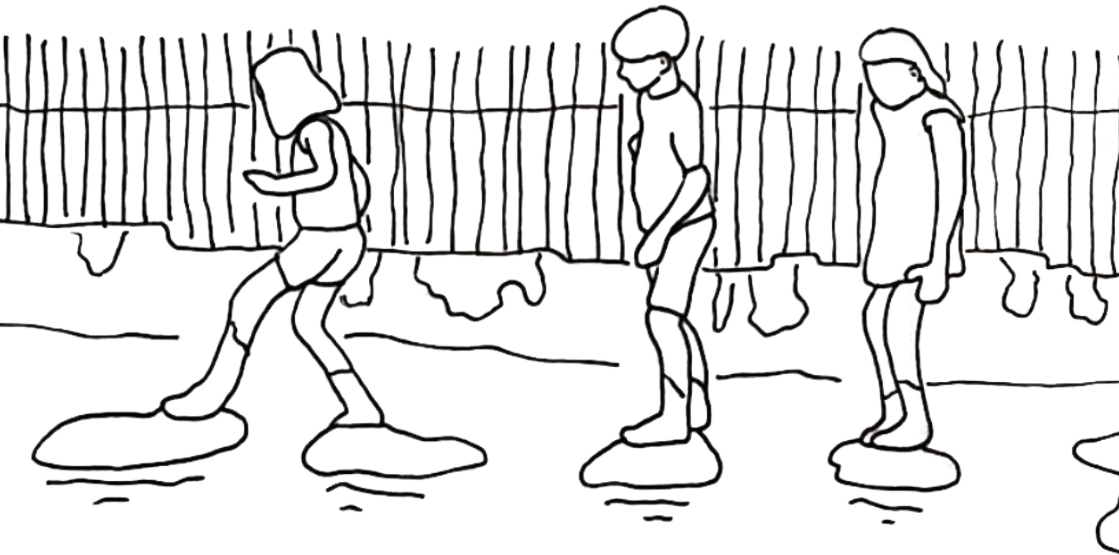


# POWER OF PLAY

EXPLORING PLAY VALUES



Frieke Oosterheert  
Urban Architecture - Last green in town

 FASCINATION

JOSAPHAT JOSAPHAT 

 SYNERGIES

EDUCATIONAL GARDEN 

 THE VALUES OF PLAY

ENGAGEMENT 

 REFLECTION

# FASCINATION



## FASCINATION

### Nature, the built environment and humans

The first day of our graduation studio, we were asked to answer the question: 'What is nature?' This question has stuck to me ever since. I have tried to answer this question correctly, but after a whole year I have come to the realisation that there is no such thing as a correct answer. For each individual their relationship, their perspective and their involvement with nature is different. With the higher demand of housing, this question of how our human lives are in connection with nature, becomes more and more vague. I was interested to explore this connection and how both nature and the built environment can coexist and perhaps even form a synergy. Exploring different possible answers to the question: 'what is nature?', and trying to figure out how to connect people with these kinds of nature. Some themes that were key for my exploration and observations were education and play. Going into the outdoors and observing education through play, that was my final method.

This booklet shows my research process and my findings. From the fascination about different kinds of nature, to trying to figure out if nature and the built environment can form a synergy, to the educational garden, to play as a way to connect people with nature.

## JOSAPHAT JOSAPHAT

### Planned vs unplanned

The exploration began in September when we started to analyse the site. Our aim was to understand and compare the human planned parc Josaphat, with the unplanned Josaphat Friche. We studied how both of the sites represented different ways of how the city has interfered with, built and interacted with nature. We researched both sites in their history, layout, ecology, societal significance and potential future. From this analysis, we learned how the city manages its green spaces. To illustrate our research, we created a map for both sites, showcasing the stories from the past until now. By exploring the past and acknowledging the stories, we aim to visualize the richness in stories, as well as the hidden heritage of the Friche and its vulnerability.

# JOSAPHAT JOSAPHAT



# PARC JOSAPHAT

Planned urban green





# SYNERGIES

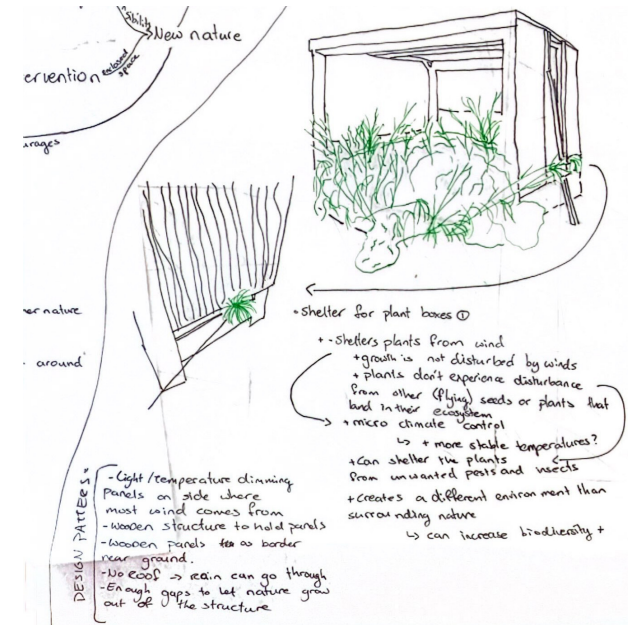


## SYNERGIES

### Nature and the built environment in the Friche

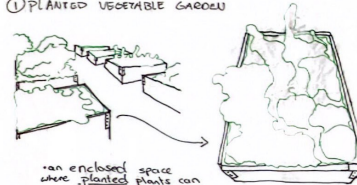
This is where my interest in the complexity about the relationship between humans and nature began to grow. I began to think about a future for the Friche and how an architectural intervention could possibly work on the site. With the unique environment of a untouched urban greenfield, I see the Friche as a potential model for addressing the complexity of green in a city like Brussels. A challenge I wanted to take was to investigate if architecture and nature could coexist and even contribute positively to each other. Therefore I asked myself the question: Can architecture and nature become a synergy in the Friche? I used the Friche as my laboratory and went on an exploration for finding possible synergies. I soon came to the understanding that this search brings a lot of questions and complexities. What is nature? And can nature and architecture really be seen as two separate things? Or are they always intertwined and form a system. I soon realized that looking for synergies is too complex. So, I started observing systems in and around the friche to get a better understanding of the relationship between humans and nature.

I looked at the system of a planter for a vegetable garden, and a small greenhouse-like structure, introduced to the Friche by the common there. I began to realize that education can have a big role in the relationship between humans and nature. If an object like a planter can host an educational purpose, humans will start to interact with the plants growing there and the animals living there. This interaction can help nature grow and it can even help with peoples well-being. The human activity in this system (creating a planter for a small vegetable garden) creates a display where education on the ecosystem of this garden is possible. This function of education encourages human engagement, which could help the plants grow to eventually produce vegetables for people to harvest and eat. Educating people about nature and ecosystems could be a method for nature and architectural interventions to coexist.

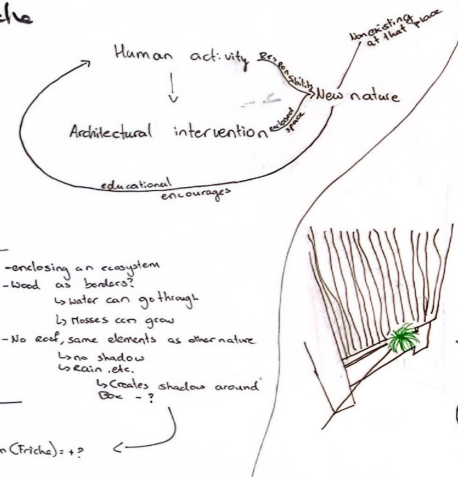


### Possible synergies in and around Fricke

#### ① PLANTED VEGETABLE GARDEN



- an enclosed space where planted plants can grow
- + new plants can grow
    - can't grow bigger than their box
    - that depends on food input?
  - + a contained/controlled space to grow can support growth of plants
  - + design asks for human involvement
    - ↳ responsibility
    - ↳ encourages natural processes
  - + educational purpose
    - ↳ to display of natural processes
    - ↳ Botanical garden
  - + creating an ecosystem within a bigger ecosystem
    - ↳ doesn't directly influence/affect bigger ecosystem (Fricke) = +?
- Design Patterns
- enclosing an ecosystem
  - wood as borders?
    - ↳ water can go through
    - ↳ mosses can grow
  - No roof, same elements as alternative
    - ↳ no shadow
    - ↳ rain etc.
    - ↳ creates shadow around box = ?

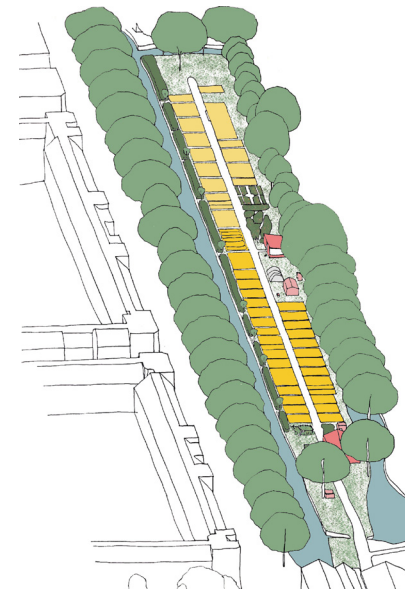




# EDUCATIONAL GARDEN

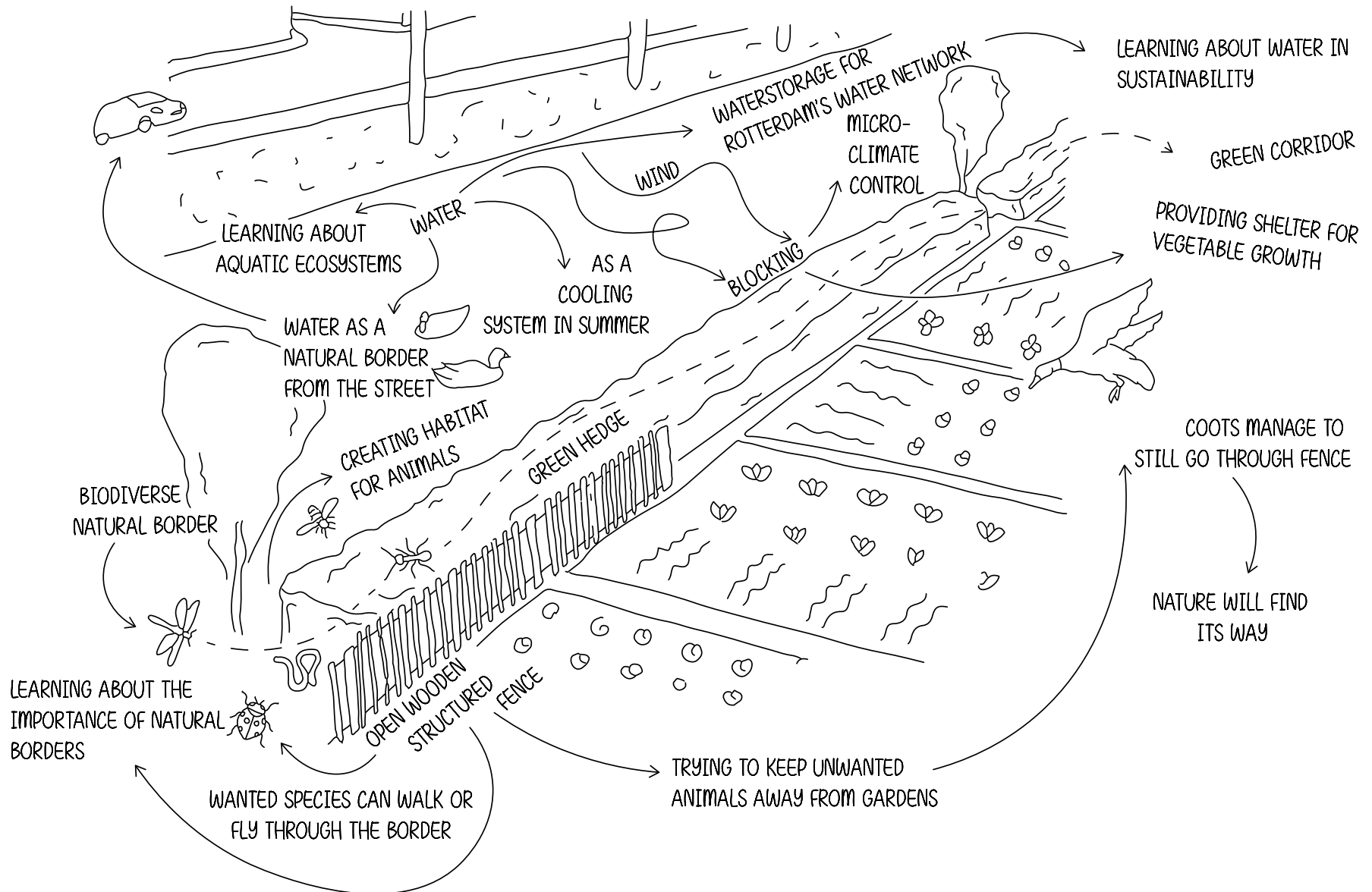
## EDUCATIONAL GARDEN Essenburgsingel, Rotterdam

In a world with a large demand for more housing, it becomes more and more difficult for cities to form a connection with nature. Around 300.000 children are growing up in the city of Brussels. It is the environment where they will develop most of their skills and beliefs that they will carry with them for the rest of their lives. The city is their place to play, discover and learn. A significant part of their experiences is gained in the public space. However, with a city like Brussels growing and growing, taking empty green spaces away to build on, nature disappears from these experiences. With developments like daycare, computer screens and parents having the sense of unsafety, children tend to go less outside than they used to. What we have to acknowledge with this growing of cities, higher density and traffic intensity, the public space has a growing purpose and is used by everyone. My aim is to create a building with public space that is accessible for everyone, inviting children but also attracting their parents, commuters and tourists for example. By meeting different users in the public space, people can learn from each other, creating connections, encouragement and sympathy.



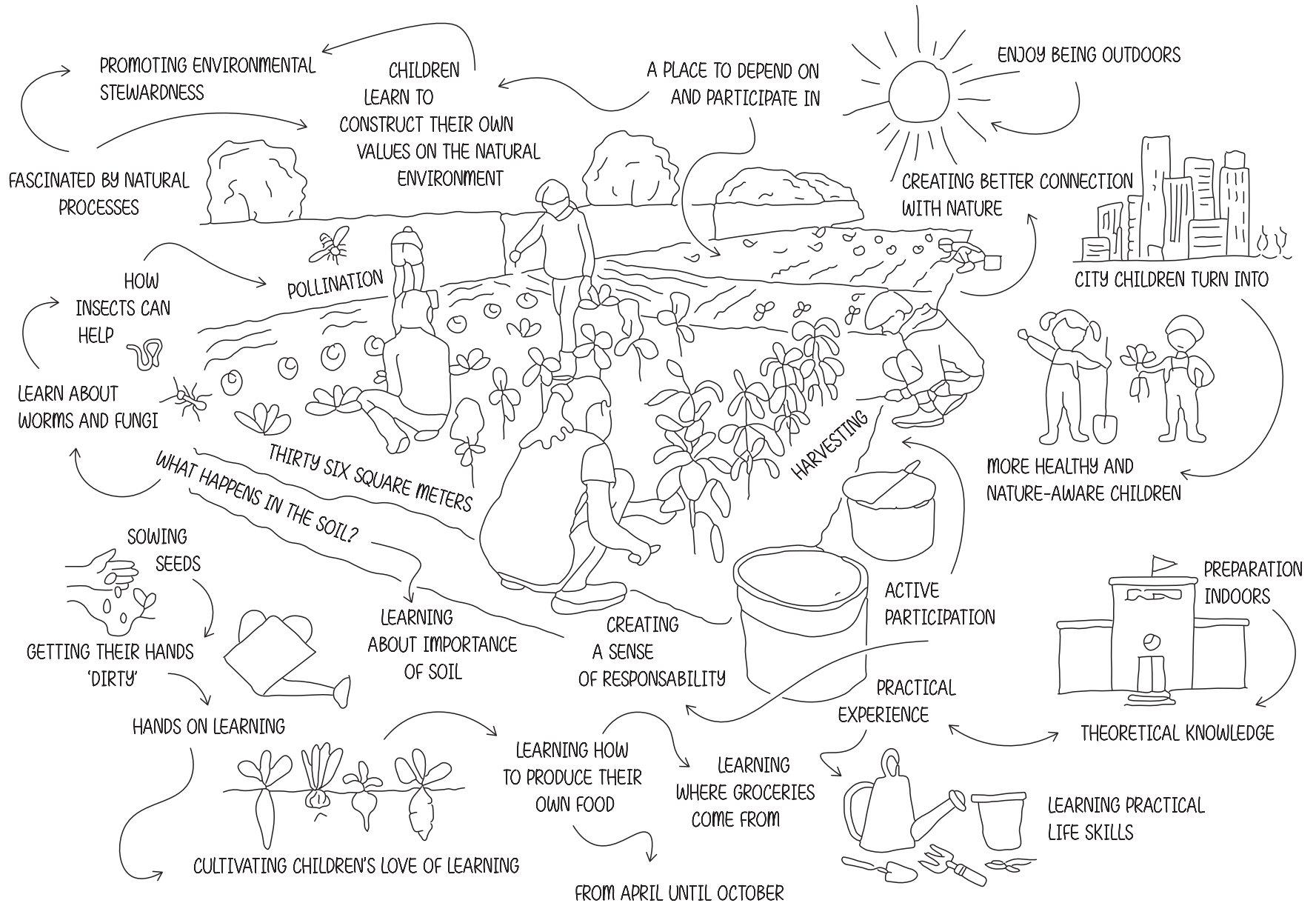
# BORDER FROM CITY

Natural border as a green corridor



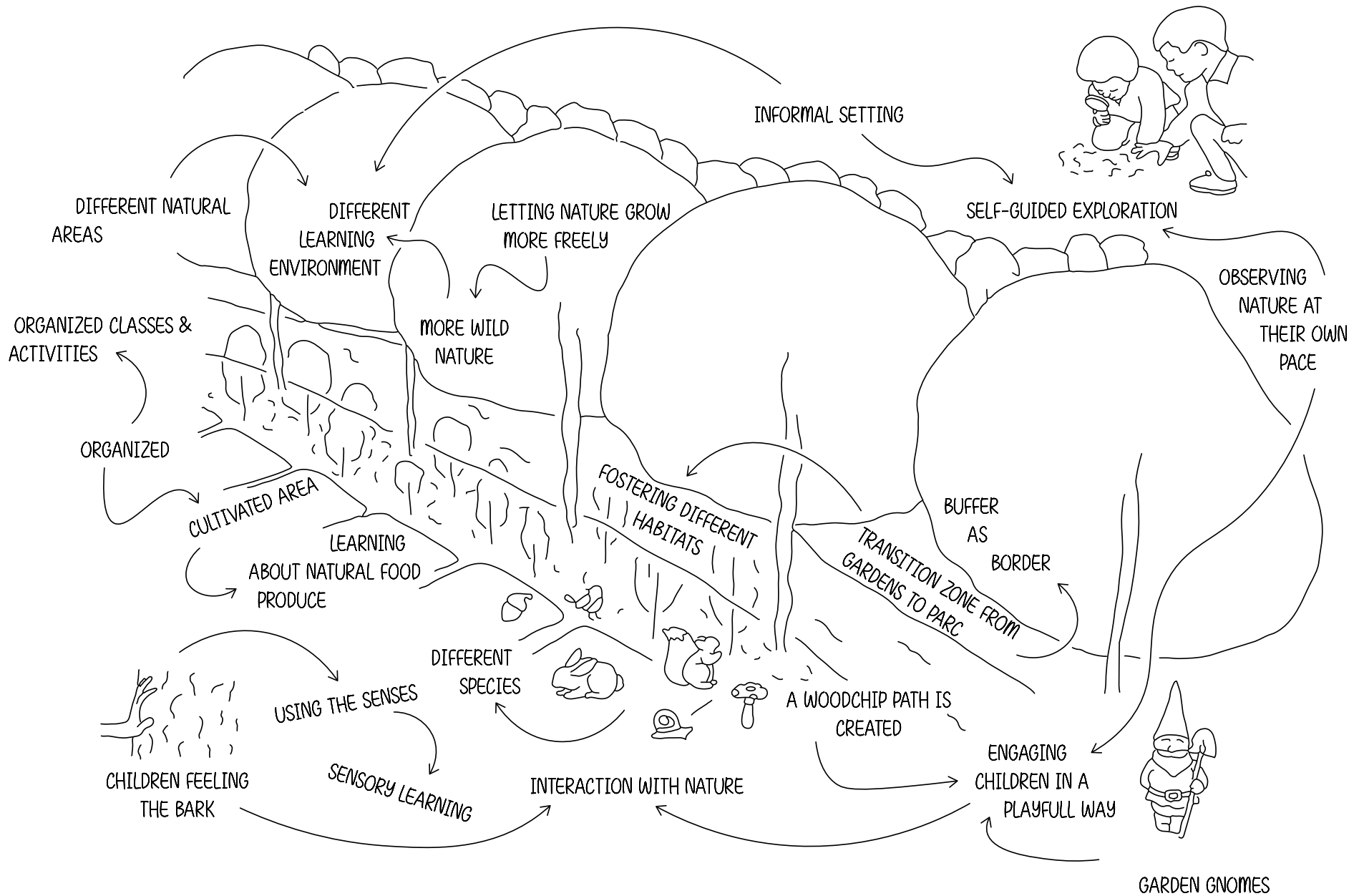
# SCHOOLGARDENS

Learning about healthy food produce



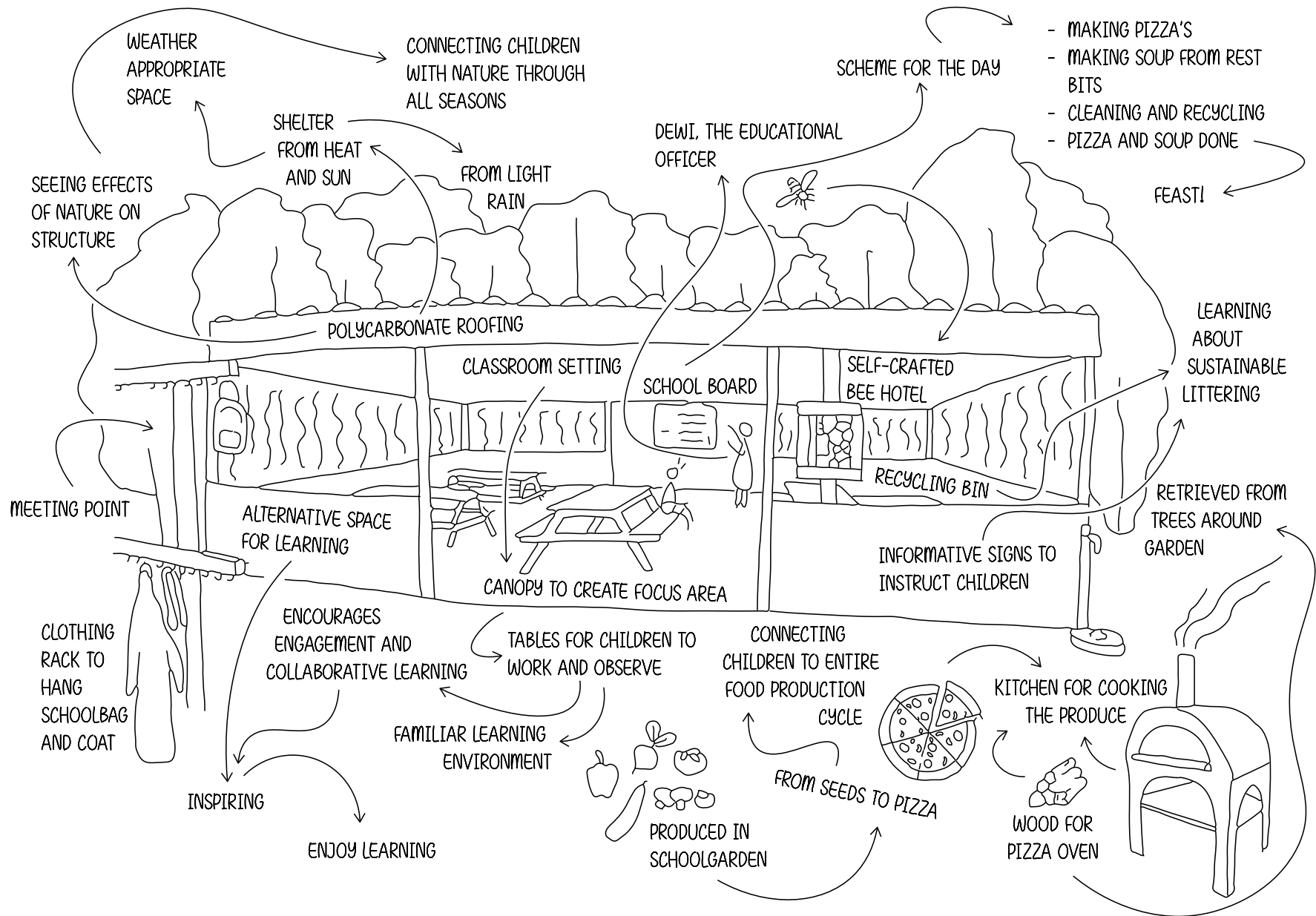
# WILD BUFFER

Self-exploring nature



# OUTDOOR CLASSROOM

Alternative space for learning



# THE VALUES OF PLAY



## THE VALUES OF PLAY

### Introduction

In a world with a large demand for more housing, it becomes more and more difficult for cities to form a connection with nature. Around 300.000 children are growing up in the city of Brussels. It is the environment where they will develop most of their skills and beliefs that they will carry with them for the rest of their lives. The city is their place to play, discover and learn. A significant part of their experiences is gained in the public space. However, with a city like Brussels growing and growing, taking empty green spaces away to build on, nature disappears from these experiences. With developments like daycare, computer screens and parents having the sense of unsafety, children tend to go less outside than they used to. What we have to acknowledge with this growing of cities, higher density and traffic intensity, the public space has a growing purpose and is used by everyone. My aim is to create a building with public space that is accessible for everyone, inviting children but also attracting their parents, commuters and tourists for example. By meeting different users in the public space, people can learn from each other, creating connections, encouragement and sympathy.

Play is a topic that has been researched extensively and from many perspectives. We like to think of Aldo van Eyck when we think about play in the city. Colin Ward talks about the child in the city and how we have to expose children with nature. Bruno Munari describes how children have the curiosity to know, the pleasure of understanding and the desire to communicate. My aim is to look at the perspective of play as a tool to connect people with nature. This research is about the why, the what and how of playing in the city and in natural environments.

My research centres around the idea that a good use of public space evokes play, makes the city healthier, connects people and promotes more environmental awareness. With my research I want to provide insights into critical factors for successful architecture and space design that stimulate and activate these three forms of development of the child: Motor development, Cognitive development and social development. By looking into various case studies, the importance of play is illustrated. I try to unravel playing, by discovering what skills they develop through play. By looking at case studies, I explore the development influenced by the spatial design. I want to look at how children are unconsciously or consciously influenced by this spatial design. This should give me insights into how this spatial design could work.

### **Motor development:**

Moving is an important part of playing. For children, playing is essential for motor learning. It is about the questions like: 'Where can I go?', 'How fast can I go?', 'How do I climb that?'. Balancing, jumping, running, climbing, bending over. These are all skills that can be learned from playing, where the architecture of the play plays a big role in. Coordination and orientation, learning about movement and becoming somewhat more healthy by joyful moving.

### **Cognitive development:**

This development concerns thinking, perceiving, language, but also creativity for example. Children learn to make plans and to consider during play. The design of play is also about creating excitement. 'Is there something new to discover?' 'Have I jumped on this thing already?' 'How can I use this stick for creating a hut?' The factor of time can be learned during play and children can consider if spaces are safe or if the play is safe.

### **Social development:**

Children practise their social skills by playing and imitating. Playing together, learning from social systems like competition, group relations, learning who to trust and how to behave. Learning to help others, learning what is comfortable in relationships. 'Do I like to be the centre of attention?', 'Can my parents meet new people?', 'Can I imitate him and learn from other?'. A space that connects people is vital for the development of social skills.

### **Method:**

As for researching different case studies, I chose to work with observing. Children are not always very good in explaining themselves and drawing is not every child's best skill. Therefore observation is critical for the understanding of a child's perspective. "Observation maximises the inquirer's ability to grasp motives, beliefs, concerns, interests, unconscious behaviours. To see the world as his subject sees it. To live their time frames. To capture the phenomenon in and on its own terms, to grasp the culture in its natural ongoing environment." (Guba, Lincoln, 1918 p. 193)

An image doesn't reveal the full potential of a site, therefore I have chosen to capture my observations in drawings. With drawing, the aesthetics of a design get disregarded, which creates the opportunity to translate my findings into my own design. With playful colours, I connect text with the drawings.

# JEUGDLAND

## ZANDRAKET, AMSTERDAM

These stepping stones are part of the barefoot path at Jeugdland in Amsterdam. It is an entire trail that children, as well as parents, can walk and clamber over. They can go on adventures while feeling the ground under their feet very well. The wet grass that comes through the toes, the cold mud that the children trudge in up to their knees and eventually over the water over these stones. It does take some balance and concentration not to fall into the water. The different surfaces are observed with full attention and interest. Children and adults can thus discover in a special way the change of climate and thus the ground.

Difficult surface  
makes people slow  
down and focus

Make room for  
playing together

### MOTOR

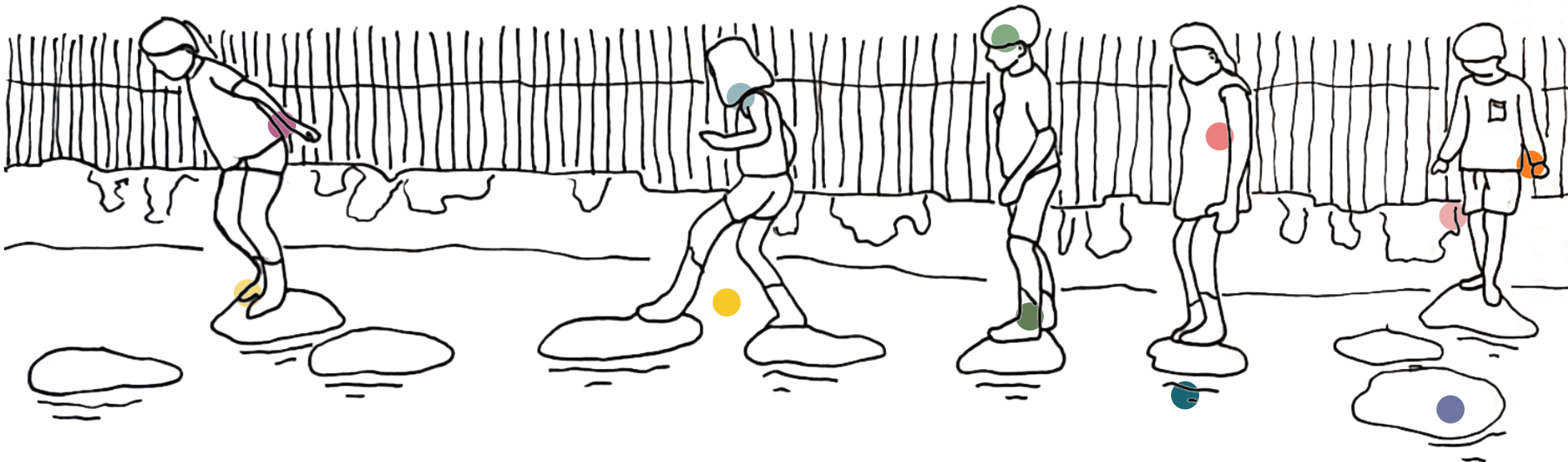
- Assessing how big of a step to take
- Learning to stay balanced
- Careful jumping

### COGNITIVE

- Watching reflection in the water
  - Taking concentrated steps
  - Getting the feet dirty
  - Recognising risks
- Adapting to different surfaces

### SOCIAL

- Learn to wait on others
- Experiencing new things together
- Imitating others

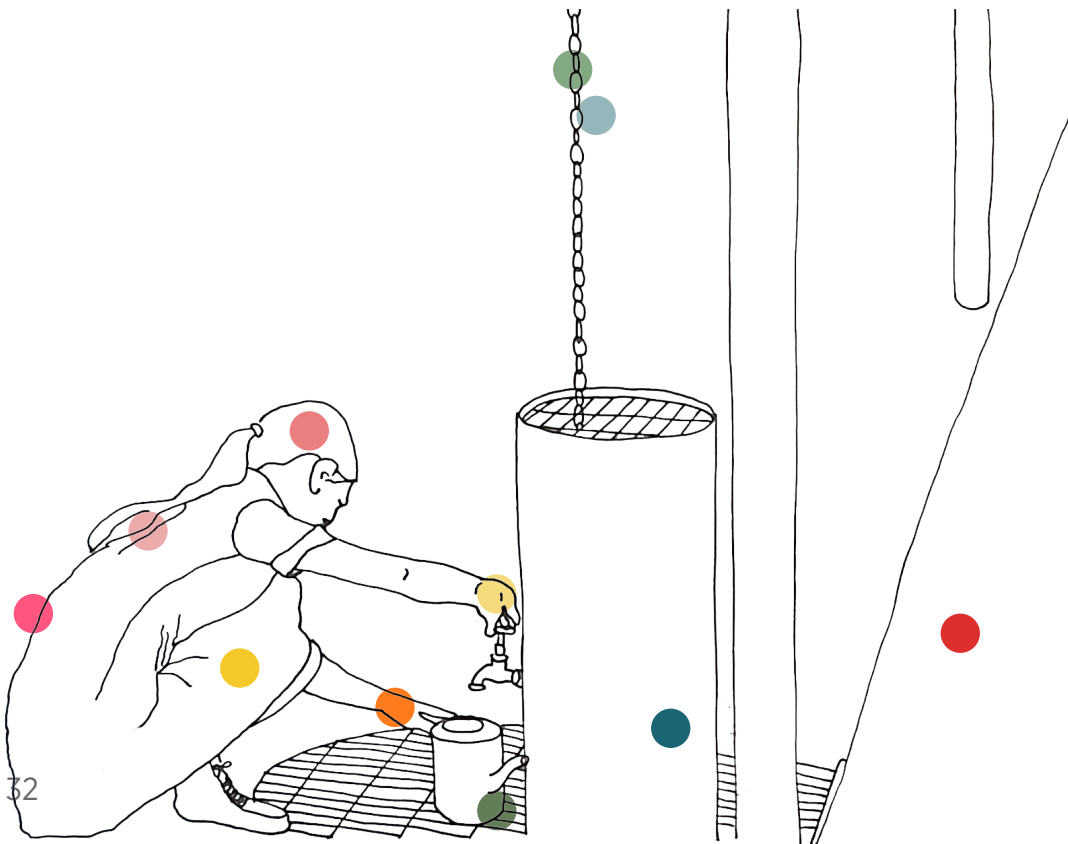




# CURIOSITY CENTRE

STUDIO BRIGHT, AUSTRALIA

These rainwater tanks are part of a renovation project for a school campus. The aim was to create a better connection between indoor and outdoor learning spaces, while seeking to reduce environmental impact through adaptive reuse. A key ambition of the project was to celebrate the school's focus on sustainability. The architecture acts as a pedagogical tool that displays sustainable practices and learning, providing a means of engaging with other students. A light-filled canopy makes the rainwater harvesting process perceivable and interactive through its architecture. Students can use the collected rainwater to water the garden, while learning more about where the water comes from. The water-play elements provide an engaging space for students by integrating a sense of joy into everyday learning.



## MOTOR

- Twisting at the right moment
- Carrying water
- Bending down

## SOCIAL

- Being a good example
- Taking responsibility
- Interacting with nature
- Engaging with other students

## COGNITIVE

- Learning where water comes from
- Sustainable water storage
- Taking care of plants
- Seeing rain drip down

Make sustainability visible

Create engagement

# PARK 'N' PLAY

JAJA ARCHITECTS, COPENHAGEN

This playground is on the rooftop of a parking house in the harbour of Copenhagen. With the design of the parking house, the architects wanted to introduce a new scale where the architecture invites people onto the rooftop. A large staircase in the facade invites people to take a trip to the rooftop, play and enjoy the view on the harbour. From street level, the railing literally takes the visitors by the hand, while it transforms to becoming swings, ball cages, jungle gyms and more. The variety of playelements and seating areas creates a connection between the different users. Playing together in a safe bordered space, or being the observer and watching others.



## MOTOR

- Variety of routes, running around
- Climbing different objects
- Swinging, rocking, turning

## COGNITIVE

- Railing as recognizable element
- Being on a rooftop, experiencing weather differently
- Choosing different paths
- View over the harbour
- Bordered off space, feeling safe

## SOCIAL

- Observing others
- Playing together
- Helping others climb up
- Hang, chill spaces for interaction
- Safe, letting children play alone

One structure as landmark

Create chill spots

# SCHOOLGARDEN

## ESSENBURGSINGEL, ROTTERDAM



Along the Essenburgsingel in Rotterdam, a specific area is created where children can work in the garden and participate in outdoor classes. Garden workers organize a programme where school children are welcome to learn more about healthy food produce. The children first learn theory indoors, whereafter they translate this new knowledge in practical experience. Being outdoors, hearing the bees, seeing worms in the soil, getting the hands dirty. The outdoor classes try to cultivate children's love for learning where they are in direct contact with nature and where they can experience their own influence on the natural environment.

### MOTOR

- Bending down ●
- Harvesting vegetables ●
- Sowing seeds ●
- Digging, raking, shoveling ●
- Walking carefully along plants ●

### SOCIAL

- Helping others ●
- Getting the hands dirty together ●
- Connecting with nature ●
- Food produce ●

### COGNITIVE

- Construct own values on natural environment ●
- Learning about importance of soil ●
- Creating a sense of responsibility ●
  - Watching insects ●
  - Natural processes ●

Hands in the soil!

Create gardens for groups

# WOODEN BRIDGE

## DE TEMPEL, ROTTERDAM

On the estate 'De Tempel' in Rotterdam, there is a bridge made of wooden slats that lets the walker stroll just above the ground. The bridge appears self-assembled and therefore sometimes makes it difficult to walk on. The walker therefore has to pay just a little more attention to walking, creating a pace at which nature can be observed.



### MOTOR

- Slowing down by uneven wooden slats ●
- Keeping balance without railing ●



### COGNITIVE

- Observing nature from above ●
- Touching the tree bark ●
- Creative play with chopped wood ●
- Seeing reflection in the water ●

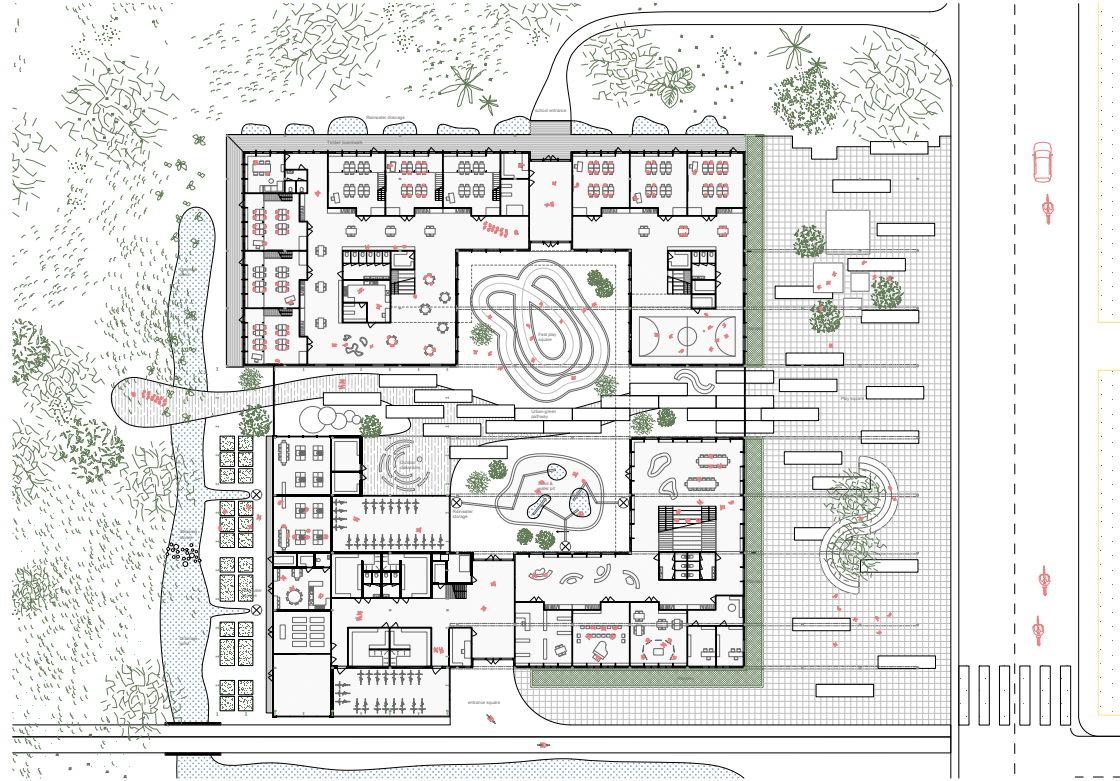
Integrate self-exploring nature

Create platforms

### SOCIAL

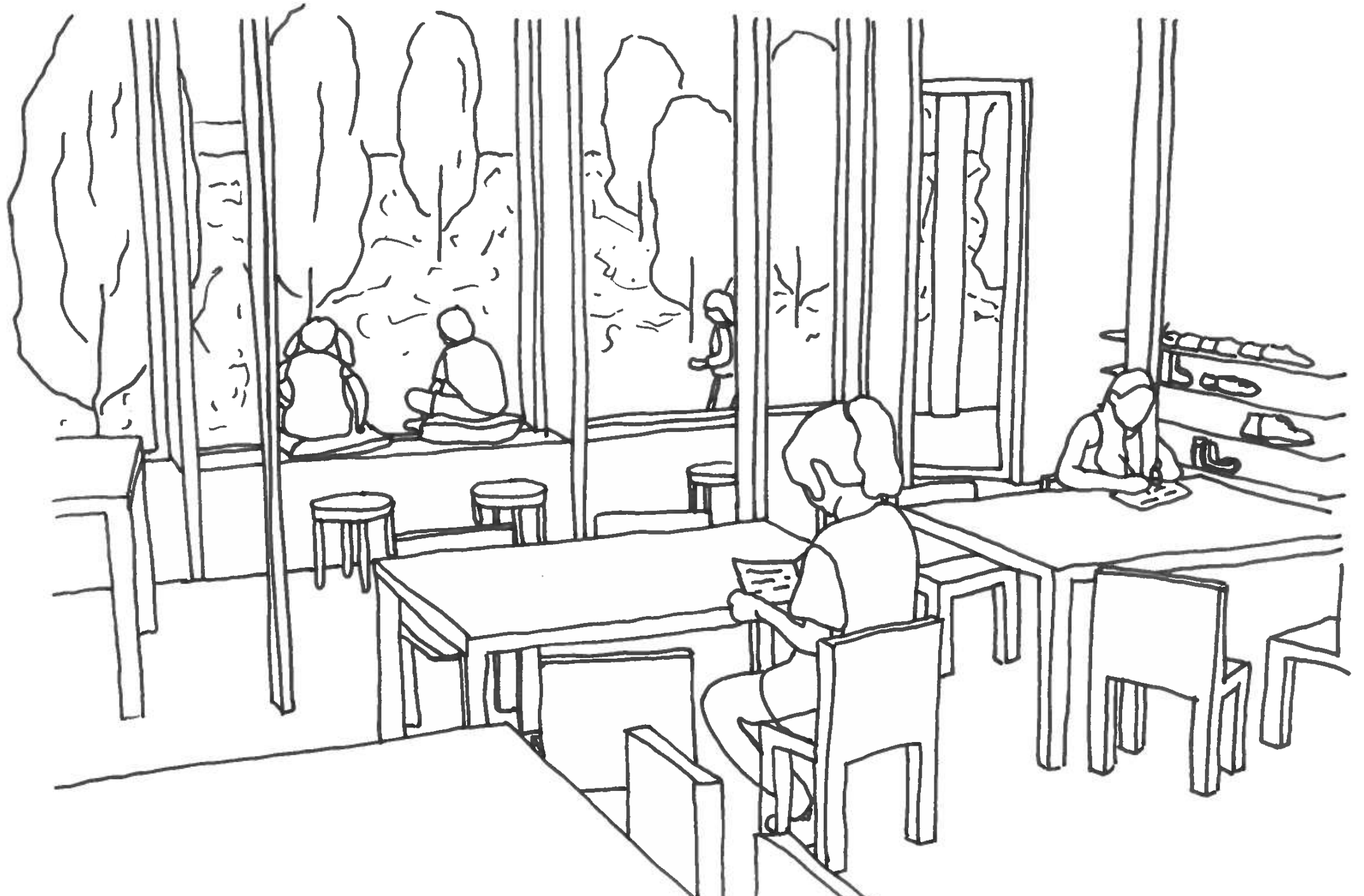
- Respecting the peace in the estate ●
- Crossing others on the bridge ●
- Holding hands to stay balanced ●

# ENGAGEMENT



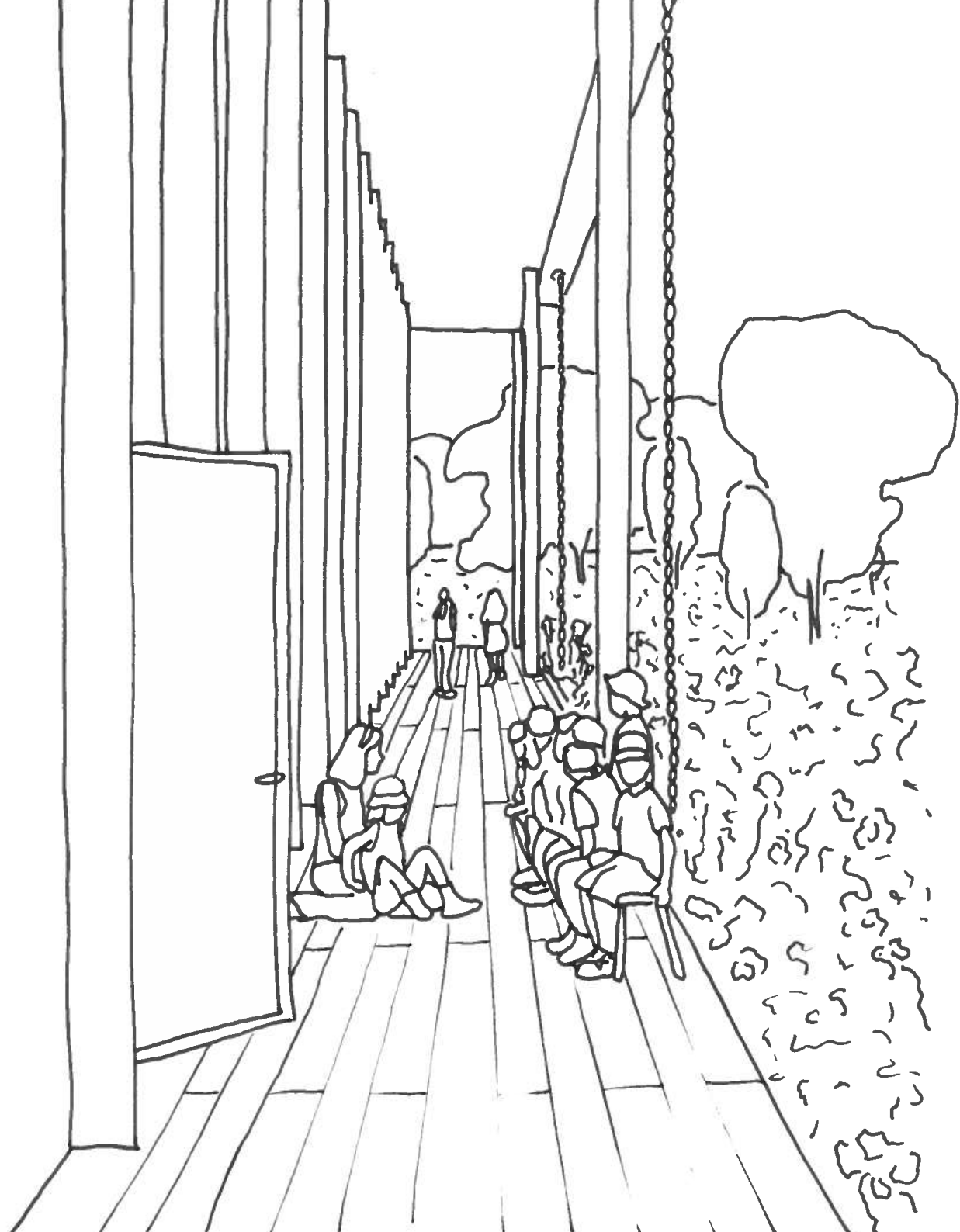
# CLASSROOM

Different atmospheres inside



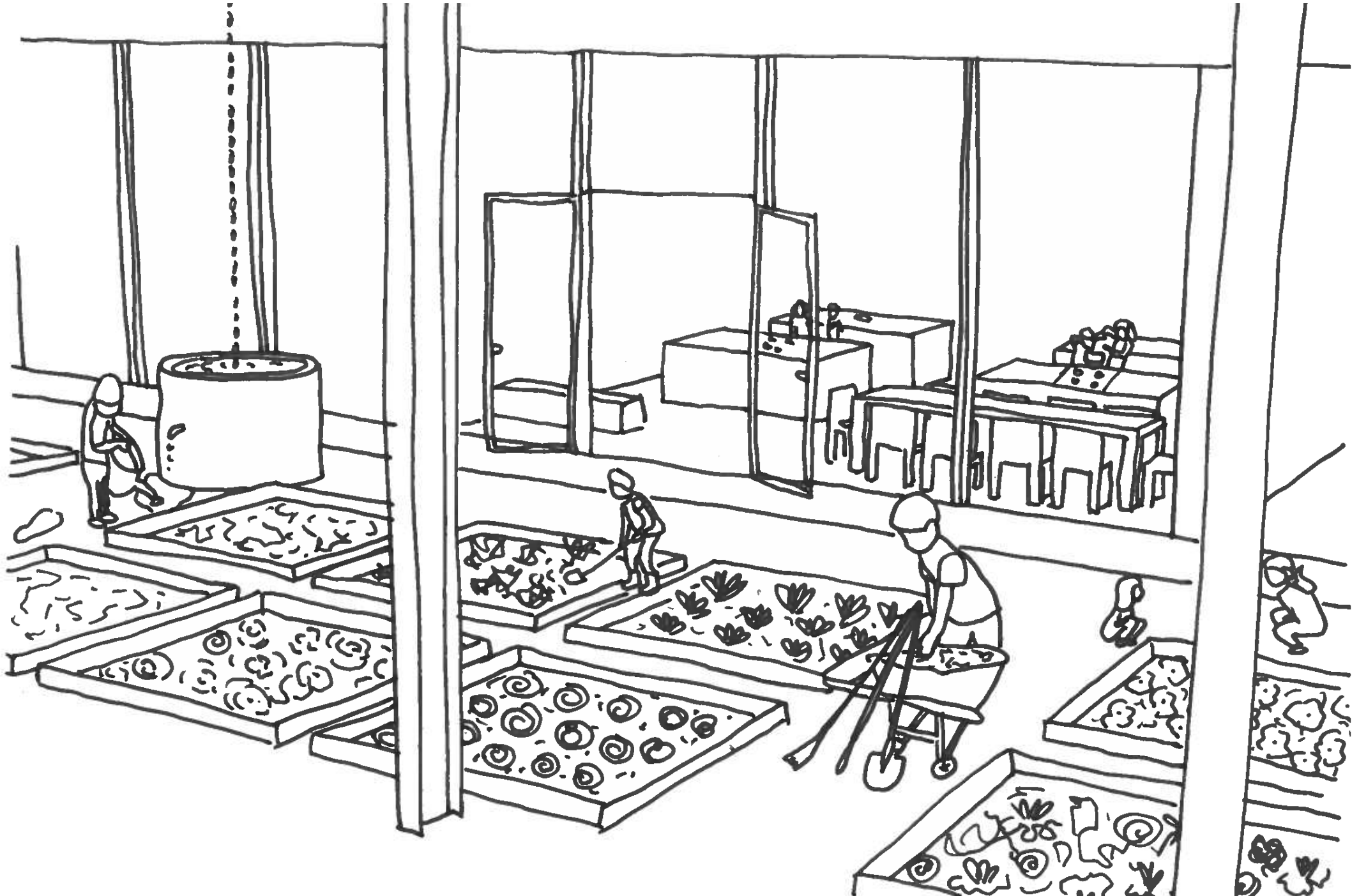
# TIMBER BOARDWALK

A buffer zone from classroom to nature



# SCHOOLGARDENS

Creating a space for children to depend on





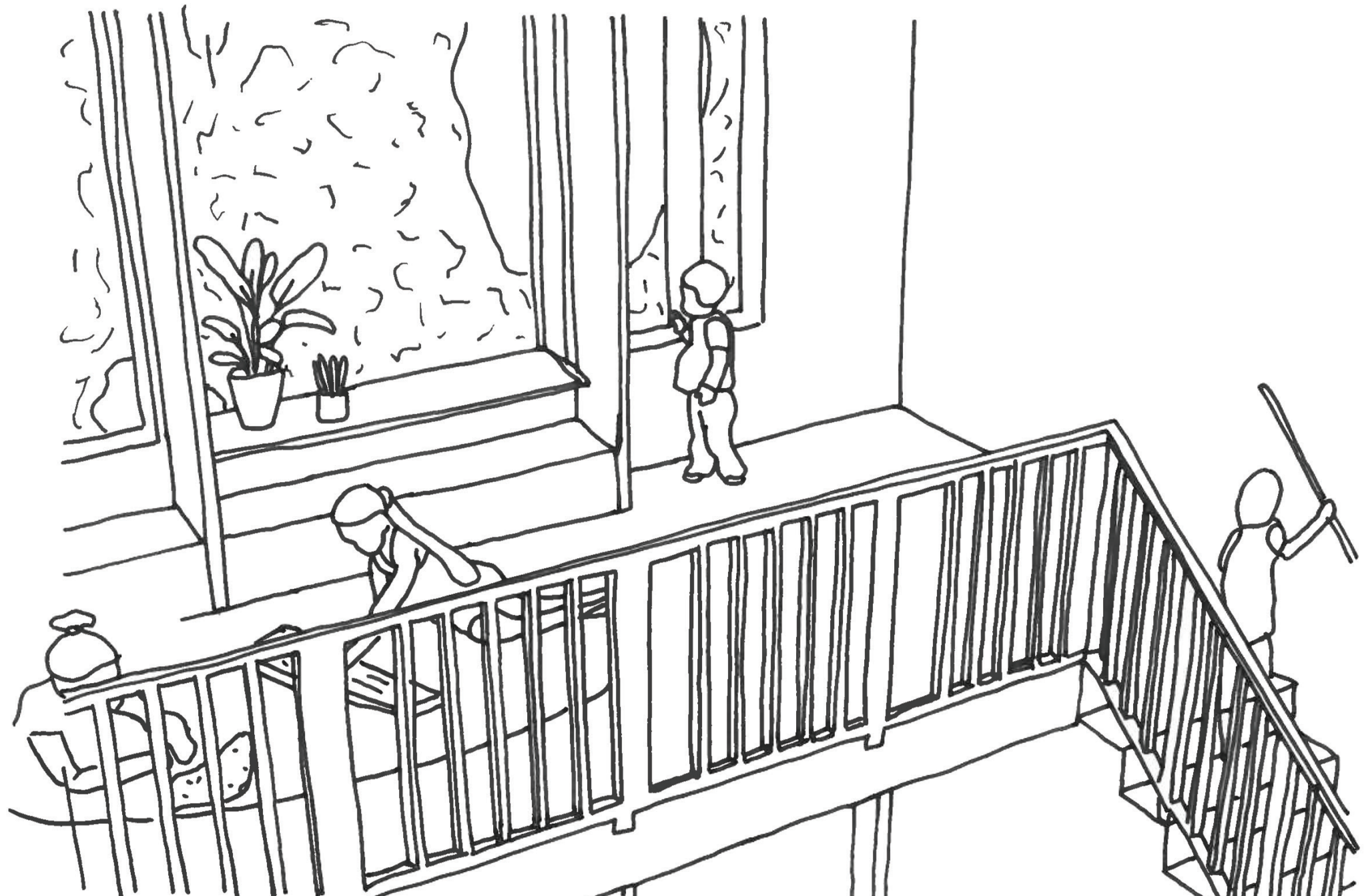
# LEARNING SQUARE

Colaborative learning and play space



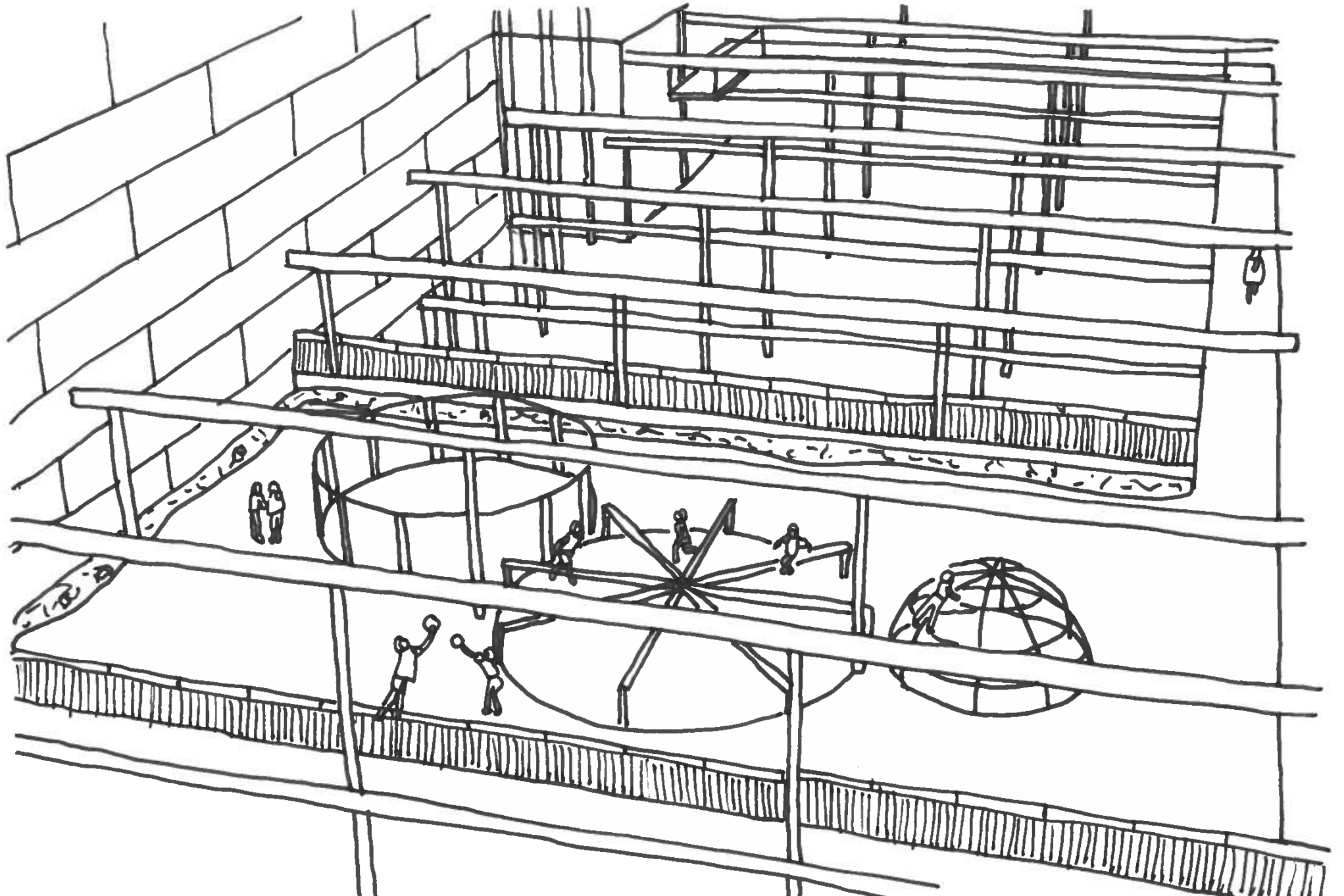
# CLASSROOM ENTRESOL

Using the height to connect with the outside view



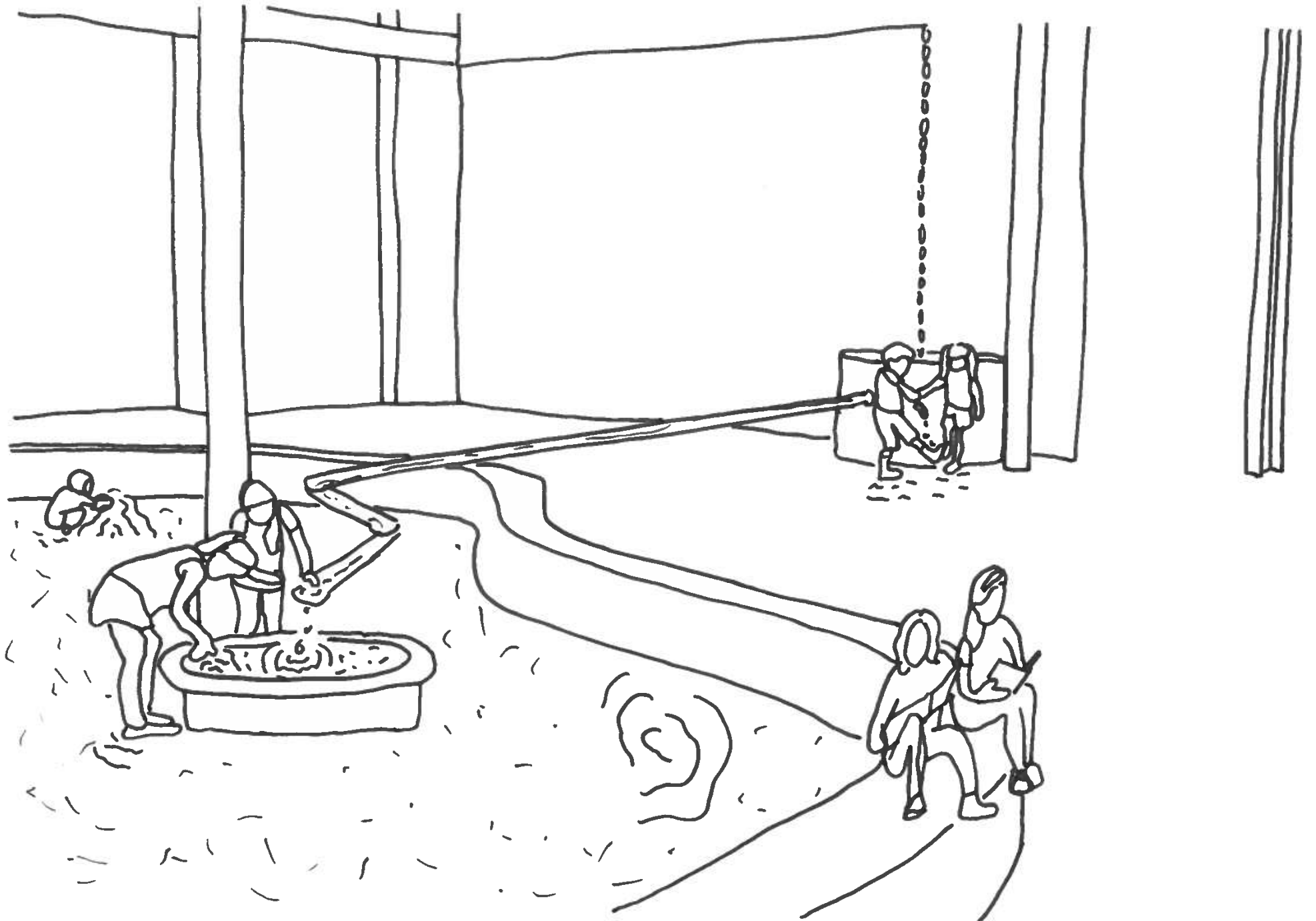
# PLAYROOF

Experience private play on a rooftop



# WATER AND SAND PLAY

Playing with the weather



# PUBLIC PLAYSTREET

Inviting the neighborhood to play





# REFLECTION

## Reflection

GRADUATION 05-14-2024

During my graduation project, every step along the way has presented unique challenges and learning experiences. As I reflect on the process of my graduation, I am reminded of the different stages my project went through, the fun we had in our studio, but also the stressful moments. I will dive into the different topics that were important for my process. My research approach, the guidance I received from tutors and the choice I made to reuse an existing building will be explored and lastly I will conclude my reflection with a 'what have I learned?' question.

### Research:

#### Development of my research approach

My research approach and method changed quite a lot over the year. It started with my fascination on the interplay between nature and architecture. I asked big questions like: 'how can architecture and nature form a synergy?'. However, as soon I as began to explore this topic of synergies, I came to the realisation that there might not be such a thing as synergies. The question brought a lot of complexities and difficult questions, I was not sure I could answer to. Still I find it hard to describe what nature is exactly. I also think it can be whatever people think it is. It is not one thing that can be explained. It is about life, about growth, about change, maybe nature is about everything?

My research then shifted to a more focused look on how a design of a space can help connecting people and specifically children to nature. Even more specifically, how can play and education connect and how to design this? This was a great change in approach for me. It became more doable and I think looking at the perspective of children is super interesting.

## Research method

Explaining this further, I had some difficulties really exploring the perspective of children. Since I conducted my research mostly in winter, there weren't a lot of children playing outside. Also the outdoor lessons, which I wanted to observe did not start until April. This made actually talking and doing workshops about nature outside quite difficult with children. As soon as I did talk to children, I realised that they can find it hard to explain themselves. This is why I chose to use the method of observation as my main method. This worked out really well. I began to see how children were subconsciously influenced by a space or an object. I could see where their own ideas lead them to, not that of an adult or me as an examiner. The way children participate is primarily through play: they act.

## Guidance:

The tutoring was very helpful. I feel like the tutors really tried to understand my vision. I usually came back with a new dose of motivation and was always pushed to get the most out of resisted research. The tutors wanted for me to really grasp what my aim was and how I could approach this process. I especially thought the tutoring where both architecture and research got together were useful. To get a different perspective than the architecture perspective can be refreshing. I also think the group discussions are really helpful. To spar with fellow students about our approach can be very useful.

## Reuse:

It was a new experience for me, to do a reuse project. At the beginning of the year I had never expected my design process to be so influenced by such a decision. Firstly, I enjoyed the exploration about the existing building quite a lot. It was a technical puzzle, I could finally solve when I received the floorplans from the Schaerbeek municipality. The reuse was a handle I could use to design my building with. It gave me something to work with. Although it felt like sometimes it was working against me, I managed to get a good grip and I feel it has definitely strengthened my design. It was interesting to see the change

in design process. I have worked longer on the layout and concept of my building, how to fit the programme into the existing structure. Since technical details were already further developed because of its existence. Overall, I am happy I chose to challenge myself to do a reuse project. I learned a lot about the design process and renovation challenges.

## What have I learned?

I have learned that I truly value the studio approach. Having fellow students to work with, to spar with and to sometimes just relax with, was something that helped me through my graduation. It felt like we didn't just do this on our own. I also learned that I can get quite stuck with the concept phase of a design process. I know that I like to work a steady peg on which to hang my choices on. But this also results in a longer process of making a steady peg. I might need to learn how to be more quick in this and take further steps on an earlier stage. I have also learned that I really enjoy exploring the theme of play and children. The children's perspective is an interesting one, because I feel like we as adults find it hard to really grasp this perspective. To design spaces for people who are at the beginning of their lives, where most of their development takes place, is something I am interested to work with more in my professional life. My graduation has equipped me with invaluable skills and insights to navigate the complexities of architectural practise.

I want to thank all my tutors who have helped me the past year. The studio for creating such a cozy and free environment.

