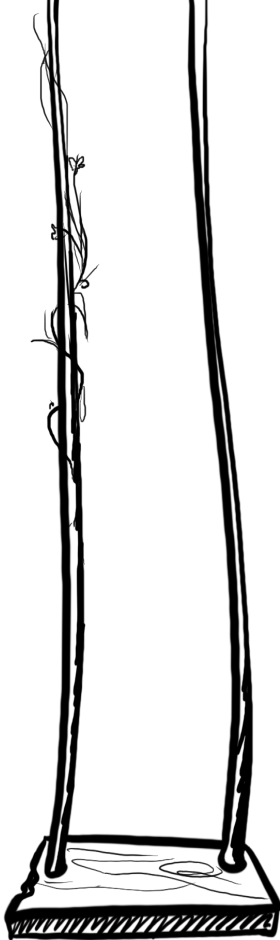


BEYOND CONVENTIONS

A Fresh Look on Outdoor Play

By Lea Magnano





Outdoor play is facing a significant decline among younger generations, and the population of children that still play outside lacks **diversity**. For instance, researchers have pointed out that only about one-third of the children playing outdoors in the Netherlands are girls. However, while such insights describe existing imbalances in outdoor play, they don't explore the diversity of those who are **not playing outside**.

The present work takes on this challenge by introducing a new design **framework** based on research into the **personalities** of children (8 to 11 y.o.) who don't play outdoors. It also includes concrete examples of how this framework can be applied in **practice**, to inspire outdoor play stakeholders in creating diverse play designs that are inclusive and engaging for all children.

PROJECT OVERVIEW

Research

Literature
Interviews
Observations
Contextmapping

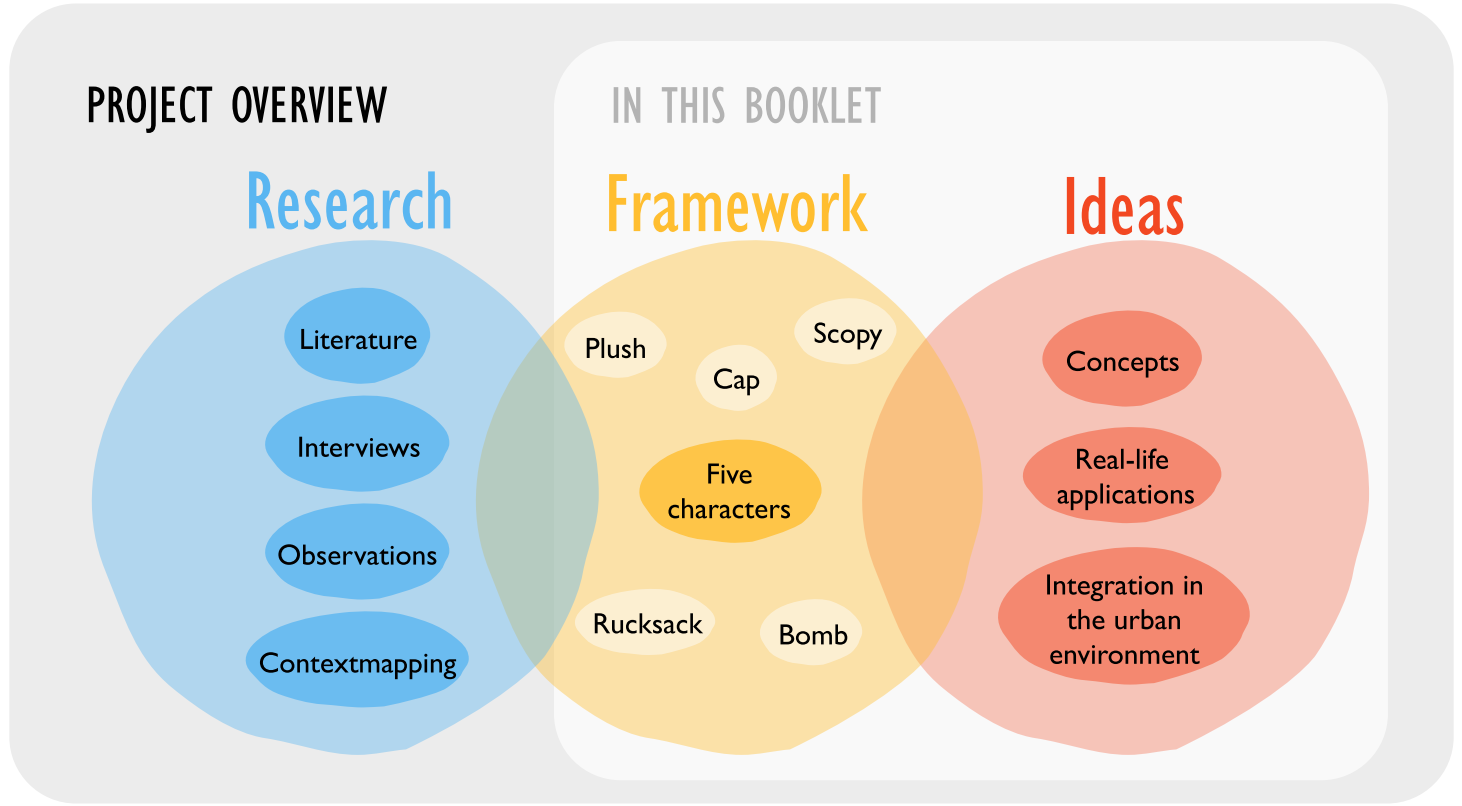
IN THIS BOOKLET

Framework

Plush
Scopy
Cap
Five characters
Rucksack
Bomb

Ideas

Concepts
Real-life applications
Integration in the urban environment



CREDITS

This work is the result of a master's graduation project in Design for Interaction, at the Industrial Design Engineering faculty of TU Delft.

The project was initiated and supported by the Play Well Lab, in partnership with Jantje Beton and researcher Gerben Helleman, without whom the work would not have been possible.

Special thanks to the British School in the Netherlands and to the International School Delft for their collaboration during the research.



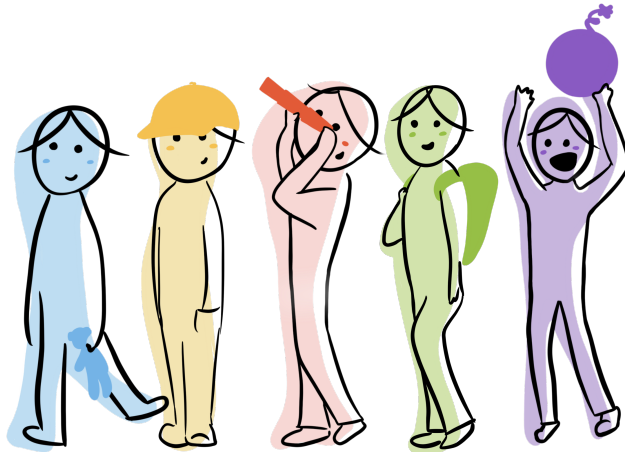
INDEX

CHAPTER ONE	5
The left-outs: 5 personalities we don't design for	
CHAPTER TWO	27
Investigating existing playscapes	
CHAPTER THREE	31
Engaging different personalities in outdoor play	
CHAPTER FOUR	53
Infusing cities with playfulness	



CHAPTER ONE

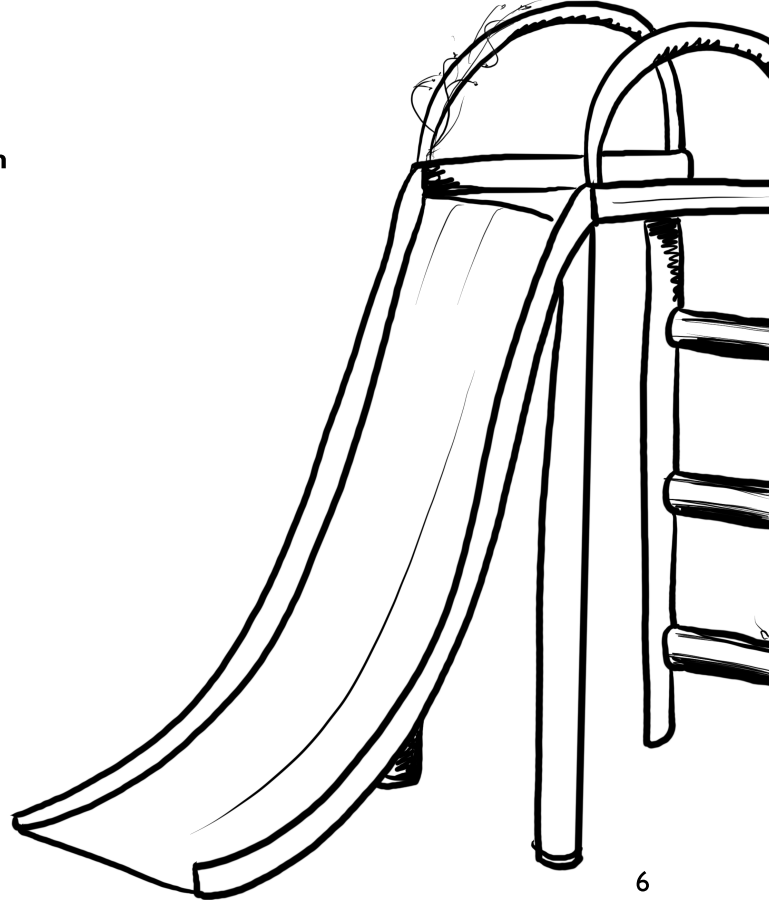
The left-outs:
5 personalities we don't design for



Do we really know what children want to play with?

Meaning *all* children, not just some of them

To ensure outdoor play spaces are enjoyable for every child, we must take into account their unique play preferences. By exploring the personalities of children that don't match the conventional standards, new challenges and potentials for outdoor play design might arise. In this chapter, **five characters** representing five the types of children who don't play outdoors are introduced. The characters emerged from literature research on personality, interviews and contextmapping sessions with experts of children's outdoor play, and direct observations at school playgrounds.



PLUSH



I get stressed
out easily

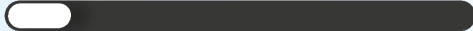
I don't like to draw
attention to myself

I find it difficult to
approach others



Quiet & sensitive

ACTIVITY LEVEL



EXTRAVERTE

INTROVERTED



COOPERATIVE

COMPETITIVE



SENSITIVE

STABLE



TASK-FOCUSED

DISORGANIZED



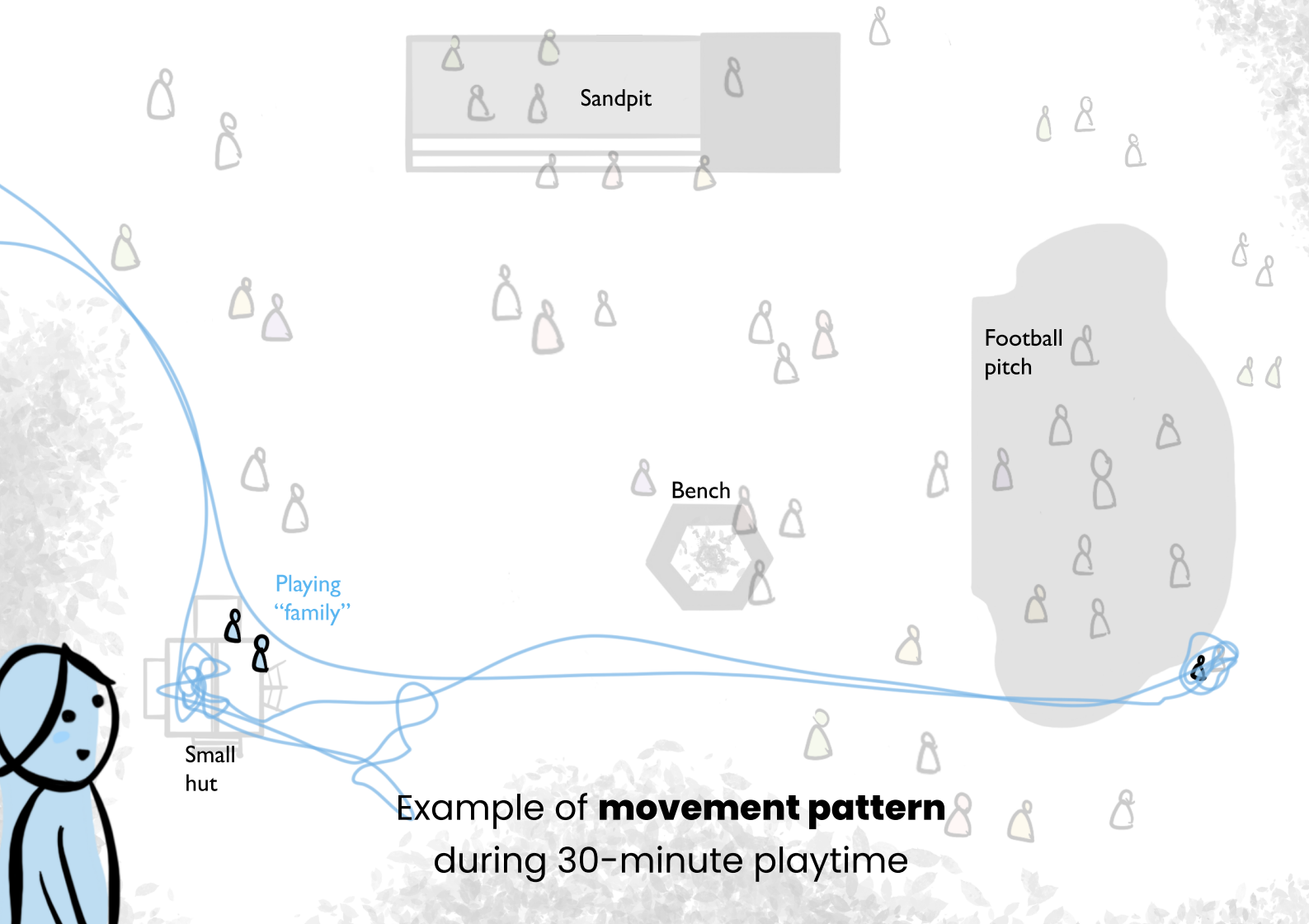
CURIOUS

CAUTIOUS



DESCRIPTION

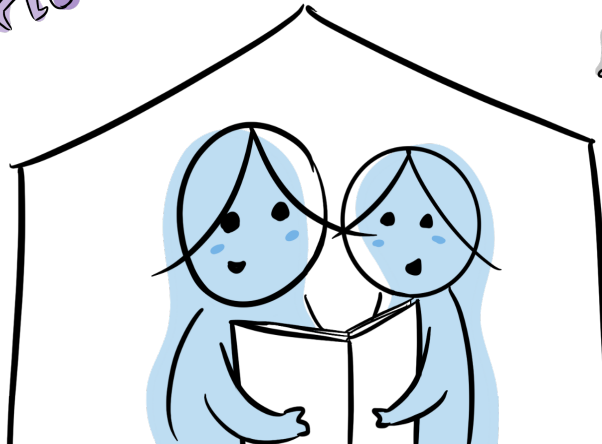
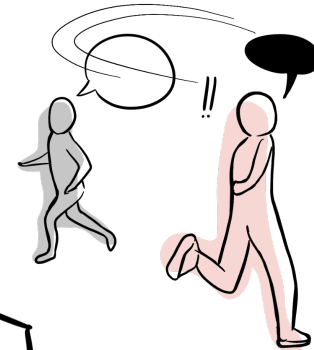
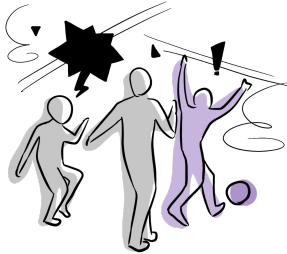
Plush is a quiet and imaginative kid who loves to create different make-believe stories and engage in activities that require fine movements. Plush can get easily scared around older or louder children, so preferring the company of a trusted adult as they feel understood and protected. When Plush goes outside to play, they stick close to their parents because they feel uncomfortable interacting with unfamiliar kids. Plush doesn't go much to play outside because most outdoor play areas focus on physically challenging play rather than offering objects and spaces that support more creative and delicate interactions. Plush dreams of a place where they can use their imagination freely and be themselves without judgment or interruptions by other children.



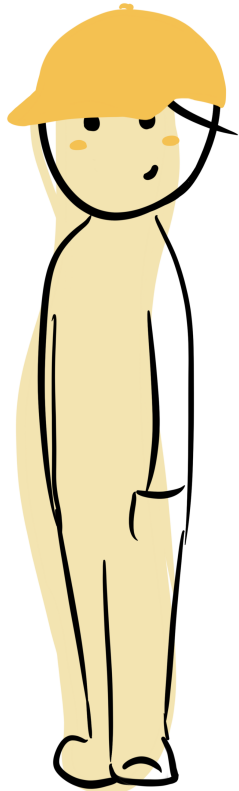
Example of **movement pattern**
during 30-minute playtime

By visiting some Dutch primary schools, children that don't usually play outside were observed playing in their schoolyard. This made it possible to identify their play patterns and spatial movements.

Plush starts the play by finding a cosy and protected space, and together with their best friend, Plush spends most of the playtime there. In the last 10 minutes, Plush gains enough confidence to venture somewhere else, and finds some other comfortable and secluded spots to play.



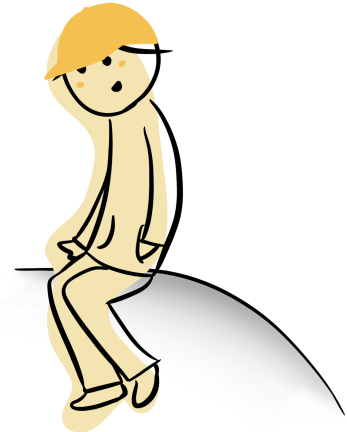
CAP



I am relaxed
most of the time

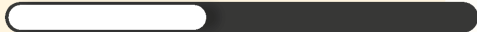
I need a push
to get started

I rarely look for
a deeper meaning
in things



**Shy &
adaptable**

ACTIVITY LEVEL



EXTRAVERTE

INTROVERTED



COOPERATIVE

COMPETITIVE



SENSITIVE

STABLE



TASK-FOCUSED

DISORGANIZED



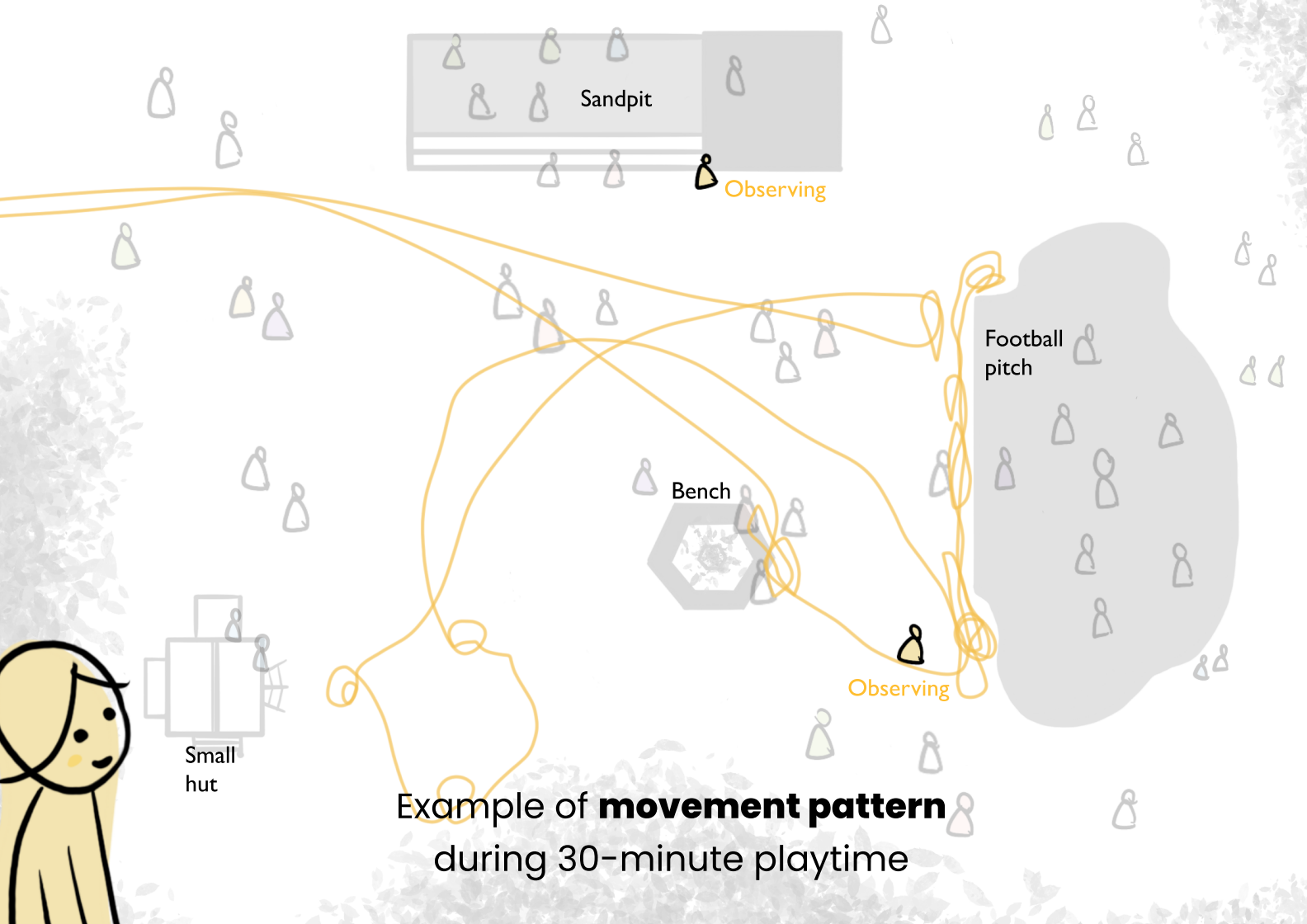
CURIOUS

CAUTIOUS



DESCRIPTION

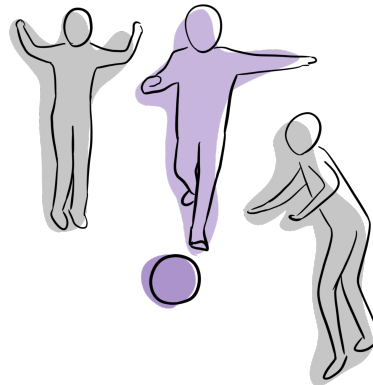
Cap is an easy-going and adaptable child, who enjoys being part of a group and spending time with other kids. They are generally relaxed and prefer to join in activities organized by others. Cap tends to follow rather than lead during playtime, finding comfort in more structured games that don't require much inventiveness. Even if they don't mind being in the spotlight for a short span of time, Cap often feels more comfortable being in the background, and enjoys observing others play. Although they would like to play with other kids, Cap doesn't go to play outside because they are too shy to join the game of children they don't know. For this reason, they rather play videogames, as there it is easier to interact with other players even if you don't know them.



Example of **movement pattern**
during 30-minute playtime

Cap starts by sitting on a bench while observing other kids play football on the pitch. As time passes by, Cap starts approaching the football pitch, moving around its borders.

Cap sees a smaller group of kids playing with the ball on the other side of the playground. Cap starts following the other kids until they ask if Cap wants to play with them, and eventually they start playing together.



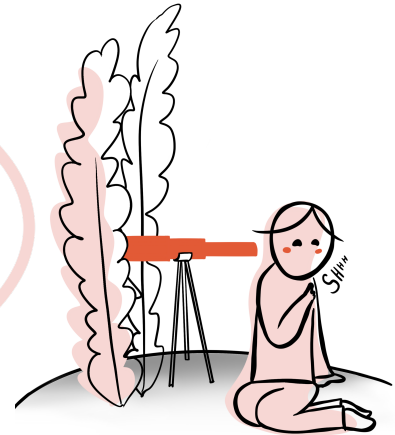
SCOPY



I make plans and
stick to them

I pay attention
to details

I am hard to
get to know



Critical & careful

ACTIVITY LEVEL



EXTRAVERTED

INTROVERTED



COOPERATIVE

COMPETITIVE



SENSITIVE

STABLE



TASK-FOCUSED

DISORGANIZED



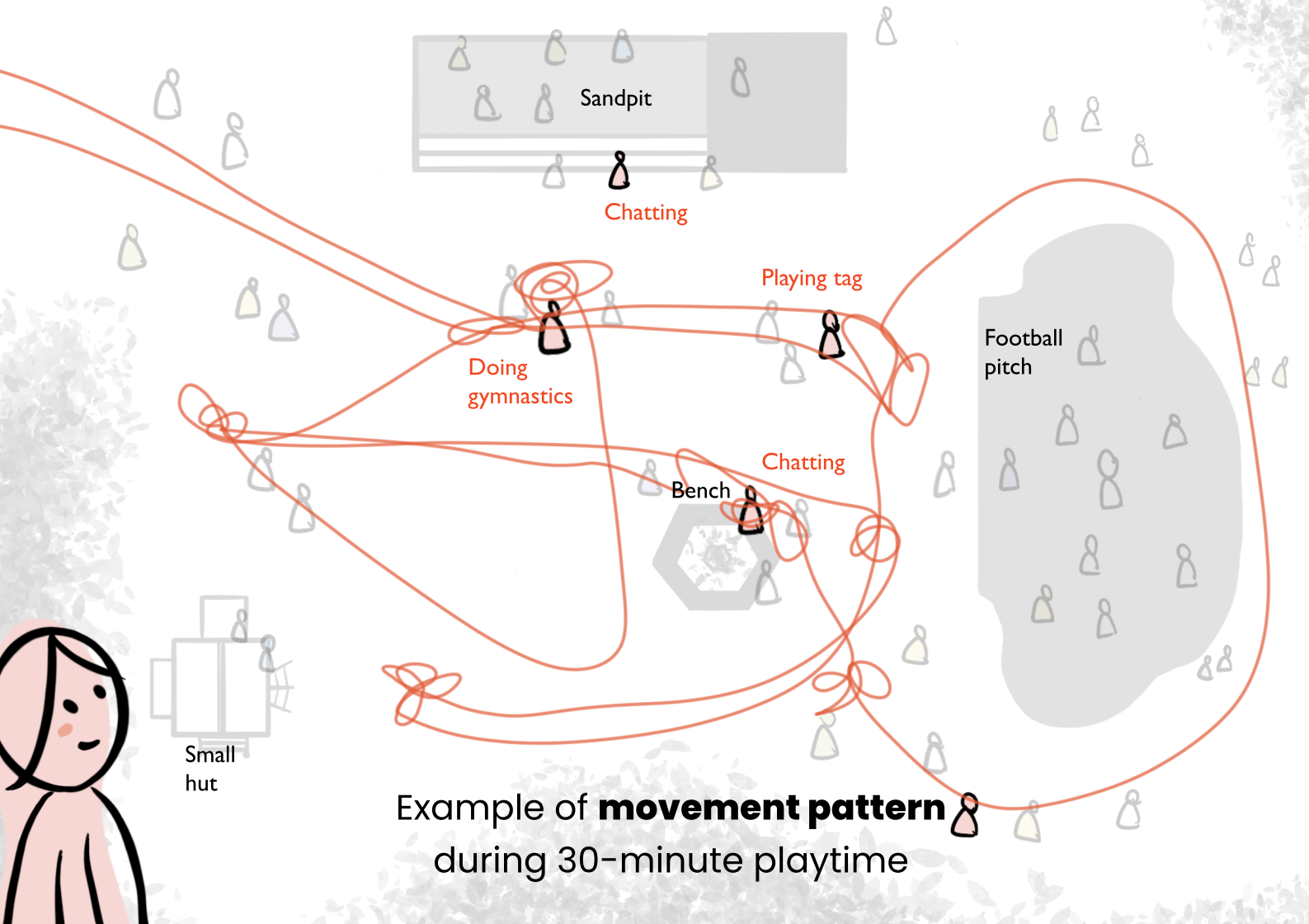
CURIOUS

CAUTIOUS



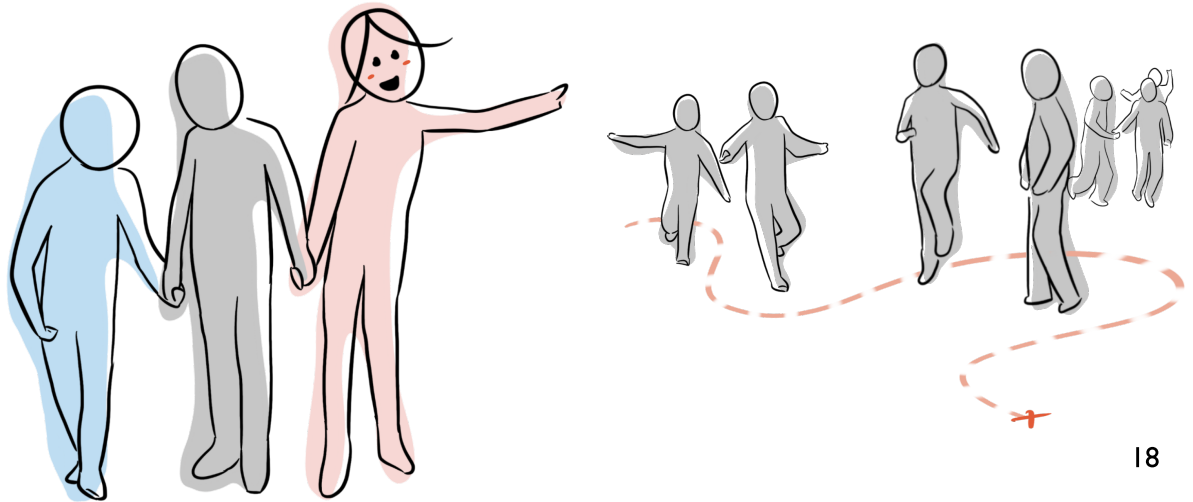
DESCRIPTION

Scopy is a careful and well-organized child who values having a small circle of trusted friends. Scopy feels insecure around unfamiliar adults and children, but when in the company of their close friends, their protective and confident nature emerges. Scopy enjoys making decisions and leading friends on various activities and explorations, as well as coming up with little challenges. Scopy doesn't want to interact with children they don't know, but rather, they like to observe them from a distance without being noticed. Scopy doesn't like playgrounds because they have no place to hide and the play facilities are too predictable for allowing decision-making. Instead, they would like a place where they can choose, create, and switch between different play modalities, without being watched by other children or adults.

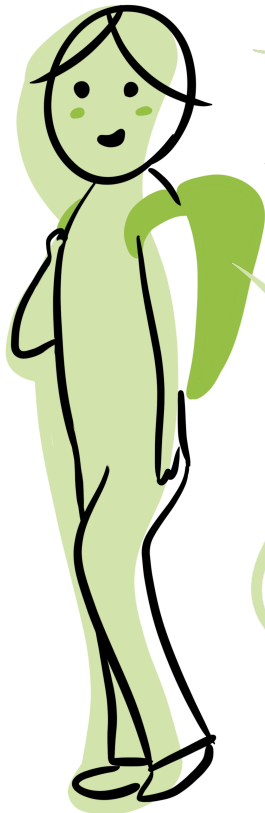


Scopy starts playing together with a few friends as soon as they find some free space in the playground. However, they keep switching between different games and locations, alternated by short runs around the play area.

As time passes by, they become less active and start to settle in one location. Their type of play becomes less physical and more focused on cognitive and fine motor skills.



RUCKSACK



I am always prepared

I worry
about things

I treat all
people equally



Organized & cooperative

ACTIVITY LEVEL



EXTRAVERTE

INTROVERTED



COOPERATIVE

COMPETITIVE



SENSITIVE

STABLE



TASK-FOCUSED

DISORGANIZED



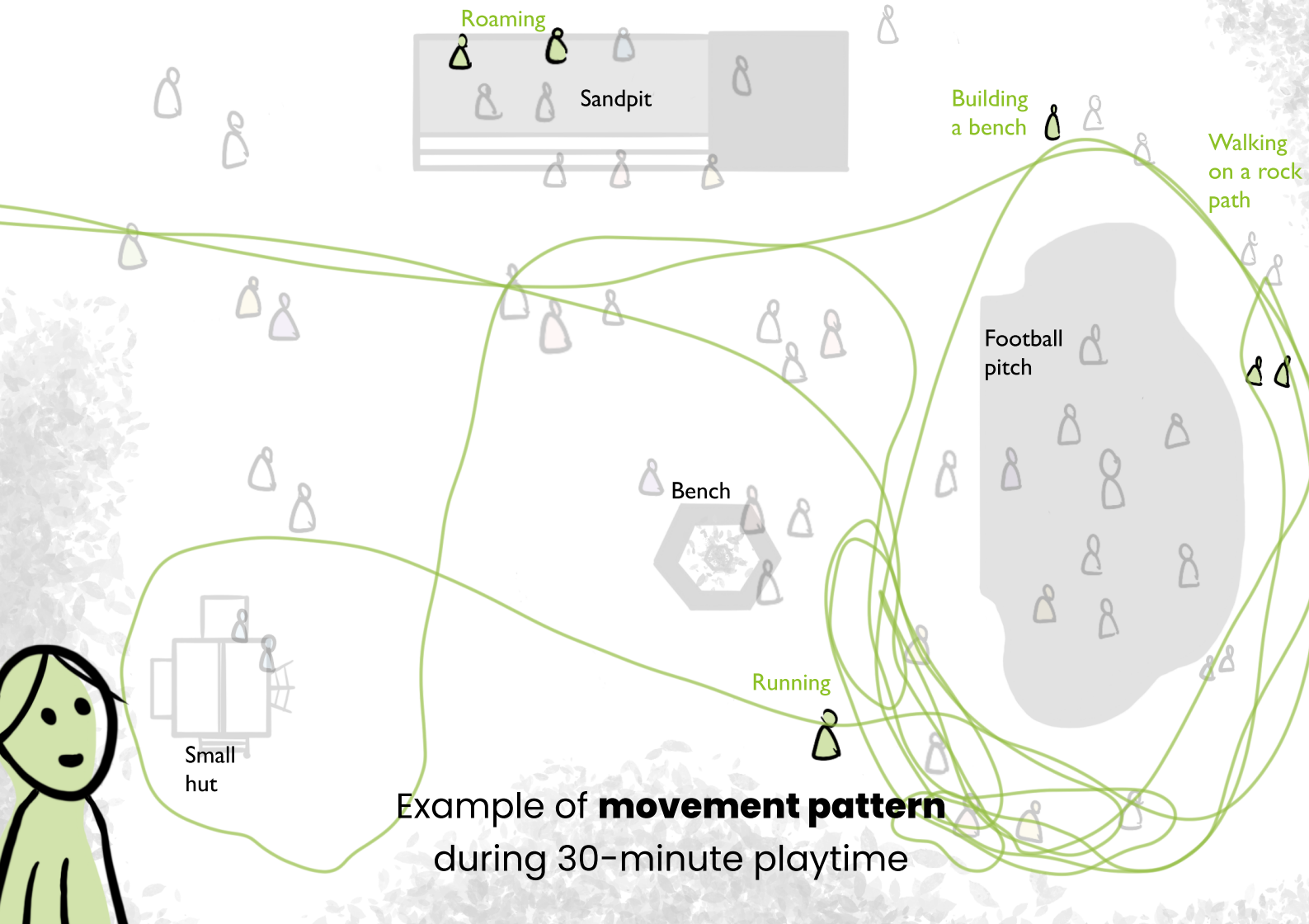
CURIOUS

CAUTIOUS



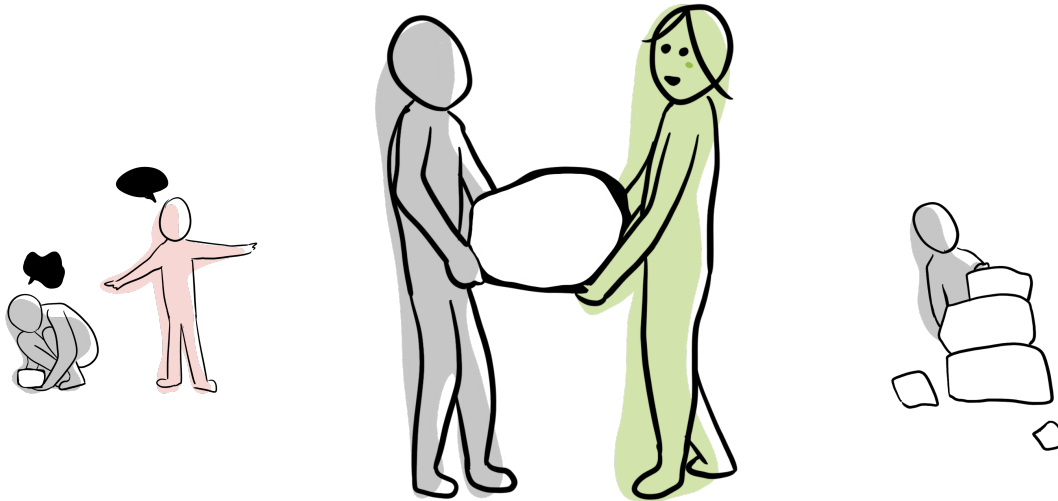
DESCRIPTION

Rucksack is a collaborative and curious kid that likes to be prepared for any situation. They are generous with everyone even if they are not close friends, as they enjoy sharing and working together with other children. Rucksack tends to be quite independent: they don't need others to tell them what to do. They are inventive and proactive, but without ever imposing themselves on other children. Always eager to learn something new, Rucksack likes to discover the world around them and the reasons why things are the way they are. When they play, they like to have a purpose or mission to achieve by collaborating with other kids. If they could, Rucksack would love to roam around the city unsupervised and have small adventures with their friends.

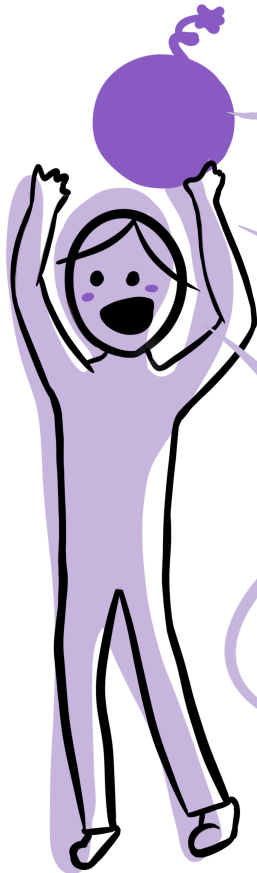


Right after entering the playground, Rucksack starts roaming around with some friends to check out what is going on. When they pass next to other children, they sometimes join their play for a brief moment but they soon leave to continue their walk.

When Rucksack finds an opportunity to play that is appealing to them, which typically involves collaborating with other children to achieve a goal, they start transporting materials and building different sorts of objects that are needed for the play.



BOMB



I feel comfortable
around people

I mess things up

I contradict others



Energetic & Chaotic

ACTIVITY LEVEL



EXTRAVERTED

INTROVERTED



COOPERATIVE

COMPETITIVE



SENSITIVE

STABLE



TASK-FOCUSED

DISORGANIZED



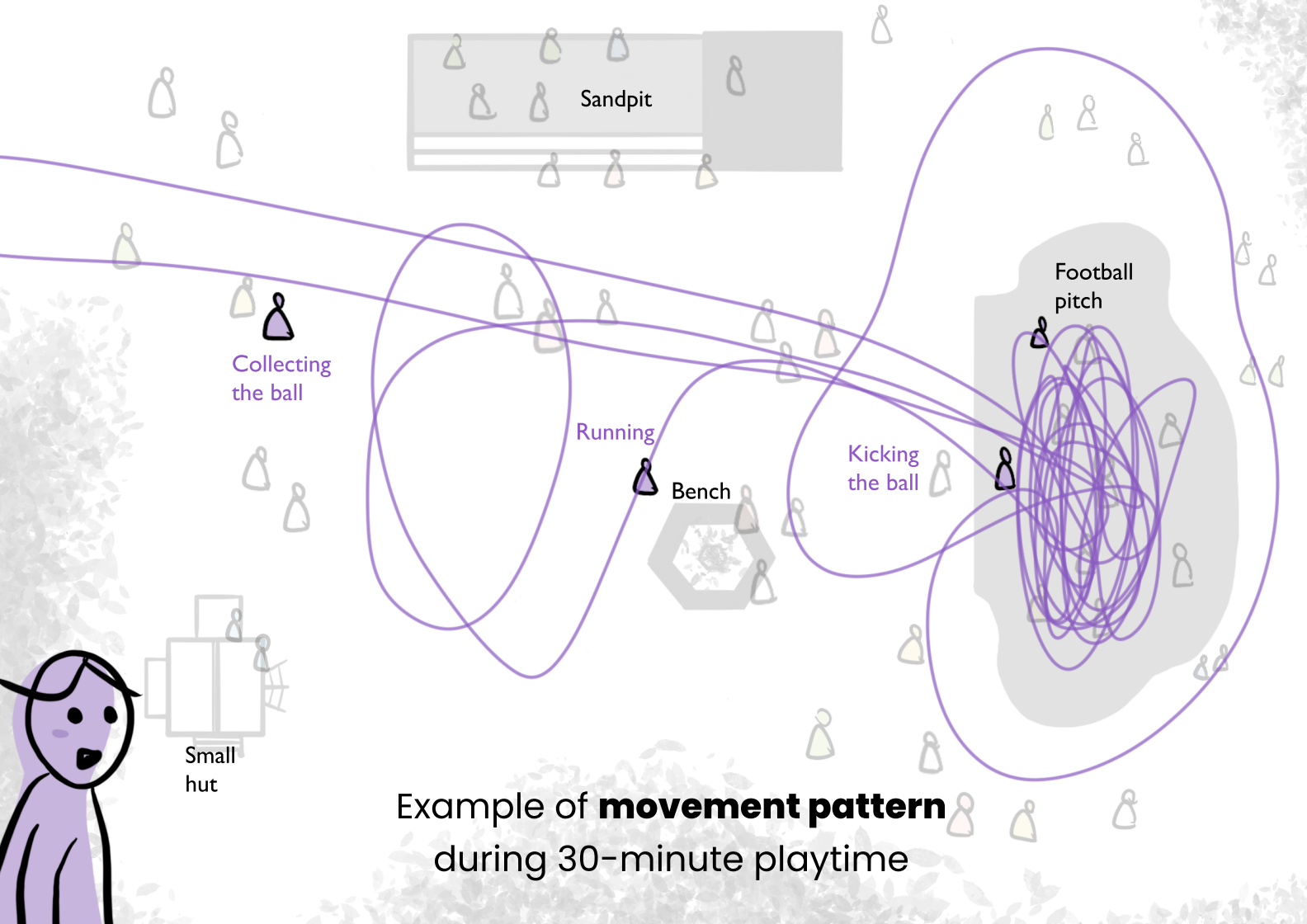
CURIOUS

CAUTIOUS



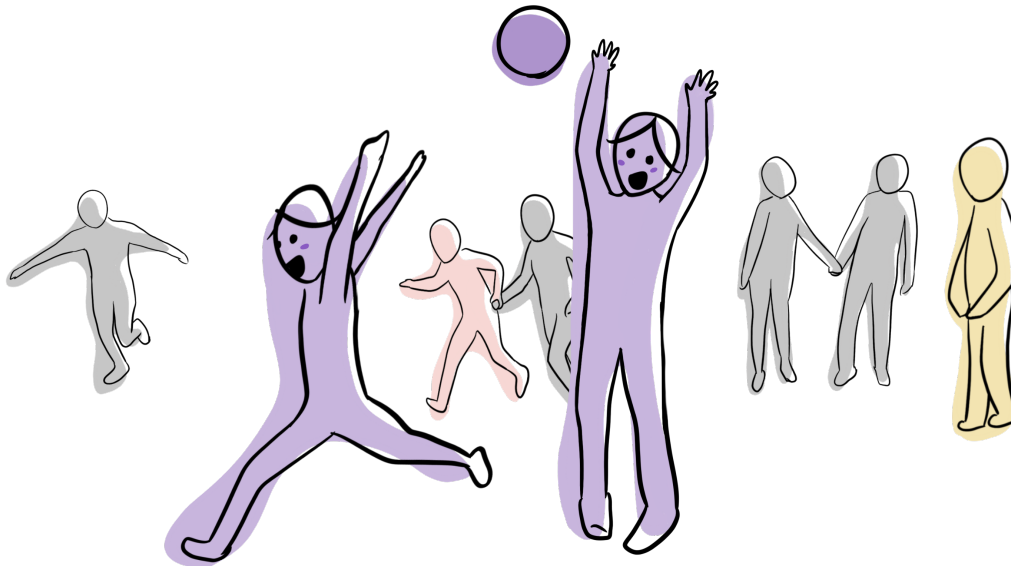
DESCRIPTION

Bomb is a loud and lively kid, always full of excitement and a strong desire to play. They thrive in physically active play, as it gives them the opportunity to release their boundless energy. They tend to be quite competitive and like to test their own and others' limits. For this reason, bomb dislikes feeling restricted by rules imposed by adults, and often breaks them. They really hate being told "no", and preventing them from releasing their energy through play can make them act rude or aggressive toward others, even their peers. Although they often go outdoors to play, the lack of stimulating experiences for their age quickly leads them to boredom, which brings them to start bothering other children.



Even before stepping into the play area, Bomb already knows where and what they are going to play. Bomb runs to the football pitch and start kicking the ball as hard as possible.

The majority of the play takes place on the football pitch, but towards the end of the playtime, Bomb starts running around and exploring other areas too, in search of new challenges.



CHAPTER TWO

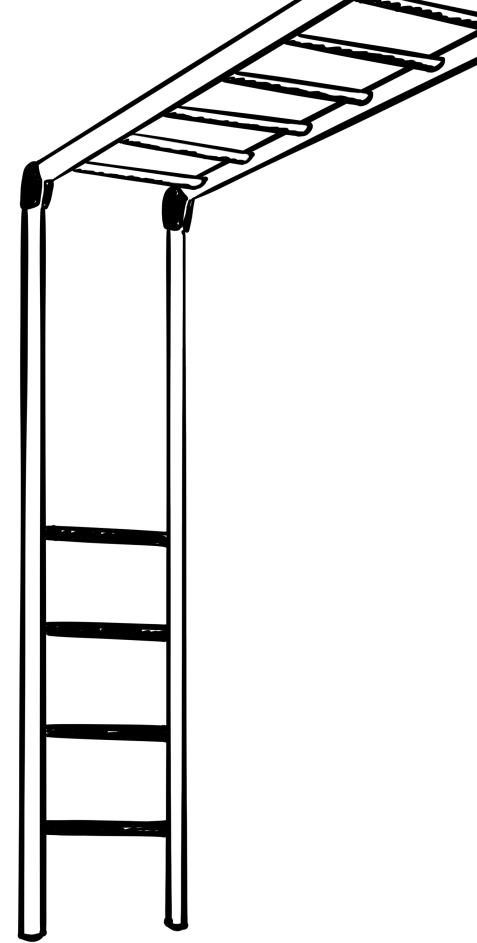
Investigating
existing playscapes



I have a play area.

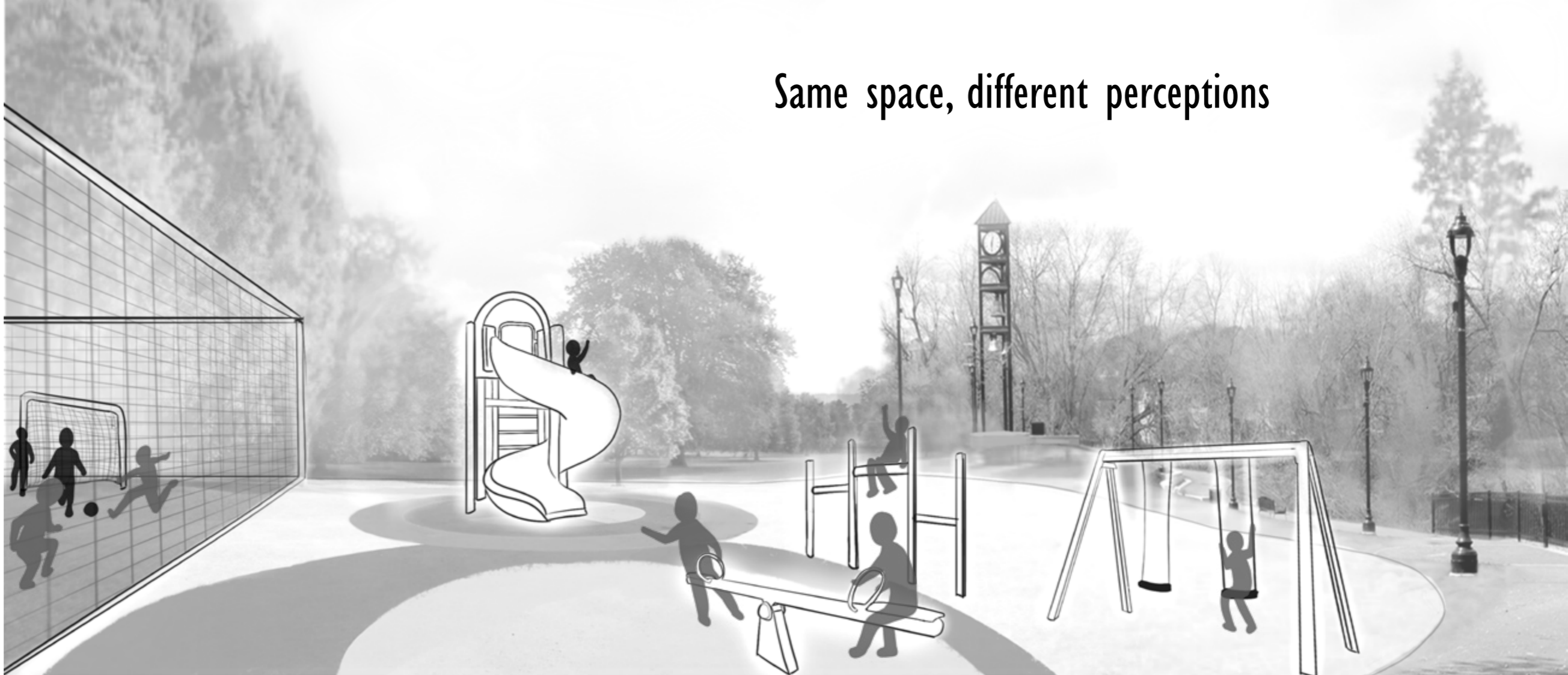
How do I know if suits all children?

Every child experiences the same play area differently depending on their personality. Play areas are designed to engage children, but often the kids we think of do not represent the entire population of children. In the previous chapter, five characters representing the children we typically do not design for were described. In this chapter, you will be guided by each character to explore a play area through their personal **lenses**, discovering the variety of thoughts and feelings that can arise in response the same situation.



Select a character to
activate the lenses
and find out how each
character sees this space!

Same space, different perceptions



CHAPTER THREE

Engaging different personalities
in outdoor play

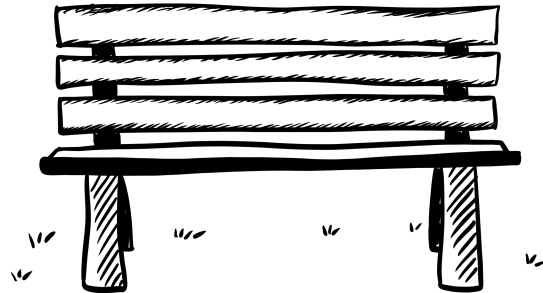


I have an outdoor space.

How do I make it engaging for different kids?

During the research that preceded this project, five fundamental aspects that make outdoor play engaging for children were identified: **freedom, challenge, socialization, safety, and variety.**

These elements collectively contribute to creating an immersive play environment for children. However, it is important to remember that each child interprets these aspects differently. In this chapter, the five aspects of outdoor play are applied to each character in order to derive concrete requirements for outdoor play design. The requirements are then translated into inspirational concepts.



5 ASPECTS OF OUTDOOR PLAY FOR PLUSH

FREEDOM



*"I want to be free to...
play without being
bothered by other kids"*

CHALLENGE



*"Am I able to...
get there without
any help?"*

SOCIALIZATION



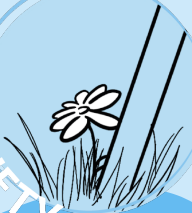
*"We can be friends if...
you are kind and
thoughtful"*

SAFETY



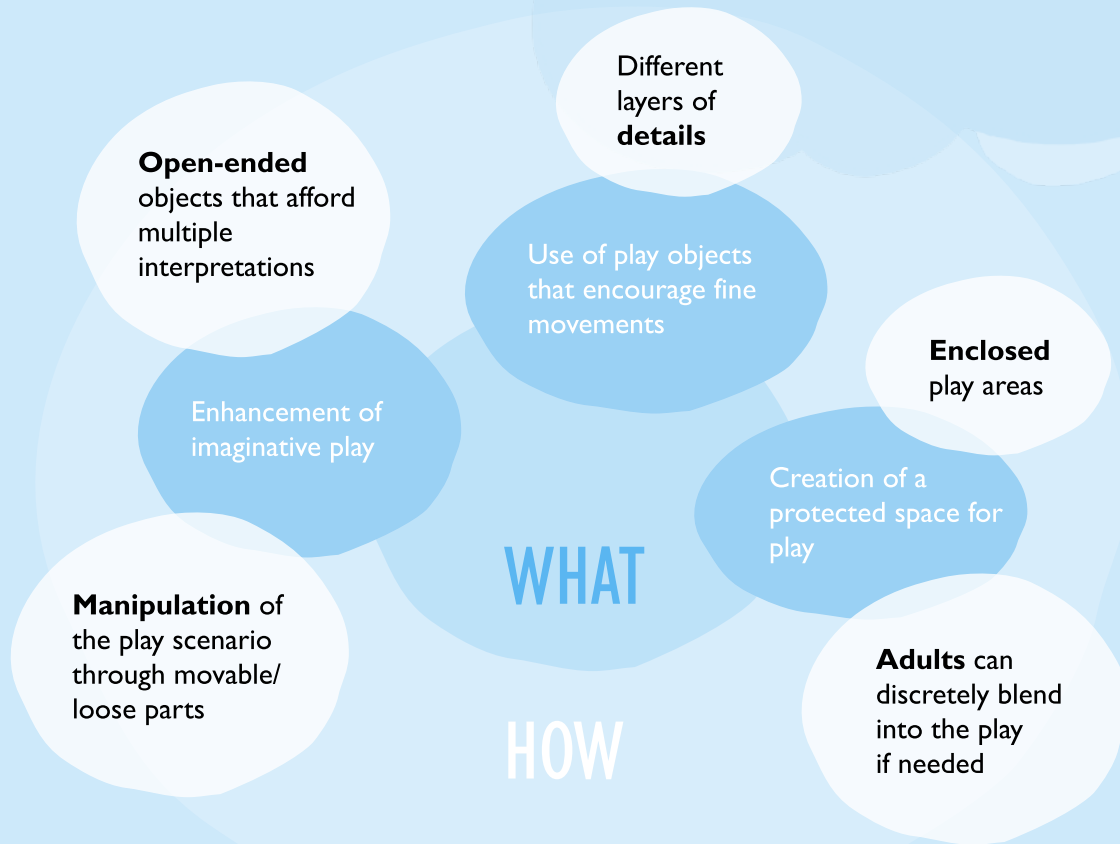
*"I feel safe because...
my parents are nearby"*

VARIETY



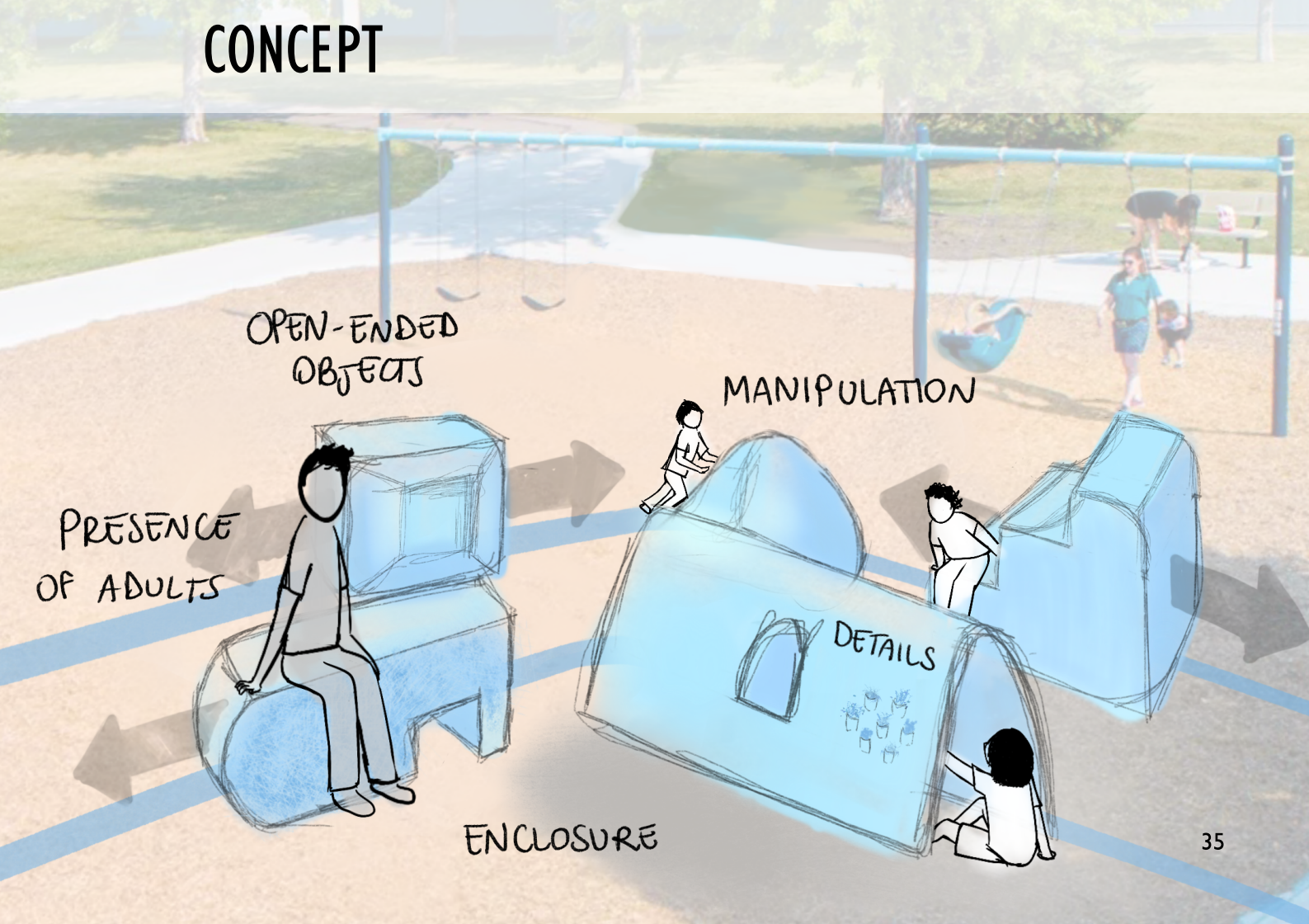
*"Look there! It's a new...
flower that started
growing next to the swing"*

INSIGHTS



REQUIREMENTS

CONCEPT



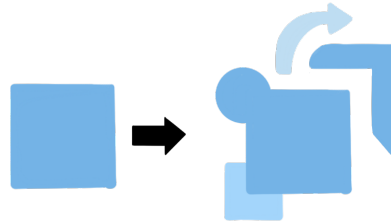
OPEN-ENDED
OBJECTS

MANIPULATION

PRESENCE
OF ADULTS

DETAILS

ENCLOSURE

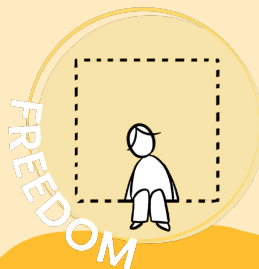


Compose your world

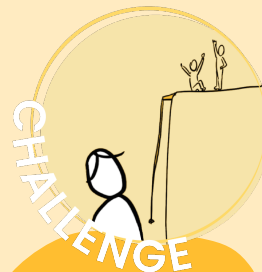
*Transformable design for
open-ended play*

For Plush, ideal play areas empower their imaginative abilities by providing open-ended objects that can be manipulated and used in different ways. A space that accounts for the presence of parents and allows to create enclosed areas helps Plush feel secure and at ease. Small-scale details can be added to the playscape to foster the use of fine-motor skills.

5 ASPECTS OF OUTDOOR PLAY FOR CAP



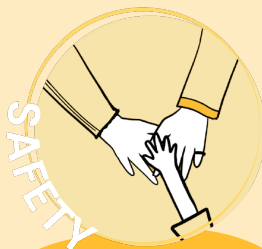
*"I want to be free to...
remain in my comfort
zone"*



*"Am I able to...
reach where those
kids are?"*



*"We can be friends if...
you invite me to join
your game"*

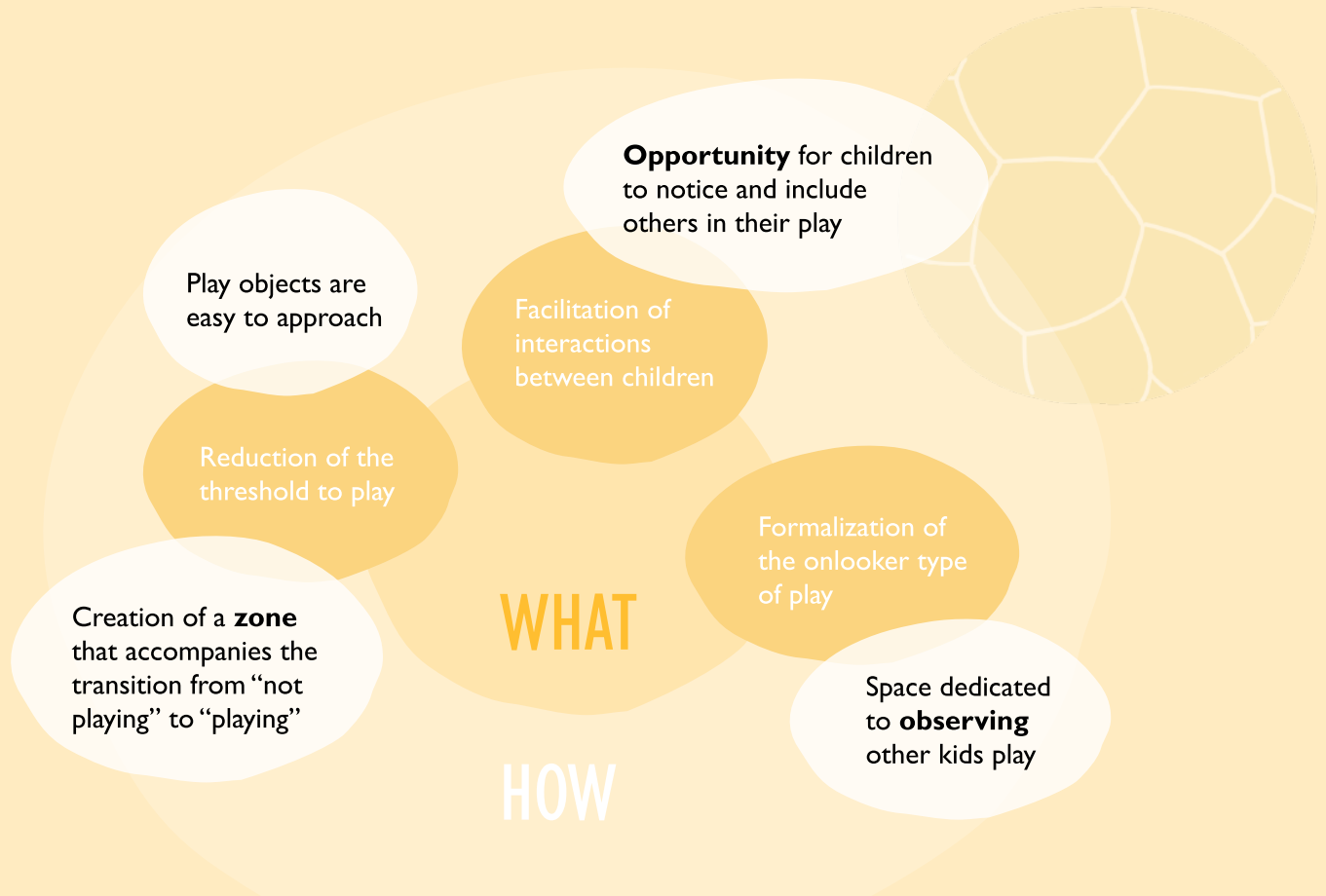


*"I feel safe because...
I am friends with the
older kids"*



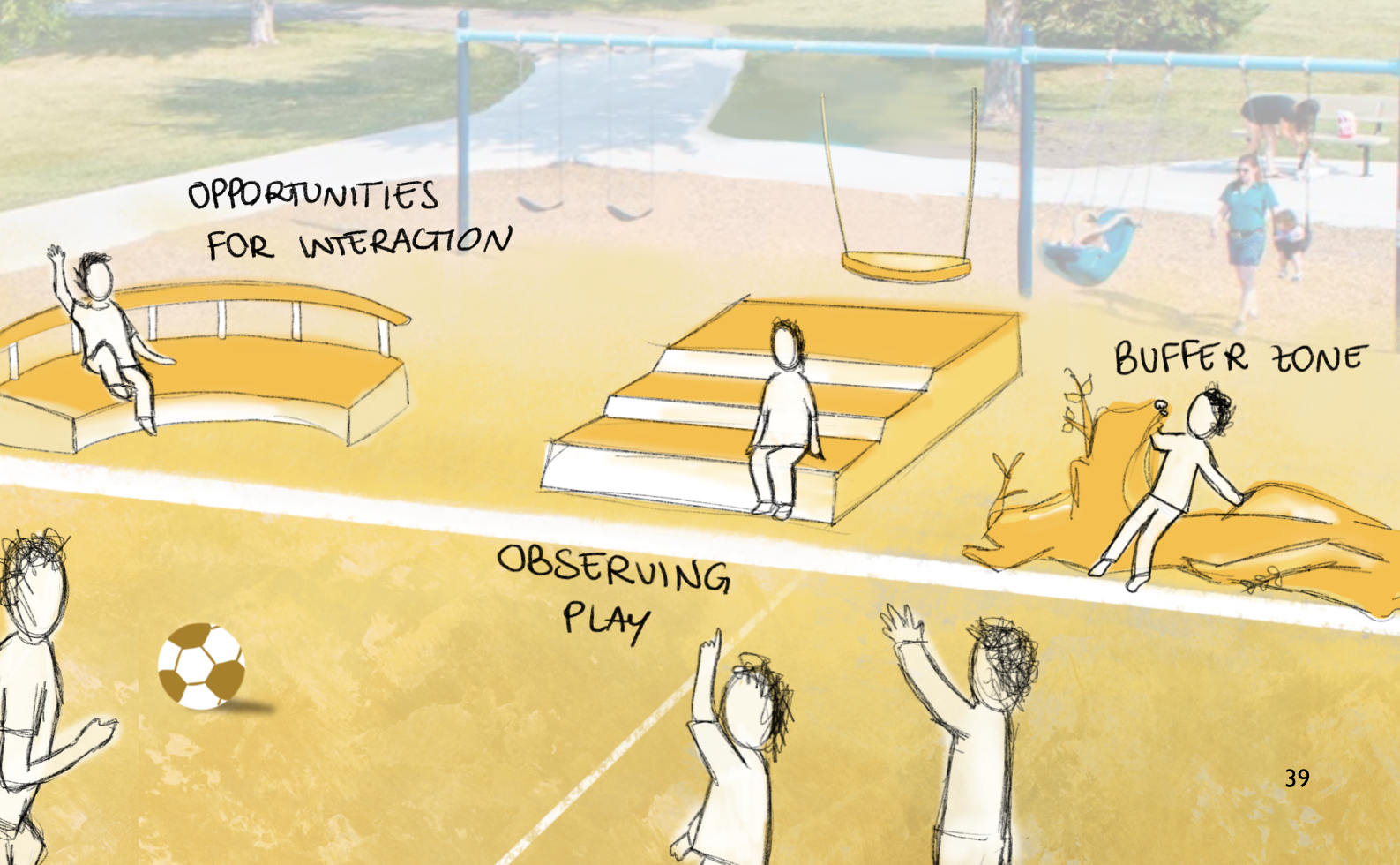
*"Look there! It's a new...
game they are playing"*

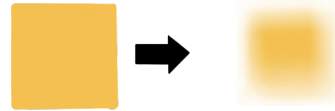
INSIGHTS



REQUIREMENTS

CONCEPT





Between in and out

*Blurring the
boundaries of play*

Cap's engagement in outdoor play can be facilitated by blurring the boundaries that divide play and non-play areas, creating a "buffer zone" between the two. This new intermediary space is characterized by elements and structures that support observing play and that empower children like Cap to smoothly approach the kids that are already playing.

5 ASPECTS OF OUTDOOR PLAY FOR SCOPY

FREEDOM



*"I want to be free to...
decide how to play"*

CHALLENGE



*"Am I able to...
do a backbend without
falling?"*

SOCIALIZATION



*"We can be friends if...
you agree to play my
game"*

SAFETY



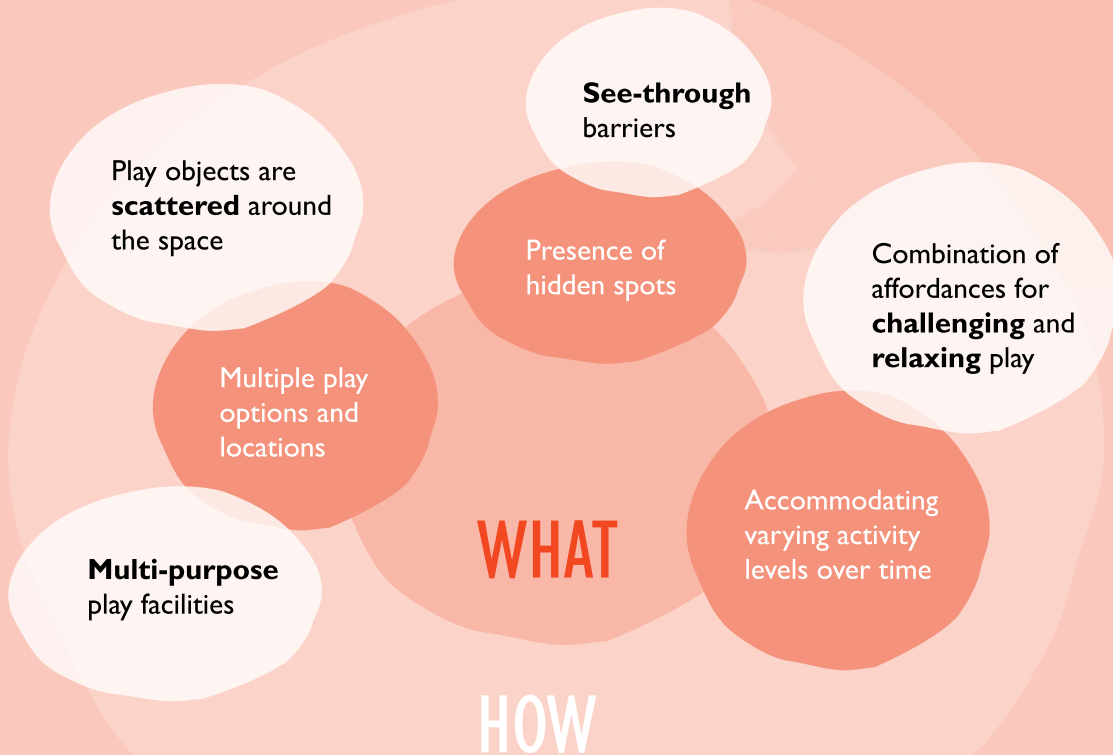
*"I feel safe because...
my best friends are here"*

VARIETY



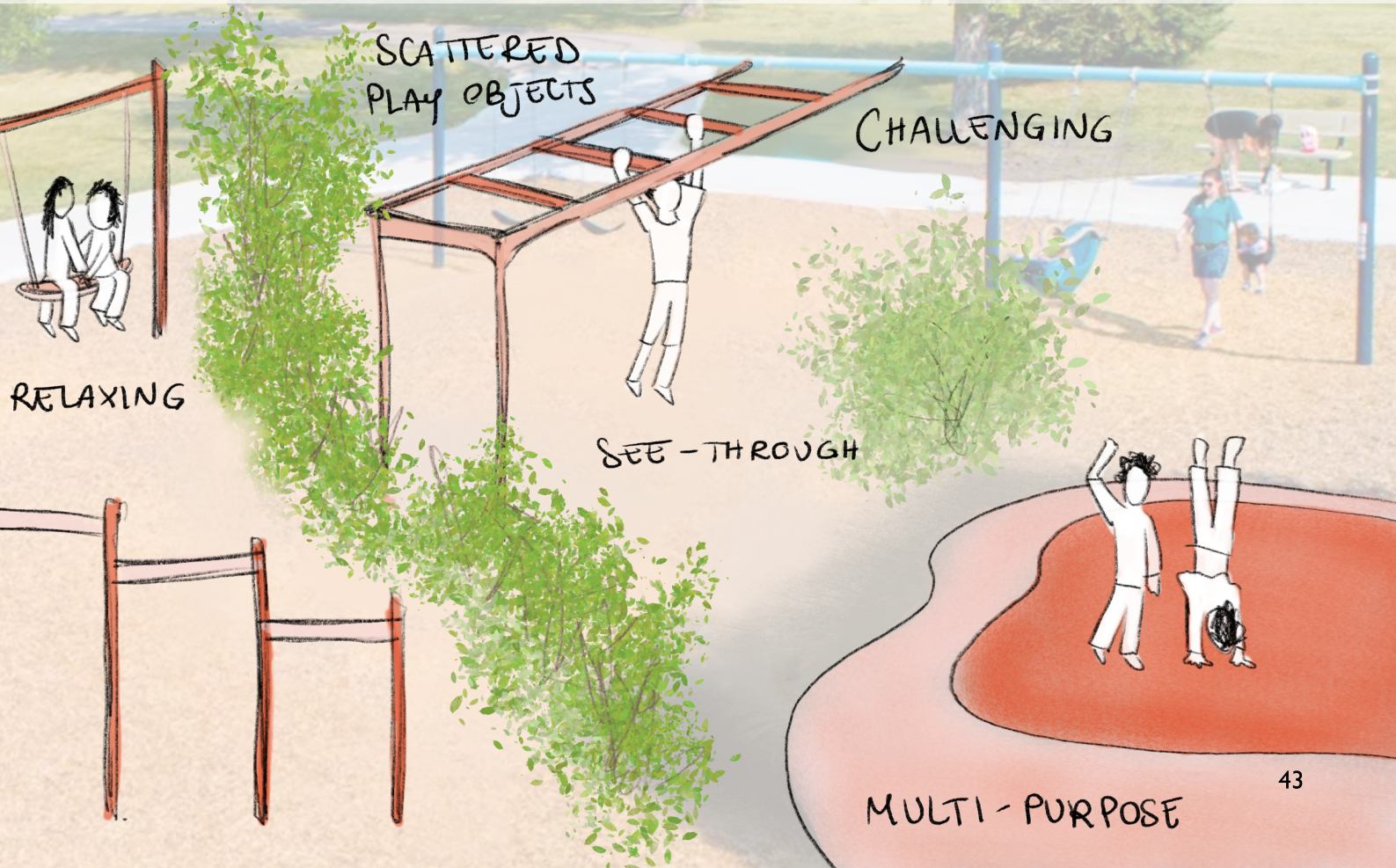
*"Look there! It's a new...
insect I found on our
favorite tree"*

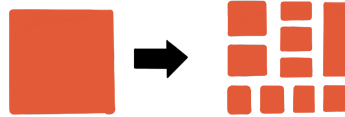
INSIGHTS



REQUIREMENTS

CONCEPT





Divide and hide

*Scattered play areas for
independent decision-making*

Scopy's ideal play environment offers multiple play options, scattered in different locations and semi-enclosed by subtle barriers such as bushes. This gives Scopy the chance to decide and direct the play as they wish. Both relaxing and physically challenging play facilities are present, and their design ensures that children are able to choose their preferred level of risk.

5 ASPECTS OF OUTDOOR PLAY FOR RUCKSACK

FREEDOM



*"I want to be free to...
explore the places
around me"*

CHALLENGE



*"Am I able to...
make a walking stick
from this branch?"*

SOCIALIZATION



*"We can be friends if...
you are able to share"*

SAFETY



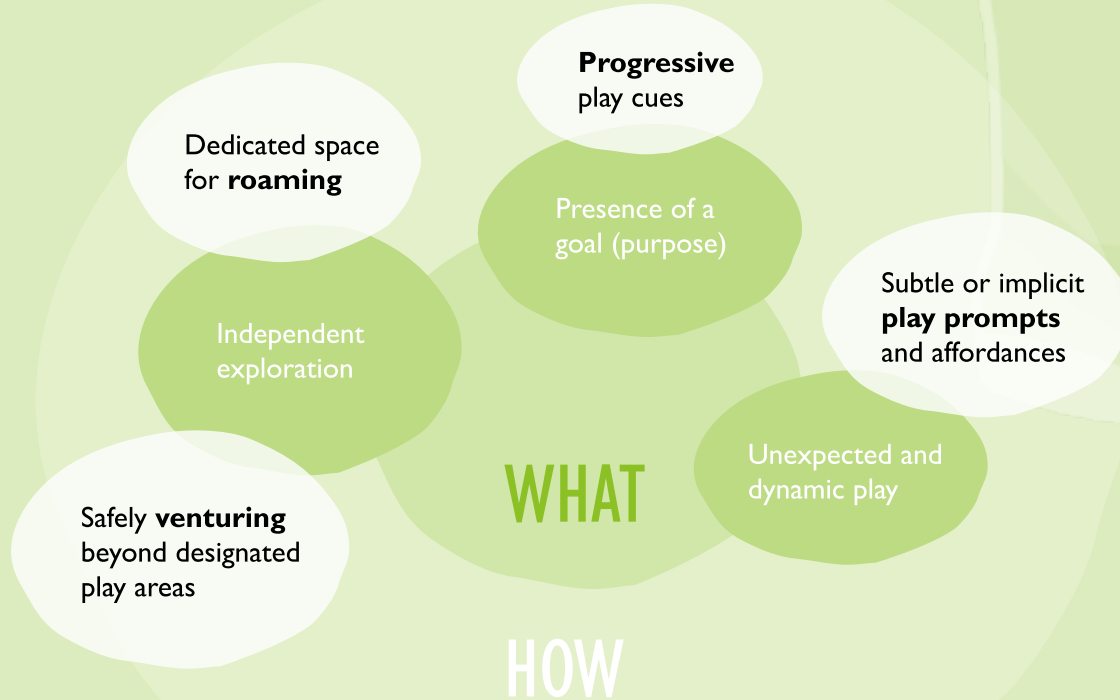
*"I feel safe because...
I have the right tools to
face any situation"*

VARIETY



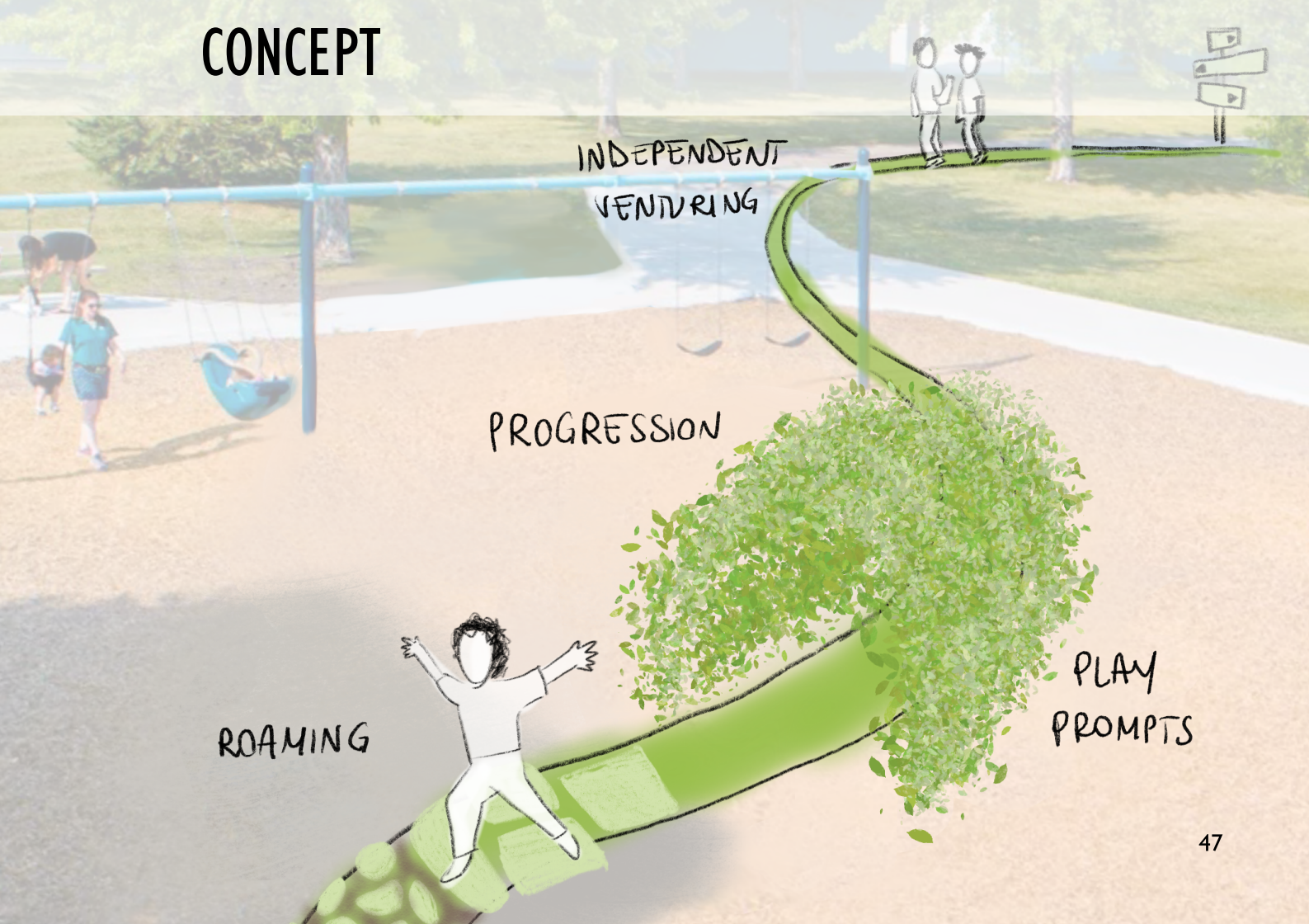
*"Look there! It's a new...
nest on the tree, which means
that spring is coming!"*

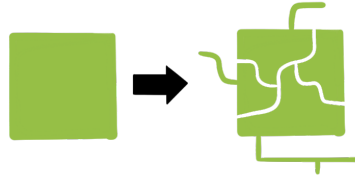
INSIGHTS



REQUIREMENTS

CONCEPT





A path to explore

Venturing outside the borders

Rucksack's desire to independently venture in the neighborhood is translated into a child-friendly path that extends through the playground and beyond, crossing multiple points of interest where children typically gather.

The path also contains subtle play prompts that add excitement to the experience and create a sense of purpose.

5 ASPECTS OF OUTDOOR PLAY FOR BOMB



*"I want to be free to...
release all my energy"*



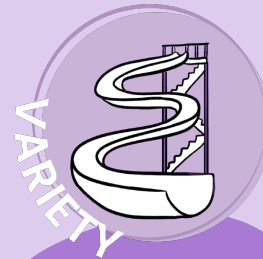
*"Am I able to...
run faster, climb higher,
jump further?"*



*"We can be friends if...
you are fun and cool"*

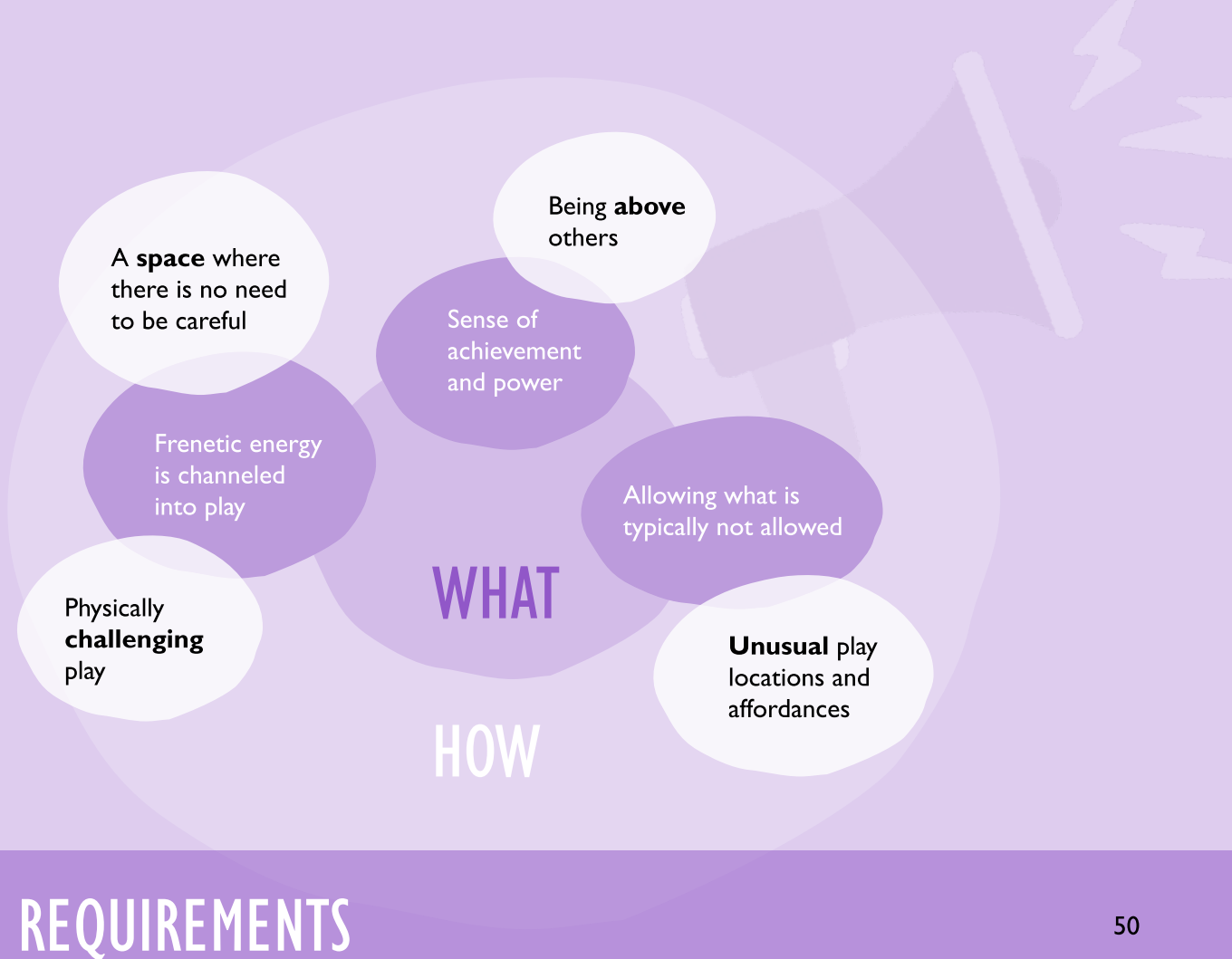


*"I feel safe because...
I am stronger than you"*

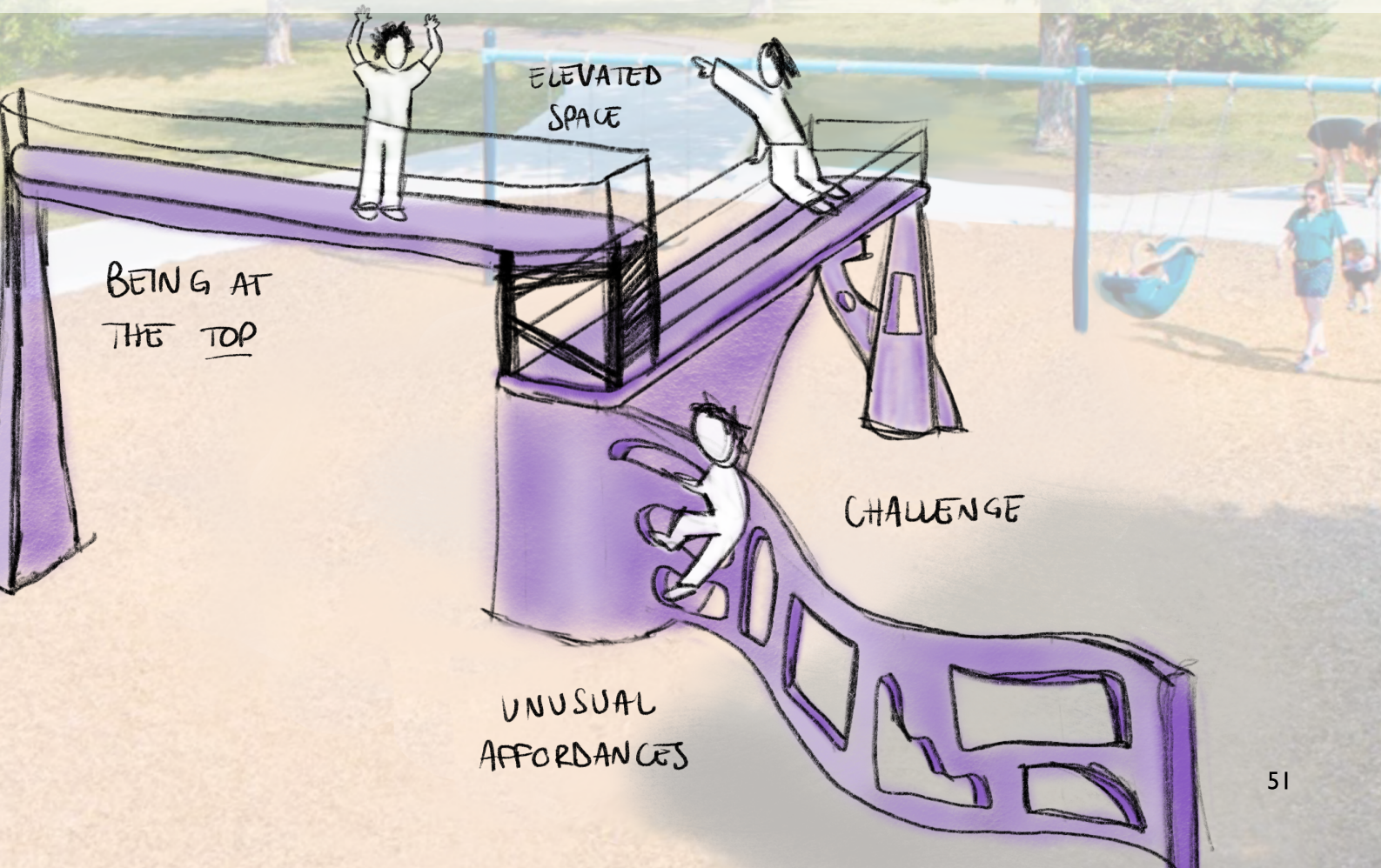


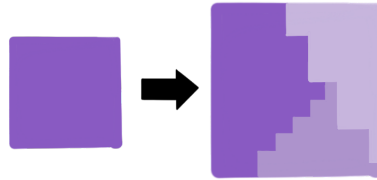
*"Look there! It's a new...
way to slide down that
I have never tried!"*

INSIGHTS



CONCEPT





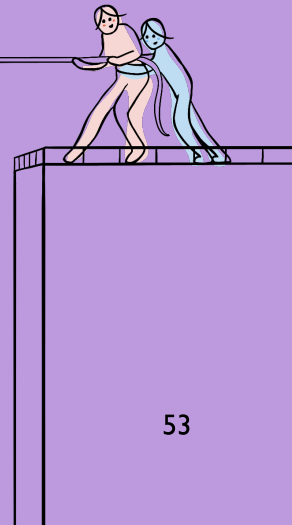
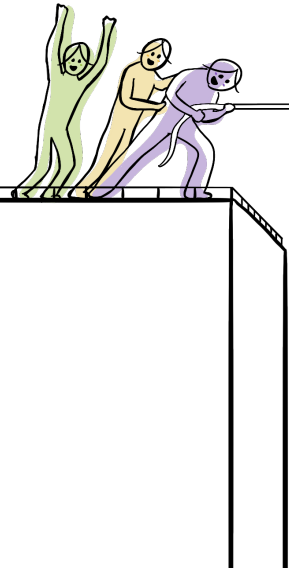
Yes, you can

The thrill of risky play

Through active and competitive play, Bomb can freely liberate their boundless energy. An elevated platform can be designed to be difficult to reach, making it a exciting challenge for children like Bomb. Once on the top, Bomb doesn't need to worry about harming the other children around them, as only the older and stronger kids reach the platform.

CHAPTER FOUR

Infusing cities
with playfulness



I have a city.

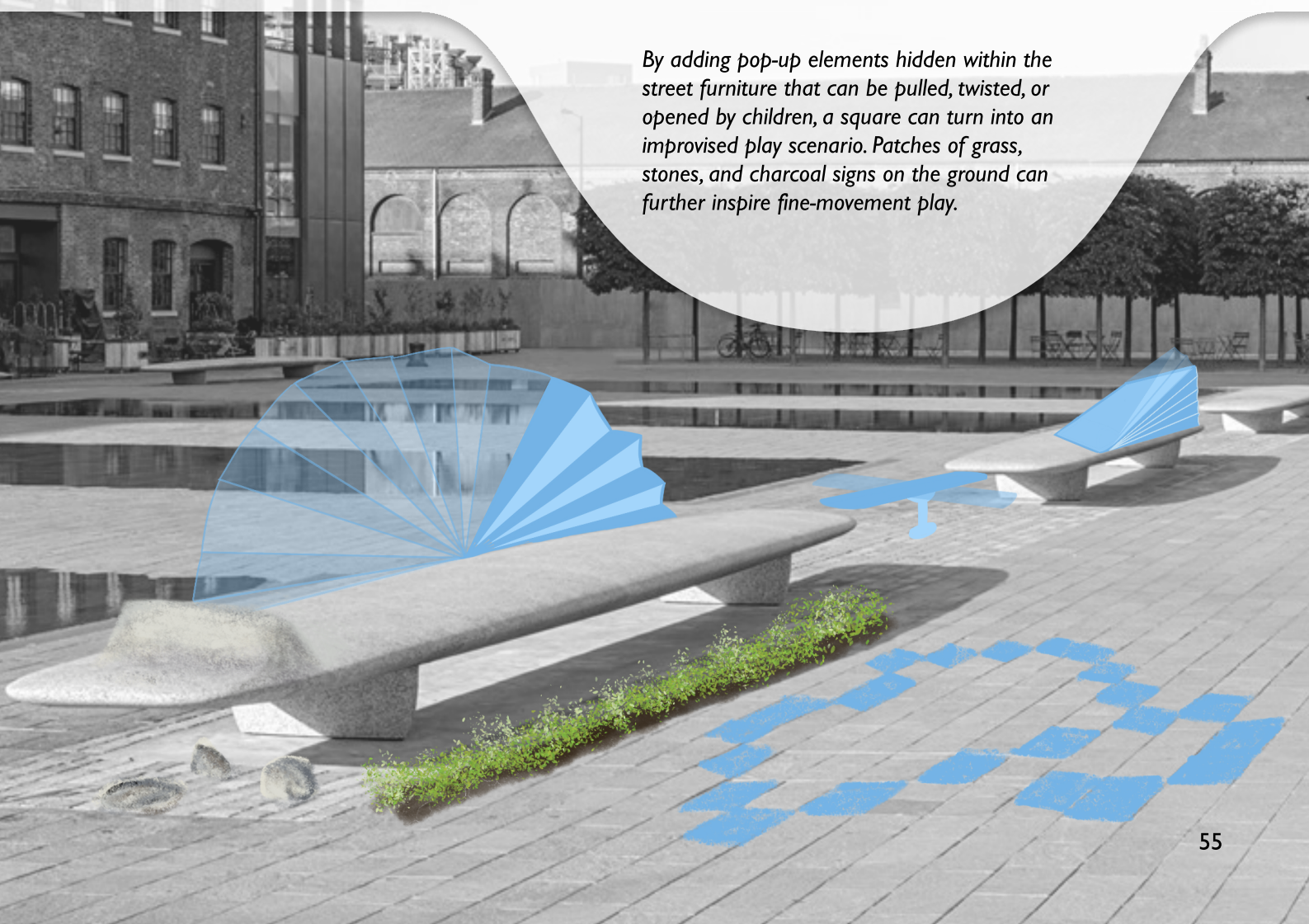
How do I create space for children?

This chapter brings the previously presented concepts to life through practical examples of their **integration into the built environment**.

These examples are not meant to be strict, predefined solutions to replicate. Instead, they aim to inspire designers, urban planners, and decision-makers working with outdoor play, encouraging them to embrace diverse possibilities for incorporating outdoor play in urban settings.

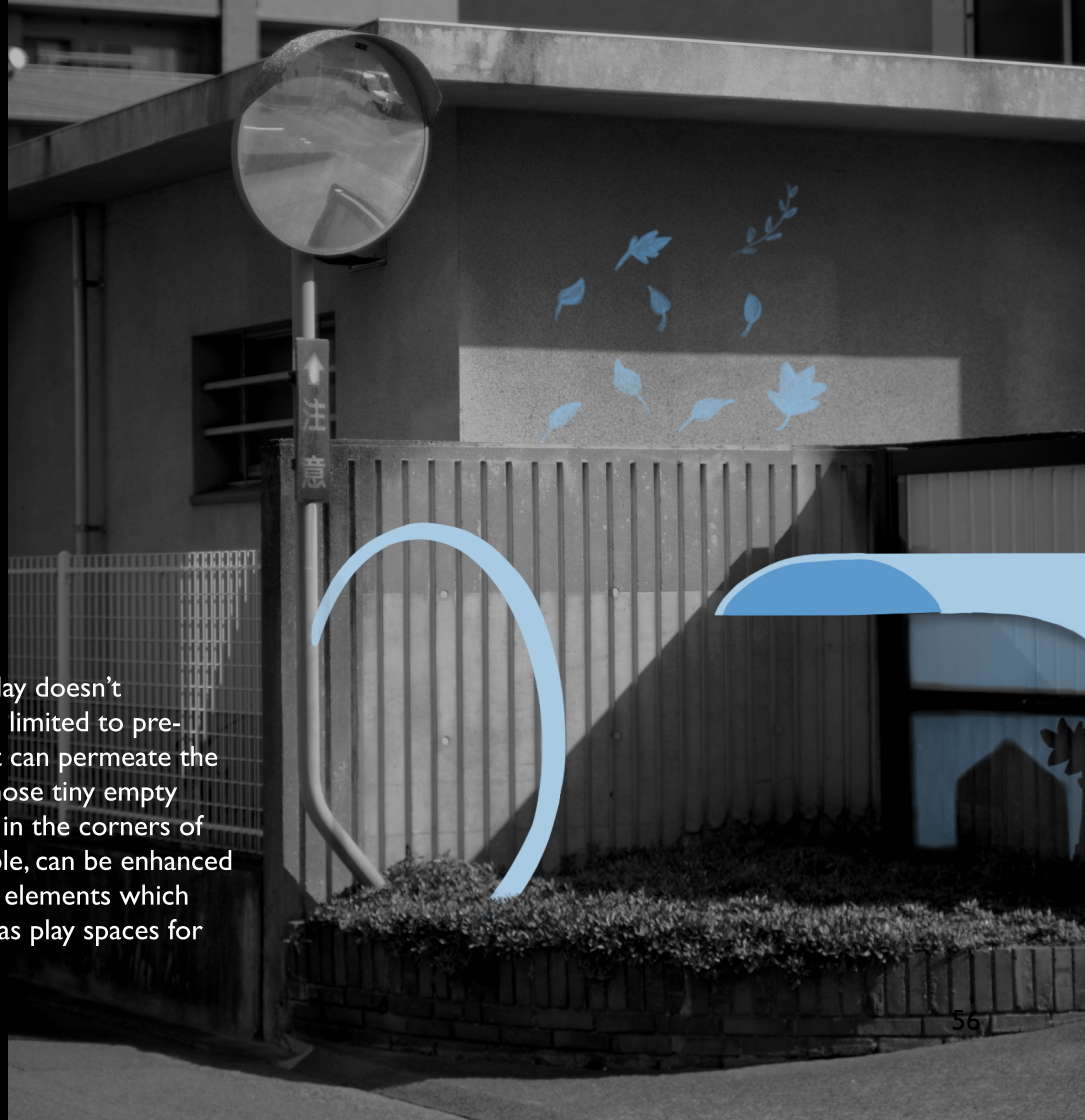


By adding pop-up elements hidden within the street furniture that can be pulled, twisted, or opened by children, a square can turn into an improvised play scenario. Patches of grass, stones, and charcoal signs on the ground can further inspire fine-movement play.

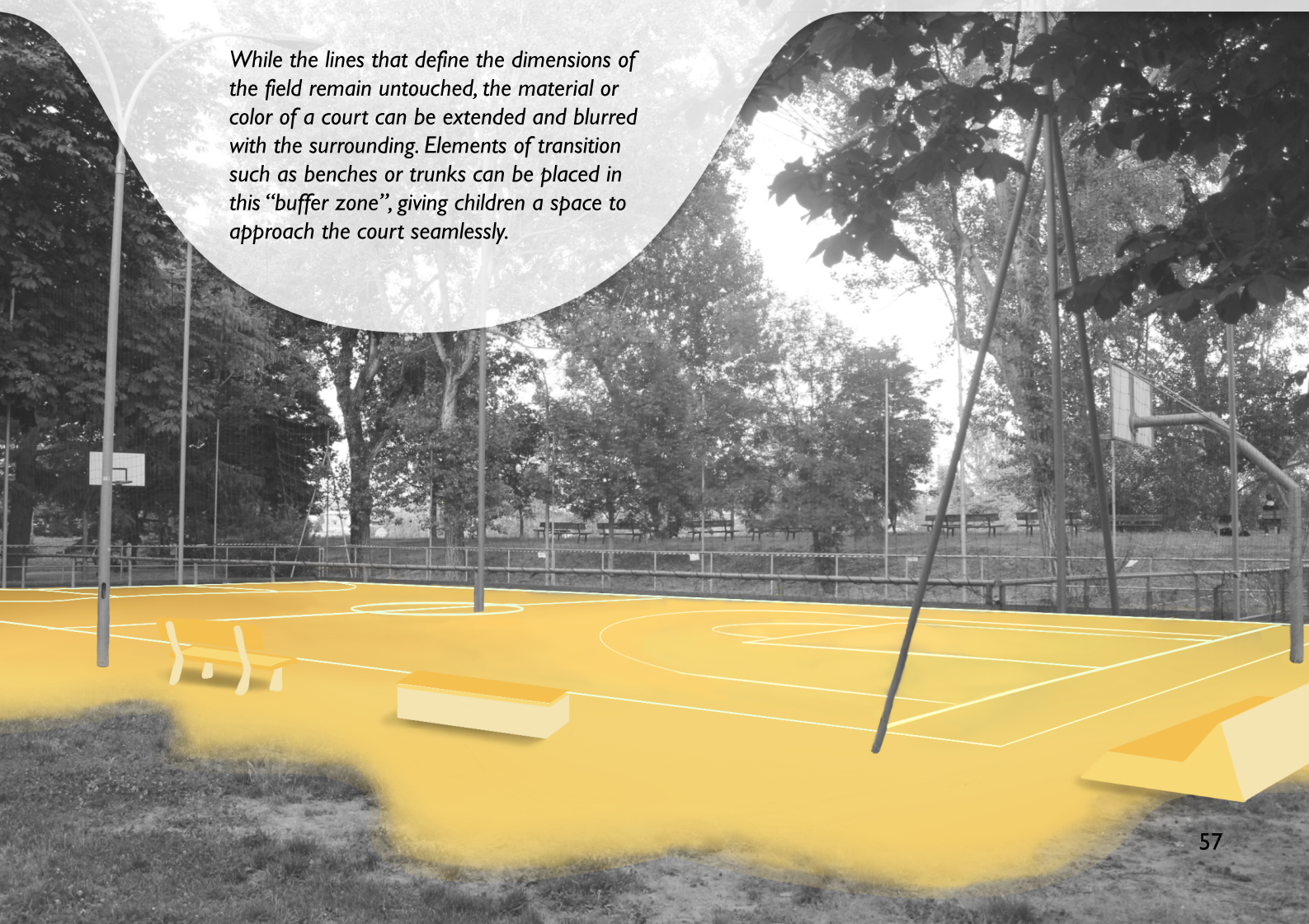


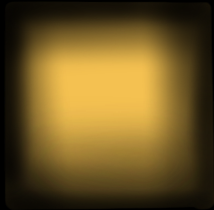


Design for outdoor play doesn't necessarily have to be limited to pre-defined play areas, but can permeate the entire urban space. Those tiny empty spaces that are found in the corners of the streets, for example, can be enhanced by adding very simple elements which make them appealing as play spaces for children like Plush.



While the lines that define the dimensions of the field remain untouched, the material or color of a court can be extended and blurred with the surrounding. Elements of transition such as benches or trunks can be placed in this “buffer zone”, giving children a space to approach the court seamlessly.





Urban spaces can encourage play on the way to specific spots. For children like Cap, hesitant to join ongoing activities, placing play objects near benches offers new opportunities: other children with more self-initiative might start to play around Cap, sparking their interest to join, or Cap might play independently as the objects are easily accessible.

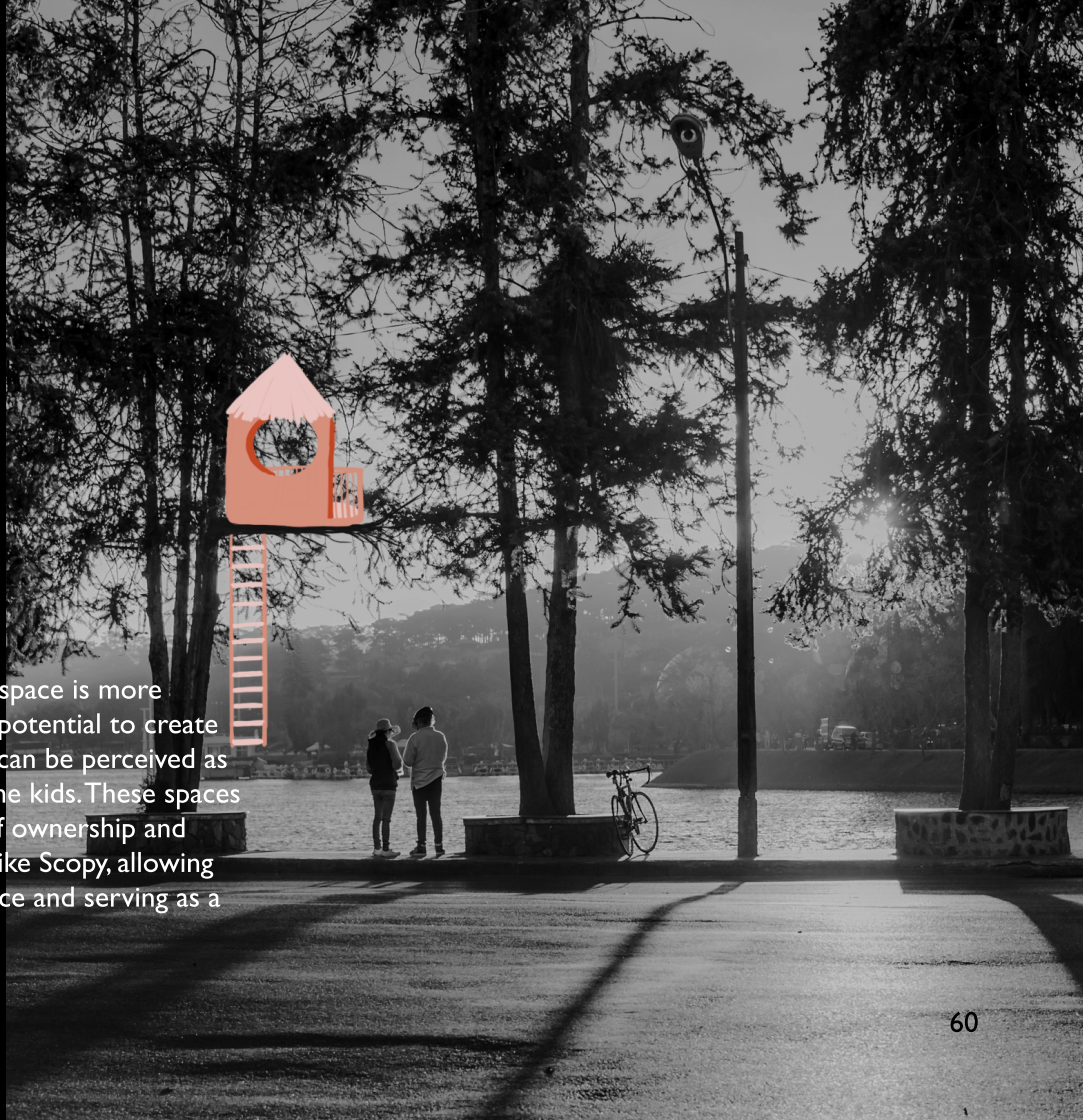


Hidden play elements scattered around create a playful atmosphere without disrupting the surrounding environment. These play prompts offer semi-enclosed spaces where children can fully immerse themselves in the play activities without feeling observed.

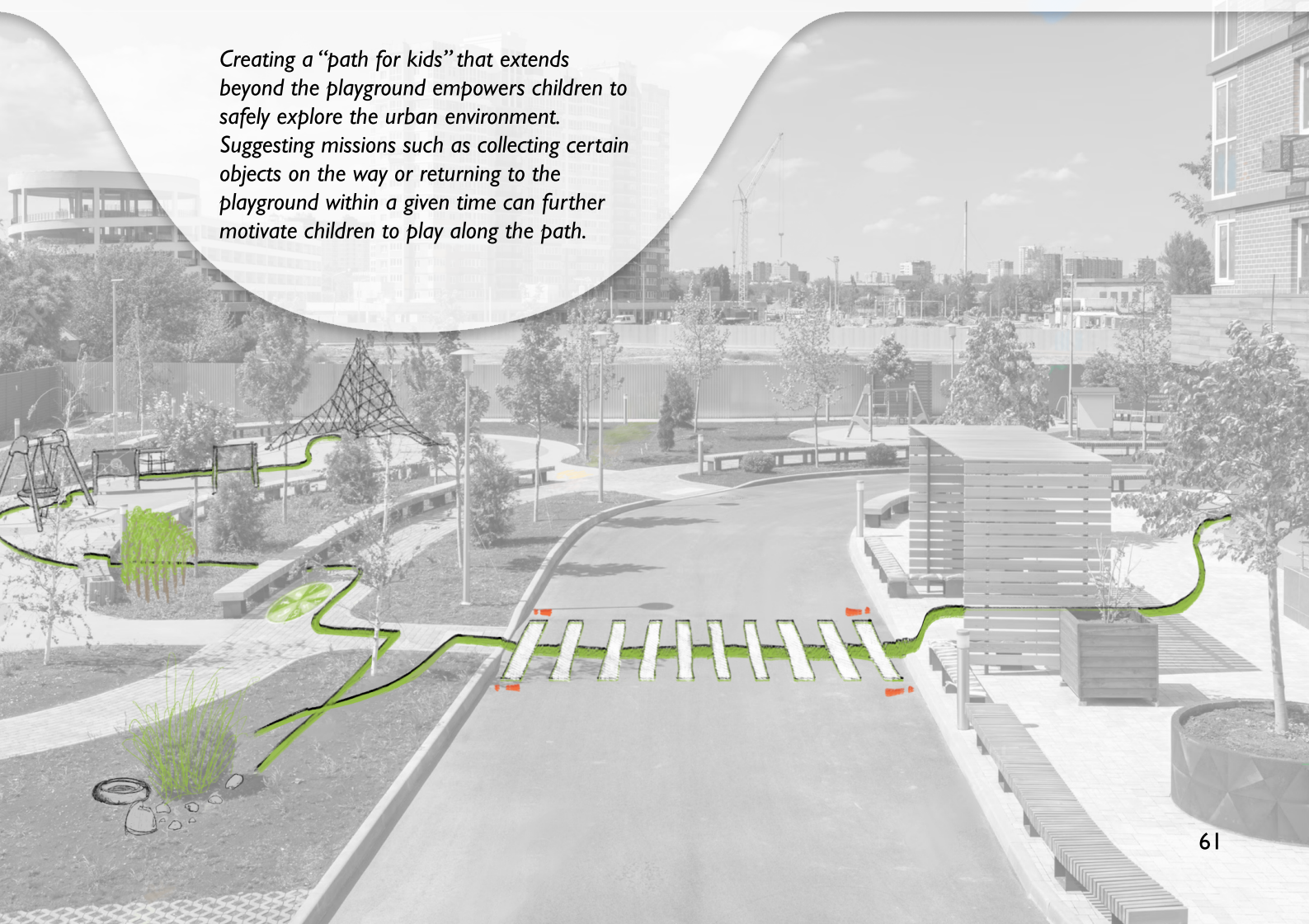




In urban areas where space is more exposed, there is still potential to create small enclosures that can be perceived as intimate and safe by the kids. These spaces can provide a sense of ownership and comfort for children like Scopy, allowing them to gain confidence and serving as a launching pad for play.

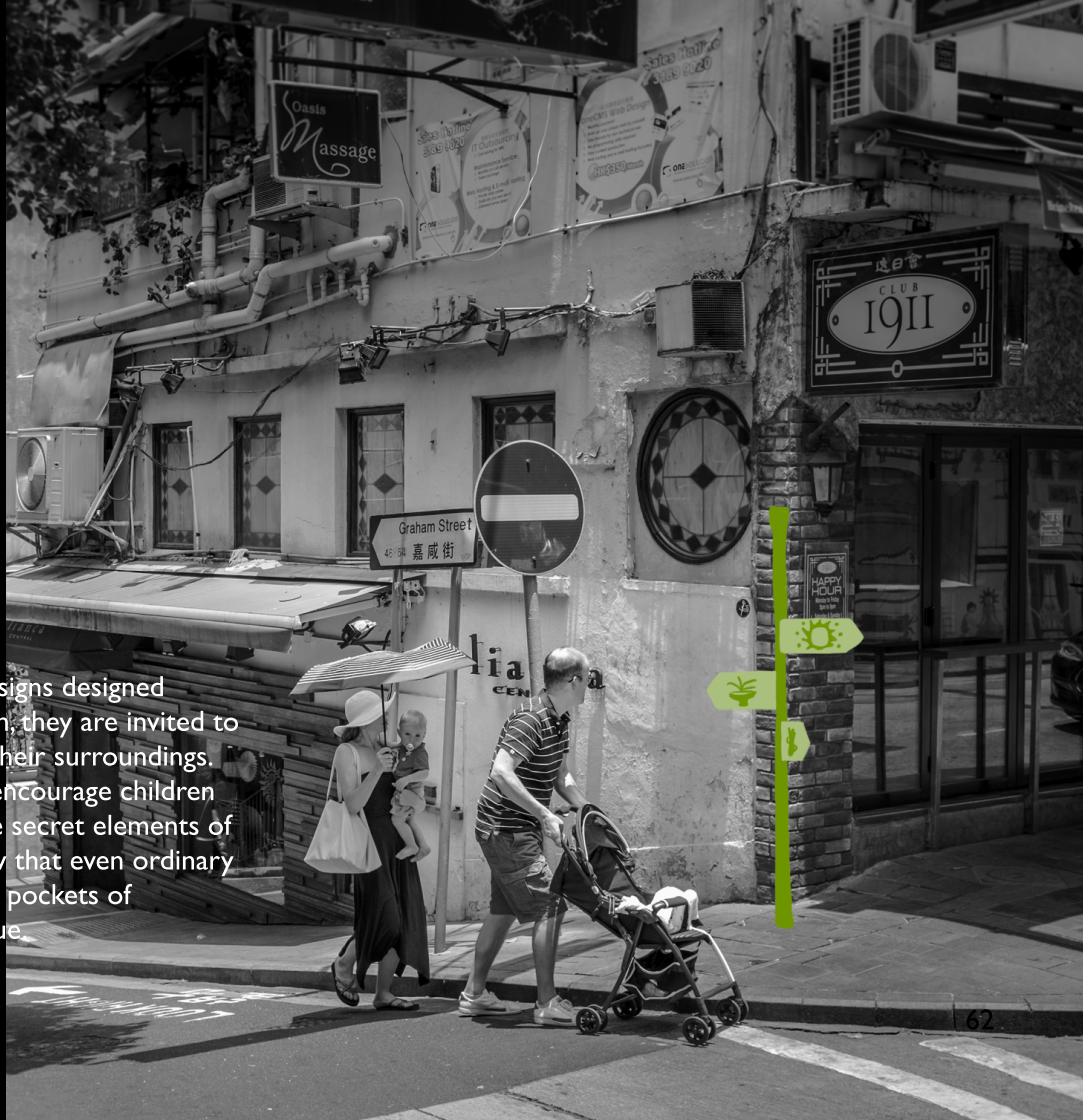


Creating a “path for kids” that extends beyond the playground empowers children to safely explore the urban environment. Suggesting missions such as collecting certain objects on the way or returning to the playground within a given time can further motivate children to play along the path.





By introducing street signs designed specifically for children, they are invited to playfully engage with their surroundings. These signs not only encourage children to discover and locate secret elements of the city, but they show that even ordinary urban spaces can hide pockets of excitement and intrigue.

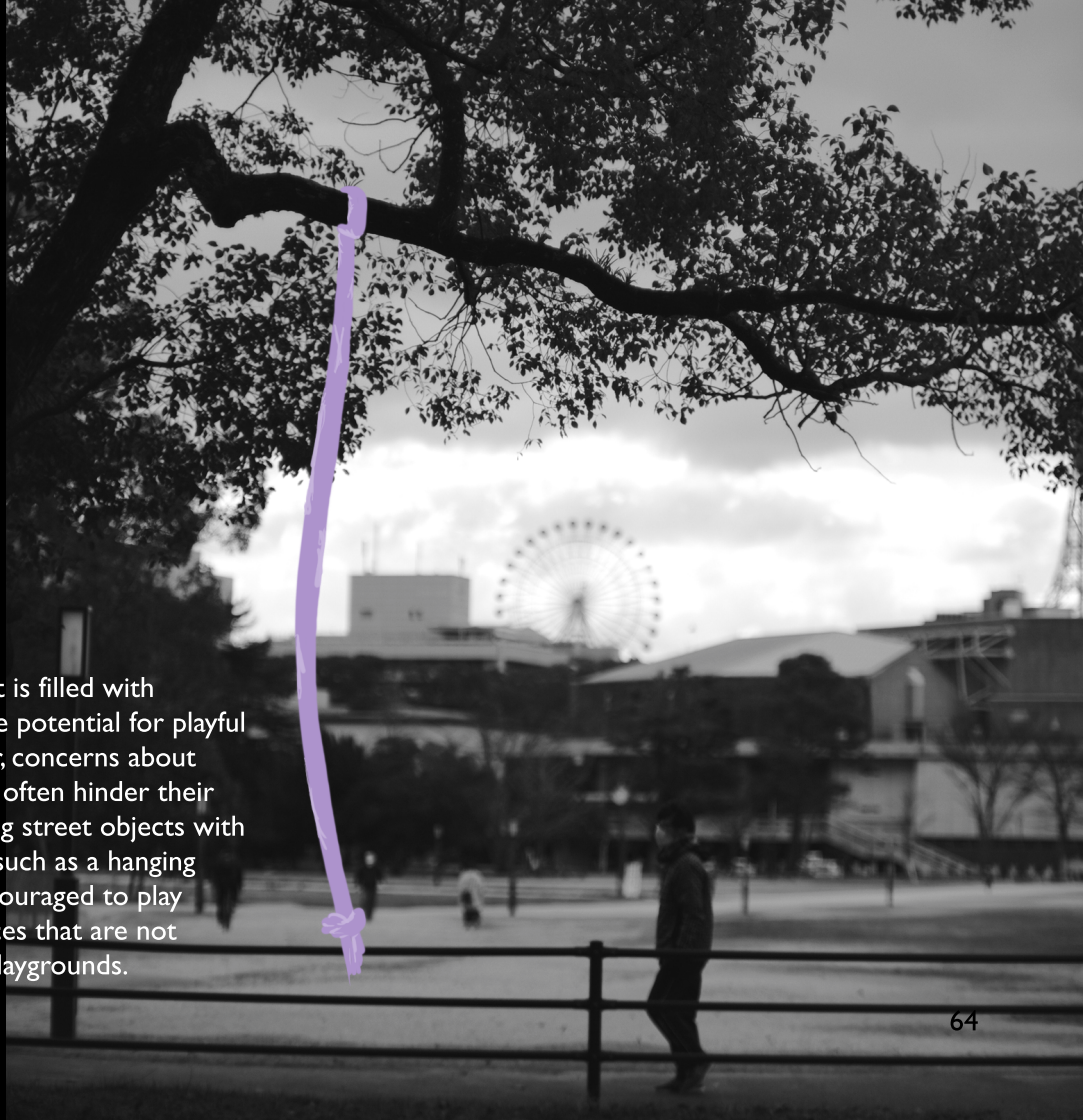


Play structures can be integrated into existing elements of the urban environment. A bus stop can become an even more exciting play opportunity, as it is an object outside of the conventional domain of outdoor play and it is typically off-limits for climbing.





The built environment is filled with elements that hold the potential for playful experiences. However, concerns about safety and permission often hinder their utilization. By providing street objects with a subtle play prompt, such as a hanging rope, children are encouraged to play outdoors even in spaces that are not explicitly labelled as playgrounds.



WHICH CHILDREN ARE WE NOT DESIGNING FOR?

From Lea Magnano's master's thesis
"Diversity in Outdoor Play", supervised by:

*Mathieu Gielen
Pieter Jan Stappers
Marlies Bouman
Gerben Helleman*

Delft,
August 2023

