

# Appendix 7

**Designing a Child-friendly  
Outdoor Public Playground  
For Children Aged from 4 to 8 Years**

On the Nordbahntrasse, in Wuppertal  
Through Co-creation Mindset

**Ph.D. Thesis**

**Neda Batenipour**

## Appendix 7

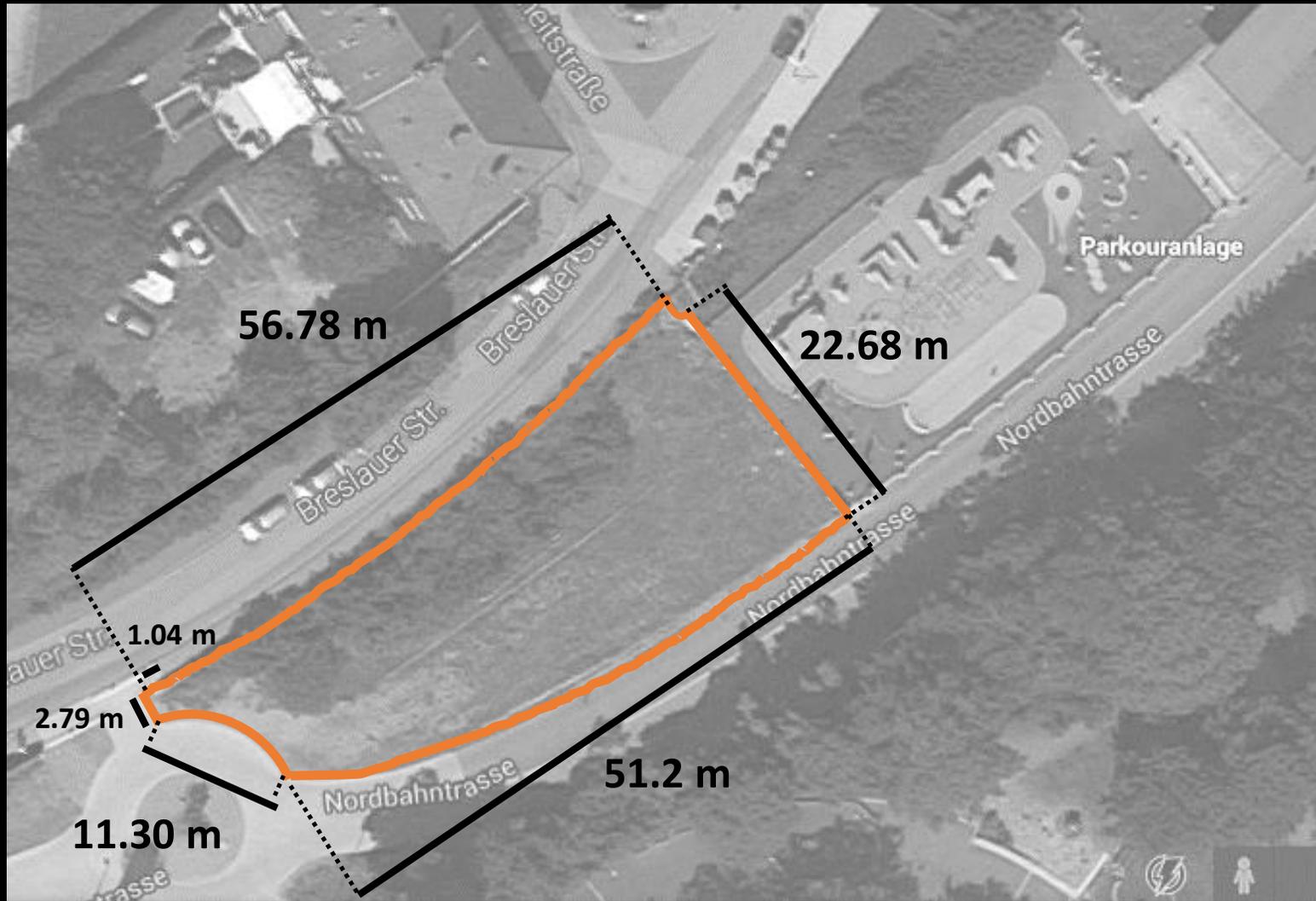
# **Presenting Primary Ideas, Concepts, & Designs For Playground Equipment and Settings Presenting Primary Whole Designs For A Child-friendly Playground**

**The author and designer:  
Neda Batenipour**

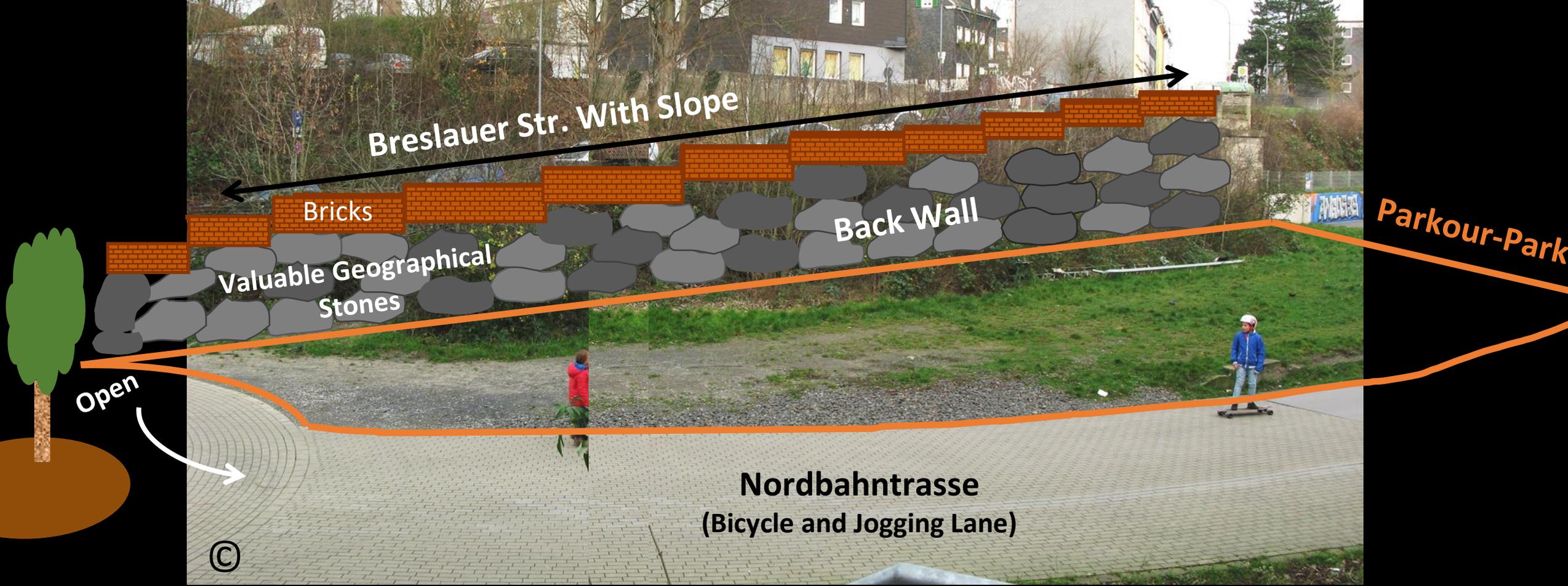
# Plan of Future Playground and Parkour-Park



# Plan of Future Playground and Parkour-Park



# 3D View of Future Playground and its Surrounding

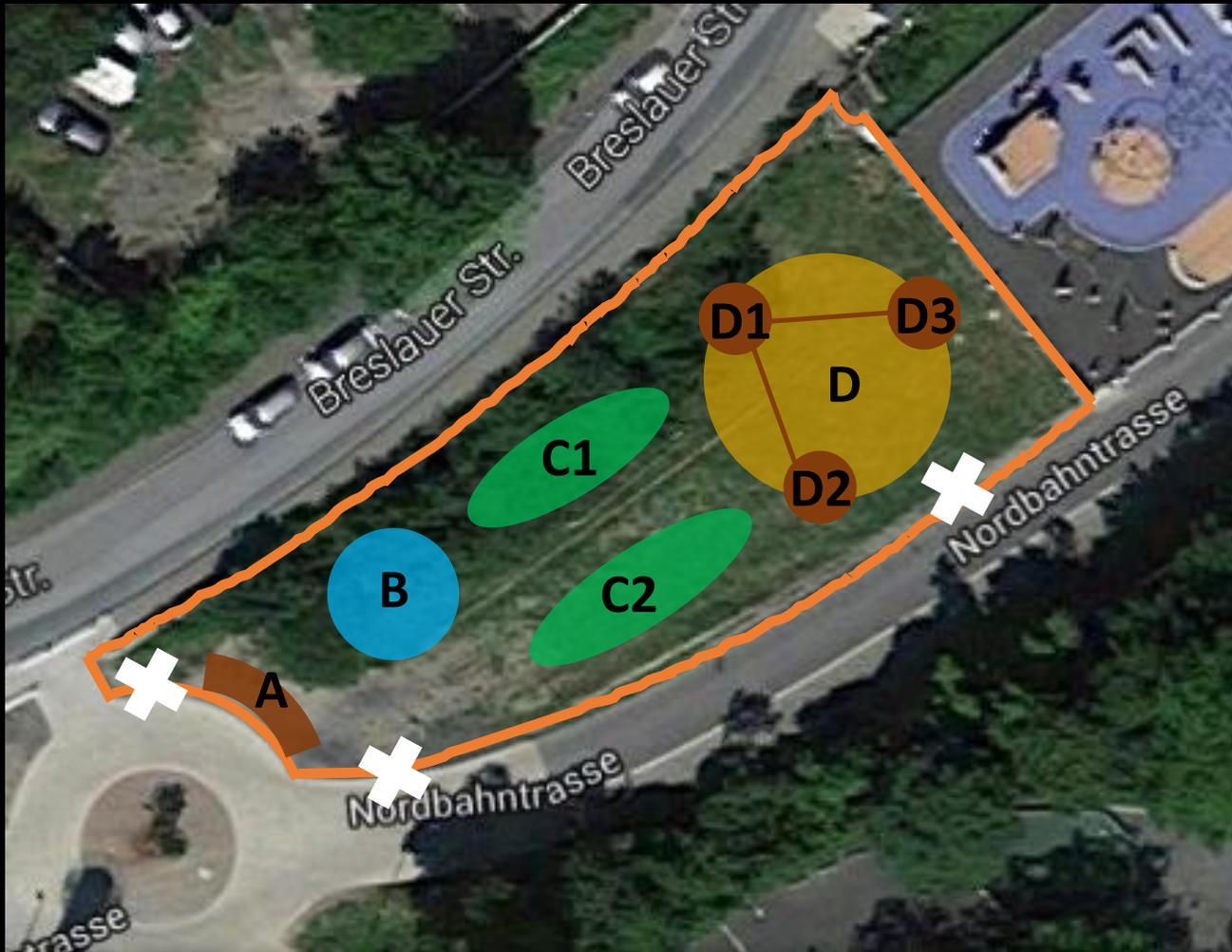


# **CONCEPT 1**

## **Most Developed Concept**

**Presenting the Whole Playground Design  
and Its Play Equipment and Facilities**

## Defining various Areas and Play Zones of Concept 1 on the Plan of the Selected Site



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### Zone A:

Seating area for adults; Resting in peace and quiet; Observing children who are playing; An area for relaxing, reading, and eating (e.g., fruits and snacks).

### Zones B1 & B1:

Offering water-based entertainment (interaction with water and sand); Playing in peace and quiet for small children; Creative play; Constructive play; Imaginary play (Dramatic play). Sensorial games (e.g., interacting with water or sand).

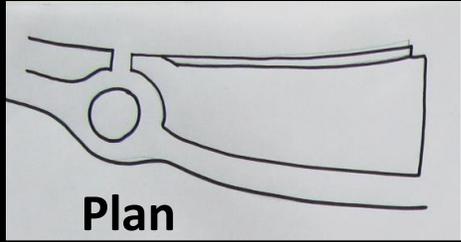
### Zone C1:

Physical Play; Dramatic or socio-dramatic play; Social Play;

Zone C2: Social games, Experimenting.

Zone D: Highly physical play activities; Dramatic or socio-dramatic play; Social Play.

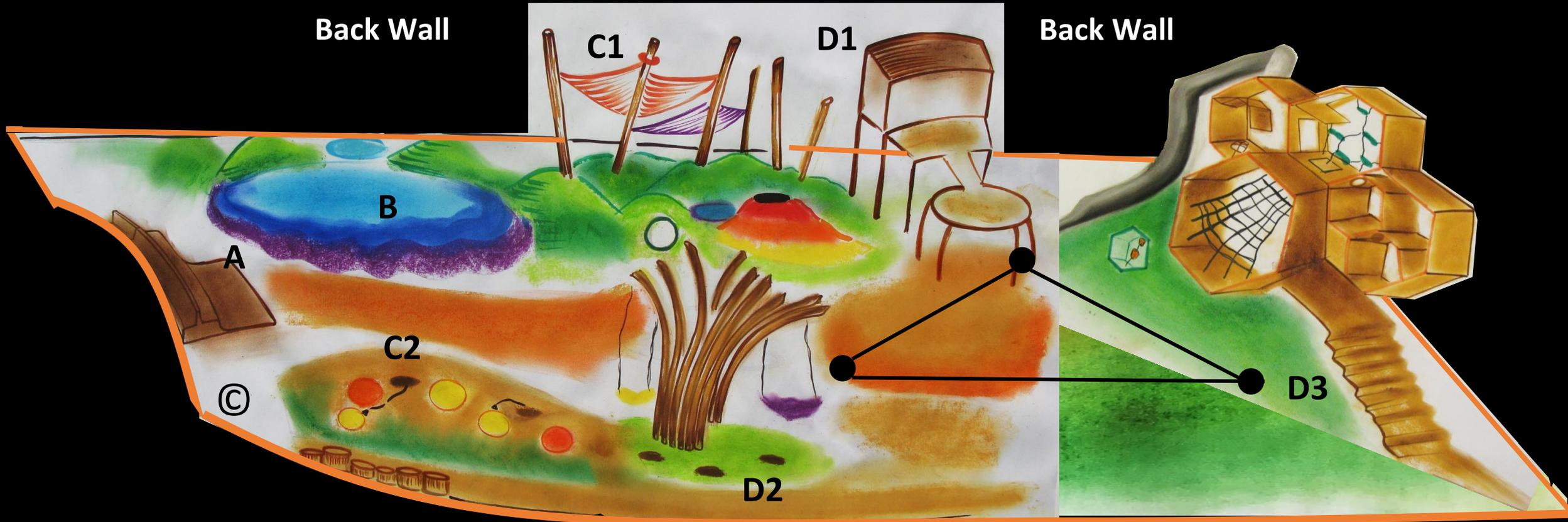
✕ The Entrance



Plan

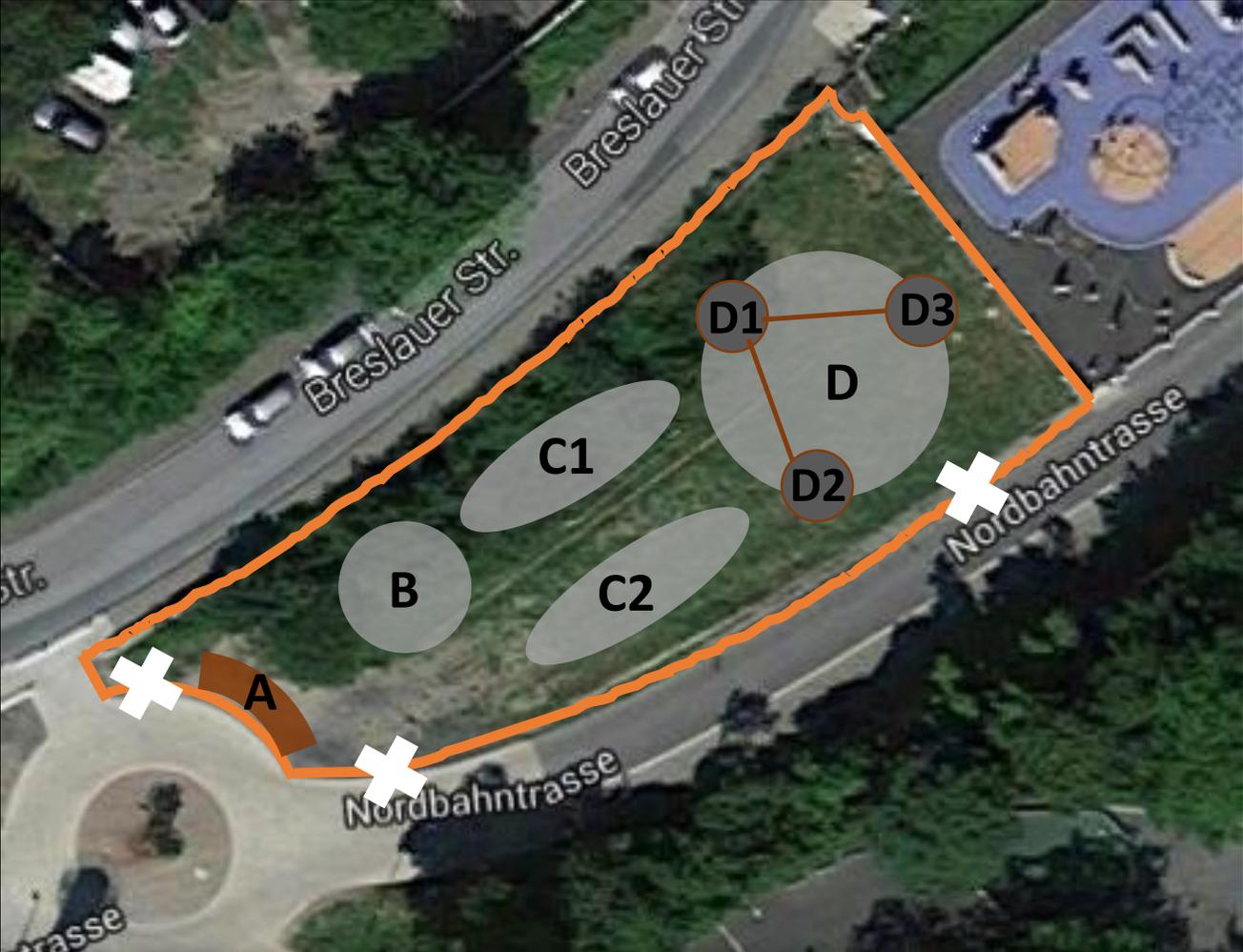
# CONCEPT 1

## The Whole Playground Design that includes different play zones.



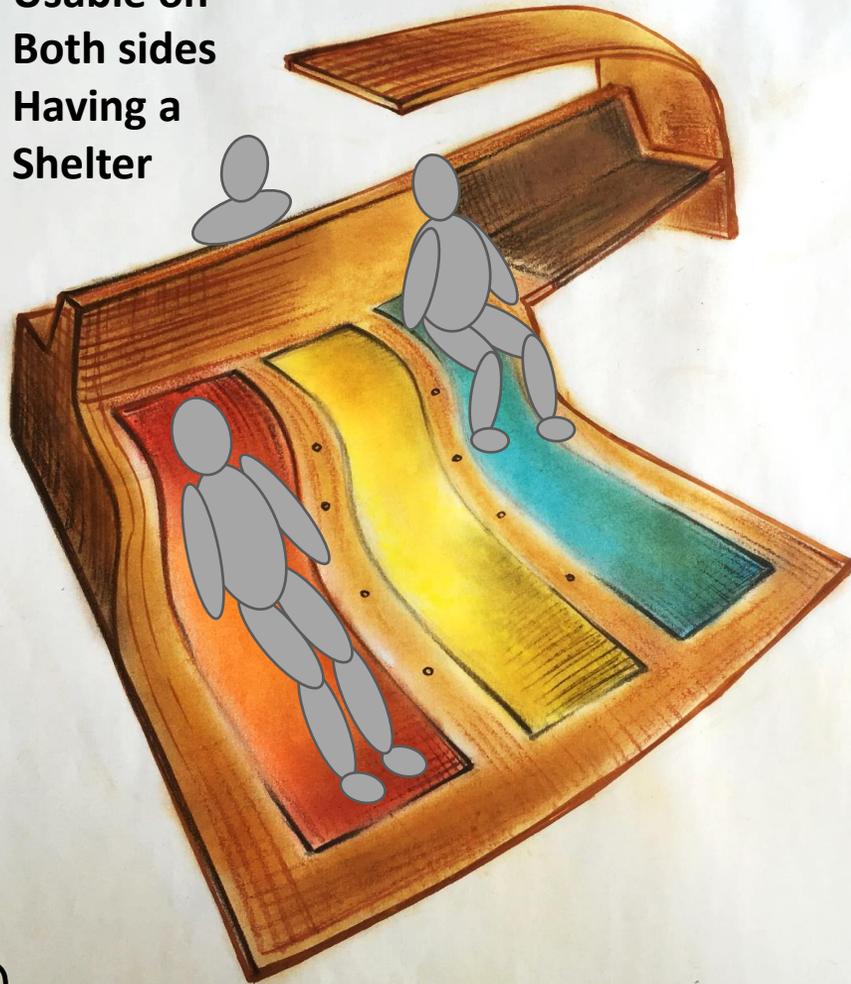
# Play Zones of CONCEPT 1

Concepts for **Zone A**  
In Concept 1



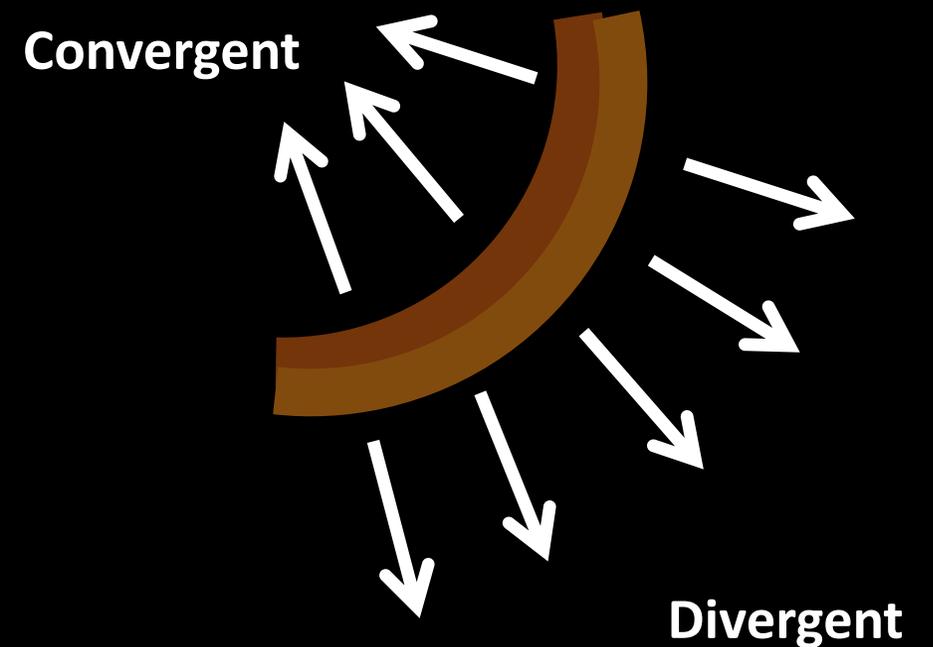
## Concepts for Zone A (Zone as Seating Area; Resting in peace and quite)

- Usable on Both sides
- Having a Shelter

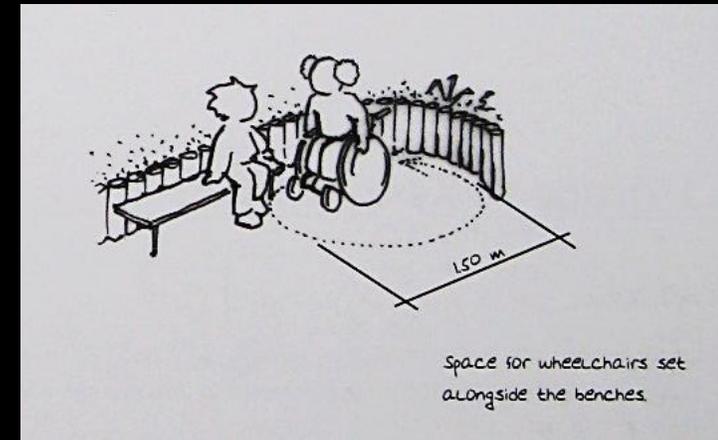
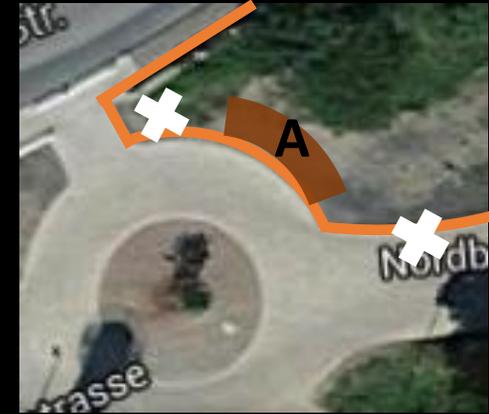
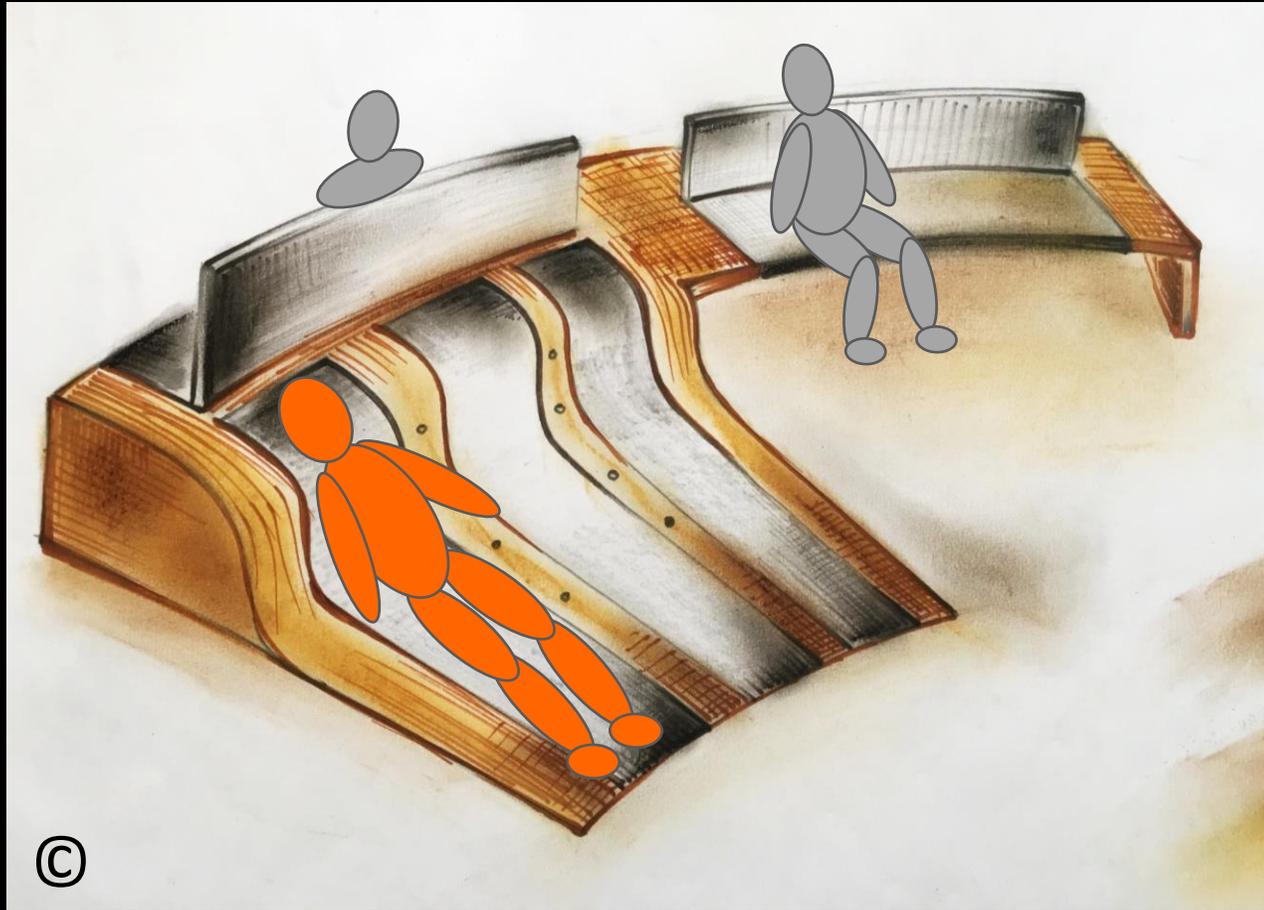


©

An Arched Bench  
Usable on Both Sides



# Concepts for Zone A (Zone as Seating Area; Resting in peace and quite)

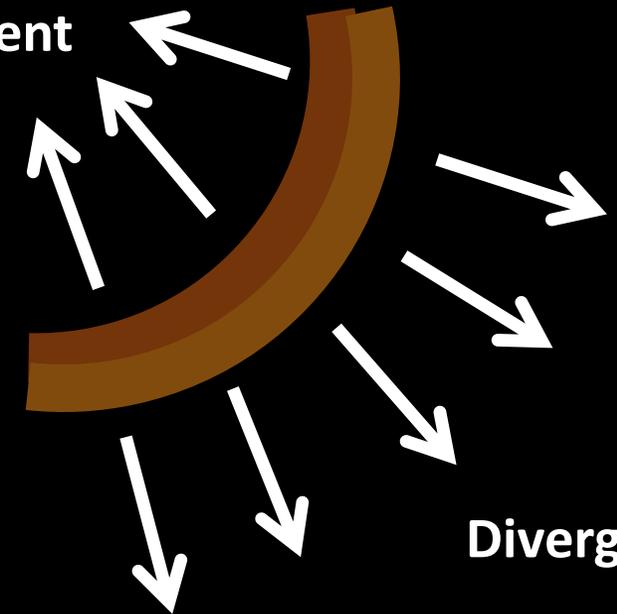


## Concepts for Zone A (Zone as Seating Area; Resting in peace and quite)



An Arched Bench  
Usable on Both Sides

Convergent

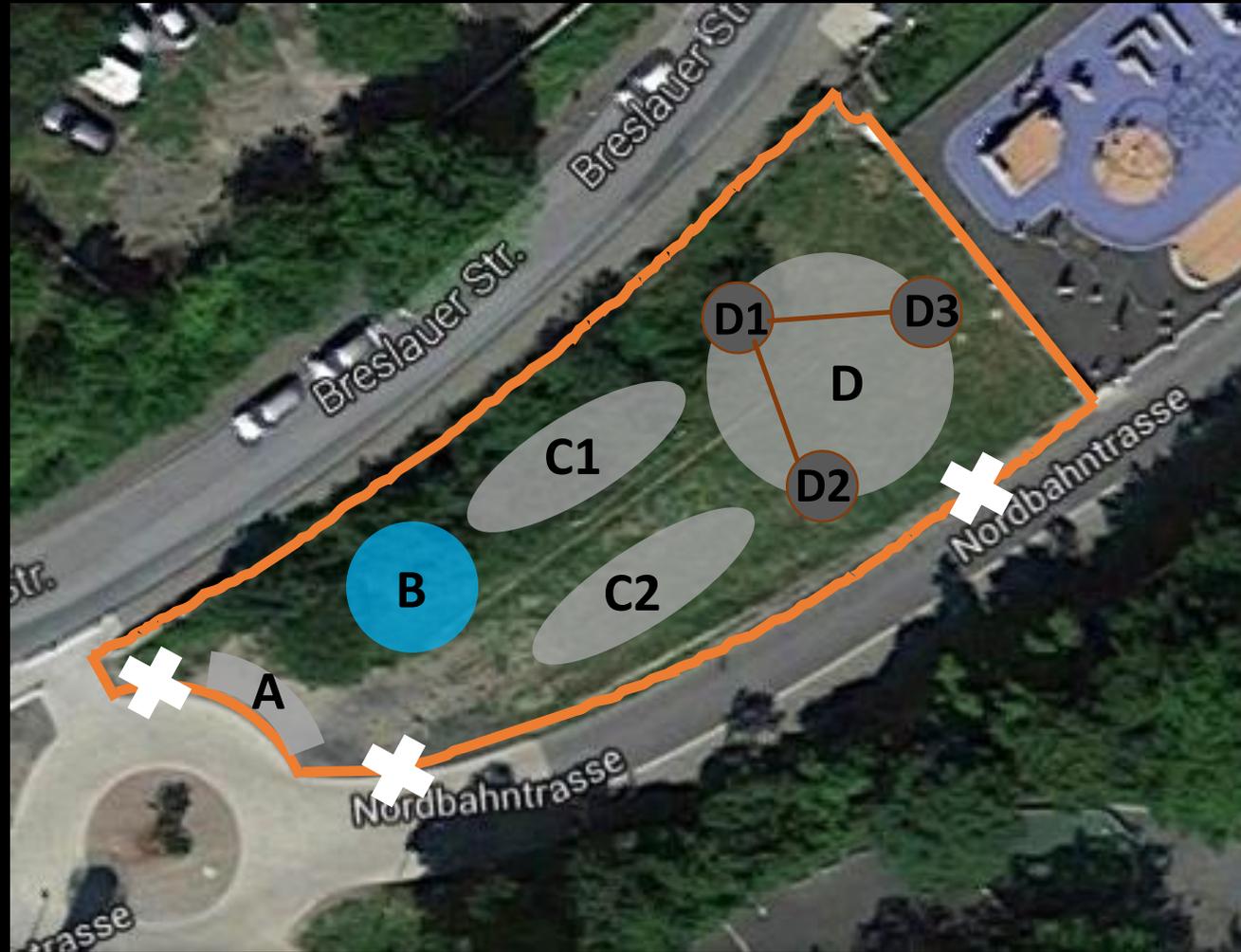


Divergent

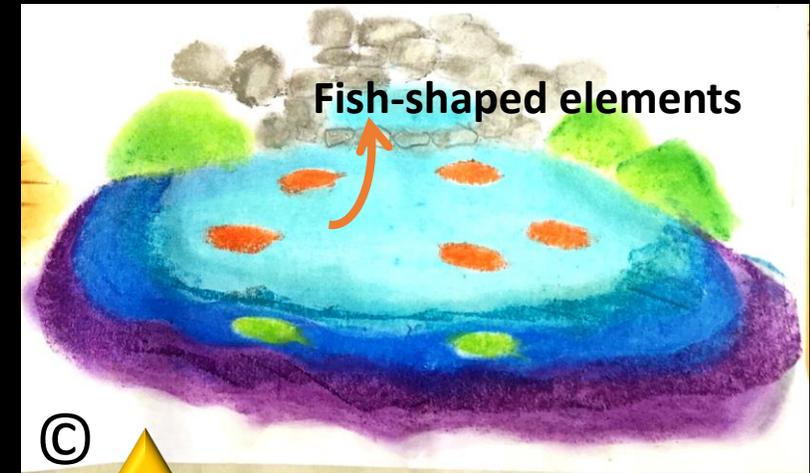
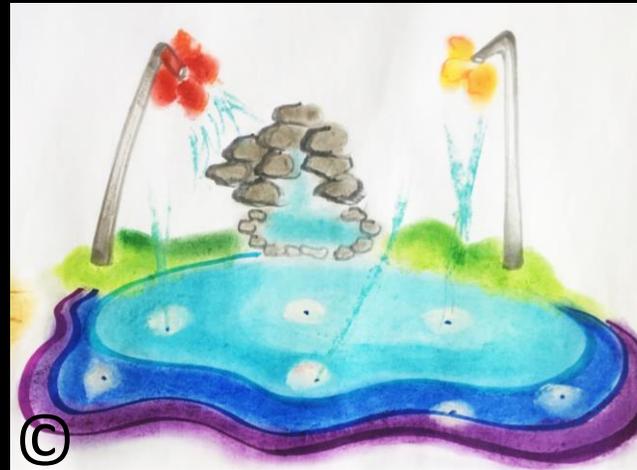
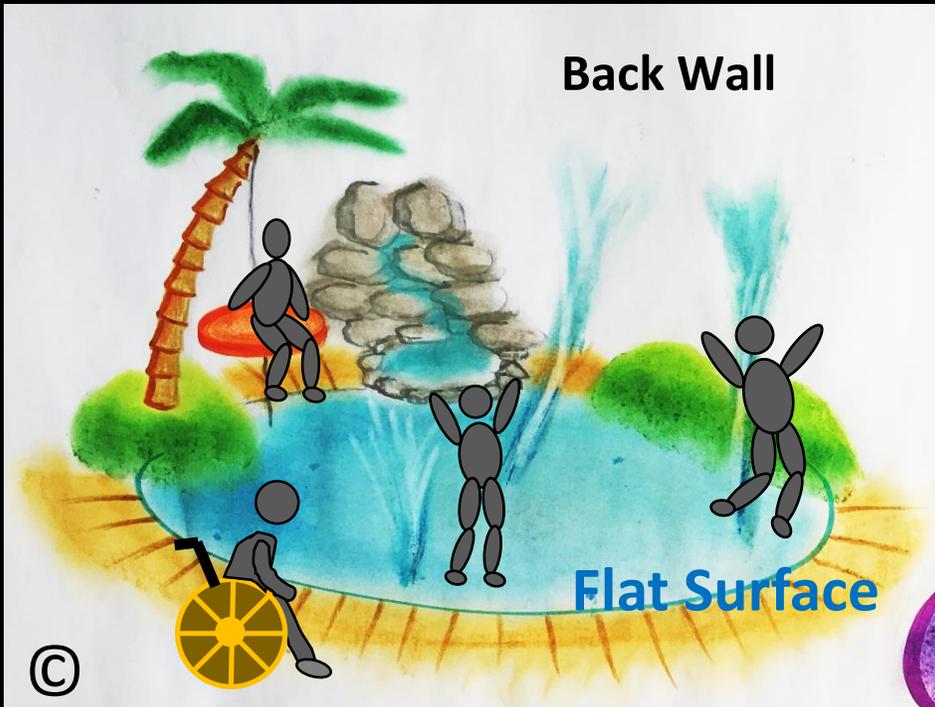
# CONCEPT 1



Concepts for **Zone B**  
(Zone of Water-based  
Entertainment)



## Concepts for Zone B (Zone of Water-based Entertainment)



In the third concept the play equipment and settings are more abstract elements rather than the elements which have concrete shapes. Also this concept does not offer the real experience of interacting with water, but just the make-believe experiences and dramatic play.

When it is not possible to install water-based equipment and offer 'real' interaction with water, the design could provide elements and equipment that – by their colors, shapes, and texture – support only 'imaginary' playing and interaction with water (see the description in No. 6, Section 11.7., in Chapter 11).

This area is a blue flat surface with fountains, a tree-shaped (or flower-shaped) element which could be either abstract or similar to a palm, a fixed swing hanged from the tree as a seating place, hill-shaped elements, a pond at the back of this zone that its material/ texture is in harmony with the back wall, a circular surface around the blue area made of water resistance wood or composite material or way, or wavy blue and purple surfaces on the ground with red and green stain (abstract elements that can represent fish or algae in the sea or lake).

## Concepts for Zone B (Zone of Water-based Entertainment)

- Presenting suitable elements and play equipment for evoking children's imagination and encouraging them to play; this play zone can offer various types of play such as dramatic play, physical play and sensorial play.
- Elements such as green hills, the palm and fixed swing, blue surface and fountains, the pond, the circular wooden path around the blue area or the wavy blue and purple surface, facilitate children to get involved in dramatic play with theme relevant to interaction with water, lake, beach, and fish (see the description in No. 6, Section 11.7., in Chapter 11) (e.g., getting involved in dramatic play and imagining the experience of fishing, being in the lake or sea, sitting on the hills next to the lake, climbing and resting on the palm, or fishing).
- The visual appearance of the area and elements play main role to encourage children to get involved in the dramatic play especially in the winter when the water equipment does not operate.
- Using touch sensors in water equipment and fountain can offer enjoyable experiences to children.



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## Concepts for Zone B (Zone of Water-based Entertainment)



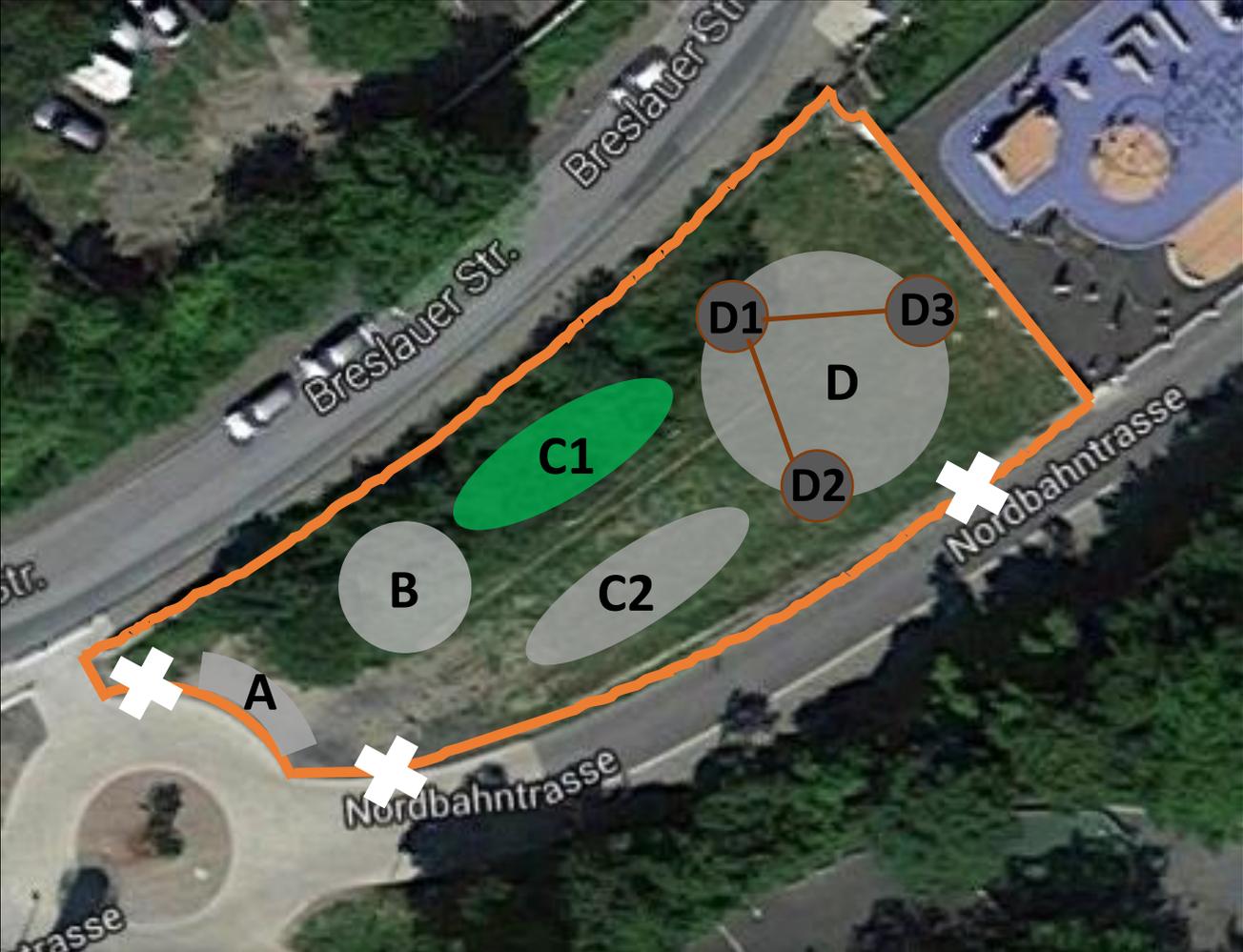
- When this play zone has flat surface it allows wheelchair users to enter, play with water and interact with other children.
- It is necessary to use suitable designs, elements/shapes, and colors that evoke children's imagination and facilitate them to interact with water (either as an imaginary experience or real one) and get involved in physical, social, and make-believe play (i.e., dramatic).

Children get involved in interaction with water as imaginary or real experience; this zone has the potential to offer dramatic play, sensorial play, and physical play. They enjoy experiences such as splashing water to each other, jumping on the fountains, getting wet, climbing the palm, sitting on the hanged swing from tree, and sitting on the green hill-shaped elements (getting involved in their dramatic sensorial physical plays).

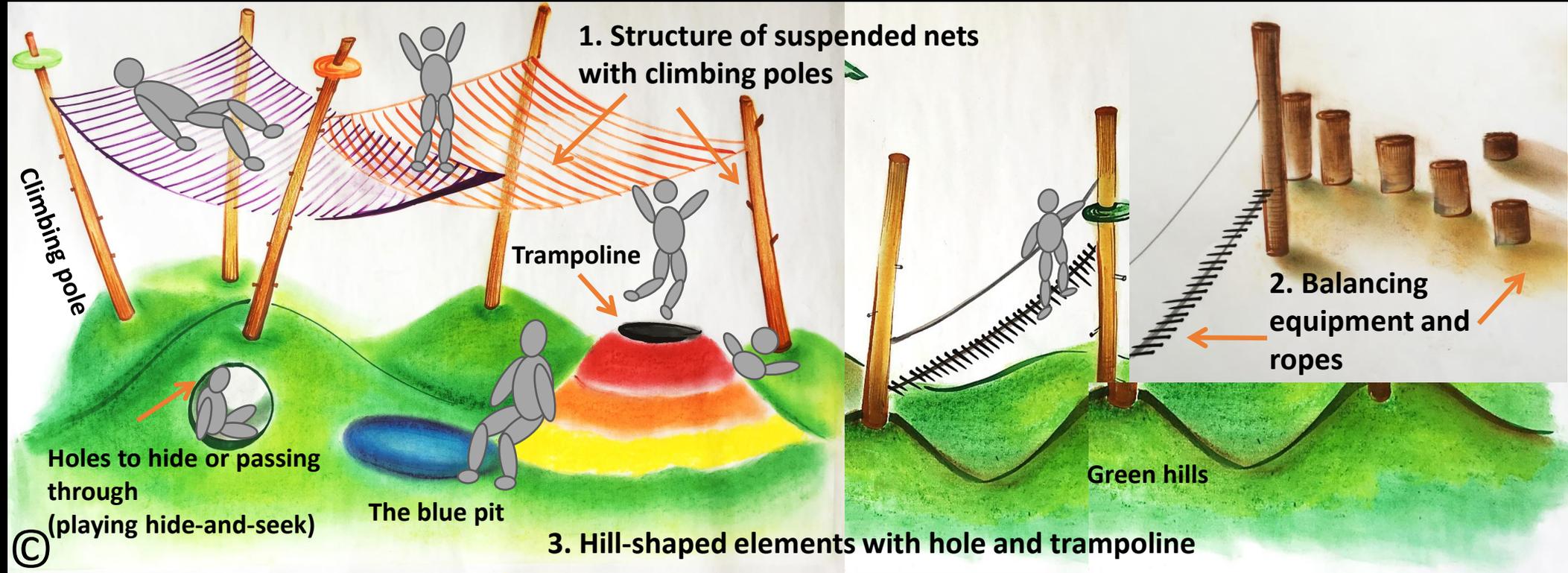
# Play Zones of CONCEPT 1



Concepts for **Zone C1**



## Concepts for Zone C1



This play zone includes various play settings including: 1) structure of suspended nets with climbing poles, 2) balancing equipment and ropes, and 3) hill-shaped elements with hole and trampoline.

# Concepts for Zone C1



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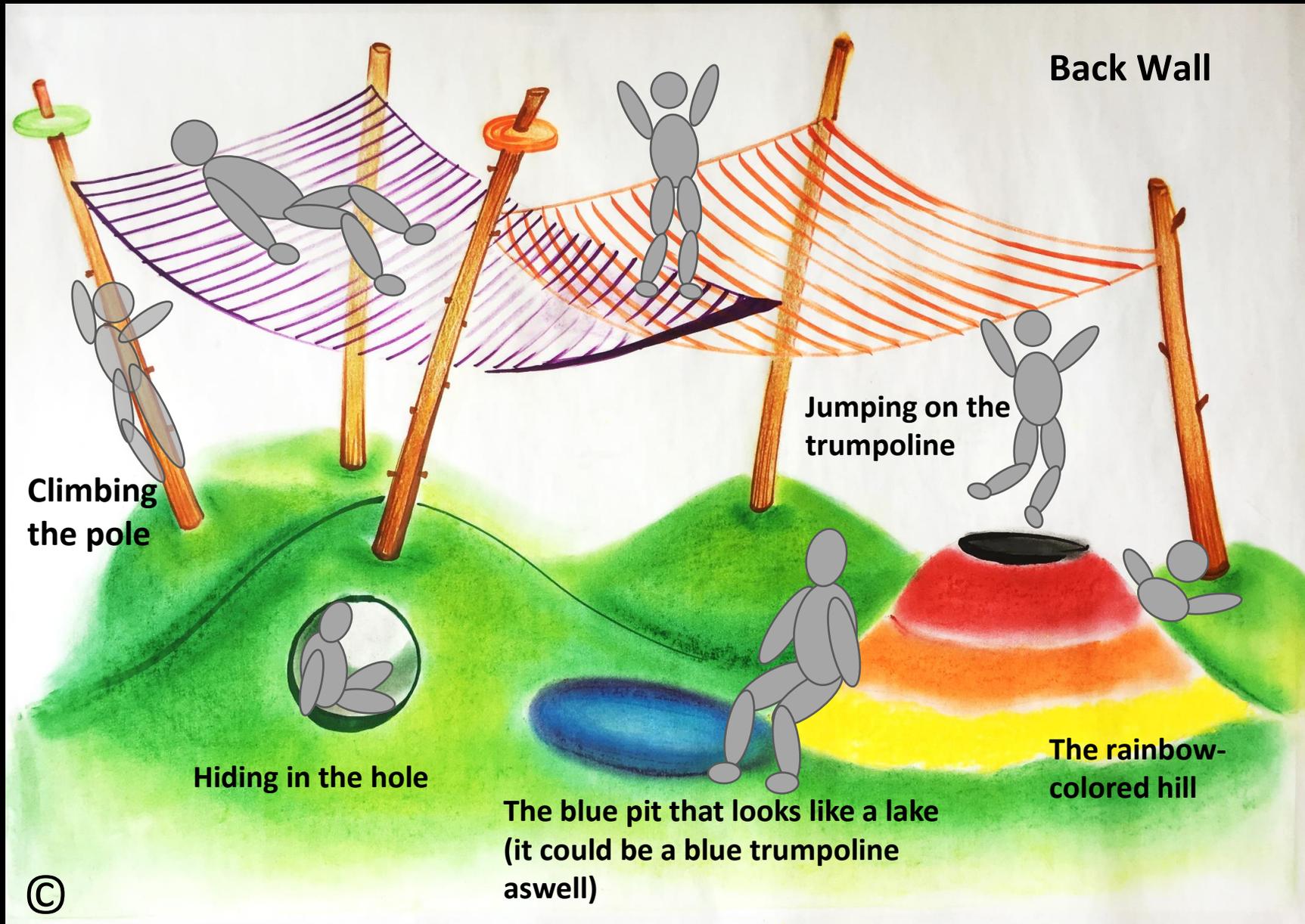
## Concepts for Zone C1



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## Concepts for Zone C1



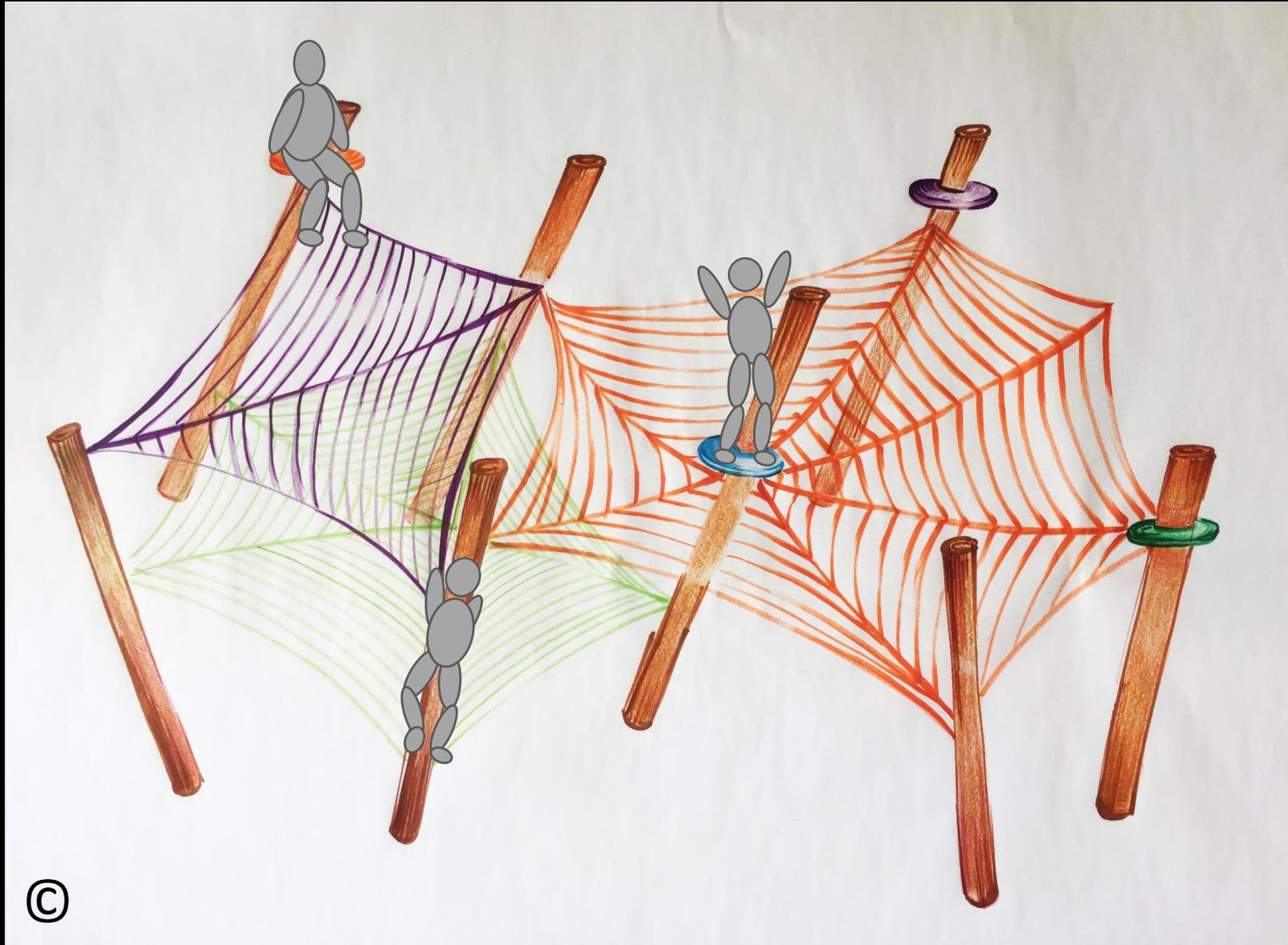
## Concepts for Zone C1



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Another design for Zone C2 including climbing poles (some of them look like a palm), hammocks fastened to the poles, balancing equipment, green hill-shaped elements. At the top of some of these poles the lights have been installed for night lighting.

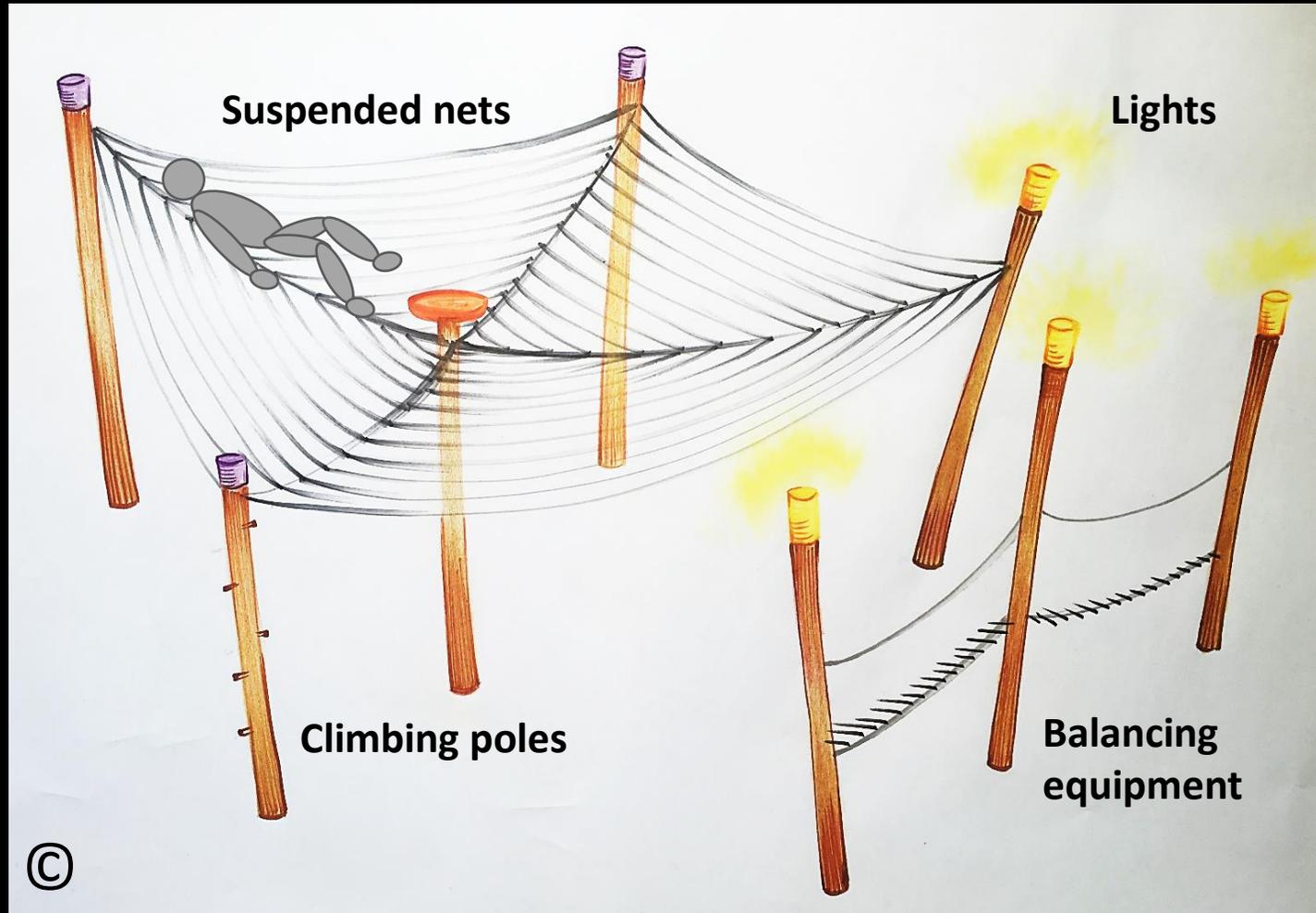
## Concepts for Zone C1



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## Concepts for Zone C1



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Another design for the suspended nets, climbing poles and balancing equipment. At the top of some of these poles there lights have been installed for night lighting.

## Feasibility; Finding Benchmark Case for the Suspended Nets



Name: Dymaxion Sleep

Design: Jane Hutton & Adrian Blackwell

Location: Metis, Canada

Ref.:

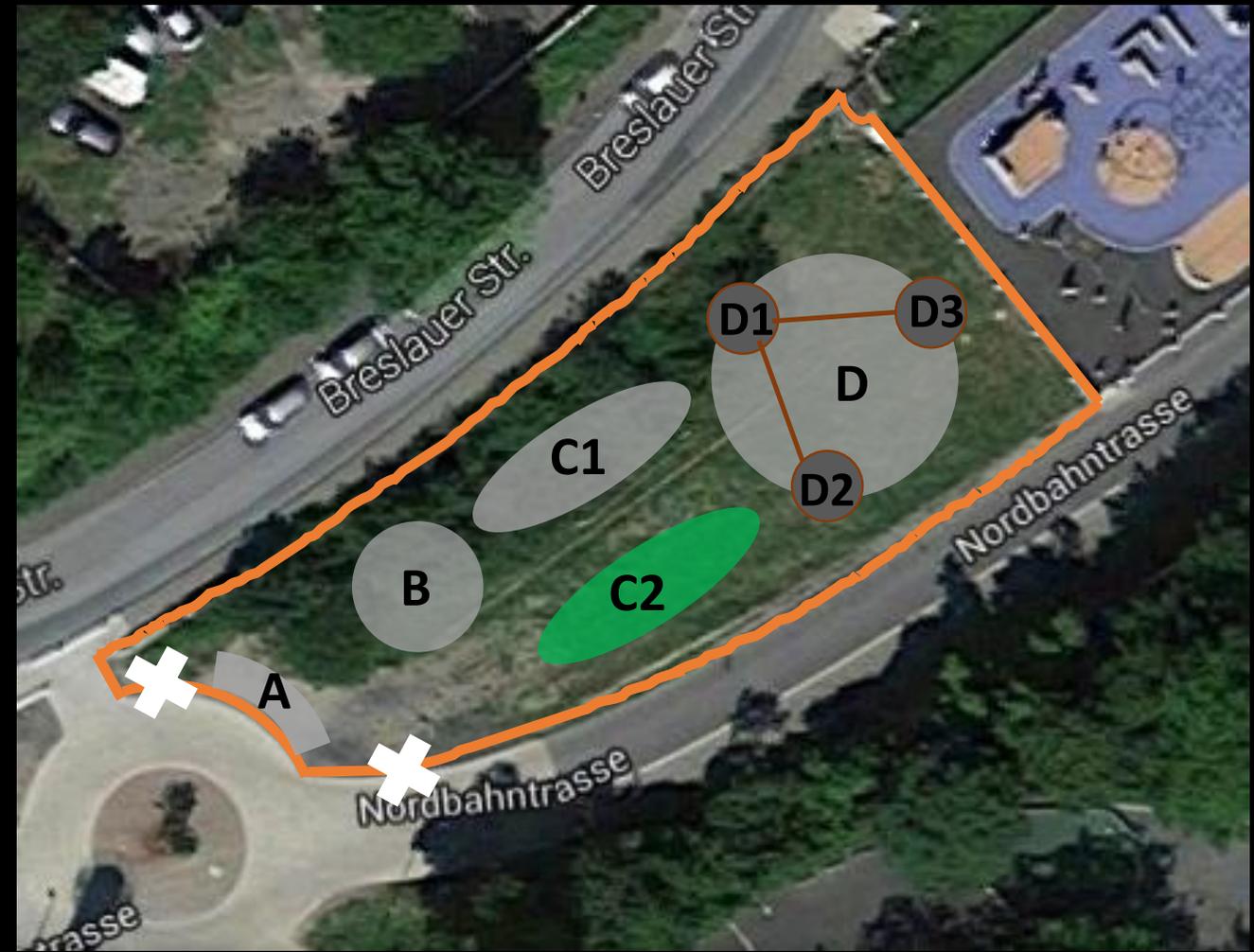
<http://landezine.com/index.php/2011/06/dymaxion-sleep-by-jane-hutton-adrian-blackwell/>  
*accessed: 2016.*

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# Play Zones of CONCEPT 1



Concepts for **Zone C2**



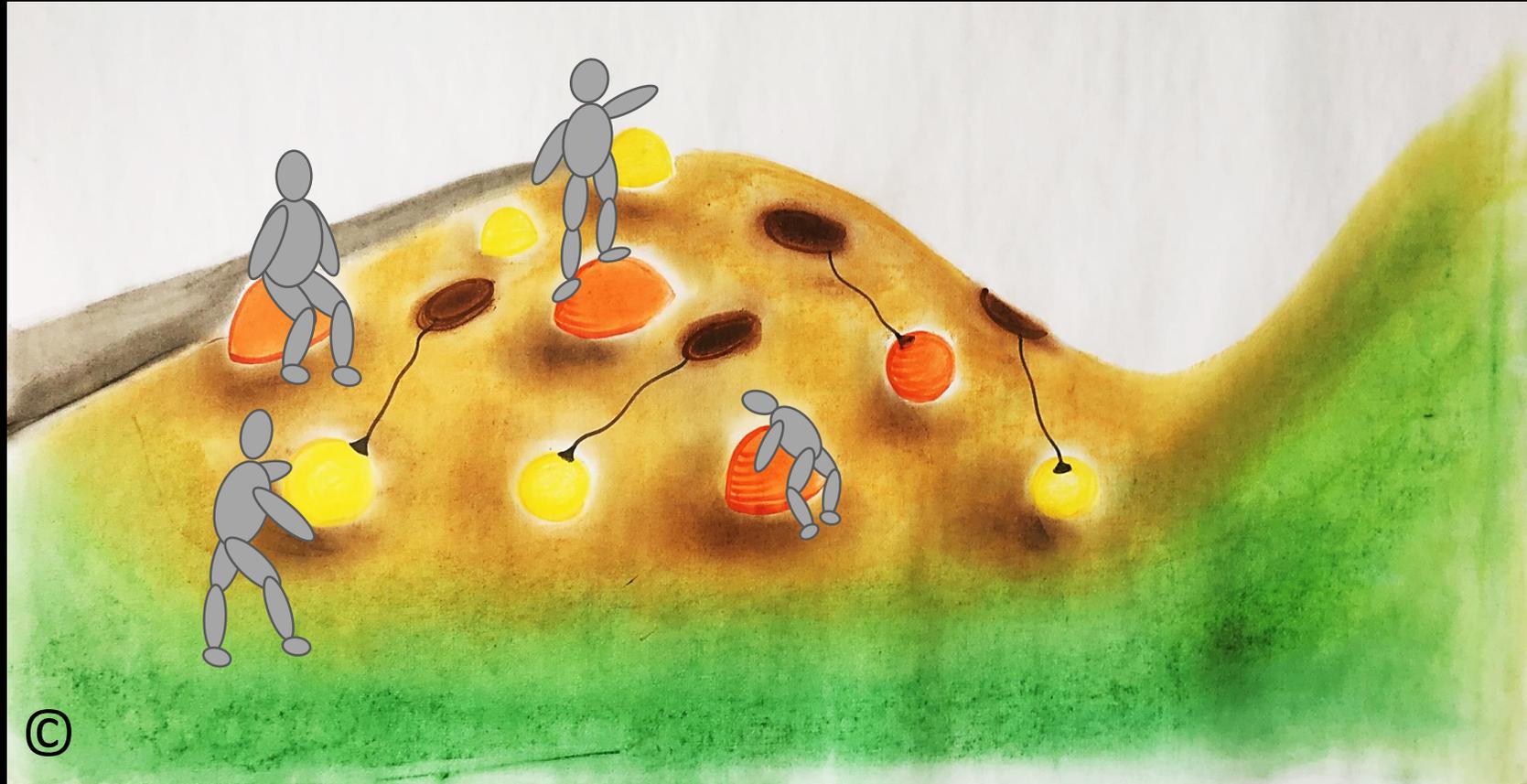
## Concepts for Zone C2



**Colorful soft balls fixed in the ground.  
They are like aerobic balls.**

## Concepts for Zone C2

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**A hill and soft candy-shaped balls in different sizes and colors. Some of these balls have been fixed on the ground that can be used as the seats, balancing equipment, and sensorial elements. Some of these balls have been connected (i.e., fastened) to the green hill by wide elastic bands (i.e., elastic ropes) which have stretching characteristic. Kids can play with these colorful balls alone or with each other (e.g., throwing the balls towards each other).**

## Concepts for Zone C2



Wooden path around the play area usable for normal users and wheelchair users.

# Feasibility; Finding Benchmark Case for the Balls Fixed on or Connected to the Hill in Concepts for Zone C2



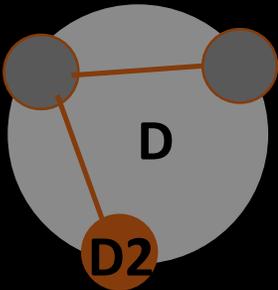
Ref.: (Broto, 2012, pp. 106-109).

Name: Green Shift  
Design: NIPpaysage  
Location: Montreal, Canada

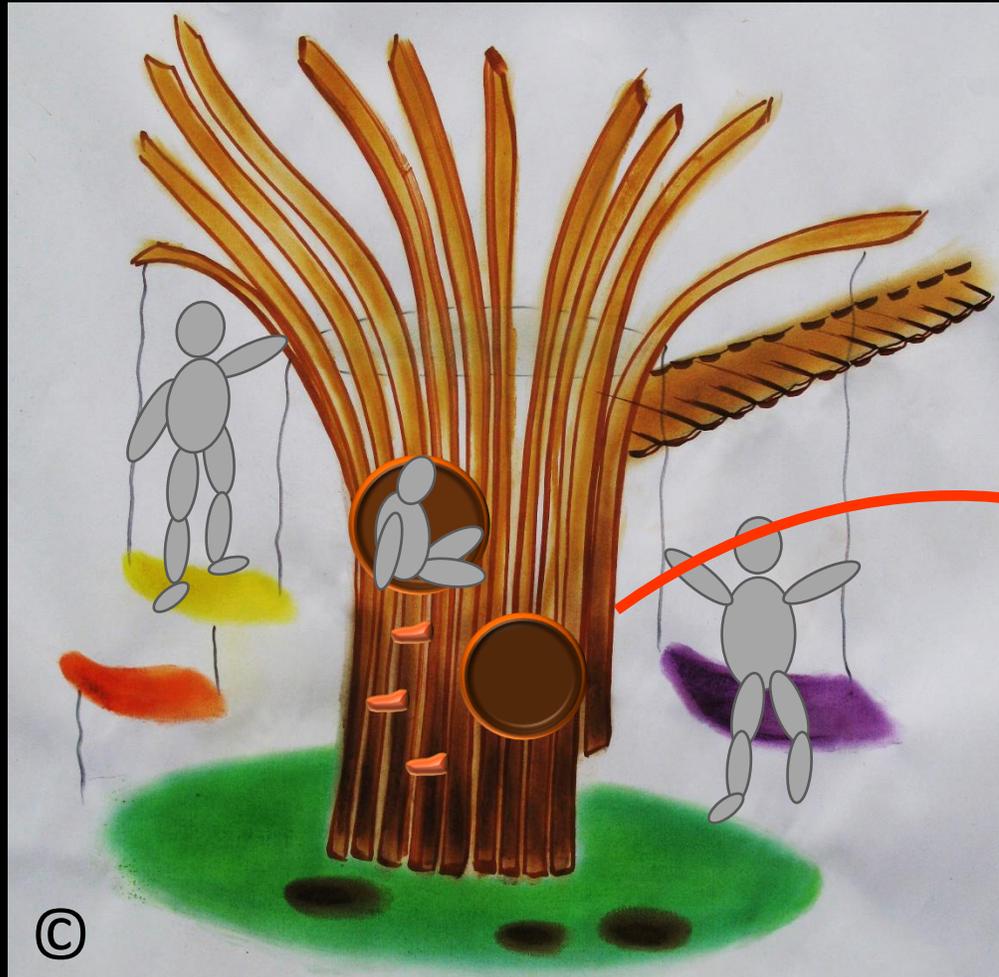
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# Play Zones of CONCEPT 1

## Concepts for Zone D2



## Concepts for Zone D2



**The Tree-shaped Play Equipment**

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## Feasibility; Finding Benchmark Case for the Holes in Tree-shaped Structure



Design: BASE Landscape Architecture  
Project Location: Lyon, France

Ref: <http://landezine.com/index.php/2016/02/the-rampart-wave-by-base/>, accessed: 2016.  
<https://allarchitecturedesigns.com/the-rampart-wave/>, accessed: 11.05.2021.

## Concepts for Zone D2



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## Feasibility; Finding Benchmark Case for the Holes of Sand

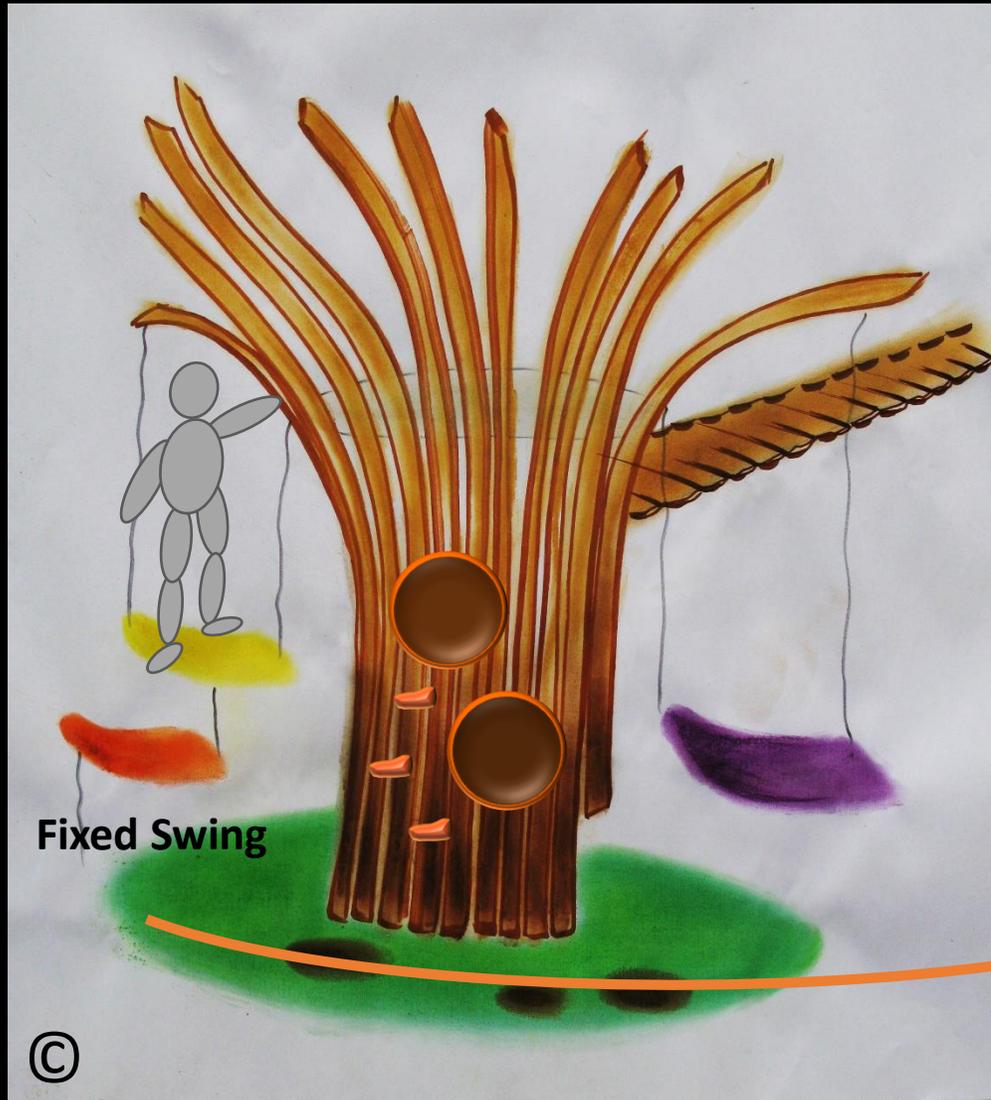


Name: Urban Dock LaLaport Toyosu  
Design: Earthscape  
Location: Japan, Tokyo

Ref.: (Galindo, 2012, pp. 184-187);  
<http://landezine.com/index.php/2011/11/toyosu-landscape-architecture/>,  
accessed: 2016.

If possible, the area could offer holes of sand or soil in the area.

## Concepts for Zone D2



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## Feasibility; Finding Benchmark Case for the Fixed Swings



Name: Van Beuningenplein  
Design: Carve  
Location: Amsterdam, The Netherlands

Ref.: (Galindo, 2012, p. 208);

<http://landezine.com/index.php/2011/05/van-beuningenplein-playground-by-carve-landscape-architecture/>  
accessed: 2016.

## Concepts for Zone D2

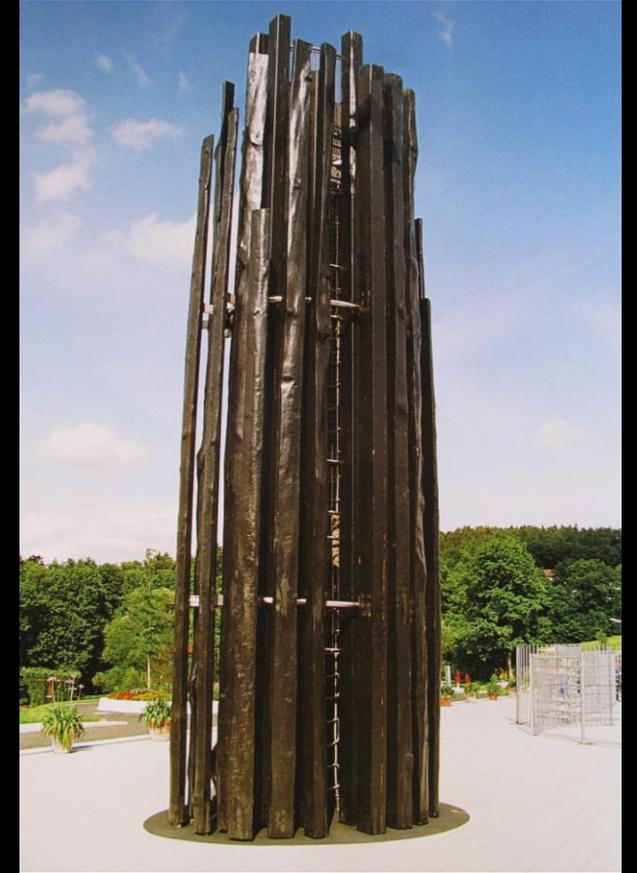


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## Feasibility; Finding Benchmark Case for the Main Structure of the Tree-shaped Play Structure

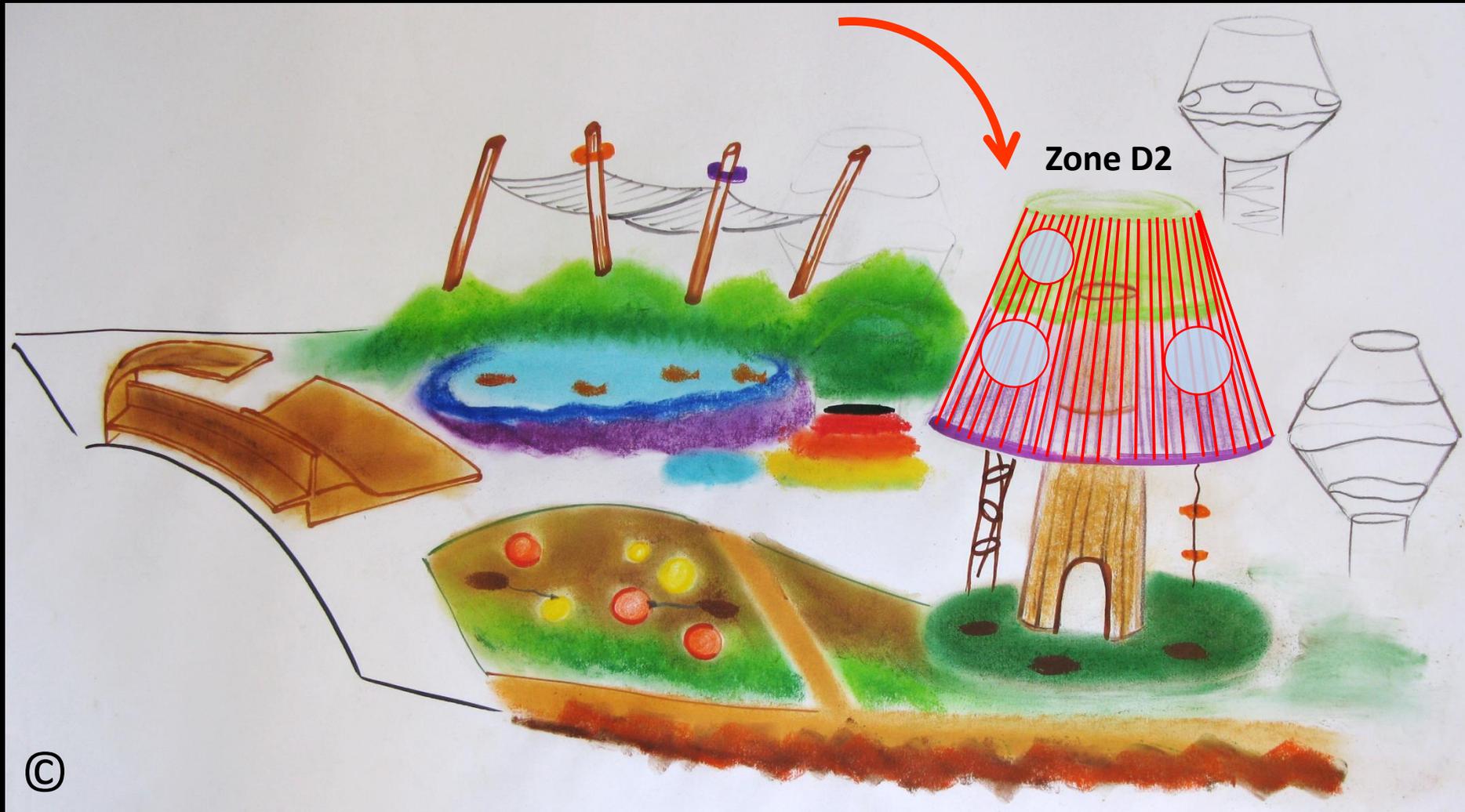


Ref.: (Broto, 2012, pp. 142-145).



**Design: Rehwaldt Landschaftsarchitekten**  
**Project Location: Waldkirchen, Germany.**

## Concepts for Zone D2



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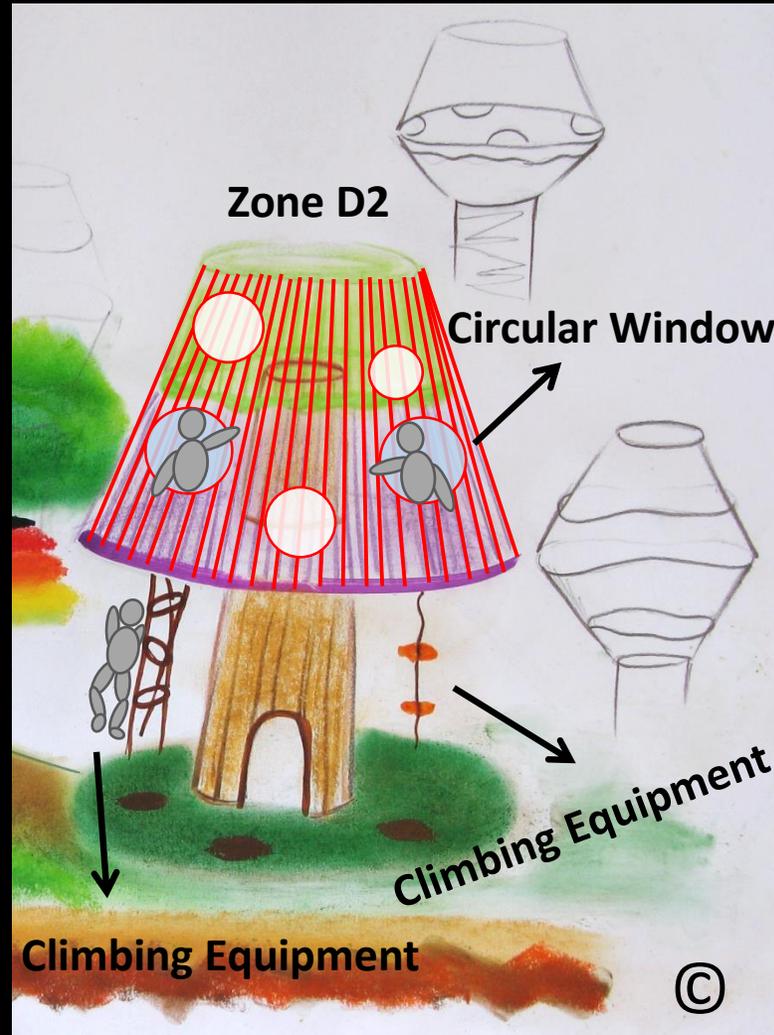
## Concepts for Zone D2

Feasibility; Finding Benchmark Case  
for Climbing Equipment



Design: Carve  
Location: Singapore  
Ref.:

<http://landezine.com/>  
accessed: 2016.



Feasibility; Finding Benchmark Case  
for Climbing Equipment



Design: Carve  
Location: Singapore  
Ref.:

<http://landezine.com/>  
accessed: 2016.

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The combined playground setting that looks like a giant mushroom (i.e. Mushroom-shaped Playground Setting).

## Developing Concept for Zone D2



## Feasibility; Finding Benchmark Case for the Mushroom-shaped Play Structure



**Name:** Van Beuningenplein

**Design:** Carve

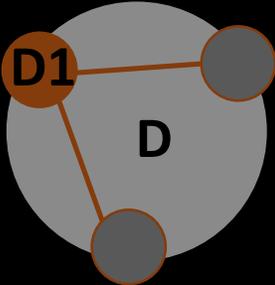
**Location:** Amsterdam, The Netherlands

*Ref.: (Galindo, 2012, pp. 209-211);*

*<http://landezine.com/index.php/2011/05/van-beuningenplein-playground-by-carve-landscape-architecture/>*

*accessed: 2016.*

# Play Zones of CONCEPT 1



Concepts for Zone D1



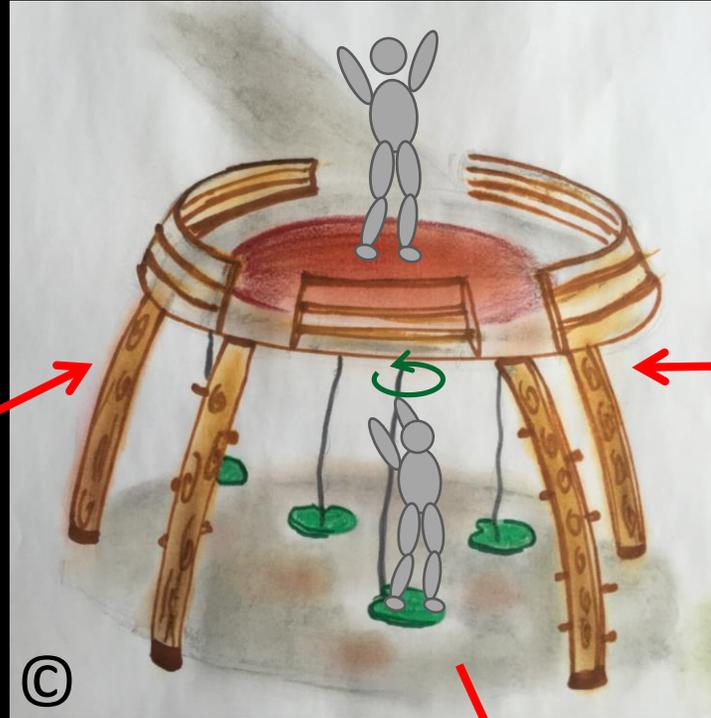
## Concepts for Zone D1



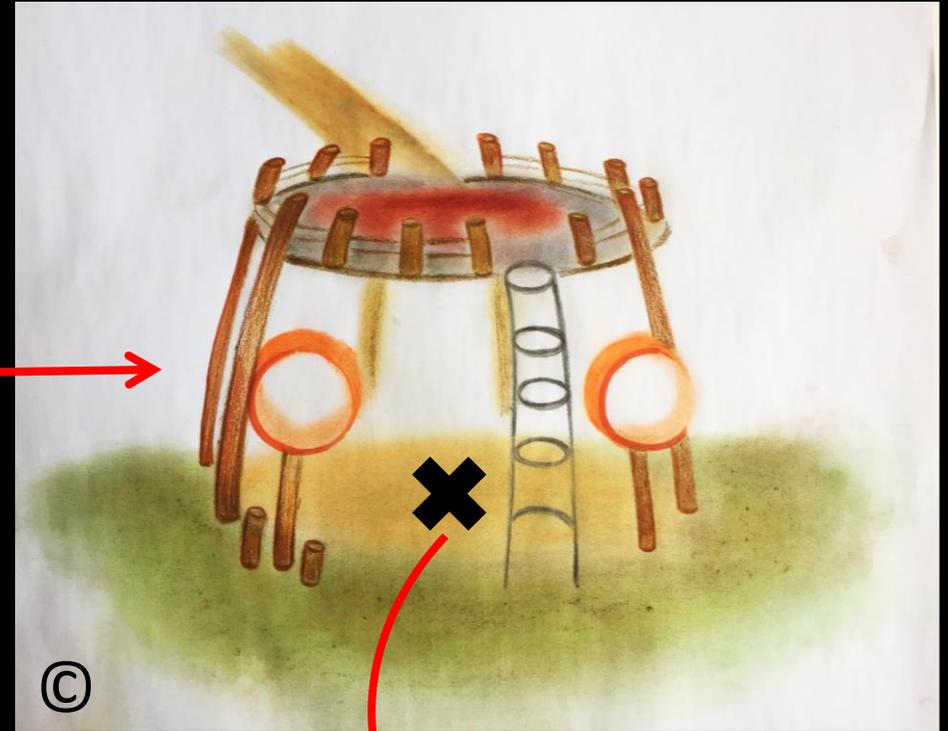
# Concepts for Zone D1



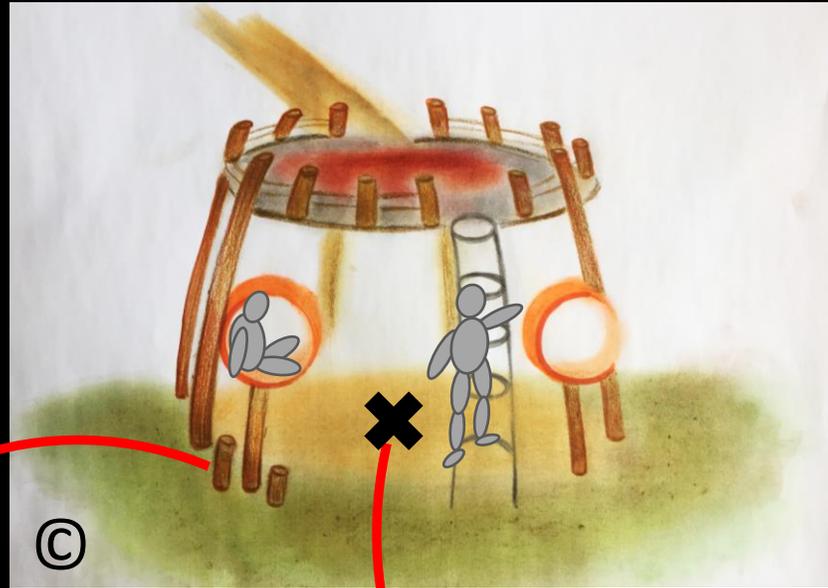
Treehouse with balcony



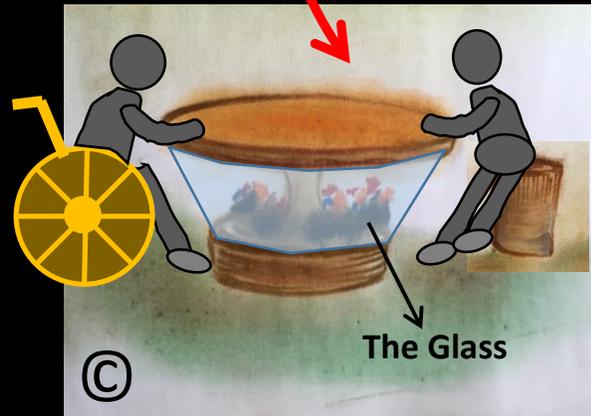
Balcony  
The balancing equipment or spinner that looks like water-lili



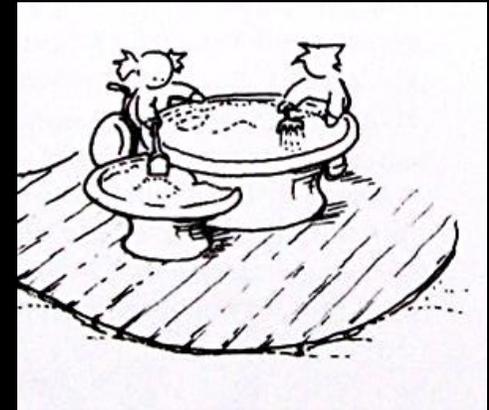
Sand Table or Closed Fireplace for Winter



Balancing elements that look like tree stump.



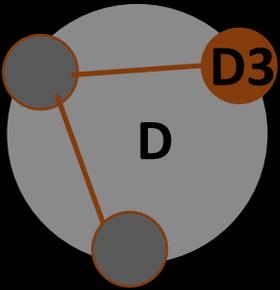
Sand Table and/or Closed Fireplace for Winter



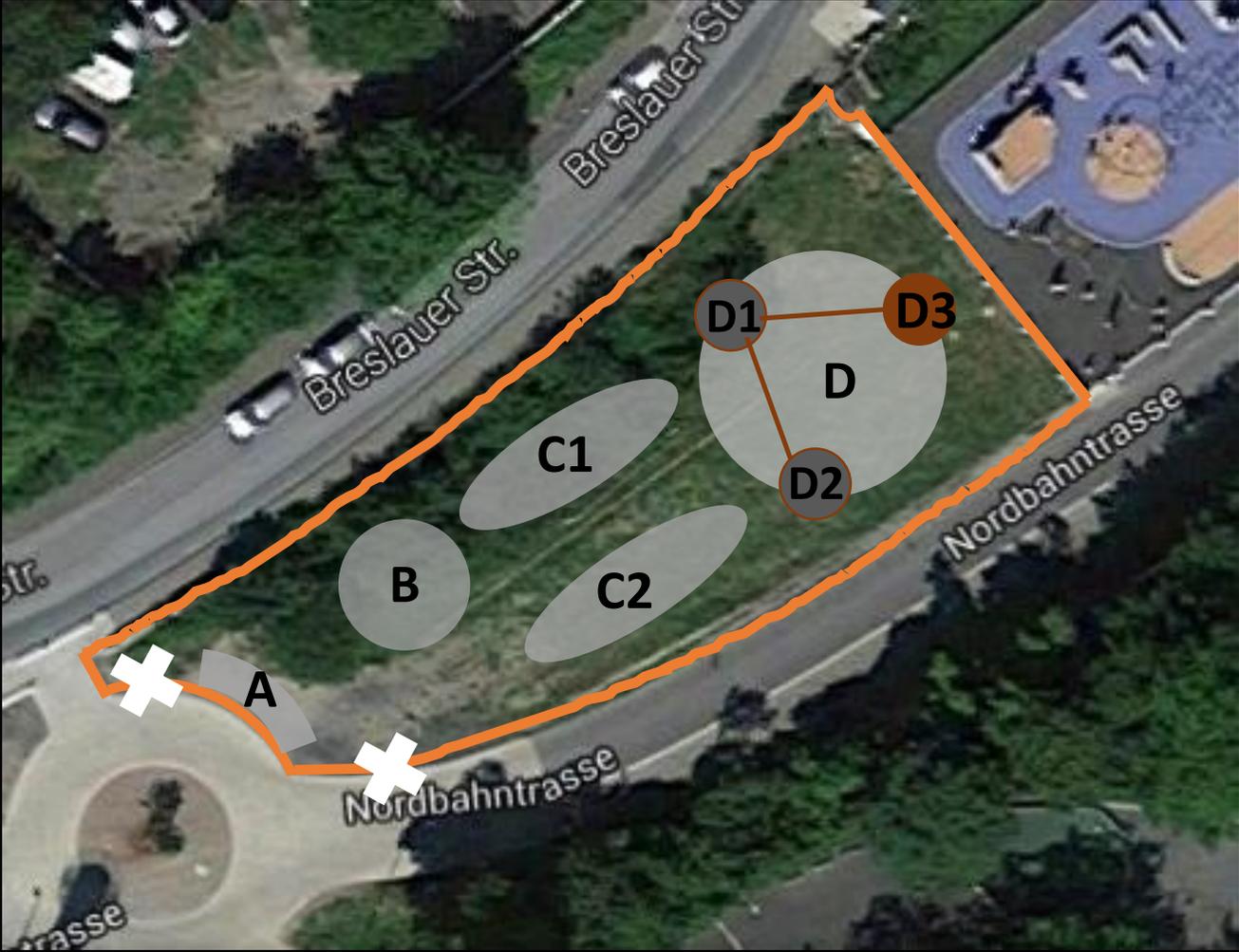
An example of a Sand Table

Ref.: (Broto, 2012, p. 26).

# Play Zones of CONCEPT 1

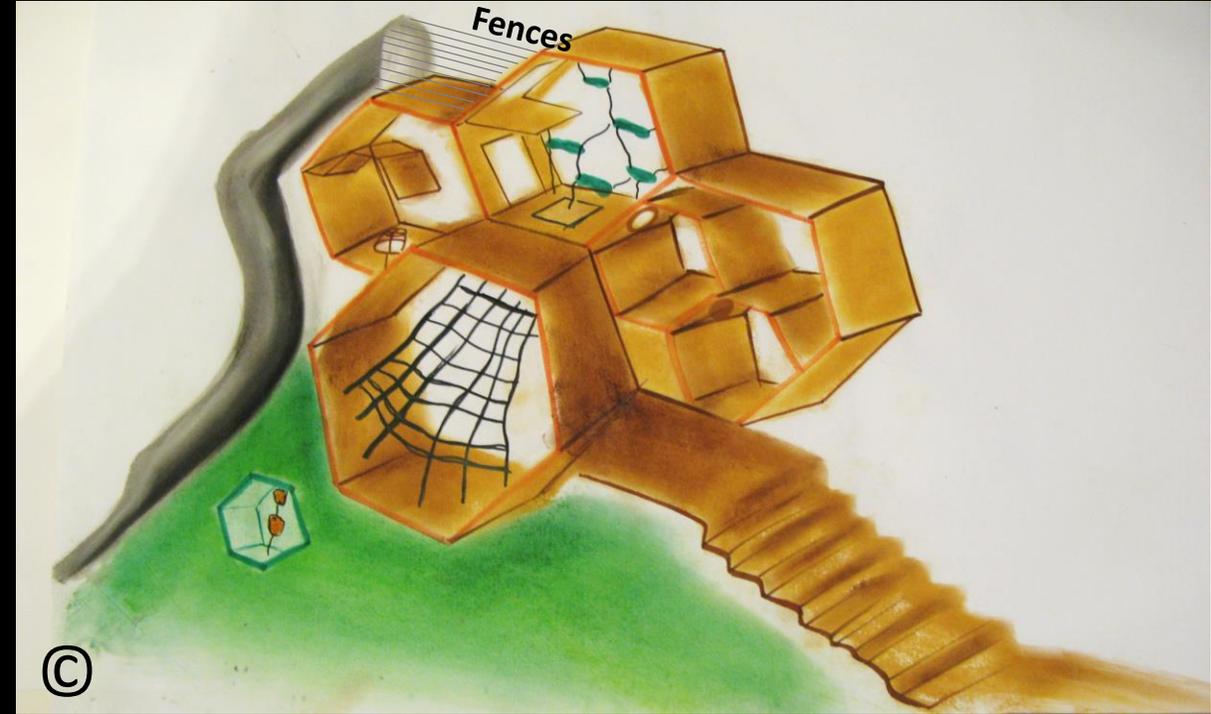
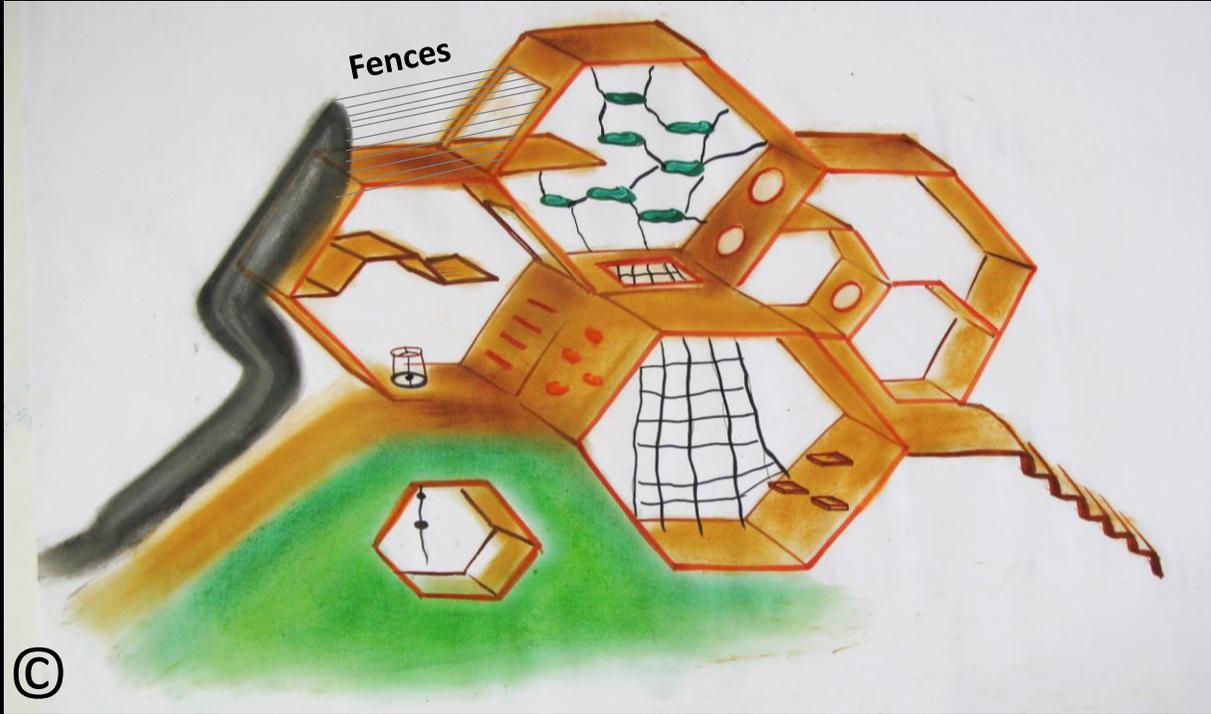


Concepts for **Zone D3**



## Concepts for Zone D3

### Beehive-shaped Play Settings Designed for Zone D3

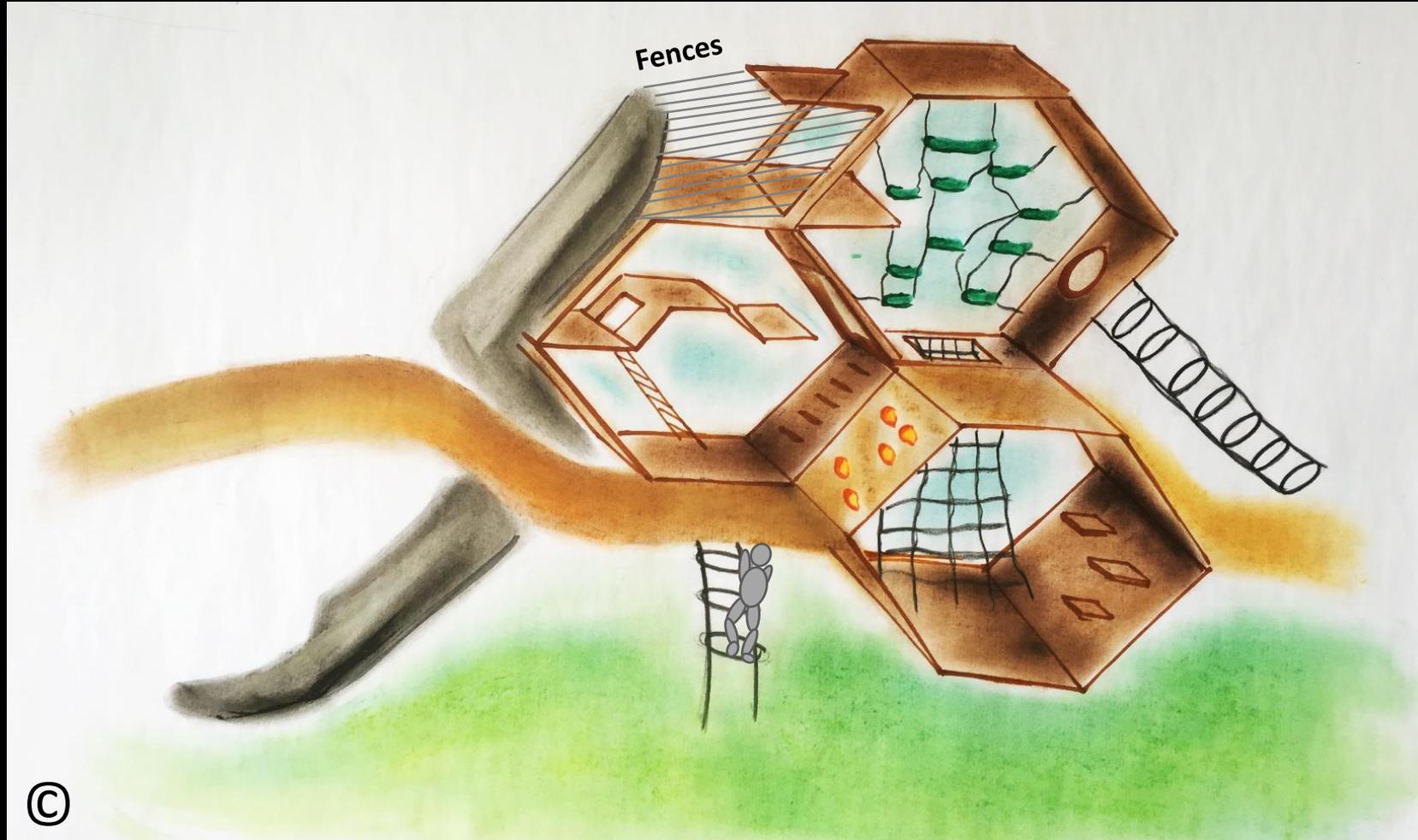


The main shape of this large play setting has been taken from the form of beehive.

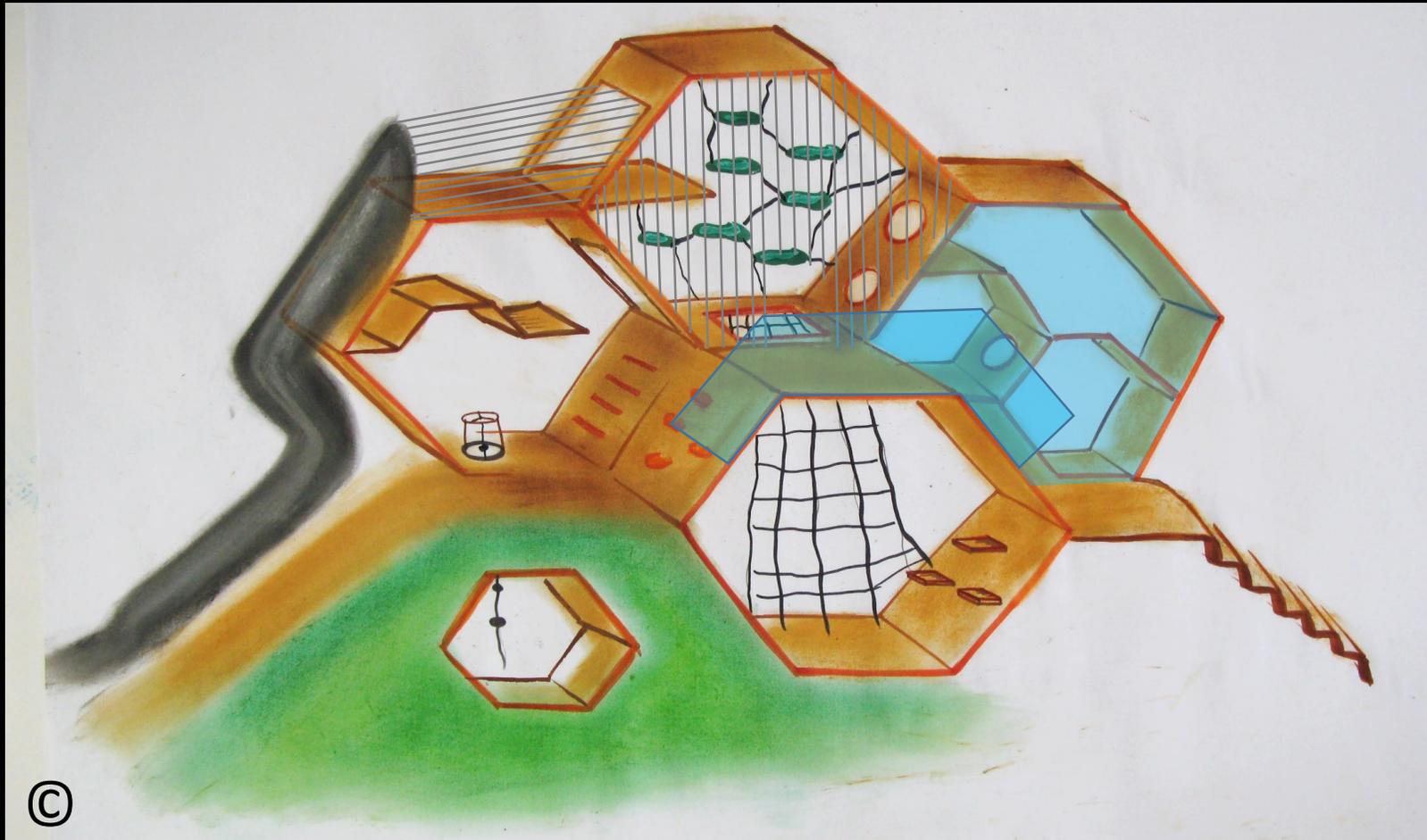
It is a set of hexagonal shapes that are mounted next to each other like holes of a beehive. This combined play structure includes different parts and offers various play opportunities such as climbing the nets/ropes/stairs, sliding, and entering/exiting different holes and exploring the beehive.

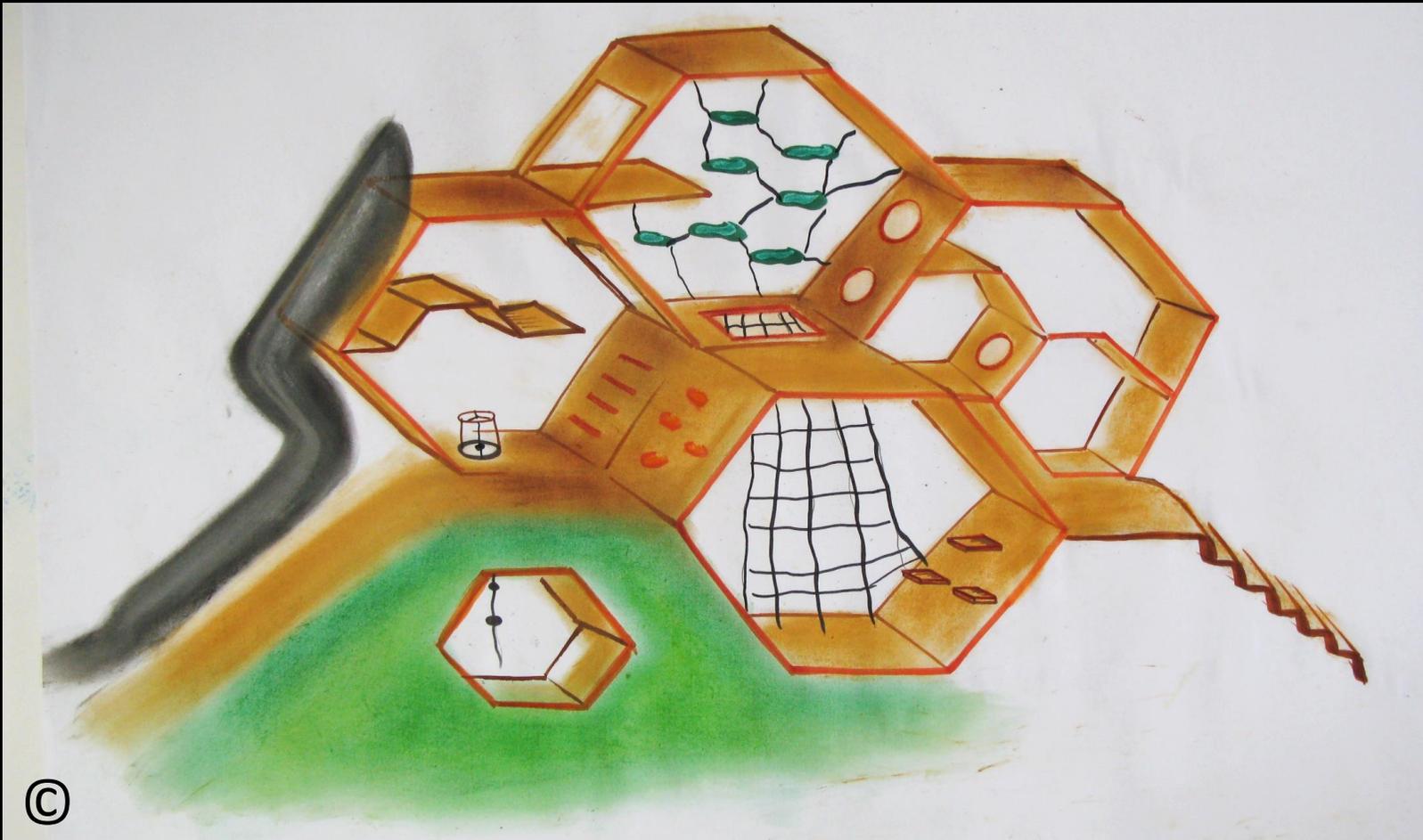
These activities involve children in different types of play such as physical play, make-believe play, and social play.

## Concepts for Zone D3



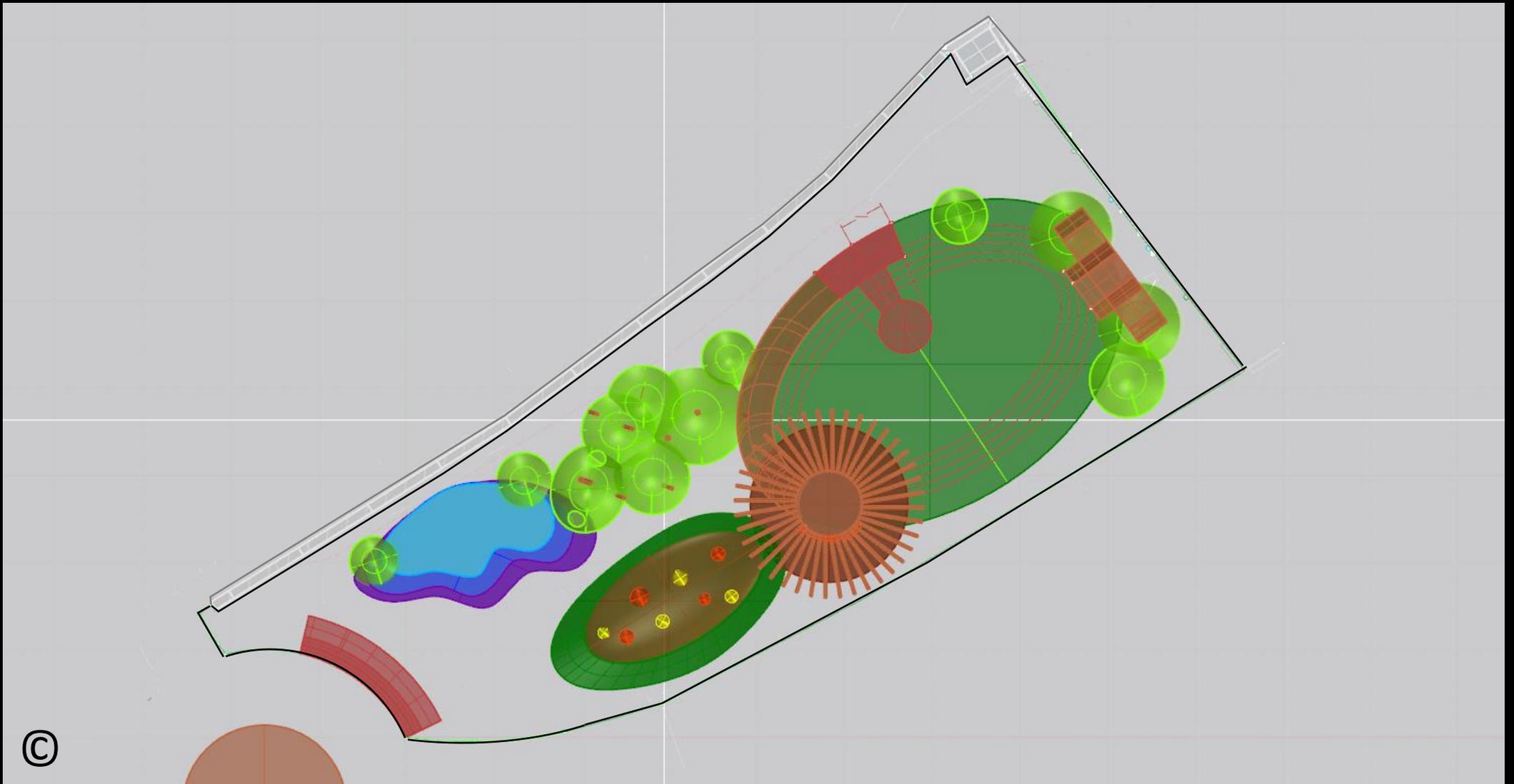
## Concepts for Zone D3

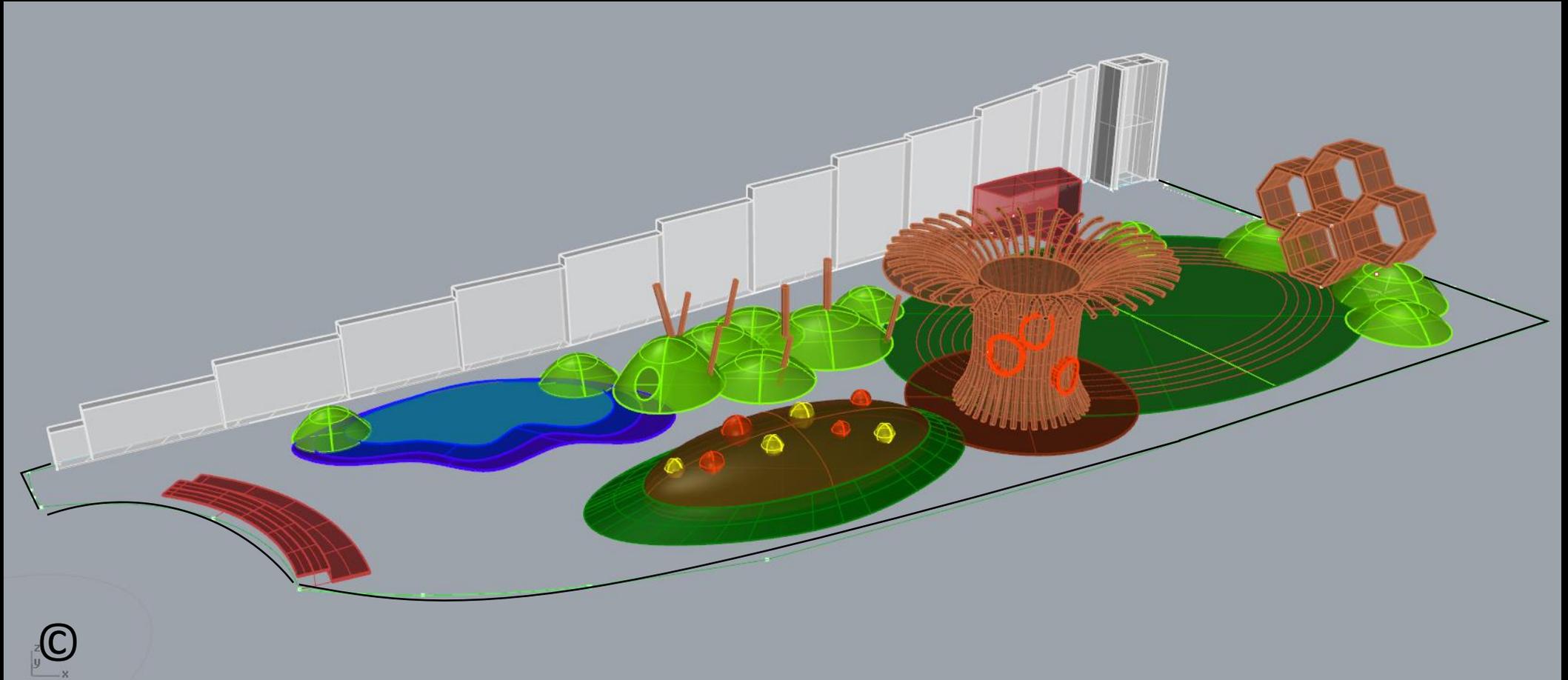




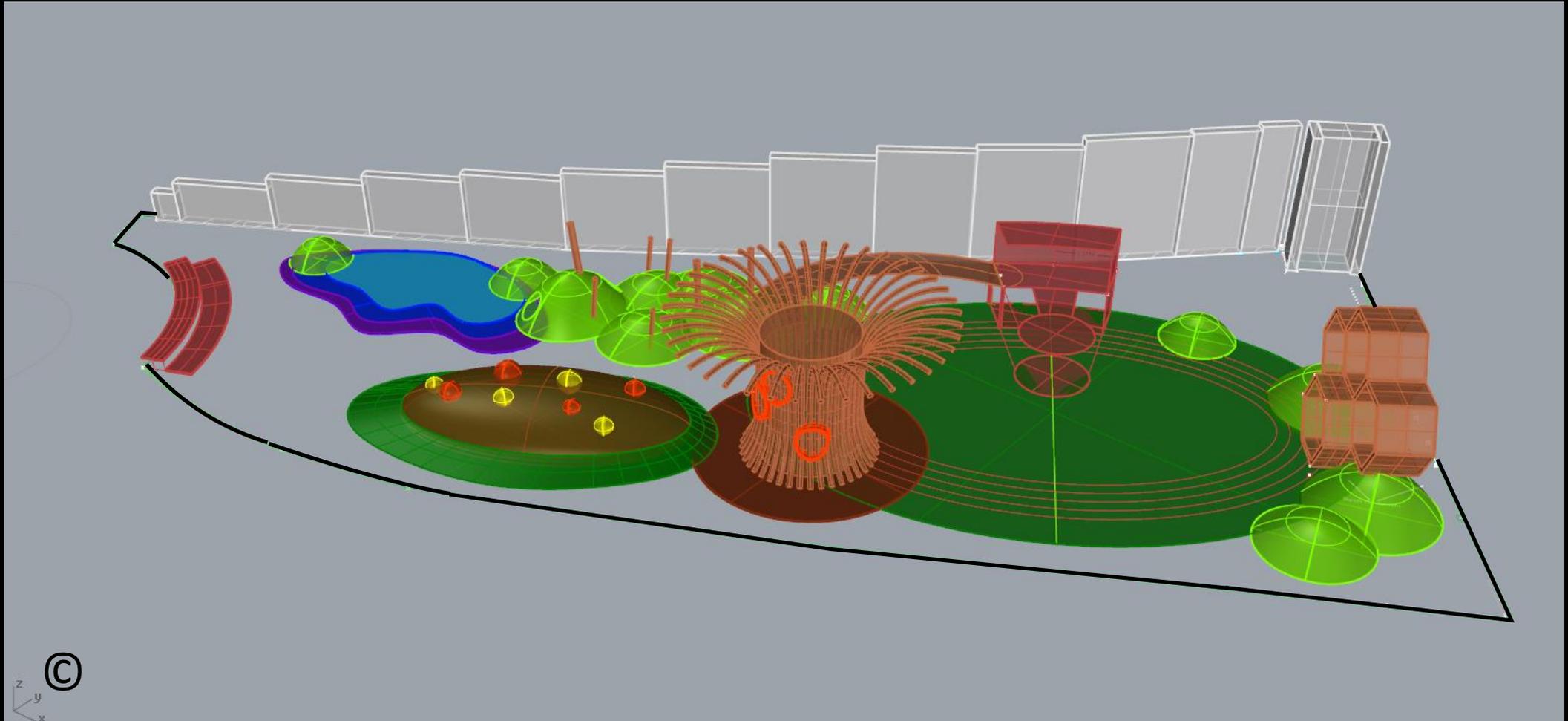
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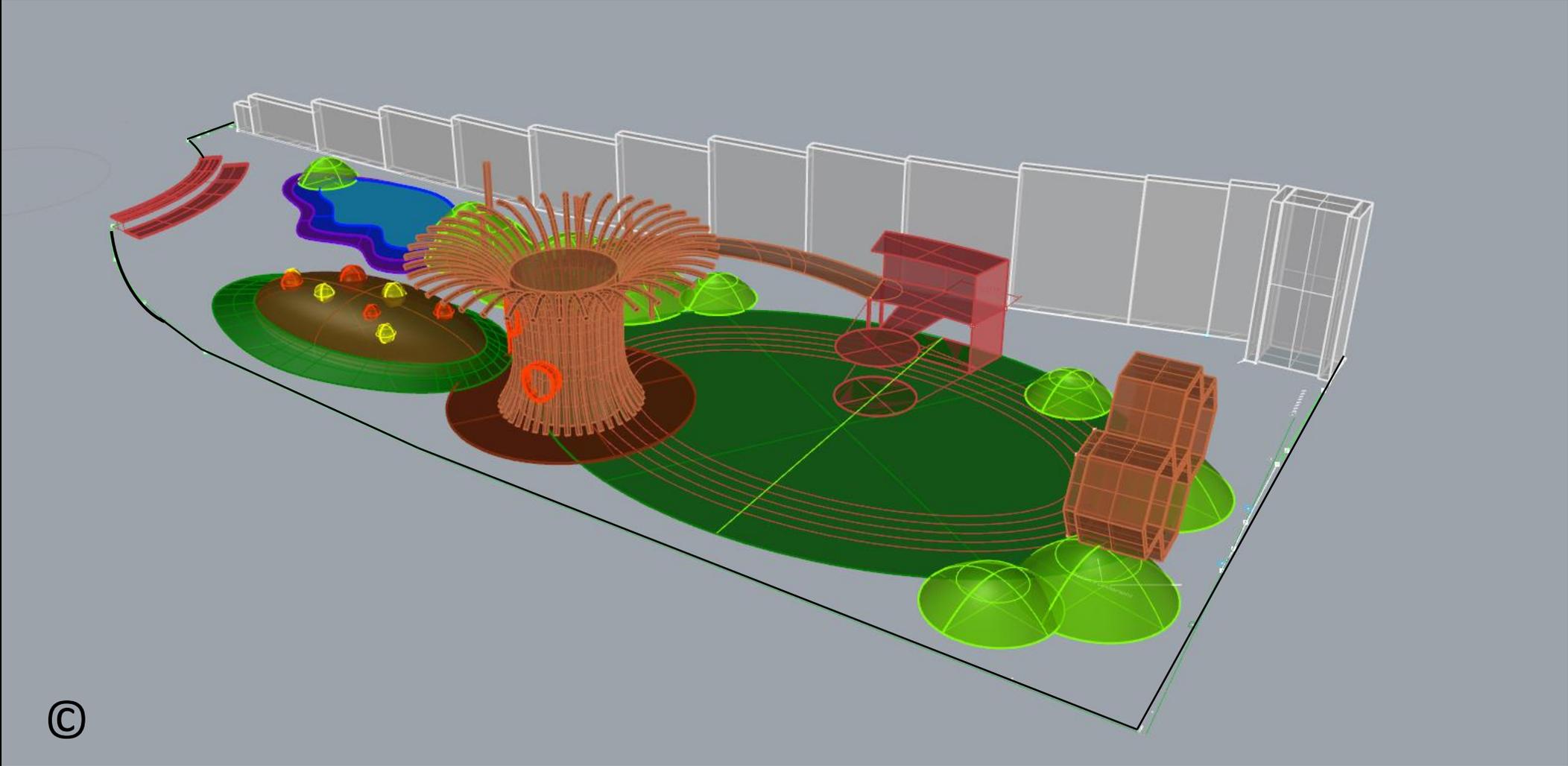
**3D Computer Model of CONCEPT 1  
(Simple Presentation)  
Presenting All the Zones**





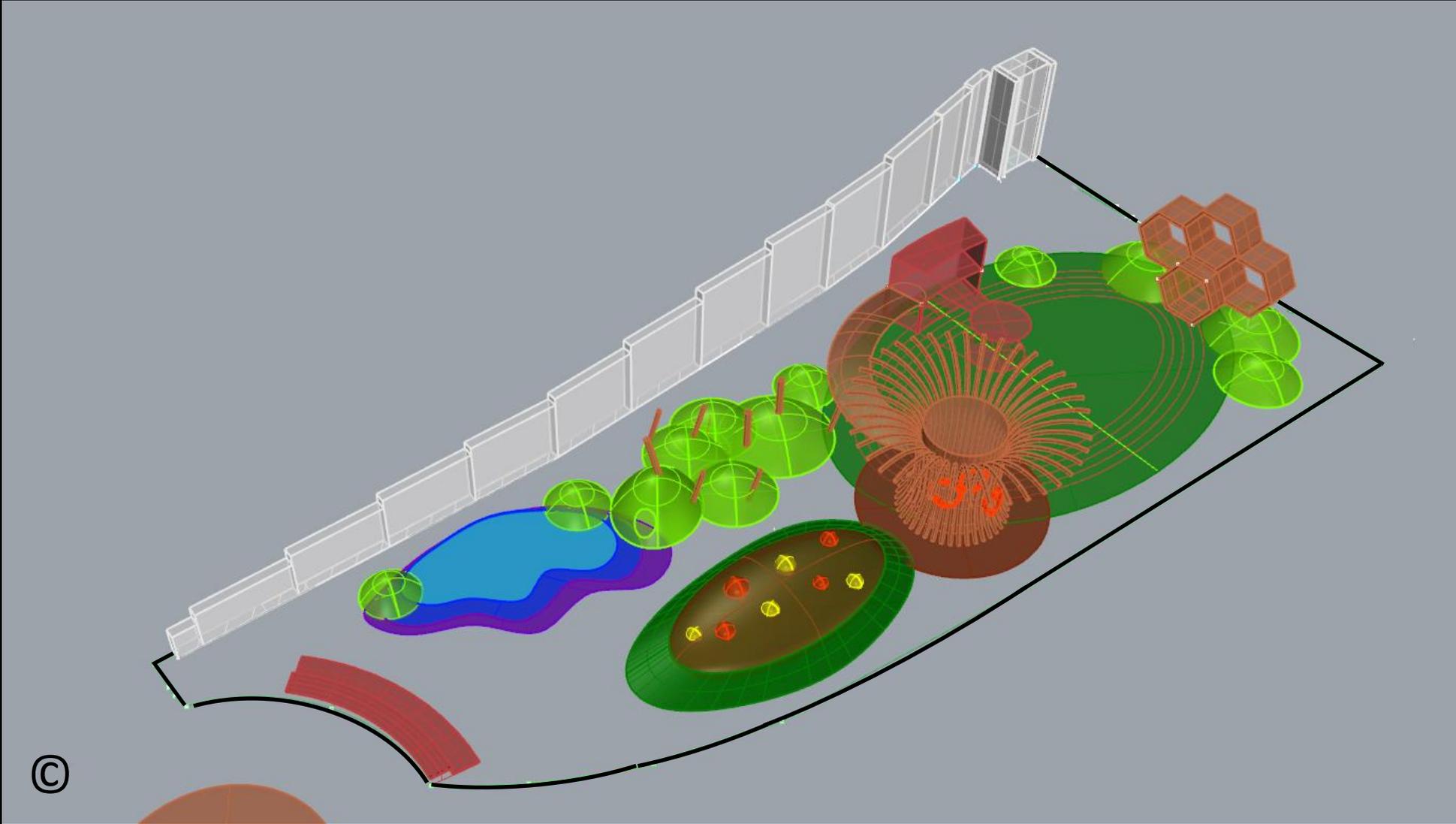
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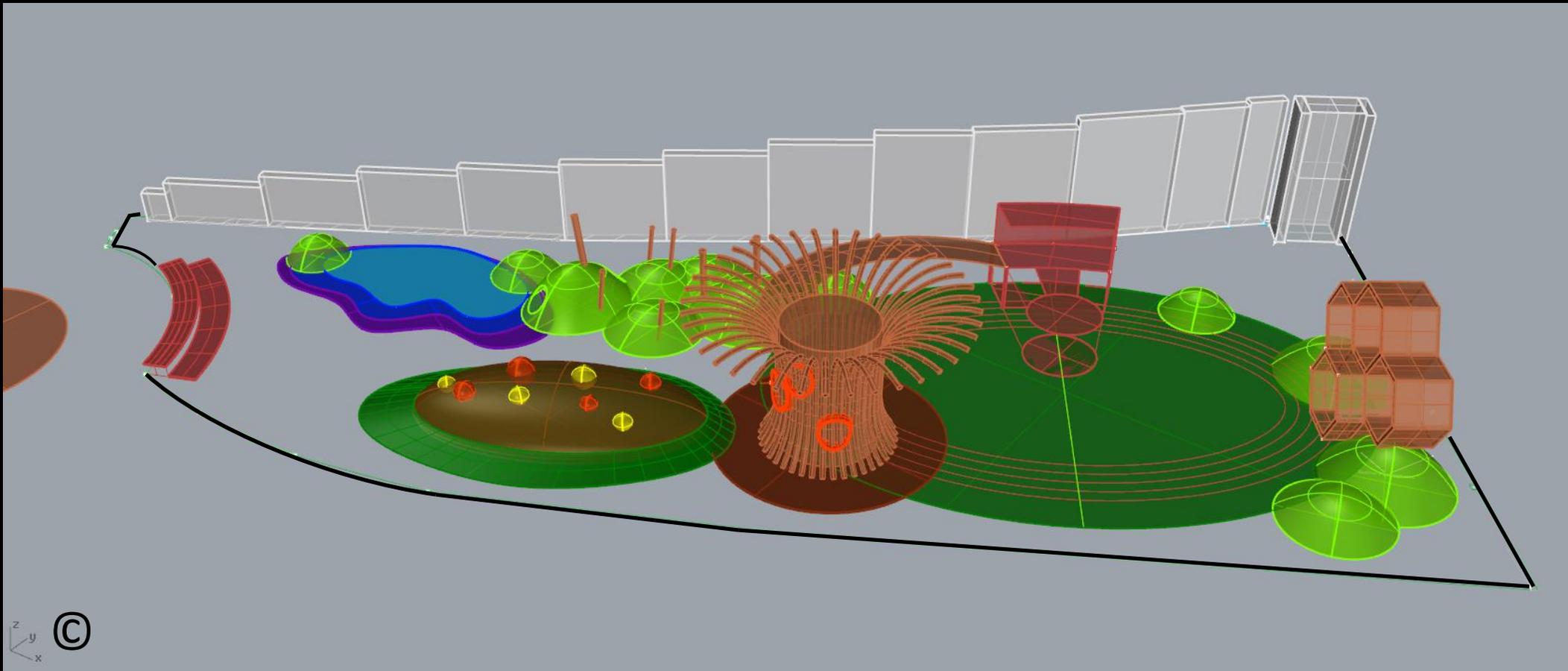


©

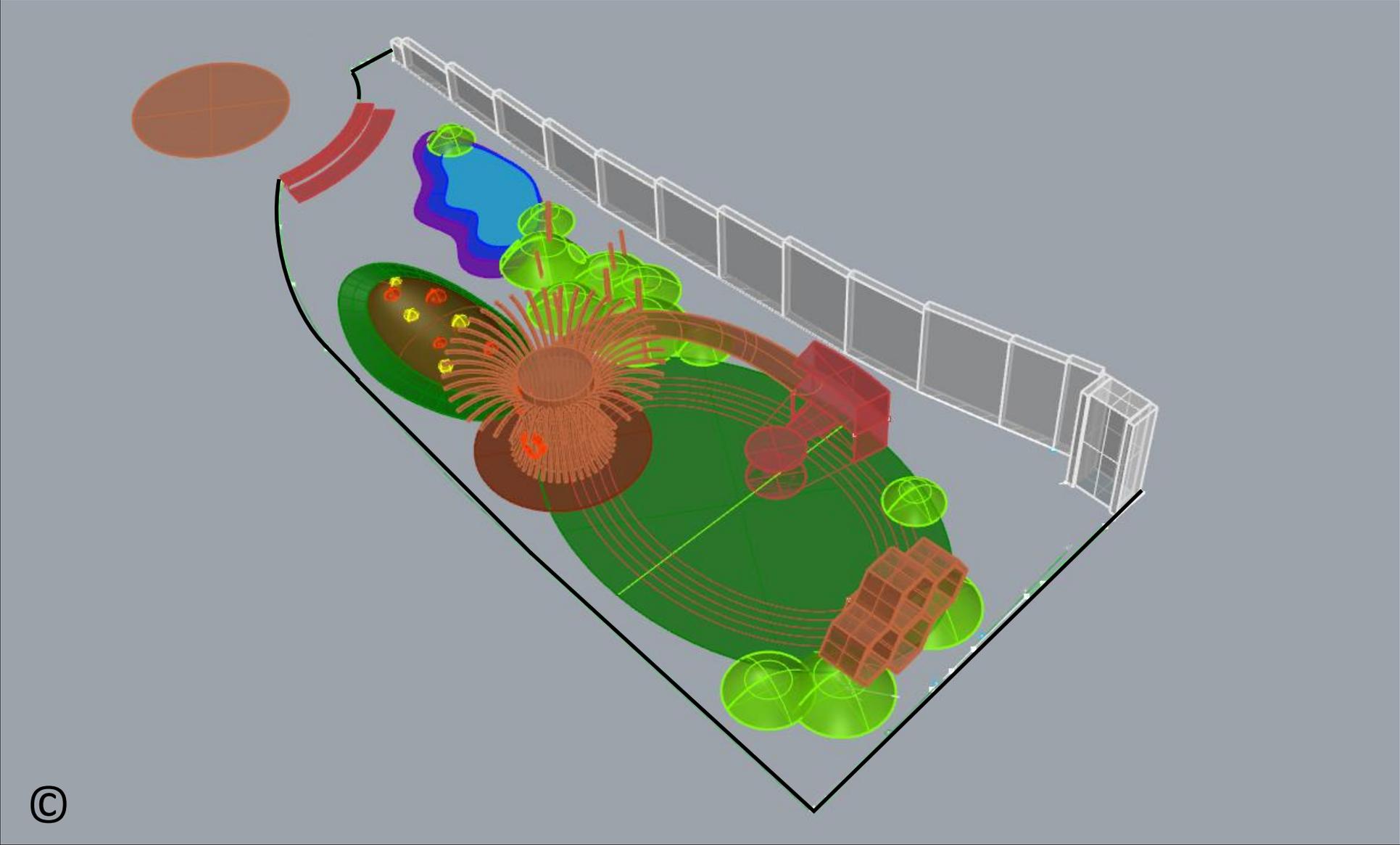
Neda Batenipour



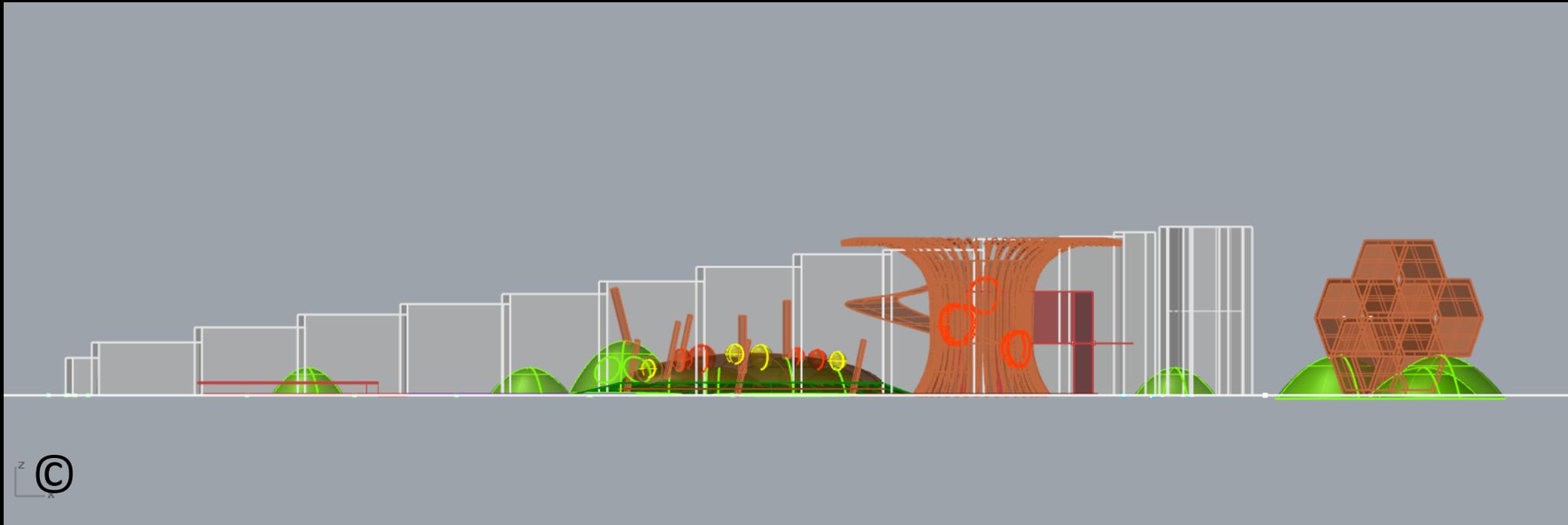
©



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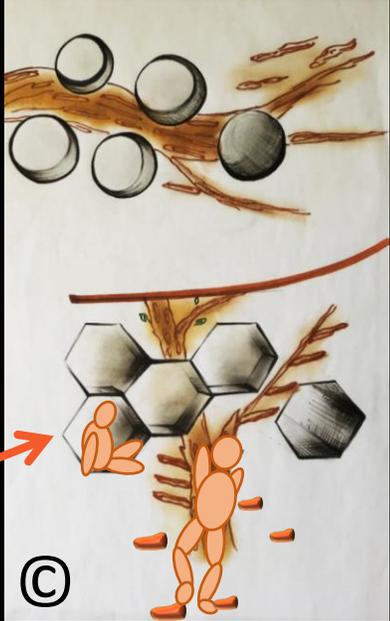
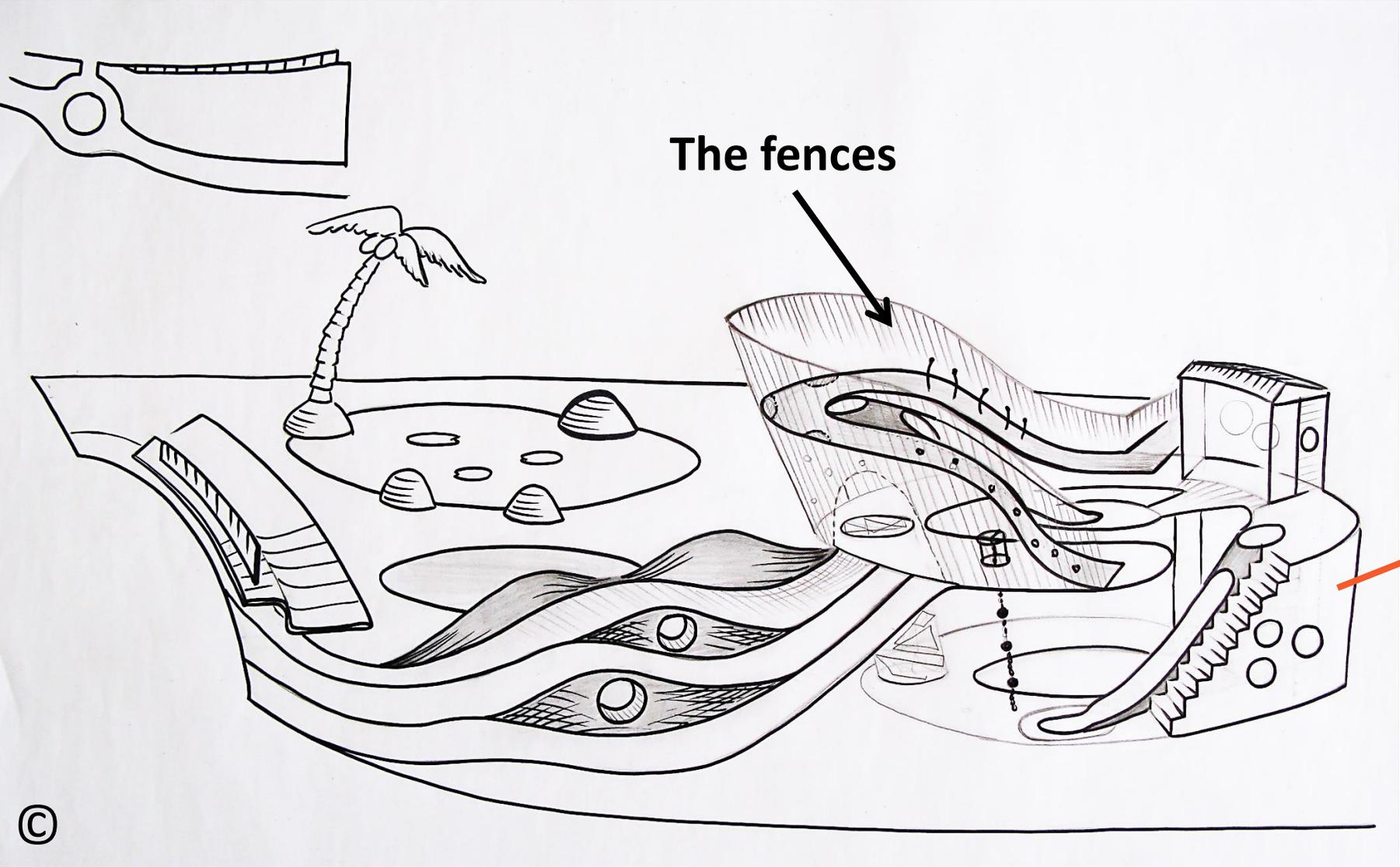
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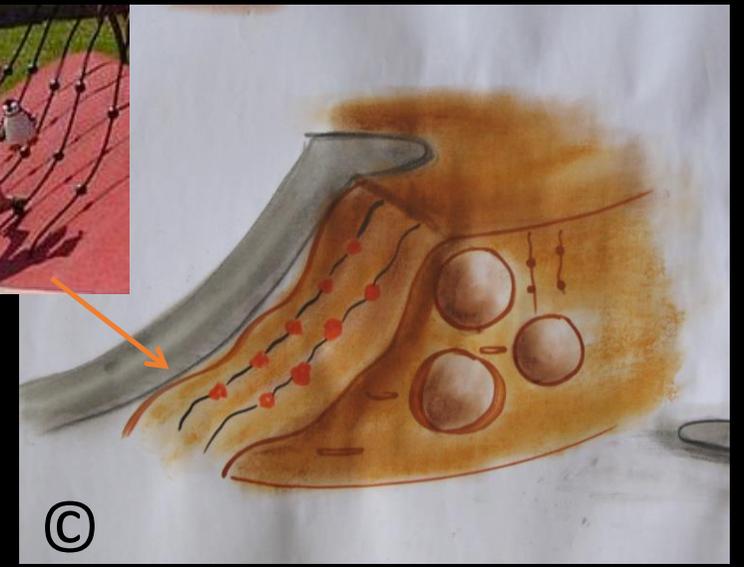
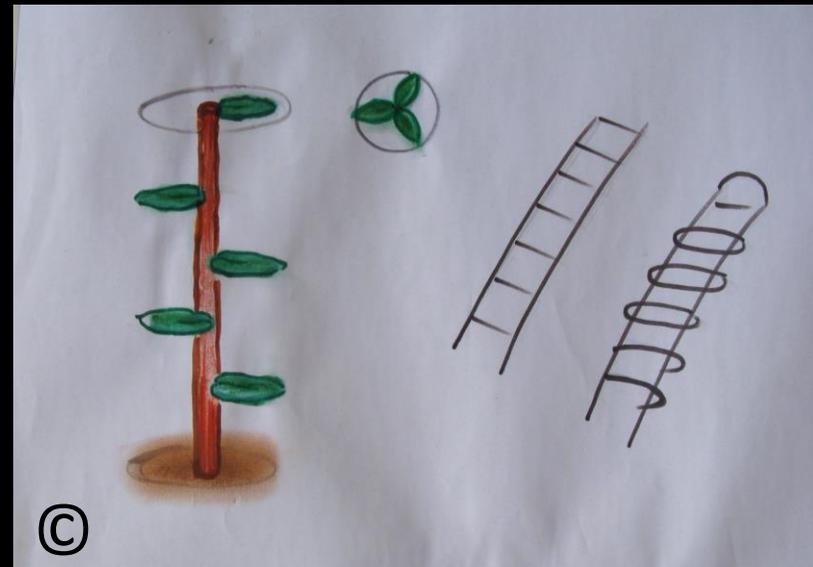
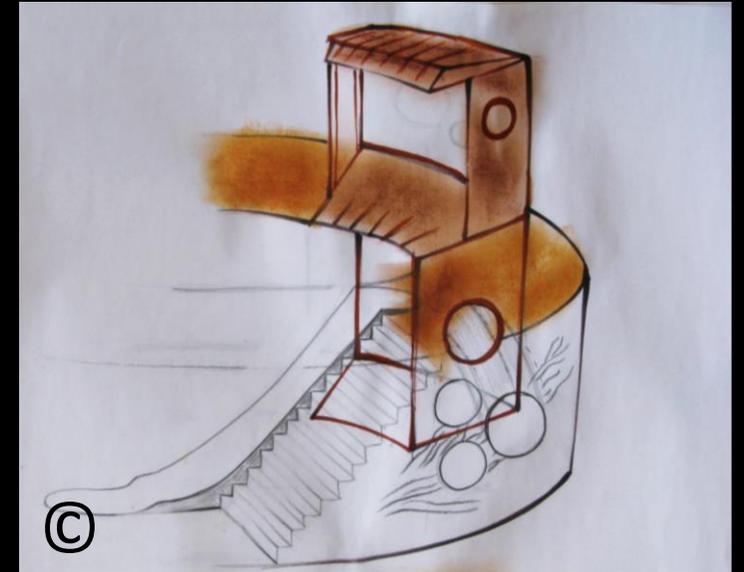
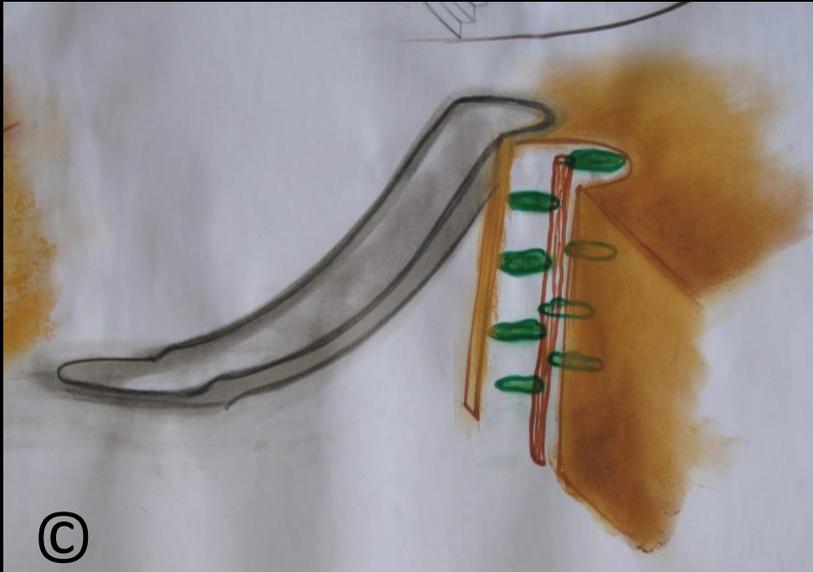


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**Other Concepts  
for Future Playground**  
Presenting Whole Playground Design

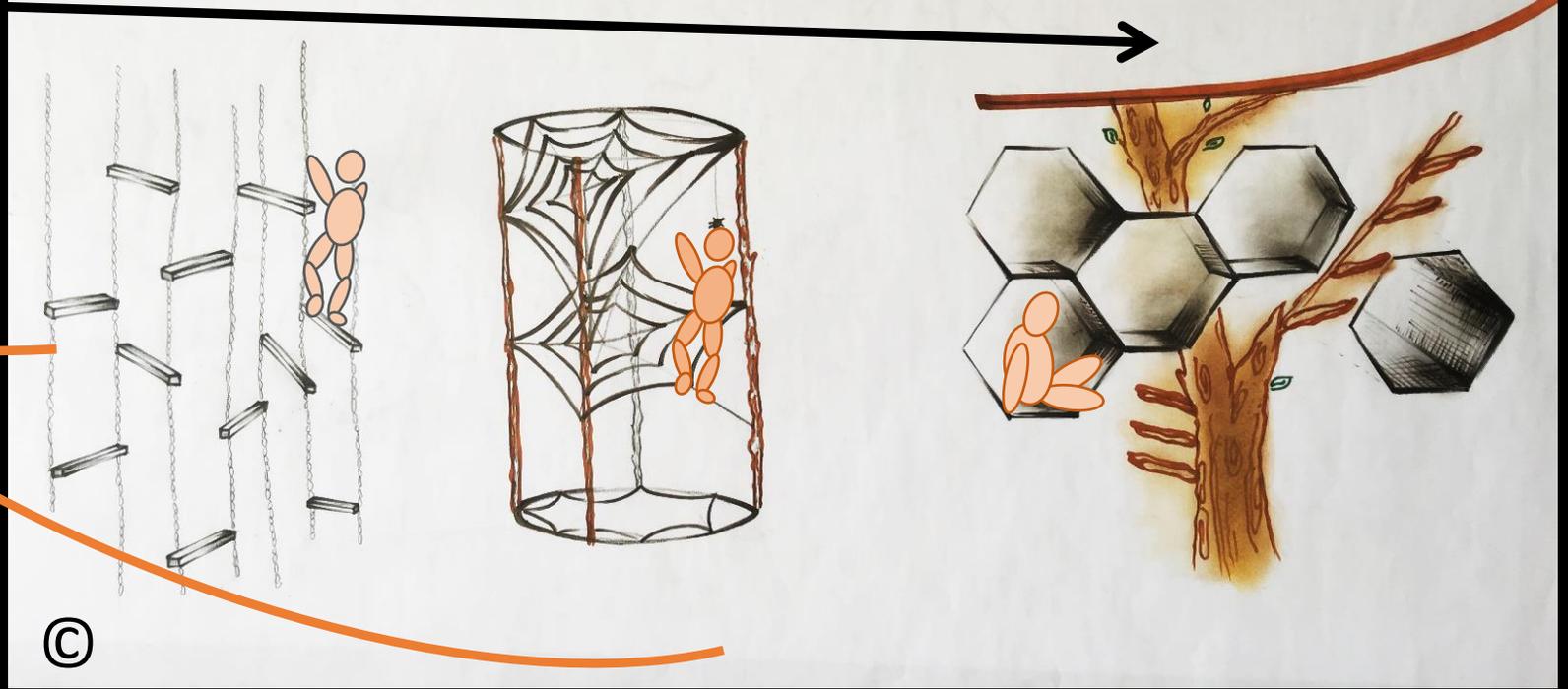
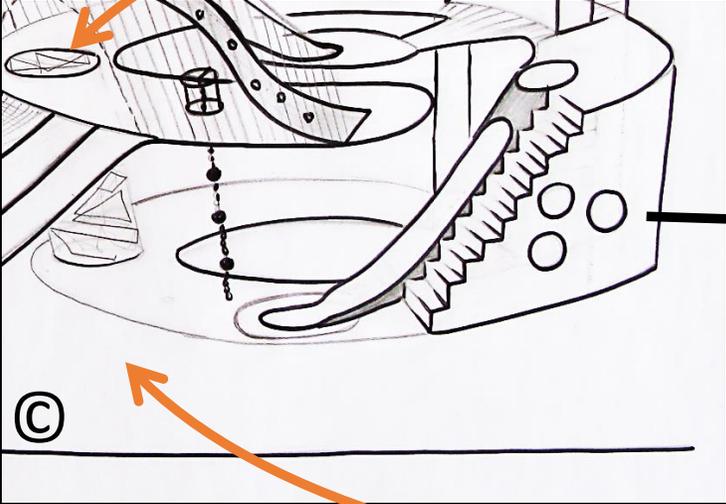
# CONCEPT 2





Name: Van Campenvaart  
Playground  
Design: Carve  
Location: The Hague, The  
Netherlands  
Ref.: (Broto, 2012, pp. 87-93)

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Concepts for climbing equipment that connects the lower space to the upper space.

# CONCEPT 3



## CONCEPT 4



# CONCEPT 5



## CONCEPT 6



# CONCEPT 6



## Feasibility; Finding Benchmark Case for the Arc Path



Name: Urban Dock LaLaport Toyosu  
Design: Earthscape  
Location: Tokyo, Japan



Ref.: (Galindo, 2012, pp. 184-187);  
<http://landezine.com/index.php/2011/11/toyosu-landscape-architecture/>,  
accessed: 2016.

Neda Batenipour

## Feasibility; Finding Benchmark Case for the Arc Path



**Name:**  
**Evelyn Court Playground**  
**Design:**  
**erect architecture**  
**Location:**  
**London, United Kingdom**

Ref.: *(Broto, 2012, pp. 80-83).*

**Neda Batenipour**

**Here, just as an example, some of the drawings/stories that have been reflected in the concepts and ideas are presented. However, various explored experiences have been reflected in the concepts (i.e., have been applied to form the concepts) and these are just examples.**

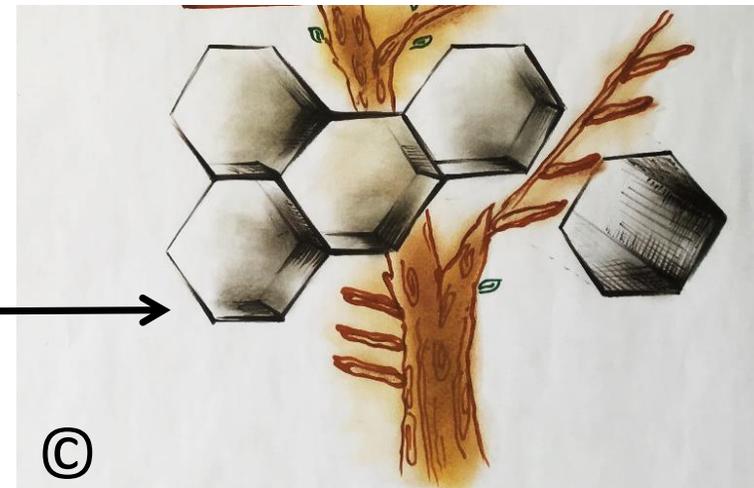
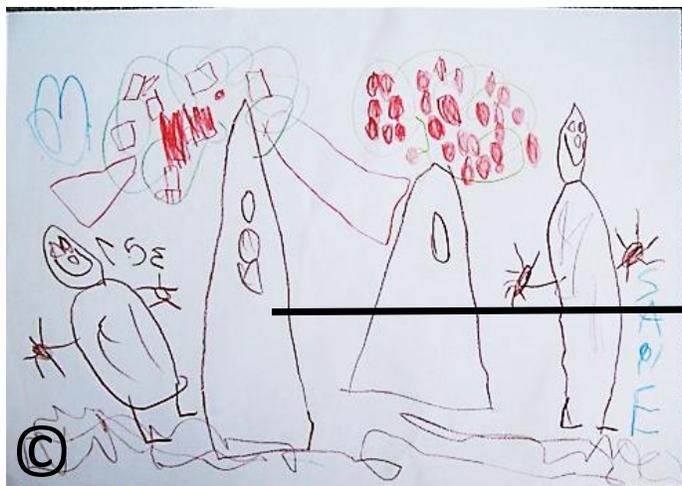
**Drawing No. 61**  
**See Appendix 3 & Appendix 4**



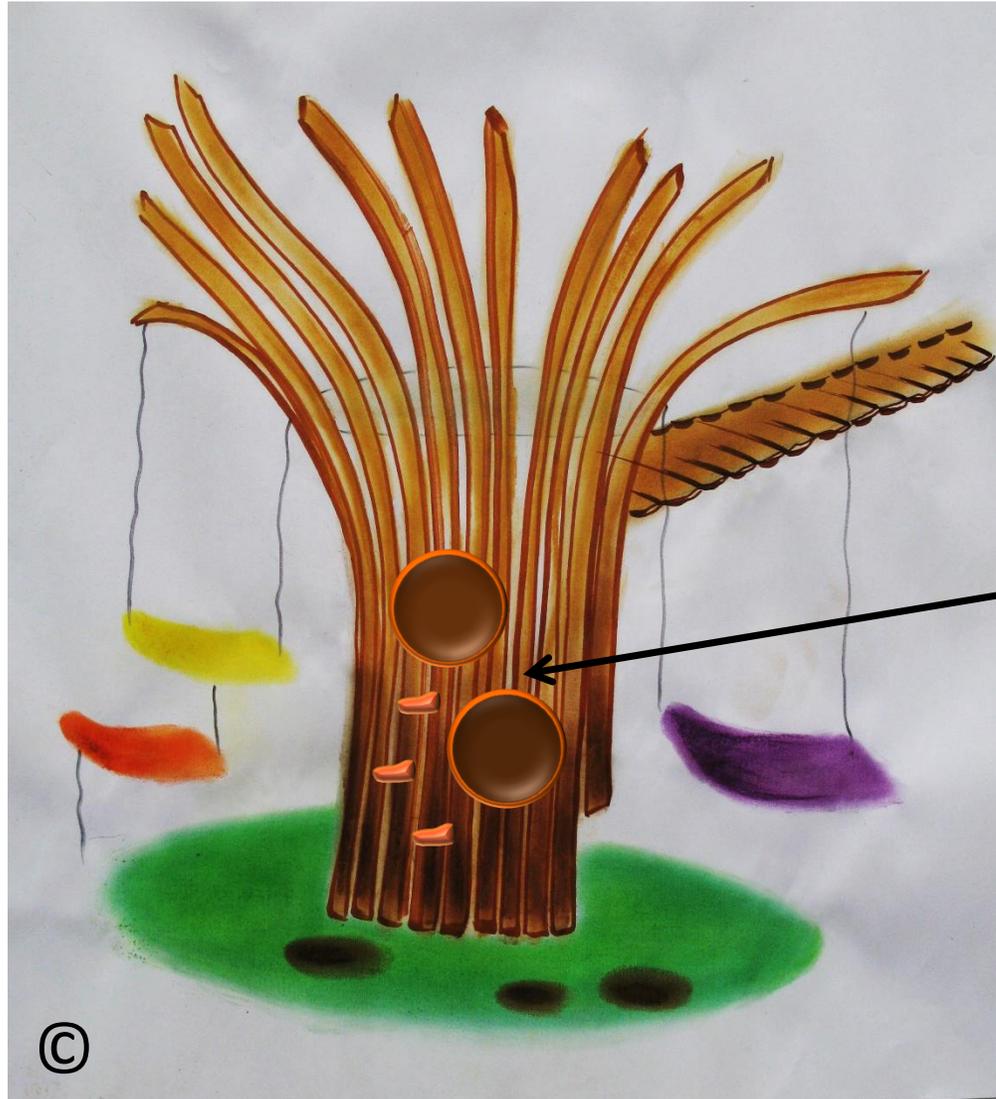
**Squirrel's holes  
In the Tree**



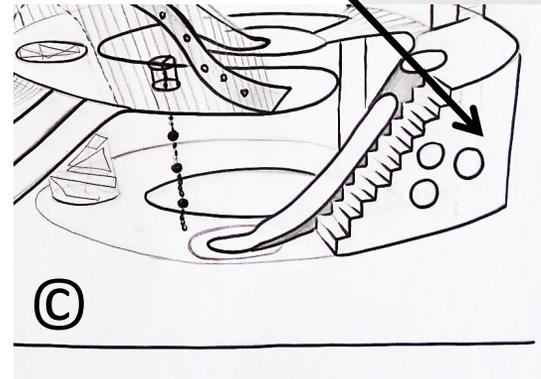
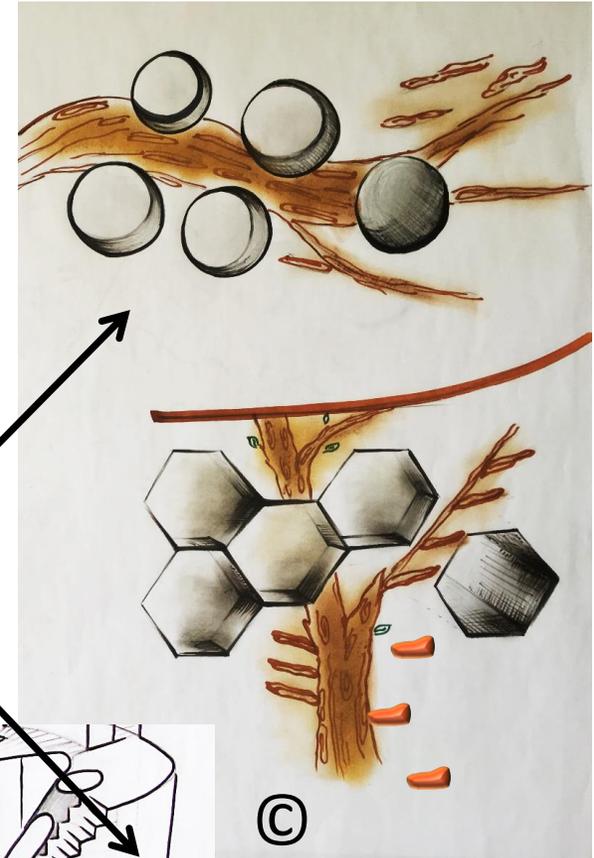
**Drawing No. 53**  
**See Appendix 3 & Appendix 4**



**Squirrel's holes  
In the Tree**



Squirrel's holes  
In the Tree



**Thank You for  
Your Attention**

