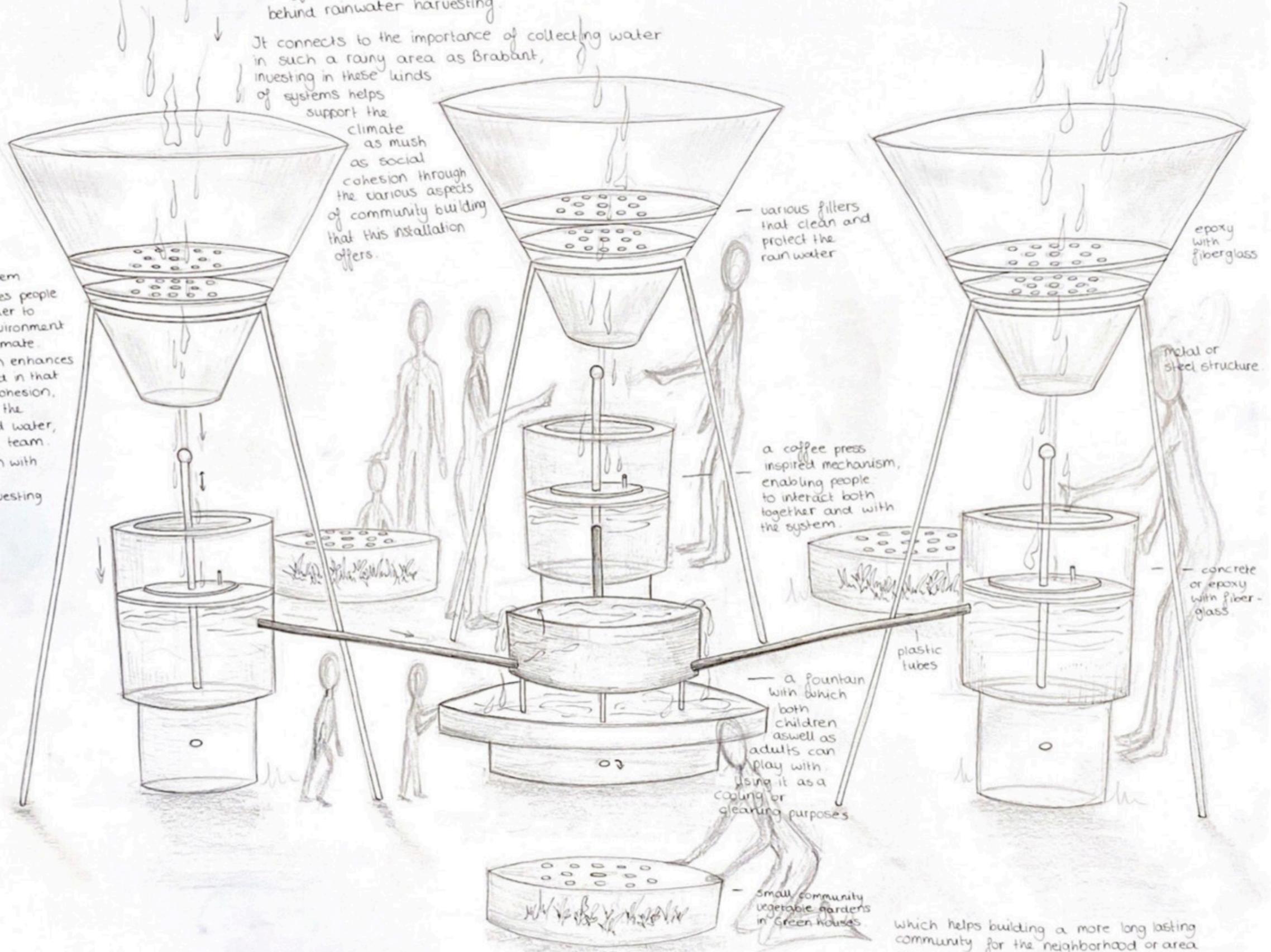
Followed by sketching



Harvesting water is an interactive installation that enhances social cohesion through the playful mechanism and the educational aspect behind rainwater harvesting.

It connects to the importance of collecting water in such a rainy area as Brabant, investing in these kinds of systems helps support the climate as much as social cohesion through the various aspects of community building that this installation offers.

A rainwater harvesting system that encourages people to work together to improve the environment and current climate. The installation enhances interaction and in that sense social cohesion, through moving the mechanism and water, together as a team. In combination with learning about rainwater harvesting in Brabant.



which helps building a more long lasting community for the neighborhood or area around the park.
 - proven to have a positive effect on people's mental health

07

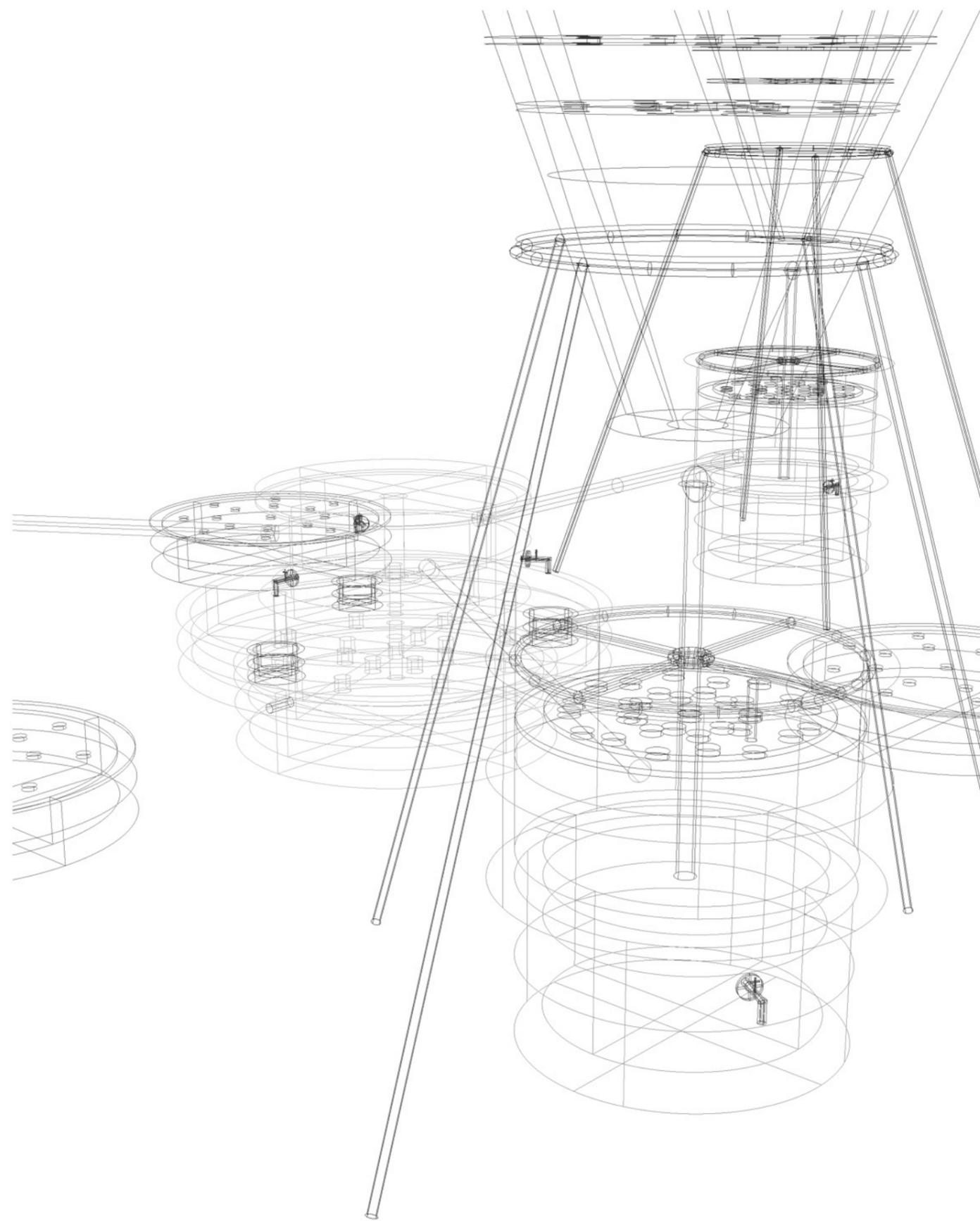
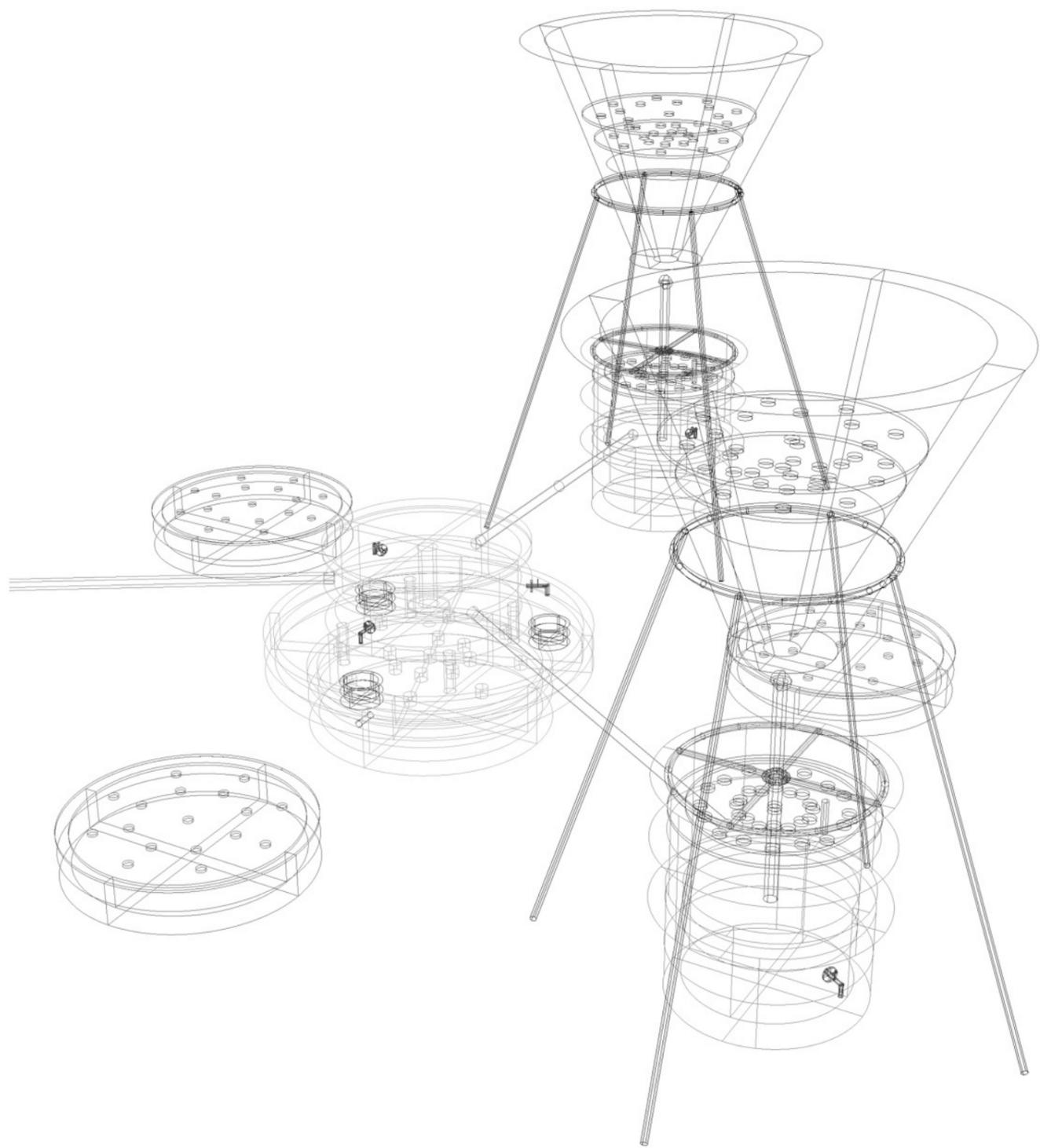
H  **RVESTING**
W  **ATER**
T O G E T H E R

The final introduction

Harvesting Water, Together is a playful interactive rain water harvesting installation, that invites the user to find social cohesion, through the creation of an inclusive “space” where everyone works together in order to make the installation work. In this way a community is formed, created by team work and a collective effort that could lead to a sense of belonging. At the moment of interacting with the installation people will share their values, by participating in the common goal: harvesting the rainwater. It evokes the opportunity to learn and act together.

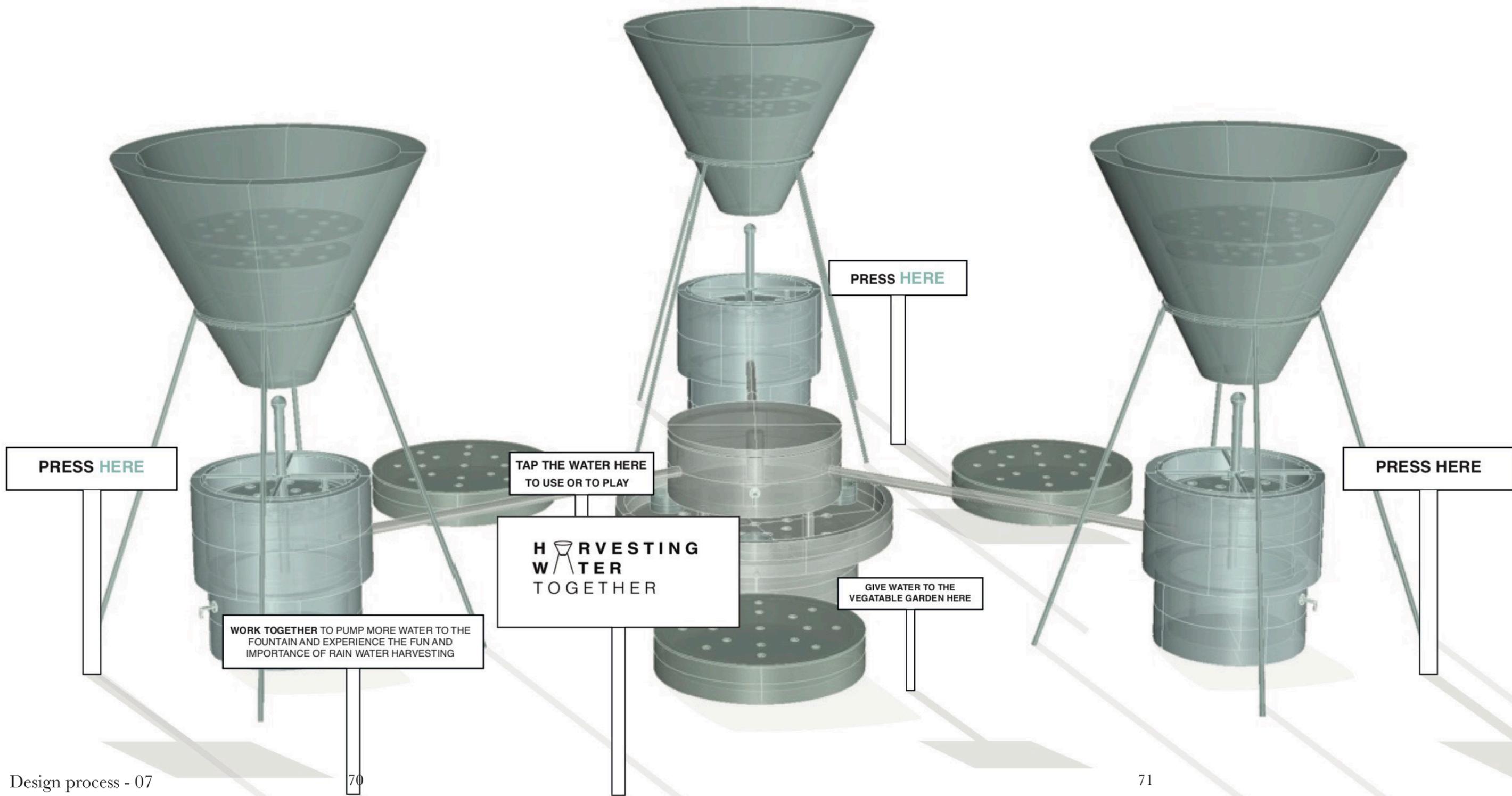
In addition, the installation stimulates people to take more time for both activities and relaxation. It is a space where one can find recreation and take a break from the constant time pressure.

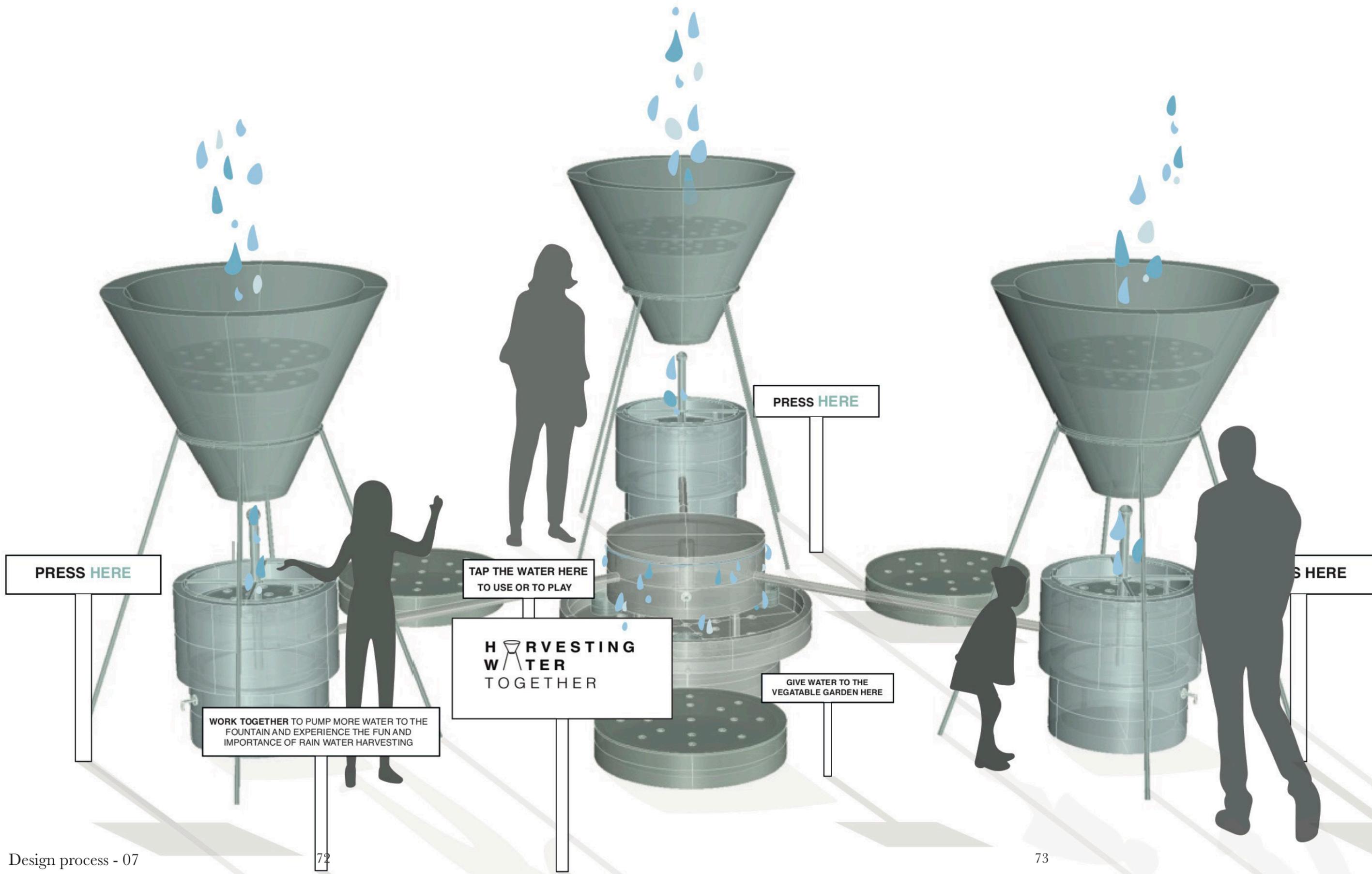
All together the installation is linked back to the location in which it is placed: the Genneper Parken. It values the rainy environment and it uses different elements that the area has to offer.











PRESS HERE

PRESS HERE

PRESS HERE

TAP THE WATER HERE
TO USE OR TO PLAY

WORK TOGETHER TO PUMP MORE WATER TO THE
FOUNTAIN AND EXPERIENCE THE FUN AND
IMPORTANCE OF RAIN WATER HARVESTING

HARVESTING
WATER
TOGETHER

GIVE WATER TO THE
VEGETABLE GARDEN HERE

Conclusion

08

After my research I can conclude that both social cohesion and rainwater harvesting are essential topics within our society. They are factors that directly and indirectly have a huge effect on people and nature around us. This is what made it important for me to connect the subjects to the installation.

Social cohesion is an essential element within our society. Cohesive societies are politically stable and focus on economic growth and business development. Various initiatives, such as installations focusing on enhancing community building and supporting the growth of inclusivity, will lead to positive changes. It does not only have a positive impact on the bigger scale, it also embraces personal wellbeing. Feeling included, within a neighborhood, city or any kind of environment makes people feel like they are not alone. This has beneficial effects on people's lives.

The space where activities take place is normally the neighbourhood that people live in. Therefore I have chosen to place Harvesting Water, Together in the Genneper Parken. The intention has been to bring people together with my installation. It seemed interesting to me to choose a natural area that attracts different types of people. This allows various people to come into contact with each other and experience my installation. In addition, the park is about nature, water and recreation, all elements that come together in Harvesting Water, Together. It can be considered an initiative for neighbourhood rebuilding and

creating a social cohesive space, where every person is accepted. A space where people can learn and work together, for fun and educational purposes.

Rainwater harvesting is very important for the climate, nature and the livability of an area. It is one of the most effective ways to save water and has many benefits for both individual humans and the whole environment. There are many different rainwater harvesting systems, but the process is generally quite simple to set up and maintain, which is why I aim to inspire and educate people around this subject. Harvesting rainwater means that you take control of the water supply and that you're not dependent on urban infrastructure. It can have a significant impact on urban water management. Especially since the climate is expected to change in the coming decades.

Working with the essence of social cohesion and the urgency of rainwater harvesting, resulted in an installation that raises awareness on the two topics.

Through my design process I have managed to create a design outcome that is easy to understand, because of the open, connected mechanical system and the descriptive signs. Harvesting Water, Together will challenge people to take time for interaction with each other and with the installation, evoking the opportunity to learn and act together in a playful way. People will have the opportunity to invest in each other, to share responsibility and contribute to the creation of a socially cohesive space.

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Design Academy Eindhoven
Joshua Veldheer