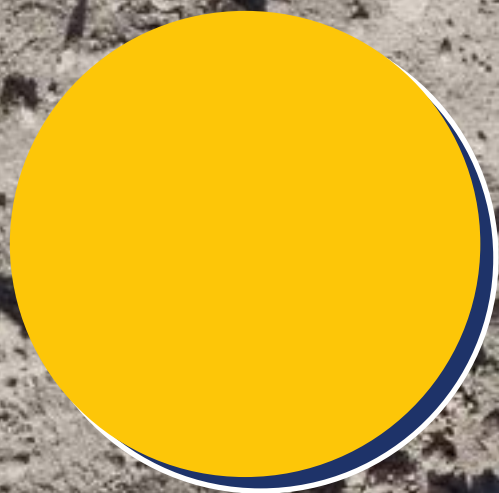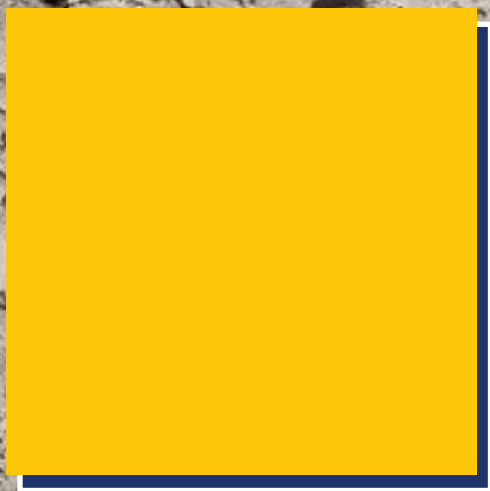# THE PLAYGROUND PROJECT

FLORIS BASTIAN BOUMA

a research and design project by
*Floris Bastian Bouma*

This project is dividid in three main topics, working with the topic and the meaning of *play*, the form and the design of the *ground*, everything comes together in the final *project*.
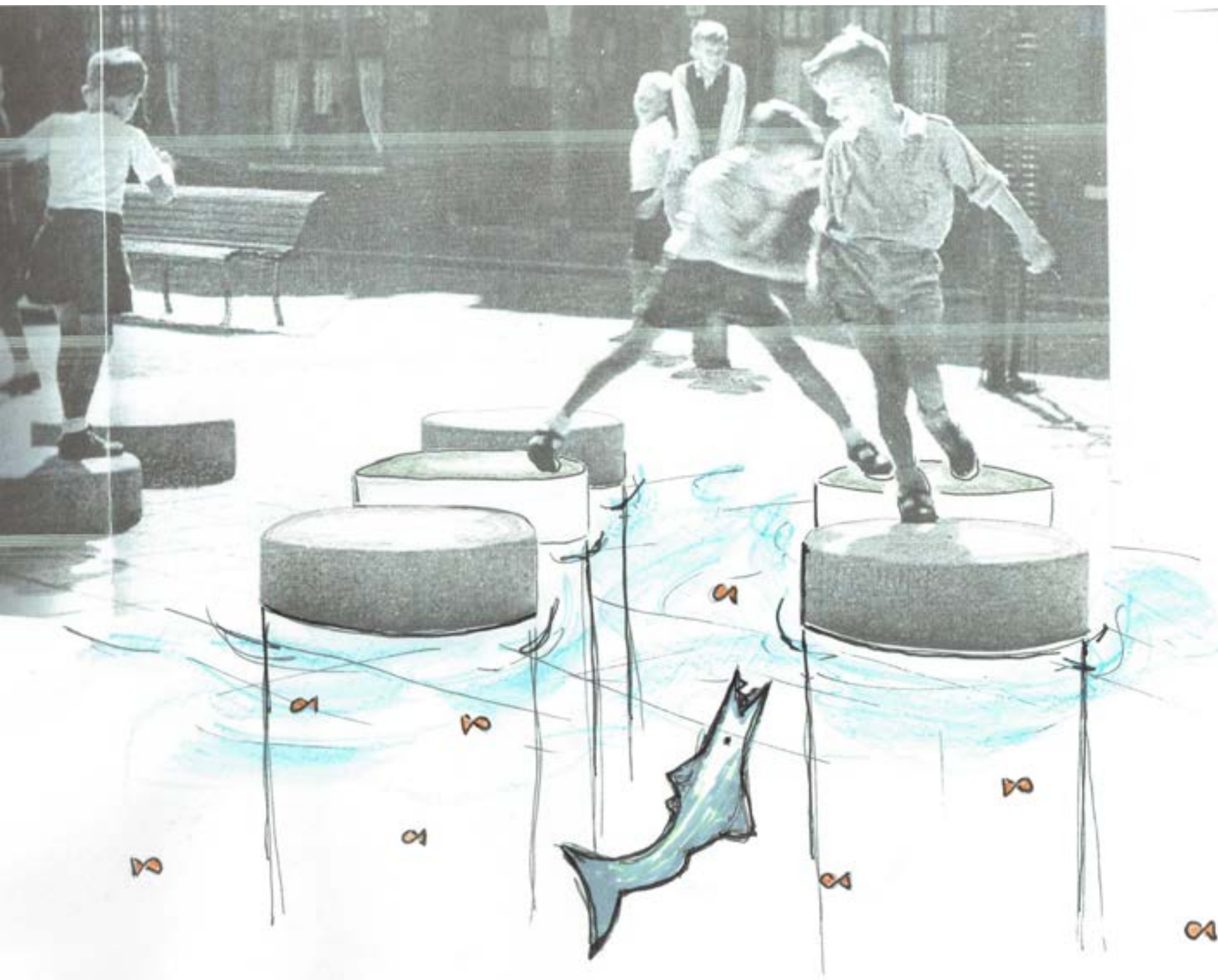
# *ABSTRACT*

Playing is the dominant activity in children's daily life, but is the playground still the place where children have their first encounter with societal roles, norms and values of today's society, through the act of playing? The playground functions as the place where children are forced to educate themselves, in learning to develop, to make decisions, to solve problems, and to regulate emotions. They look for risks in order to test and explore their physical limits. In this research, I will be focusing on the existing playground in the street of my childhood home aiming to gain understanding as to whether or not the playground still fits the needs of children. Is there still space to discover the basic guidelines of social behaviour and finding out one's personal limits? Looking at today's playground, I see an over-designed, completely protected, safe-in-the-grid play area which leaves no space for one's own interpretation and imagination and is not at all a suitable space for testing out your own limits. The play objects are already placed in a concrete form and can only be used in one specific way, eliminating any space for personal initiative. I am curious about how these playground designs arose, and whether there is any kind of communication with children about their needs and desires in the context of play. Which parties decide where and how playgrounds are built in the urban landscape, and why playgrounds are not connected with their urban surroundings, but instead form separated and isolated entities. This detached space often does not meet the demands of the children, resulting in them abandoning the designated playing area, and finding play areas of their own, including streets and abandoned buildings or wastelands, sometimes close to traffic, where they chose to play instead. Making the playground as safe as possible by placing the different kind of play equipment behind a fence is actually resulting in its opposite safety in that the children are looking for a different kind of place to play freely.
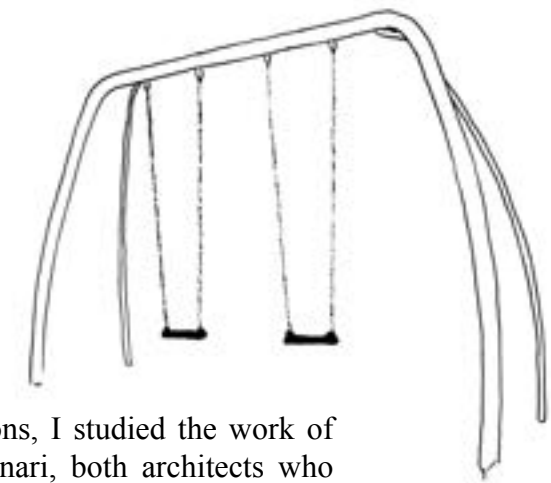
Aiming to answer these questions, I studied the work of Aldo van Eyck and Bruno Munari, both architects who worked on playgrounds and used primary shapes in urban architecture. I am also focussing on the work of Mariana Brussoni, who writes about the importance of the element of risk in playing, and how this affects a child's development and social behaviour. For this research, I am working closely together with the municipality and NIJHA Playground Equipment Factory to get a better understanding of the origins of playgrounds. Adding to this research, I conducted many conversations with children from different cities and neighbourhoods, with the aim to find out what the perfect play area is for children and how that fits in the urban landscape, or more specifically, in my own street.

# *INTRODUCTION*

**01** The playground in my parents street has always fascinated me in terms of its design and placement in the neighbourhood. The small playground is located in the middle of our street, built on a foundation of sand, with a medium-height beech hedge surrounding it. Between the hedge and the road, there is a small grass court which forms a gentle slope on one side. The other side has a grass court at the same level as the playground. The playground consists of a swing set, seesaw, and a climbing frame which are all placed very close to each other. On the other side of the hedge, you can find a bright blue concrete ping-pong table. The table is surrounded by benches used by parents and babysitters. To observe how children use the playground, I pass this place multiple times by car, bike and foot. Every time I pass this place, something doesn't feel correct in the way it is made - the way the playground is placed in this street is mismatched with the urban structure of the neighbourhood. When I first started this research, I entered the playground and stood in the middle of the space. I started to get an understanding of what it means to be in this space, and what the perspective looking from the playground, instead of to the playground, is by focusing on all its details, but also on its further surroundings. There are two boys playing in the playground. I notice that they are completely ignoring the playground equipment. To leave and enter the playground, they climb over the hedge instead of using the entrance. Next to the swing, they are digging a hole in the ground, and with branches of trees they found, they are building a tower in the hole. I walked up to them to ask what they are doing and to find out what they think about this play area.

Floris: "Hi guys, what are you building?

The boys: "We are building a fire-breathing volcano on an island!"

Floris: "A wow nice! How is it going?"

The boys: "Okay, but we need to find more branches to make it higher!"

Floris: "Okay, nice. Yes, make it as high as possible, that is the best!"

I estimate these children to be eight years old . To have a good conversation with them I'm trying to formulate my question in the same way they are talking to each other; making the question as precise, direct and simple as possible.



Floris: "So why are you making a volcano and not playing with the playground equipment?"

The boys: "They are boring"

Floris: "Oh, why are they boring?"

One of the boys: "You can do only one thing with them. Just swinging and swinging is boring"

The other boy: "Yes, really boring"

Floris: "So because you can only do one thing with the objects in the playground, like swinging, it is not fun?"

The boys: "For the first time when we went here it is okay, but now it's boring."

They are saying something really interesting here about the way they see the playground and the way they use it. I realise now that the small space in between the playground equipment is the space they can actually use to realise their fantasy. The sand is a material they can transform into whatever they want. Because the sand is much more flexible than the stiff equipment, which makes the sand more attractive to them on repeat visits to the park.

Floris: "Do you guys come here often?"
The boys: "Not that much"
Floris: "Do you live here in the neighbourhood?"
One of the boys: "Yes my house is that one!"
The other one: "And mine is in that street!"
Floris: "Nice, thanks guys, and good luck with the volcano!

This short conversation gives me a good first impression of the way these children look at this playground and also about how the latter has been built, I also asked how far from the playground they live, which gives me an impression of how far these kids travel to go to the playground.

In this research I want to focus on how the design of a playground is established, namely, the basis of the design and positioning choices of the playground equipment. How are children involved in the design? Do present the playgrounds the answer, the demands of children's developmental needs? How does a playground communicate with its urban surroundings? Is the playground considered important by the municipality?

Are playgrounds nowadays still learning spaces, where children can teach themselves, to make rules and follow them for example, or about self-control and maintaining peer relationships. Did the playground become an over-designed area? Is the design playground potentially too over-controlling ? What factor does the element of risk play in the developing of a person's life. To summarise these questions; how important is free play in learning life skills for children, and do we currently facilitate this through playground design?

In order to create a complete image, my thesis will be divided into three parts: 'Play', focusing on the importance of play, its role in personal development, and what one needs to play, and 'Ground', which focuses on the location of the playgrounds as well as the history and the practicalities of playgrounds. With this research I aim to create a new design 'The Project', for the play area in my street, in which there is space for children to teach themselves about taking risks and self control, and where urban surroundings are involved in the design to create a play area for everyone.

This thesis is a study of social life in and around playgrounds as well as a study of playgrounds themselves, how children move around this public space, and whether or not it fits their needs. The playground equipment and its scale and placement is essential, but what is most important for this thesis is the perspective of children on playgrounds. Therefore, I work together with children who are living in the street of my playground. I work together with elementary schools by having online meetings and asking them questions about how they think about playgrounds and what their perfect playground would look like. I interviewed children from Amsterdam, Stockholm and my hometown, Lochem, to create a complete understanding of how children in different cities are using playgrounds and how they think it should improve. Working with the municipality of Lochem, I want to find out why the playground is located where it is now and what the idea was behind this playground.

To get a better understanding of how playgrounds and equipment are designed and produced, I am working together with NIJHA. NIJHA is a company which designs playground equipment for neighbourhoods on behalf of the municipality. I want to get more information about the way playground equipment arose, and how they research the demand of the children, what are the rules you need to follow when you build a playground?
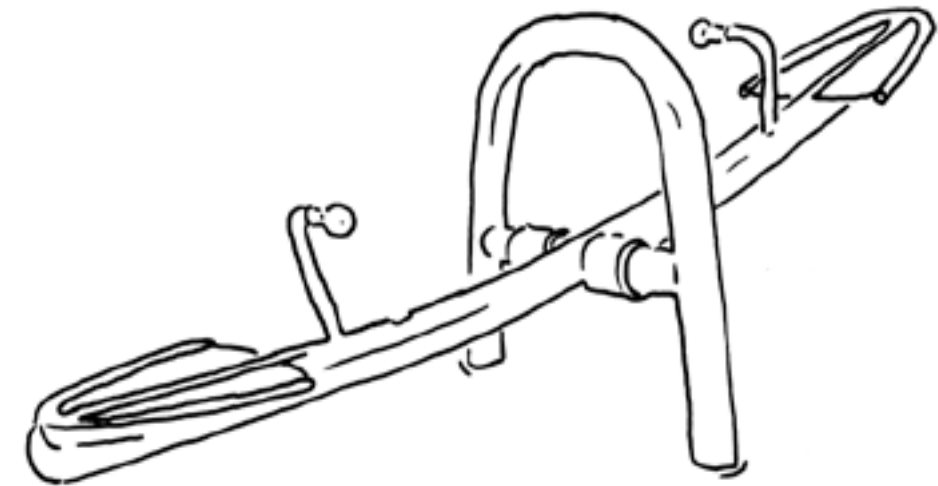
## 02

Why am I so fascinated by the playground in the first place? The playground is a place where everything is possible. When I was a little Floris, I often played outside. In my street, I played at the playground, but also in the areas around the playgrounds. For example, other children in the neighborhood and I raced with our bikes and built all kinds of things in the bushes. The freedom that I had during my day-to-day life as a child is how I remember my childhood as the best time of my life. Also, as a child, you discover something new every day; every day is a new adventure where you discover the things that you like and want to do and are confronted with things that you can and what you still can learn. Making new friends with all kinds of different backgrounds and emotions. Knowing who is your friend and who is your enemy. Nowadays, when I see a playground, it reminds me of this time. I jump on the play equipment to have this feeling back, the most of the time this is an already formed shape. After a view seconds I'm done with the object and the play area and continue my route. But also, most of the time, I'm the only one in the playground, and when I look at playgrounds that I pass by, most of the time they are completely empty. Why? Do children nowadays have no interest in the playground anymore? Is it not the place to find and create your perfect world? During my masters and bachelors studies, we visited a lot of architecture design playgrounds, sometimes over-designed architecture playgrounds, that were placed in locations that are not easy for children to access. The playgrounds are designed in a way that the place can not be used in different forms . How is this being and up is this perfect designed playgrounds eliminates all free and being completely safe.

## 03

Working on this thesis about playgrounds out of my room back at my parents home as well as working with the playground in my street where I grew up brings up a lot of memories about living here as a child. The house where l lived, and nowadays am living again for the time being, is situated at the end of the street. We moved here when I was around ten years old. At that moment there was not yet a playground in the street. At the playground's current location, there was an oval-shaped grass field with a small asphalt road around it. In the middle of this oval, there was a perfect small circular square with benches. There were a few trees and bushes that you can climb into and build huts.

It was an amazing play area, because no one was using this road. This small road was in the middle of the neighbourhood, next to a high school whose parking was on the other side of the building. This space in between the two buildings of the high school was only used for people that walked from one building of the high school to the other.
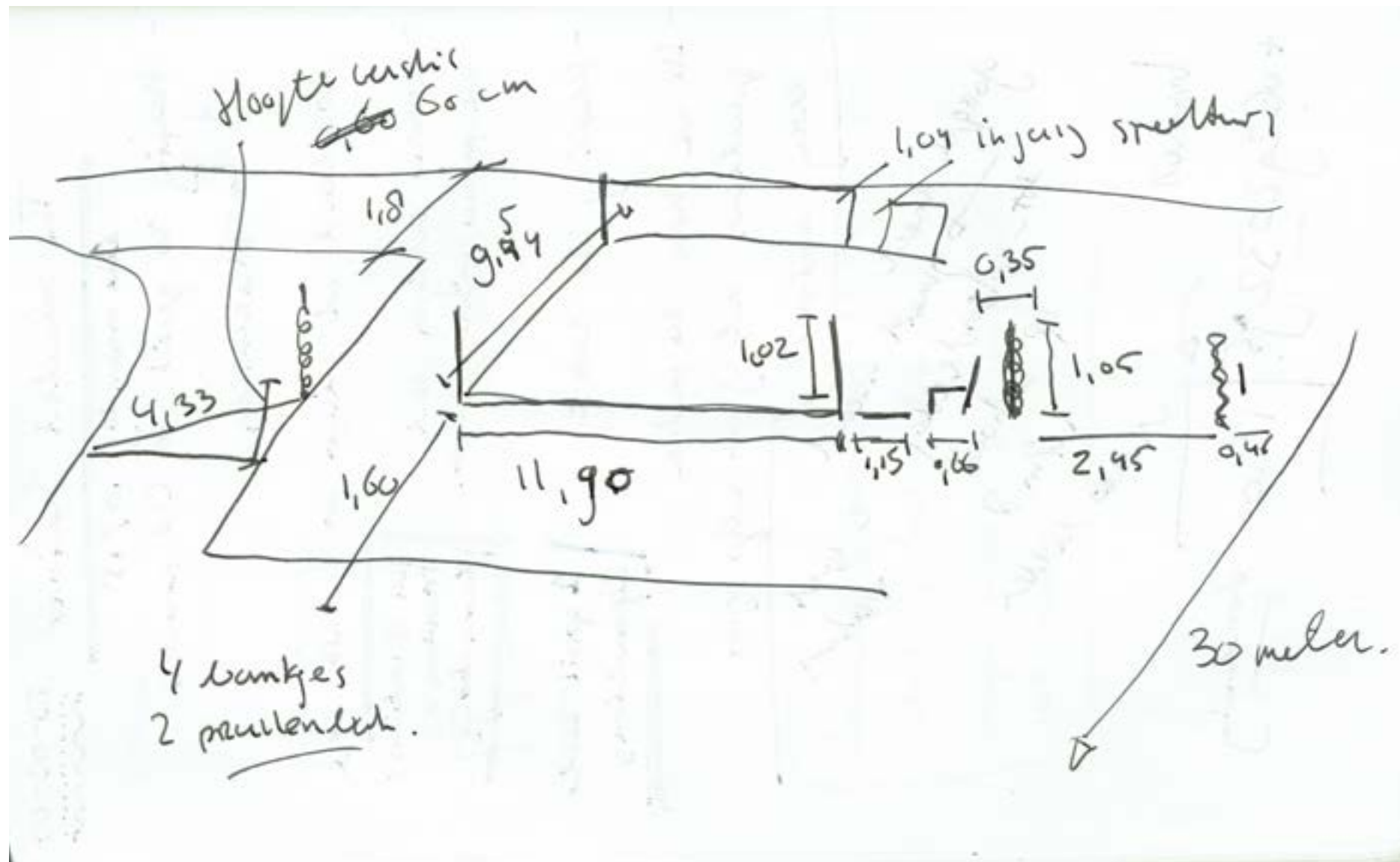
When the highschool was over and closed, the space was completely empty and ready for us to use. With our bikes, steps, skates, etc, we raced around the street, using the oval as a race circuit. We climbed in the trees and the big bushes and built all kinds of installations with the kids that were living in and around the street.

This completely unorganized play area ensured that every day was a new adventure to make whatever we want. In 2008, the high school was moved, and this area was transformed with new houses and small apartment blocks. This building period was even more interesting in terms of play. The big sand mountains and construction materials allowed us to build even more and bigger creations than we ever thought of before. But the building was continuing and at some point we were not able anymore to enter the area.



Hugo de Grootlaan

Johan van Oldenbarneveldlaan

Location before reconstructing in 2008 from the urbanism form in the neighbourhood.

Hoogte leuning ± 60 cm

1,8

9,54

1,04 injury structure

0,35

4,33

1,60

11,90

1,02

1,05

1,15   0,66

2,45

0,46

4 bankjes
2 prullenbak.

30 meter.

After several months of intense building, the street and neighbourhood was completely transformed. Big houses were built and apartment blocks with private parking spaces for cars. But there was also a brand new, super fresh playground for us children. Built in a perfect framed 11,90 meter by 9,54 meter playground with a swing set, seesaw and a climbing frame. The playground was placed safely behind a fence, with benches around the play elements for the parents to have a comfortable place to watch and control their children.

From the moment that the new playground was created, nobody played in our street again. There was no playing with the children who lived on a different street that you normally never saw, and there was no space for creating big installations in the bushes any more. Everyone is sent back to their own garden to play with their friends that they met at school. The direct interaction with the children in the street is gone. But why was this happening - why is this brand new playground not working?

The new playground that was built for us is way smaller than we are used to, and we are forced to choose between three different pieces of playground equipment with limited availability. We have to play in a frame full of objects, objects that you only can use in one kind of way. The feeling of unlimited options is gone.

The connection that children are making by playing in the street is not only good for the children but also good for the neighbourhood. The children make the first connection that continues to the adults, the parents of the children connecting with each other, that can result in a better connection between people that are living in the area around the playground.



The connection that children are making by playing in the street is not only good for the children but also good for the neighbourhood. The children make the first connection that continues to the adults, the parents of the children connecting with each other, that can result in a better connection between people that are living in the area around the playground.

Also, a playground/play area for children outside also affects the movement of traffic. You can put all kinds of signs in the street, but when you see children playing, that is a major reason why traffic is slowing down. No one wants to kill a child.

What is the reason that this place is being formed into a playground in this neighbourhood? In what kind of way is this playground designed for space where it is standing? Why is this form of playground not working, and what is the correct form of designing a playground that answers the needs of the children?
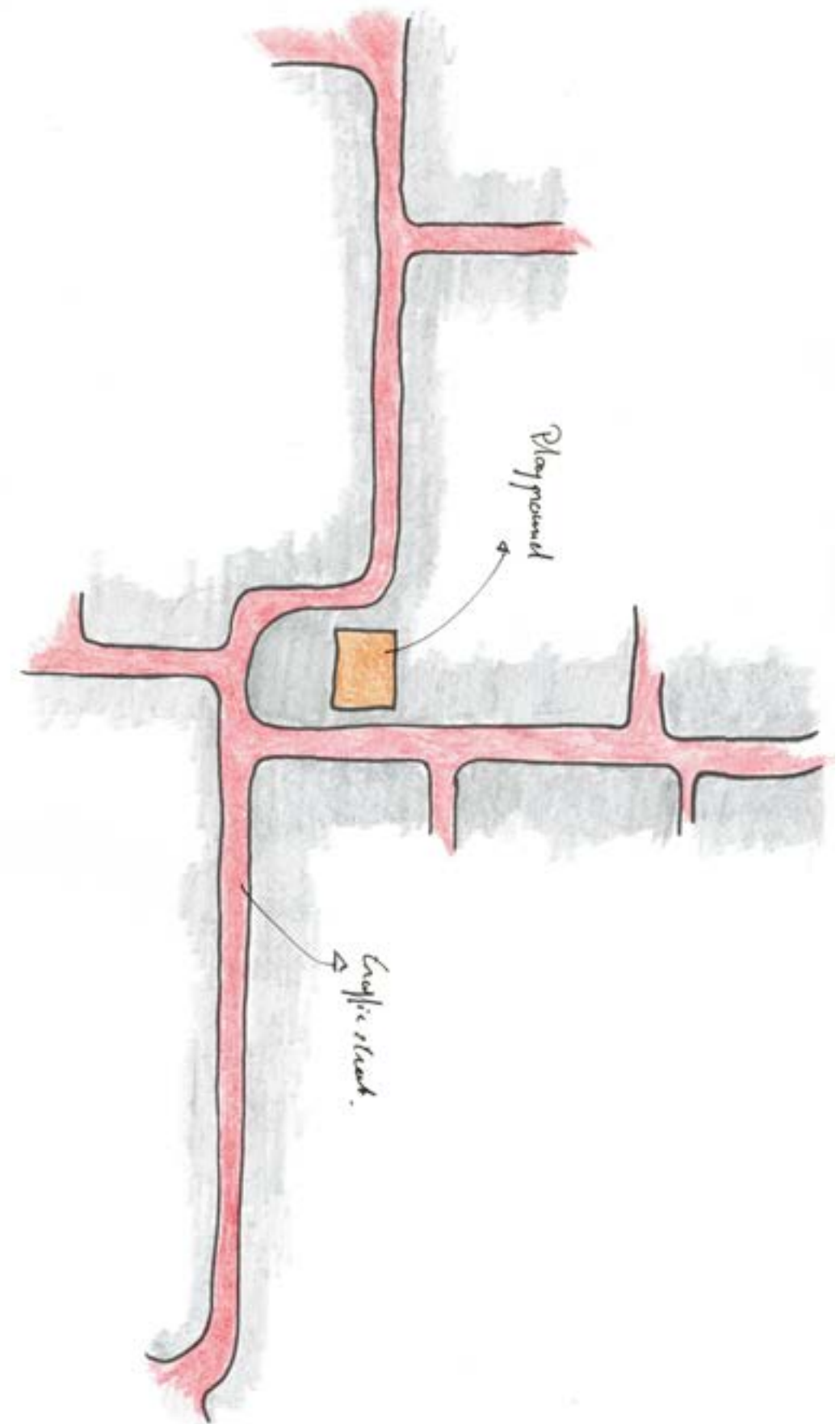
Playground

English street.

## 04

To focus more on playgrounds and understanding the way they are organized I use the playground in my street as a case study. What are the proportions that they are using? How is this playground placed in the urbanism form of the neighborhood? In what kind of way does the playground work together with its direct surroundings? What are thoughts behind selecting this playground equipment for this neighborhood?

The playground in my street was built in 2008, when there was a reorganization of the urbanism form of the neighborhood. The playground is placed in the middle of the neighborhood where four streets come together.

Hugo de Grootlaan

Johan van Oldenbarneveldlaan
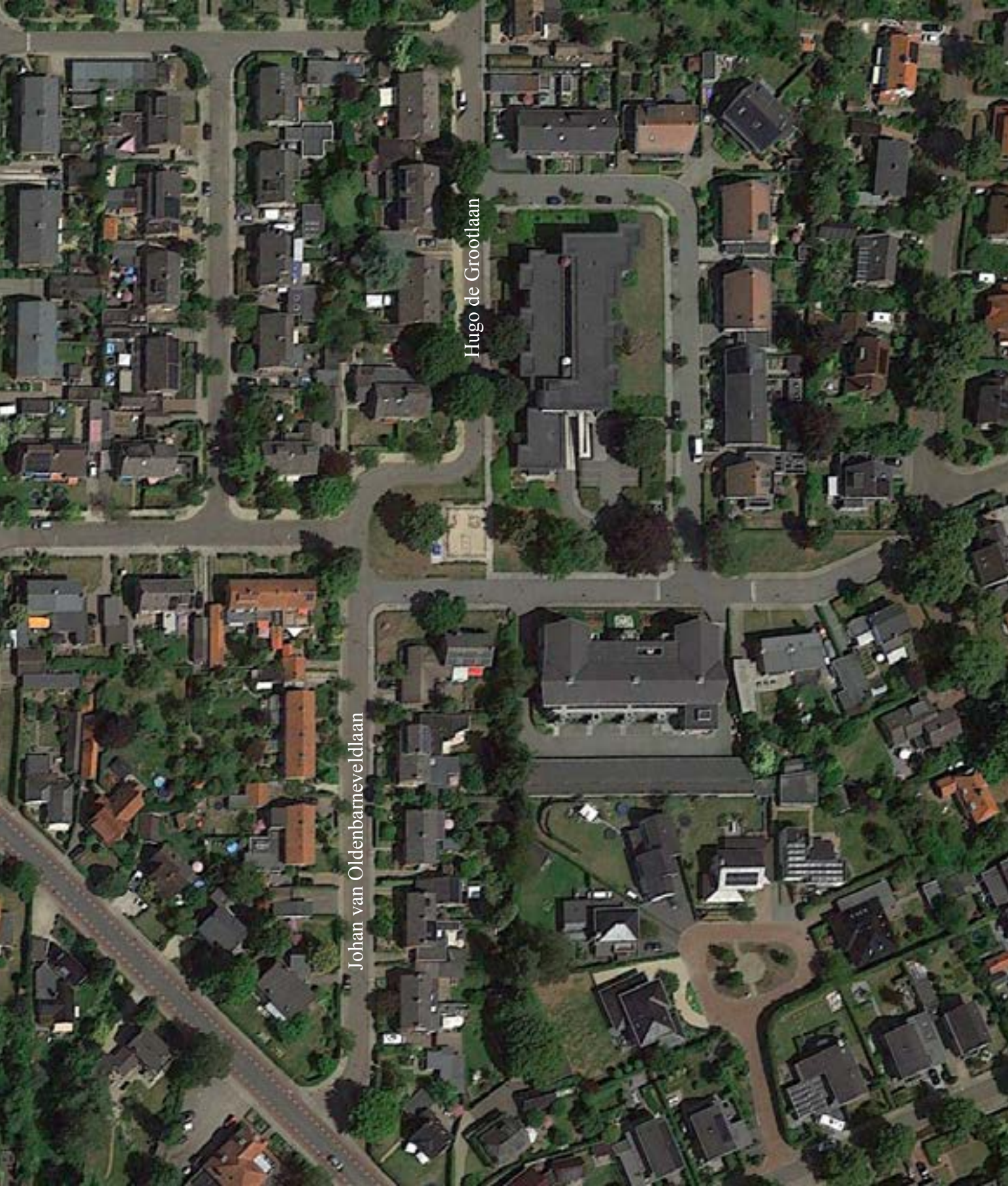
*The existing situation in 2020*

The space around this playground is on one side formed in a S as a result of the way the two main roads meet around it. Also this shaped road is the only form that is left after the reorganization. The street and playground are located on a small slope. That means that on one side of the playground there is a height difference between the street and the playground, and on the other side of the playground there is a direct connection with the street. Even though the difference isn't that big, it makes the overview unclear when you are coming from that side and you can't see the playground. The playground from that side (when you are coming out of the Hugo de Grootlaan) is hidden behind a nicely cut hedge. When you are coming from the other side (riding out of the Johan van Oldenbarneveldlaan), you are riding downhill, which means that most of the time your speed limit is automatically higher. When you are coming from that side the playground is located on the complete right side of the grassfield. What this means is that you see the playground at the very last moment because the houses are standing on the corner in front of the playground.





The S-formed road that is going around the playground is already helps with slowing down the traffic. But when traffic needs to slow down from 30 kilometer per hour to something like 10 kilometer per hour, the cars have make a lot of noise when entering and leaving this area due to the large speed difference. When the cars are accelerating out of the S-shaped road, it is easy to hear the echoing of the cars through the street, in between the houses.

Also an important reason why cars are really loud in the street is that the cars steer past the playground at the very last moment because the surface of the street does not change. The asphalt gives you the feeling that you are just passing a street where nothing is happening. This single material surface doesn't give you the feeling of going in or out of a particular space, or entering the area where children are playing. At the very last moment you can read on the street surface "playzone" together with some withe 30 centimeter thick lines. But that's already too late, because at that moment you are already in the playzone.

All these small elements in this small area with a playground placed behind a fence and a hedge is not creating a safe environment for children to play. Because the playground is not answering the needs of the children, they are playing everywhere around this playground, including on the street, which isn't in view of the passing by cars and bikes.

This kind of playground equipment is designed and built with only one purpose in mind. The children are being forced to use the equipment only in that kind of way. When a playground is formed as a ship the children are forced to play with a ship, and when a playground is formed as a castle, children are forced to play with a castle. There is no space for children to have a moment to use their creativity and to do whatever they want without being already forced to play with the specified equipment forms.

Also the way of using colors in the playgrounds as well as fences around the objects really marks that only that specific space is made for playing outside. This gives the feeling that the children are being locked in the playground, constantly monitored by their parents that are sitting outside on the bench watching them. The playground is not a part of the city structure, but its own city within the city.

The pre-formed structure is created in a way that the children are protected from all sides. Therefore, there is now no space for any kind of influence from the children - there is no free play.

## 05

Nowadays we know playgrounds in all kinds of different shapes, and some of them look like a theme park, complete with castles and ships, dragons and tigers. And most of the time, they are made out of plastic or some kind of MDF plate, in many different colors. Playground equipment can take many different forms like slides, swings, seesaws, etc, but ultimately all of them have the same look, lf they come directly out of the catalog, were bought online, and placed in the playground without thinking.

# *PLAY*

*Playing in the first daily routine that children take up in their life. It is the place where they come in contact with basic manners with each other and with objects. For this reason, playing is important in the way how children develop. Is the freedom of playing still open, or is intensive parenting taking any kind of risk away?*

**01** Out of the research that I did and the information that I found, there is a specific gap in the freedom children are looking for and what they can do. The playgrounds are formed in a specific way, following the rules and the guidelines that the local government is asking for. By making everything safe on paper, in the form of the grid, is that making the space truly safe? A playground is also a place to learn what you can do. When everything is completely safe, how can you learn as a child what your personal limits are, what are the risks of doing something , and how to deal and play with other children and their emotions? To know more about learning from risk in combination with playing in a playground, I focus on the work of Mariana Brussoni[1]. She wrote an article about the importance of risk-taking in play for children.

Playing is the first activity that children do; it is in the first part of their life that daily cultures have an influence on. Through playing, children come in contact with the basic ways in how to deal with their problems and the social roles and norms of their society.





It values and develops childrens' physical and cognitive competencies, creativity, self-worth and efficacy. Playing is for children a way of working and learning at the same time. Play is a way of developing their intrinsic interests, to learn how to make decisions and solve problems with themselves but also with each other by learning self control and following rules that are made by children themselves out of their self-created games. In this way children learn how to regulate their emotions and develop and maintain peer relationships. Taking risks and making your own limits is helping children to test their physical boundaries in what they can do in an active and physical way. Children have a natural propensity to risk play, and to keep children safe they have to learn to have control over their own risk and to manage the possible repercussions. For this reason, the best strategy for keeping focused on safety is not necessarily to have totally risk-free play area.

Nowadays playgrounds show that the limits that they have are having effects in the way children develop themselves in an active and physical way. In learning in a small scale social forms to the big scale social formats of having control in their lives over their own control of situation. This is in combination with having access to computers in all kind of different forms. The access that the children have to the internet has contributed to an increased proportion of their leisure time being spent indoors. The free play outside is now used up in activities and organized sporting and going to lessons, like music classes. Everything is planned, and the freedom of having the option to do whatever you want does not exist anymore.

The influences of parents have been an important drive of changes in children's outdoor play opportunities . The perception of danger is out of the eyes of the parents sorting that they can have control over something recognizable. When something is recognizable for the parents, they associate it with a safe circumstance. When the playground is formed in the way that all playgrounds are being formed and they have the same look, feeling and design as the playground of the school, then the playground is the best, most perfect and safest playground that they can find for their children. This way of intensive parenting results is the notion that the child should attend the best schools, participate in a multitude of organized activities and provide as many protections as possible. But this results in the child not having the opportunity to find out what the limits are and what he or she can do. The over reading of safe play in outdoor places are rusting in the backlog of the development of the physical and active in how children teach themselves.

The challenge is in combining landscape architecture, sociology and psychology to organize the space in a way that challenges children and supports their development but also keeps them safe. This is not the way how most playground designs are created nowadays. Instead of focusing on the way children develop themselves, safety is promoted. The child does not get to develop in play, have outdoor free play, or find risks . They don't deal with risk. They don't manage risk. Having the opportunities to find your personal way of learning in a physical circumstance when safety and taking risk is achieved in a possible and necessary way. There are three main types of describing play where children have to learn the ways in how to deal with risk when you talk about free risk playing. The main type of free play can be described as three different options: Physical activity play, object play and pretend play. The way children find their risks and test them out can be categorized as playing into height, speed, dangerous tools and being near dangerous elements. These elements focus on the risk of playing in an outdoor circumstance, namely, the playgrounds. Outdoor free play environment versatile the natural motor and develops the fitness and abilities of the children.

*Article 31. of the United Nations Convention on the Rights of the Child. Thus, limitations on children's play opportunities may be fundamentally hindering their health and wellbeing. Eager and Little describe a risk deprived child as more prone to problems such as obesity, mental health concerns, lack of independence, and a decrease in learning, perception and judgment skills, created when risk is removed from play and restrictions are too high.[2]*

## 02

The important part is not to eliminate all the possible risks. The goal is to control the possible risks and teach the children that they know how to control and manage risks. The risks that come with playground equipment allow the children to experience the sensations of playing in heights and speeds. Different kinds of equipment are not teaching the kids new skills and new risks but they are giving the opportunity of building on top of their existing skills. The equipment provides the reflected priorities of the local government with a strong focus on safety. But its effect is that the children don't get access to a more risky play area. The equipment can be made completely safe, but children are going to use it in a completely different kind of way and they are going to look for a place and a space where they can find more risky play elements.

Children perceive that they do not obtain challenging and interesting risky play opportunities. They are going to look for these places in a completely different kind of surrounding. For example in wastelands, building sites, underpasses, rivers etc etc. When a neighborhood is being rebuilt or renovated and is under construction the street is completely open, you can see children playing in the big sand piles that are located in the street. Looking at a playground the time that the playground equipment is being used in the correct way is just 3 percent in the correct way and 13 percent in the incorrect way[3]. Children attempt to use the equipment in the most unsafe way in order to challenge themselves in how far they can go. The creativity is in creating identities that reflect maturity and competence, which includes being able to display their ability to manage risks. Taking this kind of risk shows their physical skills to themselves but also to the other children. Comparing themselves to their peers allows them to negotiate their own safety. They have the feeling that they, and not their parents, are responsible for their own safety. Having the option of potential risk and dangers the children appeared to adjust activities accordingly. Children are not drawing their experiences on the understanding in the way of their own constitutions and skills, but they are also looking and learning from their playmates. With them they are finding and looking for the risk in free playing. There has to be an option for the children that are not provided with sufficient risk play and opportunities, or they will not experience their ability to cope with scary situations.

If children keep on playing and maintain the fear this results in them being less willing to take risks later in life, out of their own safe comfort zone. This step will be way too big because they never learnt to take any kind of risk or manage risk where the end result is not clear. What results in that things are being safe in-between the lines with no further personal evolution notice.

The alternative way of using playgrounds outside has a focus on taking risks for children on a small scale. In making playgrounds where the feeling of adventure is the goal to test out what you can do and what not. This means that the playground doesn't have a strict form and the equipment is not designed in an exact and precise way. The playground provides the child is centered and the child is directing the play spaces where children can create and motivate their own environments. Learning to solve problems that are created by themselves out of games that they are making up out of them selfs, with self-created, guided rules that they have made together. Together with different kinds of children reading with different kinds of emotions. The result of this is that the children further on in their life can handle and react to this kind of circumstance with psychological knowledge that they learnt by playing to find their own risk and their own limits with themselves but also with their peers.

# Johan Huizinga - *"every object of culture is an instrument, and every instrument is a transformation"*

To have a better understanding of the cultural elements of playing in the daily life of children I'm working with the literate of Johan Huizinga. He is a cultural philosopher and anthropologist. He wrote the book Homo Ludens, in which he describes his vision in how play is the elements of the culture in human life, the contemporary culture develops in losing the play elements. Play is a basic form in our culture, because culture arises and develops in playing. By using the article form Wessel Krul, professor of modern cultural history at University of Groningen, where he gives a culture critical and utopia about the work of Huizinga.

Huizinga aimed; *The culture is service; and culture is expression. Because culture always presupposes an ideal, every object of culture is an instrument, and every instrument is a transformation of something by the human mind, thus an expression of thought. The oldest activities of culture are language, myth and ritual, i.e. the naming, explaining and maintaining of the world order.*[4]

The meaning of play is to reach the goal that play is not related to the outside but to the inside. The important fundamental component element in play is fun. From the perspective of creativity, you can say that the keywords that he is using are: play and voluntary activity. Play as the primary factor in the culture element where the growth of civilization and elements of freedom develop. Play arises organically and spontaneously in children but also in nature. Playing is starting where the elements of learning emerged from in behavior against each other.

For Huizinga, play is the basic form where the culture of everything boils down to. Defined in the broadest sense of the word, from war to art, to philosophy and law, the essential starting point is always play.





Children learn and discover indirectly from play. They don't play to discover but just out of the simple point of view that they want to play. It gives them a good feeling. Play is a form that comes back in all kinds of different shapes in the culture, in a simple way or complex way, the starting point is always playing in the beginning. But this culture of play begins with the freedom to make space for rituals. These rituals arise in the primitive culture where play is the only rule. There are different kinds of elements to protect the way how play can be used. Huizing describes this is the way of: Play is the freedom in activities in daily life where the meaning of daily life is centered be. Play is a non-serious activity, but it can put the player in full ecstasy. Play is a non material based and not focused on winning. Play is an action in-between the border of time and space where rules and different kinds of patterns grow.[5]

It reminds me when you play with dice. In the beginning, it is really simple, but the further you play with the dice, the more precise you can make it. Playing exists out of itself, the essence is fun. Play is the activity around the fun. By doing it, you're going to get caught up in it and let yourself get carried away with it. This creativity is the definition of play showing the activity. It is a process in actions. Huizinga relaties this actions to rituals and religions.[6] Playing is the basis in the formation of the origin in playing. When play is guided in the most solemnly way of practice, the value and believe in the cultural element is way stronger.

## 04
*The more solemnly the game is practiced, the more deeply it is believed in, the more valuable it is as a cultural element. This implies, however, that the game is a pure one, and the less playful it is played, the more valuable it is as a cultural element.* - Wessel Krul about Homo Ludens[7]
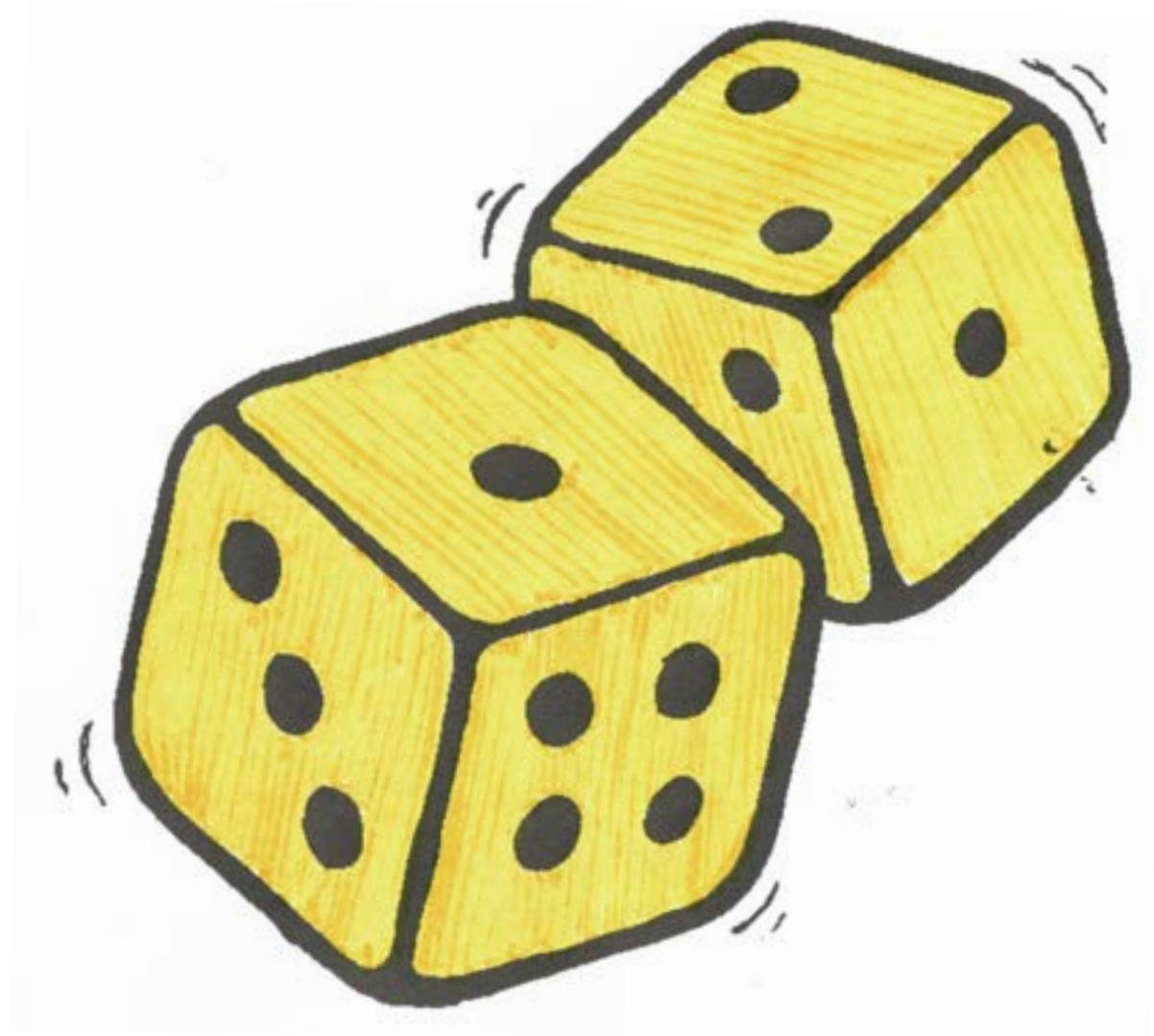
Playing is starting with the freedom in that everything is possible but can in an easy way transform into strict guidelines with holy rules. For example, when we look again at playing with dice. Playing a game with dice, the first time you take these small cubes with on all the sides a different amount of dots you just throw them randomly on the table. It ends up with for example twenty-one, then you do this just over again and again in twenty-one. For this moment the spontaneous play resulted in the first rule of only throwing twenty-one. This change is the beginning of a cultural shift. The more rules are coming together with more people that are playing makes it a fundamental play element. Eventually spontaneity where it all starts with disappears. The rules that are coming out of the play are taking over. Play becomes a service, and it is about the rituals that are taking over. The rituals provide in making it a competition, playing becomes a game with fight. Playing becomes stuck in a fixed course, time and rules. It brings people together and makes a specific style and order.

*"Playing is not a coincidence or arbitrariness, but a freely chosen submission to limitations and restrictions."*

-

Johan Huizinga[8]

The culture of playing is having freedom in actions in what you want to do. Making it less serious keeps the options open and the playing the important element. The material impact is not the most important aspect as well in seeing the value of it. Playing in between a specific time and space makes that the rules are leading in a special order, together with community relations that are knowing the rules and the secrets in how to behave in a role in the elements of play. Dividing yourself as different form the ordinary world.

Play is naturally spontaneous and free, but the more strictly the rules in playing are followed, the more valuable and cultural the act's elements are going to be. This implies that the more clearly the rules of play are being followed the less, play is being made. This results in playing with "holy rules" - rules that belong to the play, and when there are not being followed, playing doesn't fit in any the right order of elements established by the rules. Huizinga calls this the superficial, frivolous and disingenuous in the noble form of playing where a community is taking over the freedom of playing and the religion is taking over.

The playground is a culture where children learn and teach themselves in having control over how far rules limit the freedom of playing. Giving them the option to create what they want creates a culture that they also decide what the guidelines are. This together with the role in having the option in guiding themselves in finding the risk that they want to take results in an open culture where everything is possible- the free culture in play.

# *GROUND*

**01** The ground is the place in the space where the children have freedom in challenging themselves to create their world. The ground needs to be open and supportive in making different kinds of games possible using the same object over and over again. Every day an object can be shaped in a completely different fantasy form that results in supporting the children using their brain to create something using imagination. The ground is part of the urbanistic form of the area. In this way the space is not isolated and the different traffic is in touch with each other. Doing research about the ground, I talked with the children that are using the ground in this specific way and talked with the NIJHA, that makes and designs playgrounds and playground equipment, and by using the designs and methodological vision of Aldo van Eyck and Bruno Munari. Studying an existing designed playground to see what a new designed playground would look like.

## 02

To have a better understanding of how children look at playgrounds I'm in contact with children that are living in Stockholm, Amsterdam and Lochem. I talked with them about what their opinion is about the space that they have to play outside, especially about the freedom that they have in what they can do and what they are missing.

I had a talk with Mats and Julia and their mother Elis, who live in Stockholm. Mats and Julia are six and eight years old and have lived in three different countries - England, Germany and Sweden - and who spend a lot of time in The Netherlands. Thus, they are experts on how to look at playgrounds in different countries. I ask them what their opinion is about playgrounds, and what they think about the playgrounds with different kinds of playground equipment that are being used and designed these days, and if they like to play there.

Mats tells me that there is one playground in the street on top of the hill, built in the sand with two swings and a fence around it. He found it really boring, because the first time it was nice to play with, but now he is bored with the swings. There is no space to make your own games. Julia then tells me about the monkey bars at school. A monkey bar is a construction of pipes in different kinds of heights.
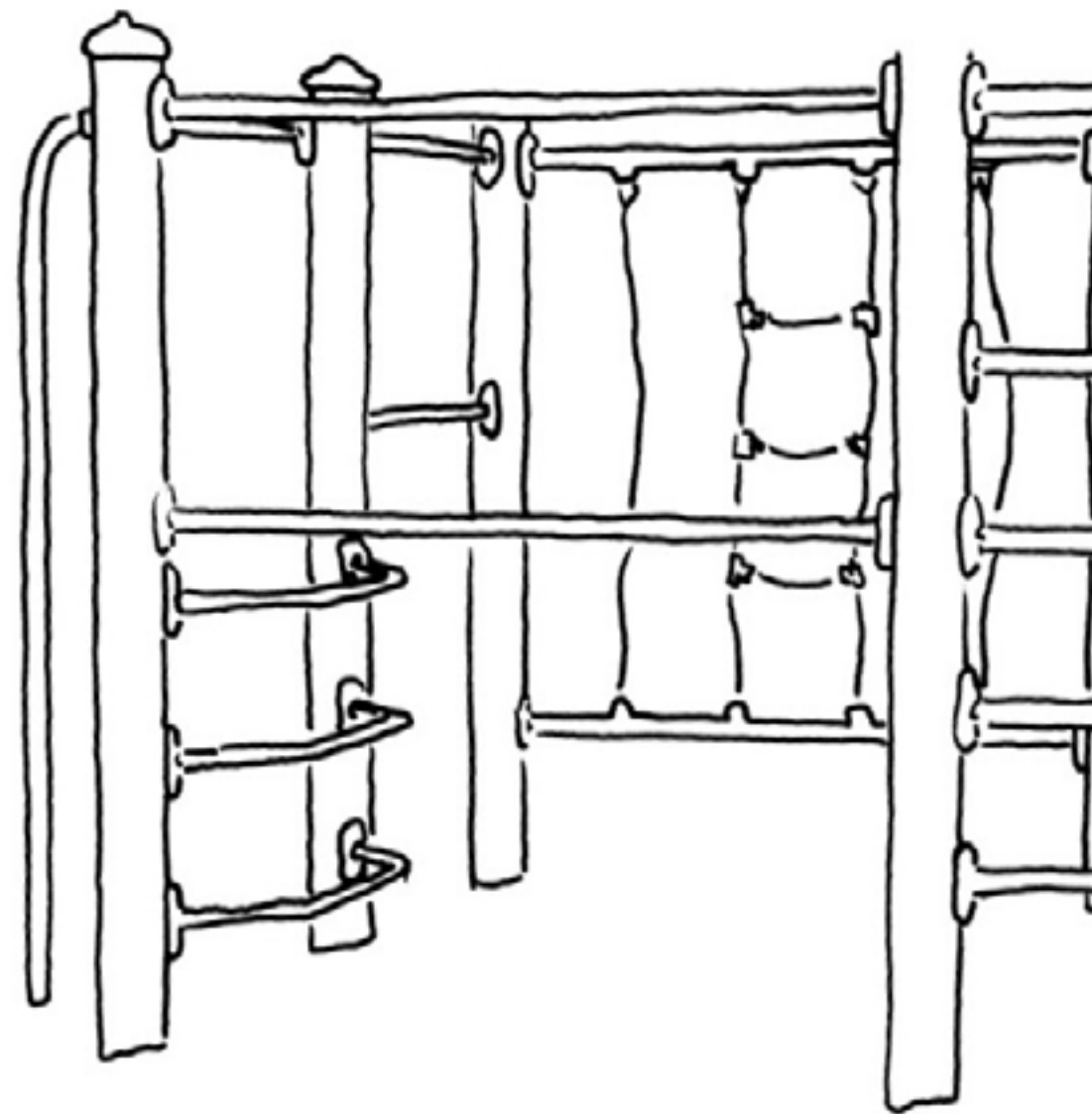
You can do different kinds of things with the monkey bars and they are really low to the ground and really high. This means the older and taller you get the more you can use it. Hang on, roll over, run through everything is possible. Julia also is telling me that the monkey bars are always really busy. "It's like Ninja Parkour!" is Mats saying. Julia is telling me that when she is walking with the dog she only sees younger people playing at the playground in the street, and she is not that young anymore, so it is not a place for her. Mats is following with a creative idea why it is not possible to change the playground equipment in an easy way, by using a key where you can put them in a holder in the ground and store them in a space on the side of the playground!? Elis follows by saying that when children are going to a playground that the more the form of the playground enclosed, the less interaction the children with the space have. Mats and Julia are talking about making a parkour area that you can use in different kinds of ways, starting from the beginning, or in the middle or the end, it is open to fill in by ourselves. We can use this for all kinds of races with our scats and scooters. Julia is talking about different kinds of lines on the ground that they have at school. They are using this lines to make games by themself in combination with a ball or something else. When I'm asking them if they feel safe when they are playing at the playground, they tell me yes, most of the time there is a fence around it. Julia points out that at the playground close to her grandpa and grandma in The Netherlands, the fence is built up out of a small hill. When she is leaving the playground and se walks over the small hill she has a overview from where the traffic is coming from, but it also helps that when they are playing with the ball it is not possible that the ball is going in the street, the hill is being used is all kind of different forms too play with. But one thing that is really important, points out Mats, is that I can park my bike somewhere safe.

This interview gives me a good point of view of what is important for children. How they are looking to the world of playground out of their point of view. What on their age is still really important, but what sort of disappears when you get older. That is directly one of the interesting things. When you get older the difference between ages is not that important anymore. As well as how tall you are. When you are in the age around eight years old you know that you are going to grow. You are eight years old, you're not seven, and to them that is a big difference. The difference in age is at that moment still really important because a lot of things during that time of your life are decided by your age. Your parents are using it a lot of times if you can not do something yes or now or when the time you have to come home. The way of your age plays a role when you are looking at playing in a playground is way more important. When a playground equipment is formed in a specific design with colors and a younger child is playing whit this play equipment than the older child is associate this with the younger child and don't want to play with it anymore because the older child don't want to be compared to a younger child.

The Climbing Mountain - designed by Aldo van Eyck for the playground in Vondelpark, Amsterdam.

This is the same with how tall you are, because when you don't have the right height to use all the equipment in the playground yet, this is still a dream and a goal to grow up and be able to have access to everything. Also height differences in playgrounds helps to get children with all kinds of different heights having the feeling that they have the same height. Standing next to each other, the differences are really clear, but when you are climbing on top of something the height difference disappears and you are both the same height, which makes the feeling that there is no difference between the children anymore.

# Oscar: "Noor is seven years old and I am eight and three-quarters, my birthday is on the eighteenth of May"

Space for creativity is the most important thing that I got out of the interview. The more there has been decided the more there is a limit in playing. This in combination with simple forms that are options to play with. An open form and a simple way to use with just a small extra thing like a ball that is maybe not even necessary. Using the same object for different kinds of uses, using for you creativity to make what you just saw on YouTube and combine this with your own fantasy. To have space to make a mess, destroy and create some new it's important for the kids.

To have a better view on playgrounds from children living in another setting, I did a Google Meet interview with the Boskampschool in Amsterdam. I talked with Noor and Oscar about their opinion about the structure of playgrounds in the city of Amsterdam. Noor is seven years old and Oscar is eight and three-quarters, his birthday is on the eighteenth of May, and he is afraid of heights. They are living in the city of Amsterdam and there the playgrounds are really limited because the spaces are really small. How are they thinking about playgrounds?

There are a few things that are really interesting in what they are saying and what is different from what Mats and Julia are telling me. Noor tells me that she really likes the swing and Oscar is following with that he likes the small playhouses in the playground. That is a completely different answer from what I heard before, as Julia and Mats are not big fans of these kinds of elements. When I'm talking a little bit longer with Oscar and Noor I'm finding out that every playground that they know has equipment elements like swings and playhouses. They don't know any other kind of playground without these forms. This means that playing outside for them is connected to this kind of equipment and that when they don't have these objects, they don't connect the place and the space with having the options of playing outside. When I'm asking them what they think about a sandpit, they answer that the playground is always built in a sandpit, so for them a sandpit is not a play object but rather the surface of the playground. When I'm following my questions what they think about this underground surface of the playground and if they also use it sometimes to play with they are telling me that they really like to play with sand. Trying to build all kinds of different things but there is always one problem is Oscar telling me, the sand is too thin. You have to dig quit deep to find sand to build with and most of the time there is no space for.

Oscar tells me about a water pump that he really likes to play with where you can make your own pipeline to control the water. But the sad thing about this is that the water pump that Oscar points out is usually not working. Because of this, he doesn't go to this playground anymore. This means that when elements of a playground are out of order, the children don't want to go, even when there are different kinds of play elements to play with. When there is a piece of playground equipment that is broken, it makes the complete playground for the children completely broken and not working. Noor is telling me that she likes to go out with her skates, and there is one really nice playground where she goes. There is a special space with good quality asphalt for the skates, but this is also the place for playing street football, basketball and all the other games that need asphalt as a playing surface. Noor tells me that it is always really busy and people are running everywhere, so you need to be lucky to have space to go skating.
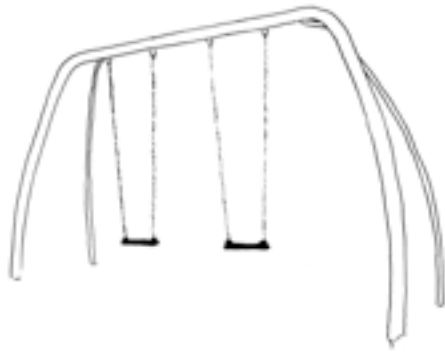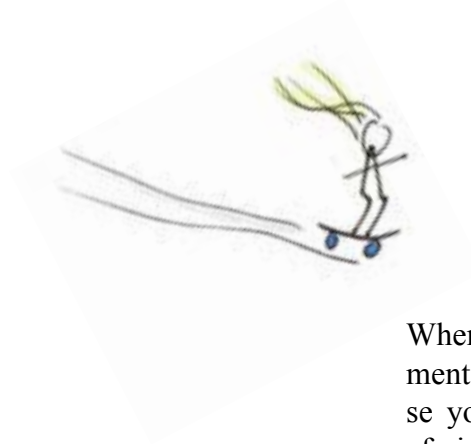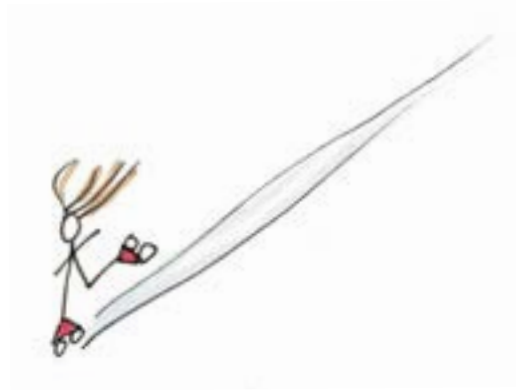
When we are talking about their ultimate favorite playground equipment, Noor tells me that she likes the climbing frames the most because you can do a lot of different things with them, and since Oscar is afraid of heights he prefers to play games outside with other children.

The interesting outcome of this interview with Noor and Oscar is that they relate the play objects to the place where they can play. The play equipment are maybe not the elements where they want to play with, it is a signal that this place is made for them to play around. It is a mark down, a symbol that they have the freedom to play.

Out of this interview the main focus points for a good functioning playground is the freedom in movement and having the feeling of control in the different kinds of things you can do in and around the playground. Space to go with your own play elements, like skates and scooters. But also having space to play a game that you can make up yourself with simple elements that is easily accessible.

## 03

Talking with children living in different kinds of environments about the things that they are missing in the playgrounds, are at the end, sort of the same. Missing freedom and space to have their own input. Why are playgrounds still built and designed in this way? In what kind of way are the children involved in the design of playground equipment? Are children involved in the design and creating process of the playgrounds? Are there old playground equipment that needs to be updated? With all of this kind of question I talked with Frank Hulleman for NIJHA[10]. NIJHA is a company that is, "Making space to exercise for people", is how the slogan louds. Since 1922 they are the biggest playground equipment company in The Netherlands. What is their way of making the perfect playground, in what kind of way are they working with the urbanism structure of playgrounds in the place where the playground is located? What is the research that they do to create their playground equipment.

**04** Frank Hulleman is a landscape architect for NIJHA. Frank tells me that there is a limit to what NIJHA can do for a playground in terms of the time, money and space that the municipality has reserved for the building of a playground. Most of the time when the municipality is rebuilding or building a residential area, there is a certain amount of money and time reserved for making a playground for children. The budget and space for the playground is based on the demographic data that the municipality has from the research that they did on what kind of people and families with children are living or going to live in the residential area. A playground is something that costs the municipality money, and they're not going to make any income out of it. The need to buy the playground equipment and make it a safe, simple and low- maintenance place. Also the playground needs to be placed where it is impossible to build housing. This results in the playground generally being mandatory and necessary but not priority. The minimal size for a playground is taken and the municipality is buying with the money that they have reserved a view equipment for the playground at NIJHA. In a company like NIJHA you have two different kinds of employees: sellers and architects. The sellers are the biggest group and the architects the smallest in this world. When the municipality is talking with the sellers, sellers that have to reach their target, at the end the target is the most important for the playground company. Sometimes this results in a real project for a complete design in the residential area, but usually it is about space, budget and placing, and that's it. What results is a dysfunctional, thoughtlessly placed playground.
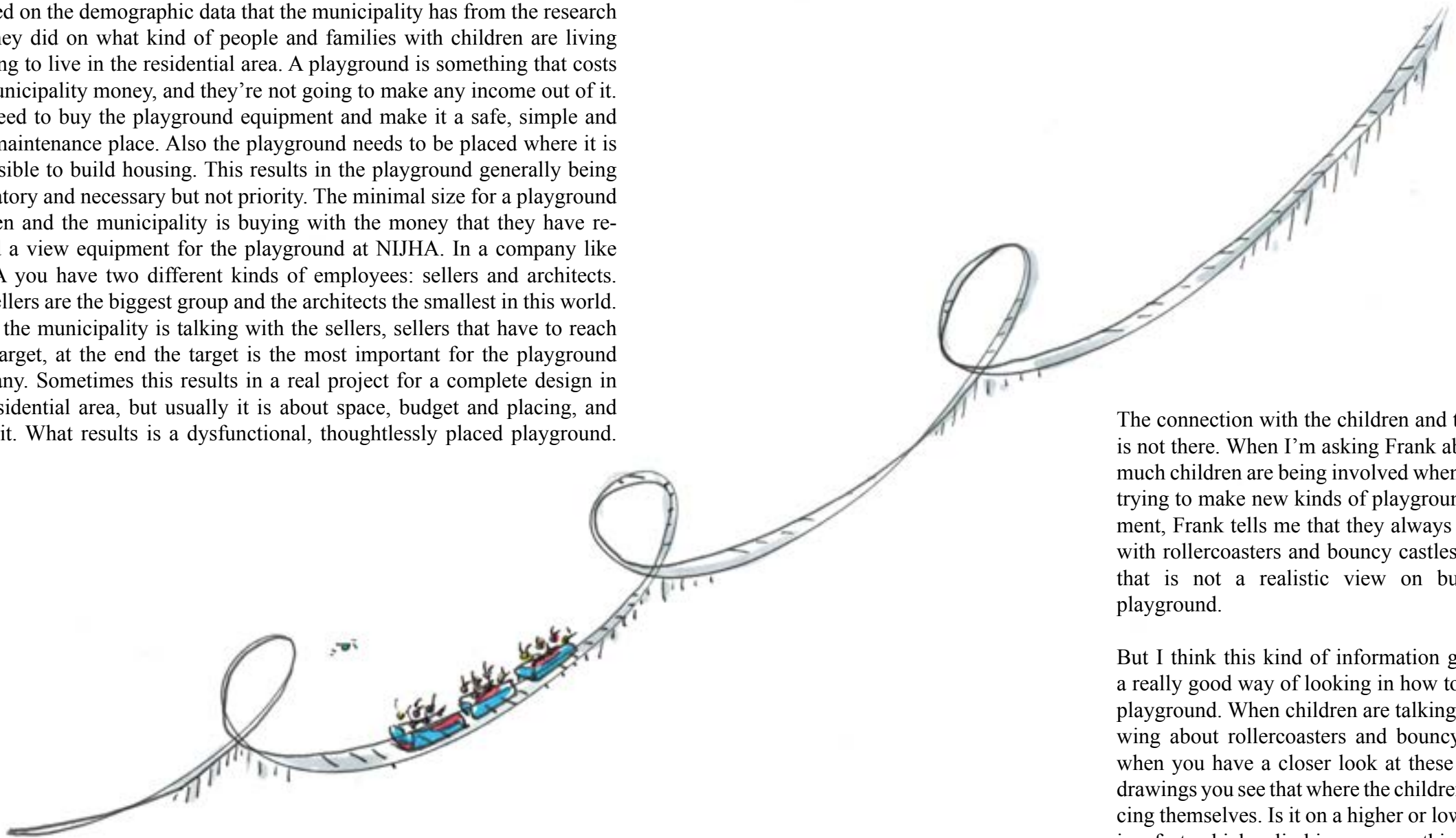
The connection with the children and the space is not there. When I'm asking Frank about how much children are being involved when they are trying to make new kinds of playground equipment, Frank tells me that they always come up with rollercoasters and bouncy castles etc. and that is not a realistic view on building a playground.

But I think this kind of information gives you a really good way of looking in how to create a playground. When children are talking and drawing about rollercoasters and bouncy castles, when you have a closer look at these kinds of drawings you see that where the children are placing themselves. Is it on a higher or lower level, in a fast vehicle, climbing on something? These drawings are opportunities to see small elements that are important to focus on and give information on how to make a design for a playground.

In all the interviews and talks that I had with the children living in different kind of cities, I found that height difference is really important. Imagine that when children are around eight years old, their size differences are very evident. Being the tallest and the longest and the widest, the older one or younger one. It is really important in the age when you are playing and using a playground. When a playground allows you to go higher than the other one that makes you as a child have the feeling of being on the same level, on the same height or maybe higher at that moment, which translates to having more control and overview. You can see what is happening around you and see all the other children, see what is coming, and have a clear overview over the space. With height, there's also the risk of falling down. The risk of falling down is an important fact for children to learn to deal with risks. What can you do end what not, how high can you go and what do you need todo to go down in a safe way. A playground is safe place to learn in small scale finding you person limits in the way you can move around. This is really important part for a child is Cees Kramer[11] from The Dutch Union of Playground Organizations talking about, the space that is in a playground to find and look for your own limiteds but also learn where you want to go and how far you want to go. In other words, whether you want to be part of the group and follow what the rest are doing or being an individual, choosing and controlling your own limit's where you want to go.

1,50 m

0,6

0,60 m

1,50 m

Depends on the thickness
of the tile
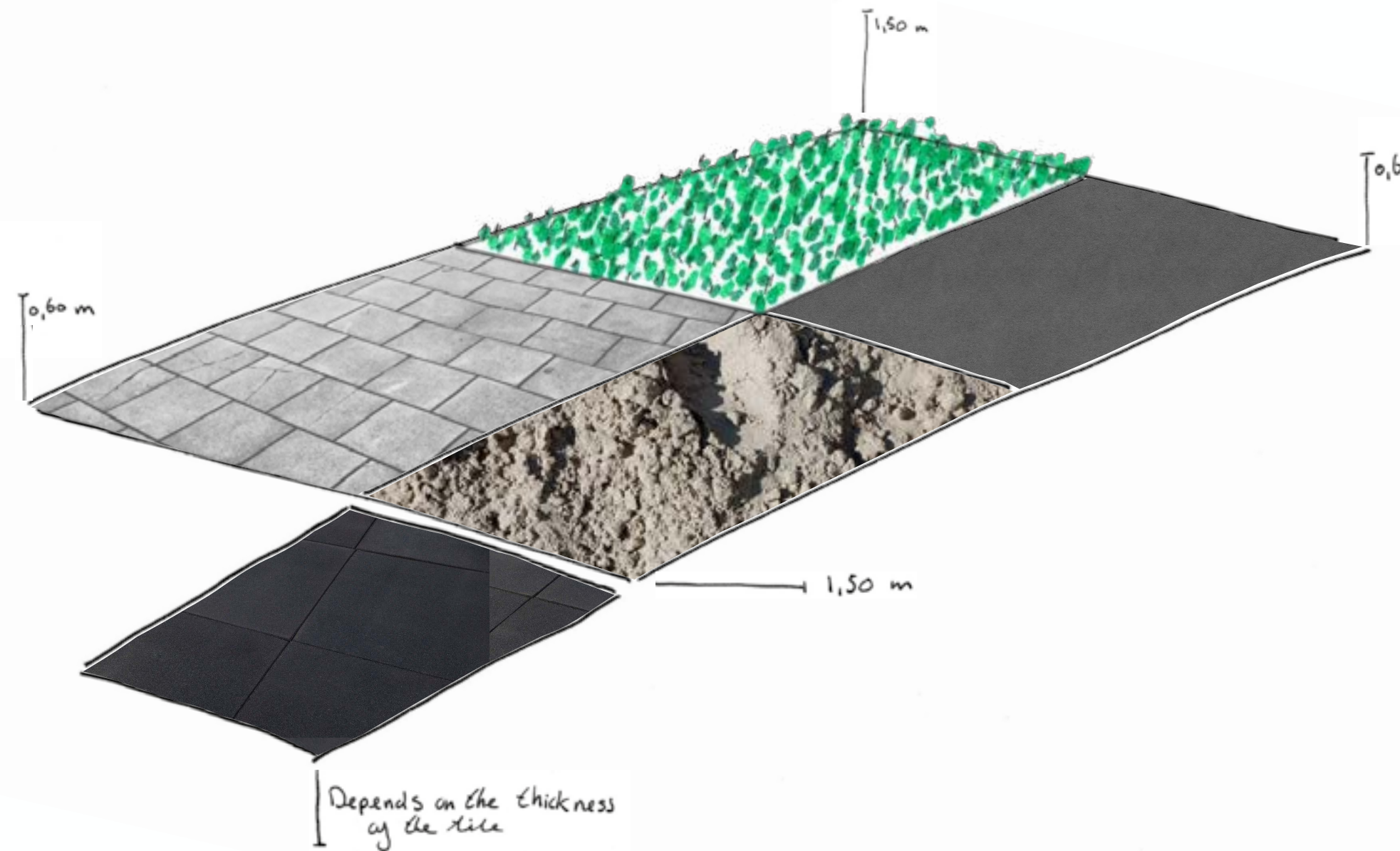
Falling down is an important part of playgrounds. Frank is telling me that there are a lot of options that you can use for the surface of a play area. Sant, grass, normal tiles and rubber tiles. It depends what the height of the play equipment is. When the height of a play-element is 60 centimeter there is not a specific underground needed. When you go higher than 60 centimeters you can choose the different kinds of options and it depends on the amount of money that you have to spend. Sand is the cheapest option, but in the longer term, it costs more money because it attracts cats. Grass is one of the best options and it is possible to a maximum height of 1,5 meter, but with grass you have the same long term problems that you have with sand - it attracts animals, and grass needs a lot of maintenance to keep in good condition. Rubber tiles are the best option in many ways, as Frank points out. The higher the playground equipment needs to be the thicker the tiles can be made. You can make them in every kind of form and thickness that you want. The only bad thing about these tiles is that they are expensive and making them is not good for the environment. Also the options of re-use and transforming them is difficult.

Sand is the most popular used surface for the playground, because out of the three options it is the least maintenance and you can work with the thickness of the sand to alter the height of the play-elements. The higher you build the play-equipment the thinner the sand. The sand that is being used is Round Granular River Sand. This sand has the right properties to dampen the impact when children fall down. Additionally sand is also a really important play-element for the children. With sand the children can create whatever they want, so what is happening is that they remove all the protection sand around the play equipment and that they are building with the deeper layering sand for making their fantasy world. What results is that the sand around the play elements is removed and the space in-between, for example, swing and the ground is higher and the sand is harder.
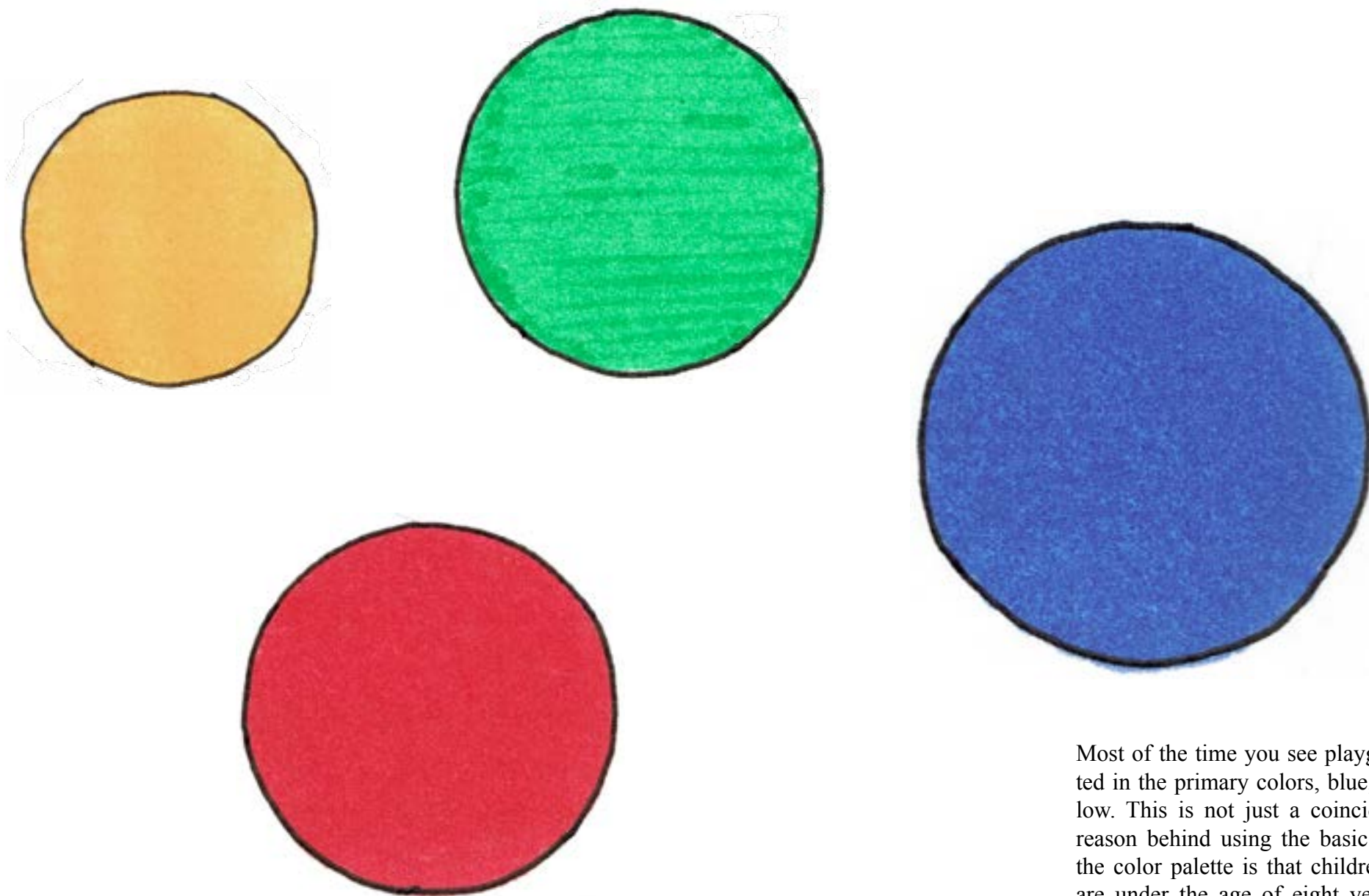
Most of the time you see playgrounds painted in the primary colors, blue, red and yellow. This is not just a coincidence - , the reason behind using the basic colors being the color palette is that children when they are under the age of eight years old, they don't see a big difference in-between light and dark blue, light and dark red of light and dark yellow colors or a mix of these. To make it as recognizable as possible for the children, it is best to use the basic colors.

**05** Focussing on architecture design of playgrounds where children have the opportunity to create their own life in terms of finding out the risk and manage problems and great their own interest. I'm focusing on the architect that worked on playgrounds where openness and flexibility is the goals of the development of the children that are using the space.

The architect that worked on building and designing playgrounds is Aldo van Eyck. Aldo van Eyck is an architect born in Driebergen, the Netherlands. At an age of one years old he and his family moved to London where he was living the most time of his life. He moved back to the Netherlands to study at the Royal Academy of Arts in The Hague. But after two years he continued his study at the Eidgenössische Technische Hochschule Zürich where he met Carola Giedion-Welcker, who introduced him to the Avantgarde Artists. When he married Hannie van Rooijen, they moved back to The Netherlands, specifically Amsterdam. He started working at the Urban Development Department of the department "Publieke Werken" (Public Works) to make a guide with Cor van Eesteren and Jacoba Mulder for the municipality of Amsterdam. Out of this department he started working on the project of creating play facilities in the city center of Amsterdam for the children that lived there. He continued with this project after stopping working for the Public Works and starting his own company in 1951[12].

Aldo van Eyck was an active member of the CIAM ( International Congresses of Modern Architecture), later co-founder of Team X. Outside his design for playgrounds his best-known work is the Municipal Orphanage of Amsterdam. Besides his work as an architect, he was also part of the Amsterdam Academy of Architecture and professor at the University of Technology in Delft.

The Cobra group that was founded in 1948 is inspired by the way children express themselves in the way of the colorful drawings with typical subject matter as manuals or fantasy creatures. This way of thinking really fascinated Aldo van Eyck. The way of movement of children in the city. Aldo van Eyck worked together with the artist Constant Nieuwenhuys for the project New Babylon. This project was inspired by the book Homo Ludens written by the dutch historian Johan Huizinga in 1938. From this book they did research about the elements of play in the culture of society. Aldo van Eyck based his design for the playgrounds on the theory of these artists and movements.
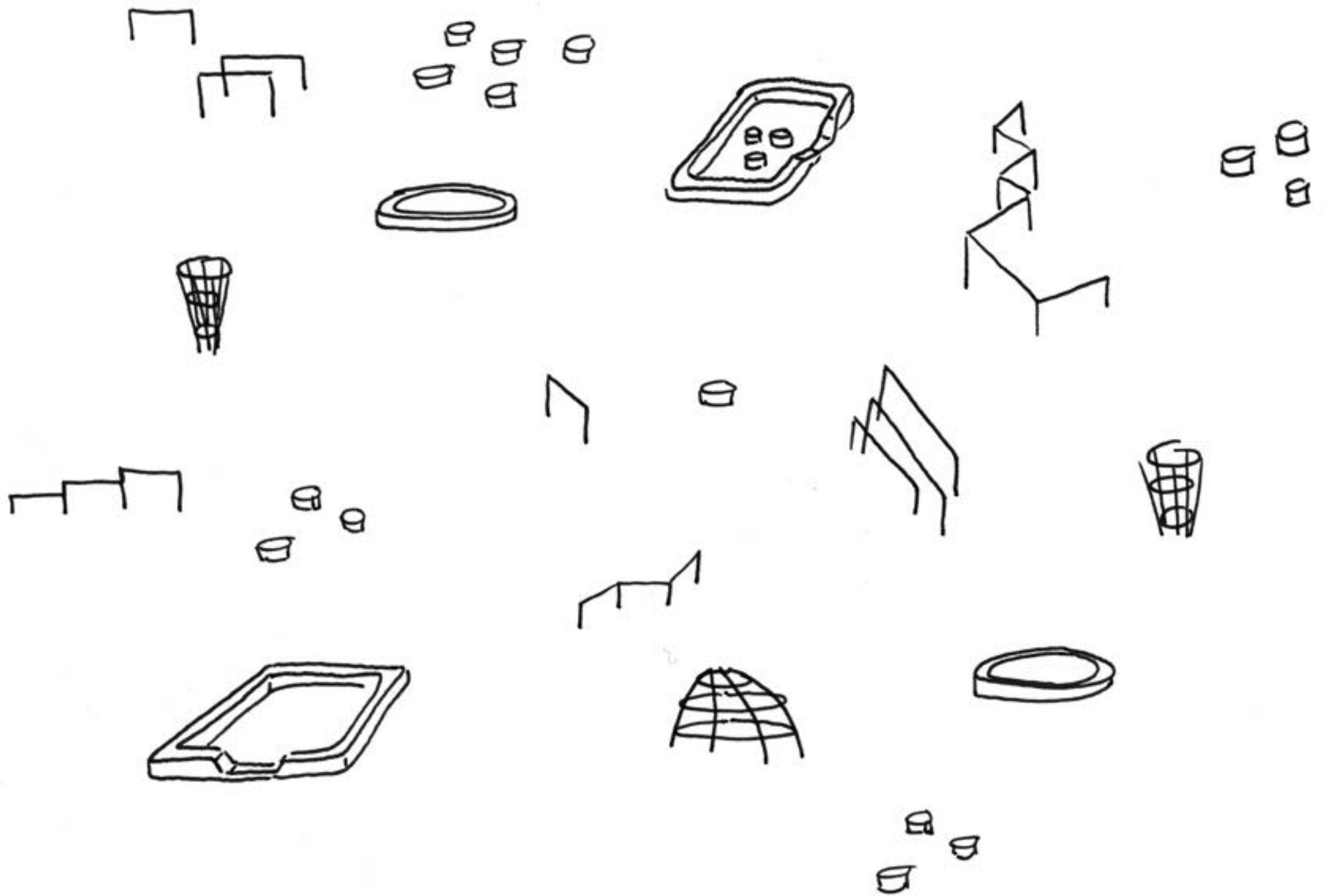
The first playgrounds that are designed specially for children started in the beginning of the 1900s. They were located on the outskirts of the cities. At this time, the playground was a private place that you could enter after paying. This means that only the children from good origin can afford to play there. For a lot of children it was just one's a year going to, how you can maybe see it nowadays, going to a theme park like Disney World. The mayor from Amsterdam U.J. Klaren wanted to change this. The playground needs to be a place for everyone, special for the children with all kinds of different backgrounds, but also a place to learn to behave towards others. There was a supervisor who kept an eye on everything that was happening in the playground. From the 1920s to 1945 a lot of playgrounds were built for children in the working-class neighborhoods outside of the cities. It was a place where the children can run around and freely play around with a spinning top, hula hooping and playing games with their marbles and everything in-between.

After W.O II a lot of cities were destroyed. Most of the residential areas are rebuilt and renovated. Soon the city center became fuller and fuller. The car was an upcoming form of vehicle. The streets were not built for the size of the new vehicles. The street where the children used to play became fuller and fuller and way more unsafe.

There were not any kind of public playgrounds close by; if you want to go to the playground you have to go to the outskirts of the city to find a playground. And most of the time this was still private which means that you have to pay for a safe circumstance to play outside. There were a lot of open and empty spaces in the city center of Amsterdam. Now they were locked down behind wooden fences, or just a dump spot for all kinds of trash. The city of Amsterdam decided to make these places for children in the city to have a place close by their own house to play outside in a safe circumstance.

Aldo van Eyck came to work first for the planning department in Amsterdam in 1946 to work on the General Extension Plan designed by Van Eesteren in 1934. Van Eesteren gives him the assignment to work on the designing of a playground for the children. For in the new neighborhood and the existing neighborhoods. This program was initiated by Jakoba Mulder, the head of town planning.

From beginning in 1947 and continuing for more than thirty years, Van Eyck designed more than seven hundred individually designed playgrounds, creating a special design for every location within the city of Amsterdam. Because this was the time after WO II there was not much public funding to develop all kinds of difficult play elements. The playground needs to be created in the most modest and budget-friendly way. Aldo van Eyck was part of the art movement De Stijl, where he met the artist Sophie Taeuber - Arp. She made the artwork "Relief Rectangular" which was the first impression idea for the creation of how to work with making a design for the playground. Starting with making the ground surface for the playground complete flat, to see it like a plain canvas where everything is possible. Placing circles like stepping stones and carving sand pits as mean objects for the first design of the playground.
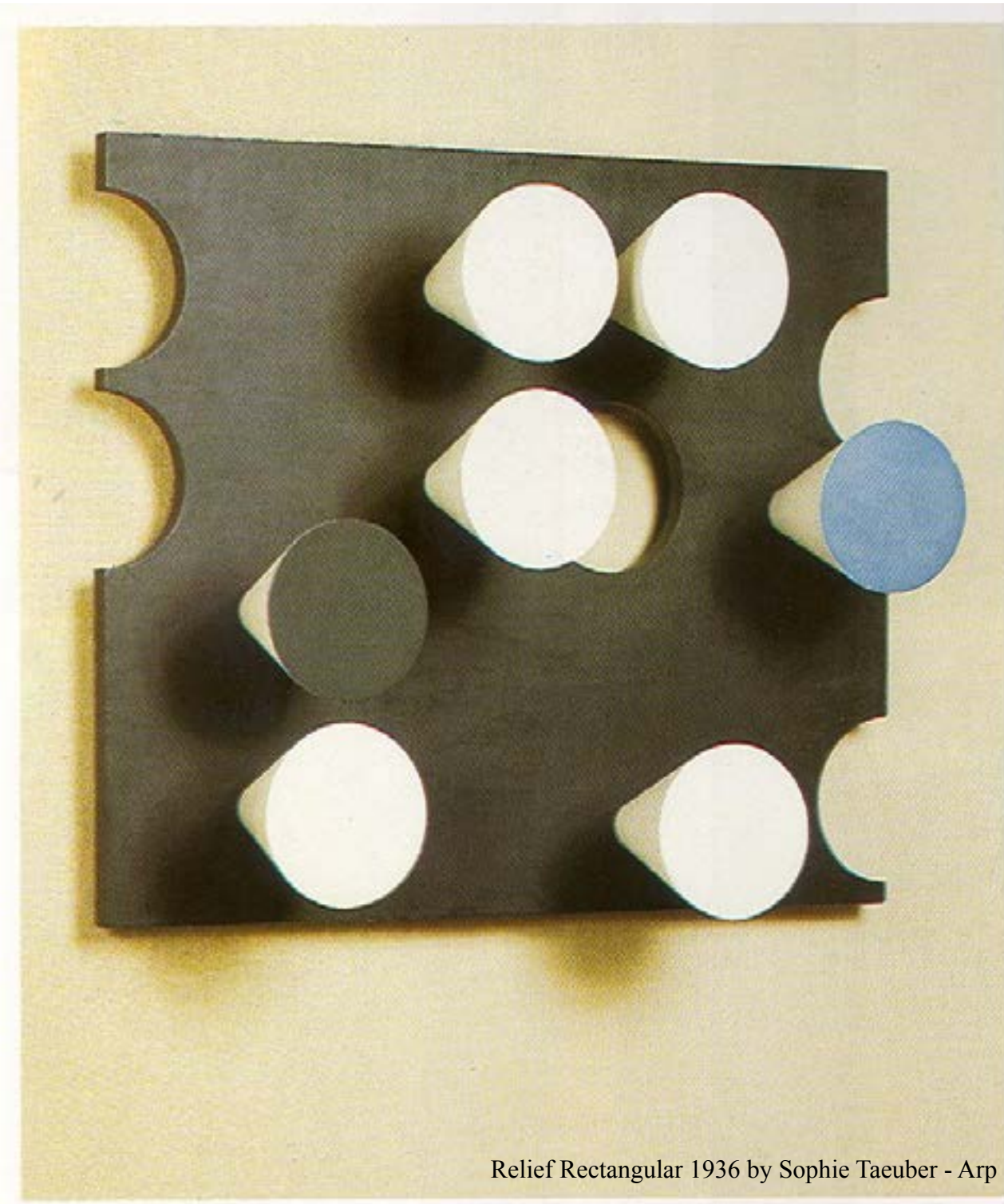


Relief Rectangular 1936 by Sophie Taeuber - Arp

The way of working with rectangles and circles in a negative opposite way of the surface that connect everything together with a simple paving material in an organized pattern of tiles. This way of thinking in designing was the first steps of making a playground for Amsterdam, located on the Bertelmanplein.

The playground was built out of the most simple forms, all related to De Stijl. A large rectangular sandpit bounded by a low concrete wall from 30 by 30 centimeters, curved corners and rounded edges. Still with a lower entrance on the corner for the really small children. For Aldo van Eyck it was important that the playground not draw too much attention, which he achieved by making the element low enough to respect the architecture around the play area. The playground becomes part of the urbanistic forms of the city architecture in the residential area.

Inside of the sandpit was a low arched steel climbing frame this together with the stepping stones with a diameter of 65 centimeters placed on the side of the sandpit like they are islands in the sea. The sandpit is not centered in the middle of the play area. In this way there is more than enough space to play around the elements to do all kinds of different games.

He left the space open on the side of the playground where the traffic is passing by so there is a direct connection between the play area and the city structure. In this way when the children are leaving the playground they can see the traffic coming, but also reverse, the traffic can see the children playing.

Together with U-shaped frames to hang upside down and wooden benches that are placed around the brick paved playground. The playground is simple, minimal with just a few elements that being positioned created a strong form together. They work with primary forms as circles, squares and triangles to keep the connection with the architecture of the urbanism form in the city landscape together. The only enclosure in the playground is the site of the walls around the sandpit. It creates a smaller world in the bigger world. This smaller world is on the scale of the children, but is still part of the bigger world outside.

Playground, Bertelmanplein - Amsterdam, The Netherlands.

*"A fence has the effect of keeping people away. Plants or walls are more suitable for making the playground a space of one's own"*
- Aldo van Eyck[13]

An important aspect in the design progress of Aldo van Eyck was using the materials that are used on the surface of the city. By using the materials that are already being used in the structuring of the surface of the city, the playground becomes a part of a city. The objects that were placed in the playground need to be accessible. The idea behind this is that the threshold to enter needs to be low. Important was that when you are passing the playground the way of using the object is really simple and easy to access. Children but also adults can jump on, run over, sit on, hang-in etc. in the objects in a really simple way. By building a fence around it you make this kind of simple way of entry and use the space difficult to use end and interaction with the city disappears.

Floorplan Playground, Dijkstraat -
Amsterdam
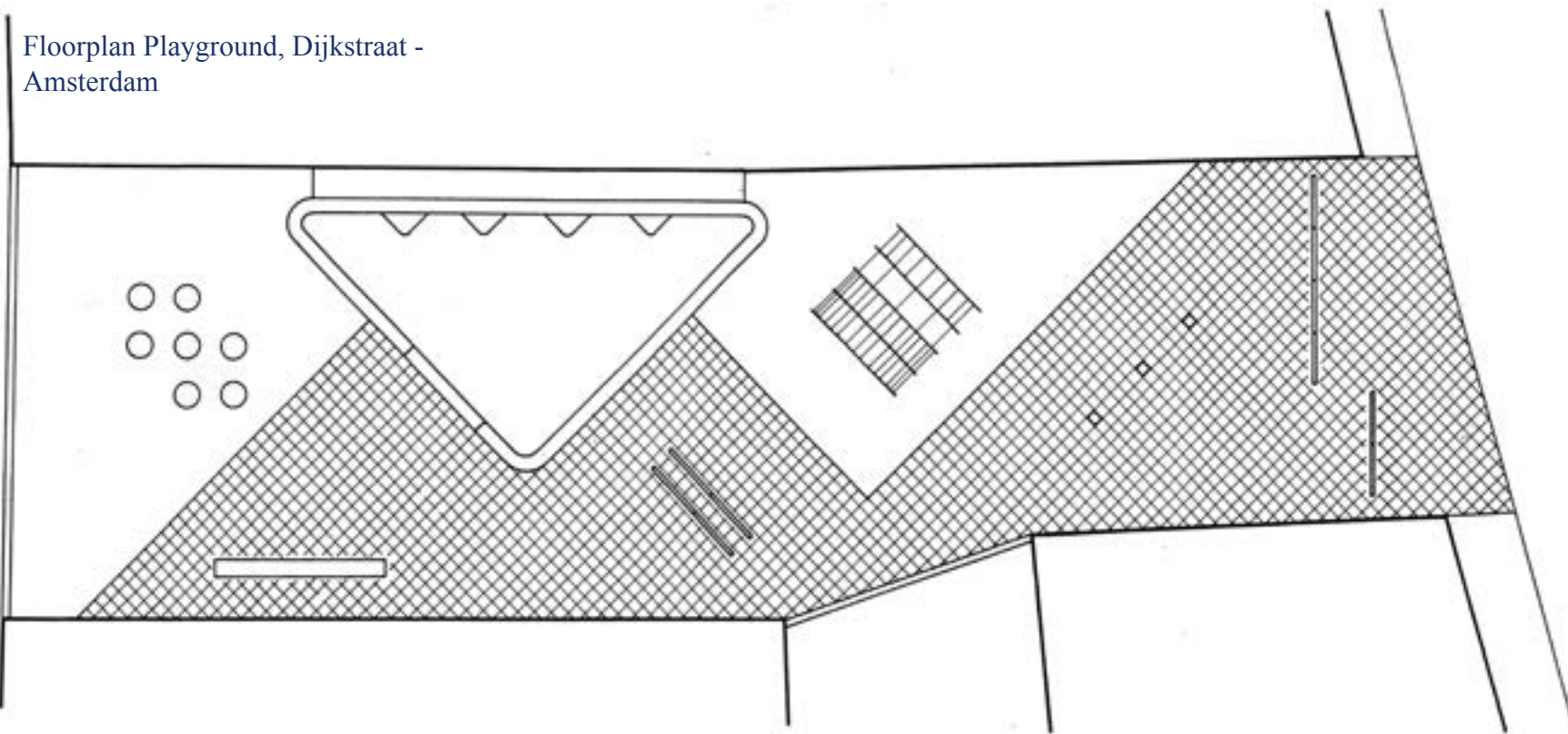


Playground , Dijkstraat - Amsterdam

Van Eyck's first playground was a huge success amongst the children. The city of Amsterdam gave him the commission to build more playgrounds until 1978. One of the second playgrounds was a playground located in the Zaanhof. Starting again in looking at the space as a plain canvas, creating on this canvas different small squares by splitting up the square with different kinds of tiles where in every newly created square a different kind of play element is located, which gives the children the feeling that they are in their own world. By going in the sandpit, children have the idea that they are even more in their own creative world.
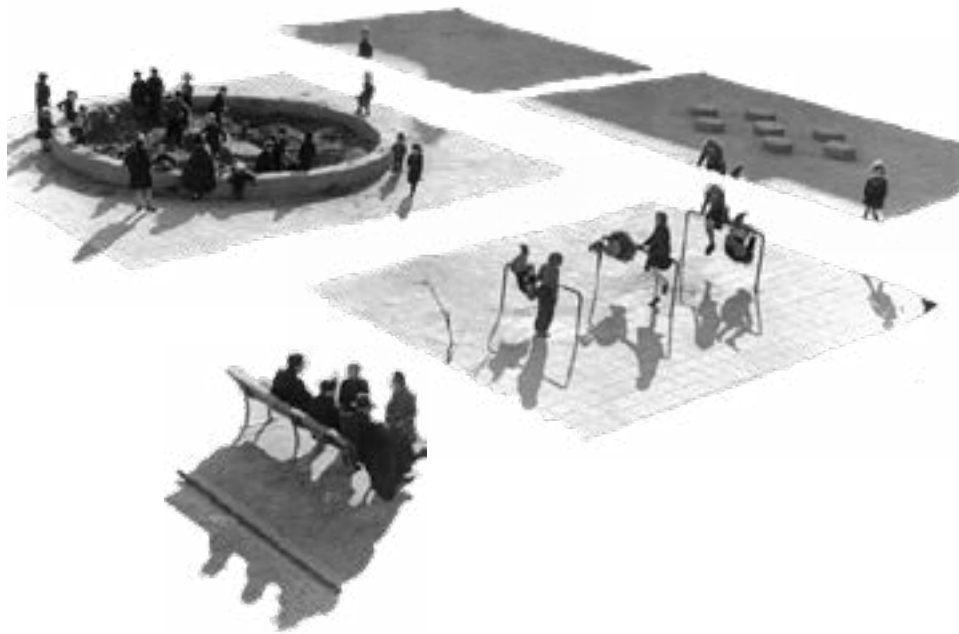


Zaanhof Playground - Amsterdam

This way of using different layers in the surface pavement together with the play elements is creating the different levels in the playground. The wooden benches for the parents are located complete on the side of the playground. Located on the first layer of the playground surface, effectively removing the adults out of the center of the play activities, making clear that the space belongs to the children. This is where the child is starting on his own adventure in the playground. When the child leaves his parent and is going to the first play elements the child is walking into a different surface. This gives the child the feeling that it is out of control of their parents and in his own with his own responsibility. But still in the eye of the parent is not far away.



Playground Sumatraplantsoen - Amsterdam

Playground located at the Zeedijk in the city centre of Amsterdam. Playground desingend by Aldo van Eyck incombination wiht wall drawings form Joost van Roojen.

The perfect squared space is formed twenty by twenty meters with a tree on every corner marking the center axes for the playground. The rest of the playground is asymmetrical and nonaxial. In the four different play areas there were different kinds of play elements placed to create different spaces and games. Jumping from square to square to different kinds of elements with different kinds of meaning, rules and children but still different every day.

Each paved play area established its own center feeling, and still part of the overall composition with connection on all sides to the neighborhood. In this way the playground is also part of the urbanism form of the city. Every design that Aldo van Eyck has made is a complete individual design for the specific location still the playgrounds are looking like one family that are belonging together working with the same elements structure in the same way of thinking in organizing the order but using different kind of size and forms to order the elements; each one is part of a family in forms. But not every kind of element form is repeated somewhere else; every playground design form Aldo van Eyck is based on the urbanism structure of the space around the play area.



Zaanhof Playground - Amsterdam

Floorplan Zaanhof Playground - Amsterdam
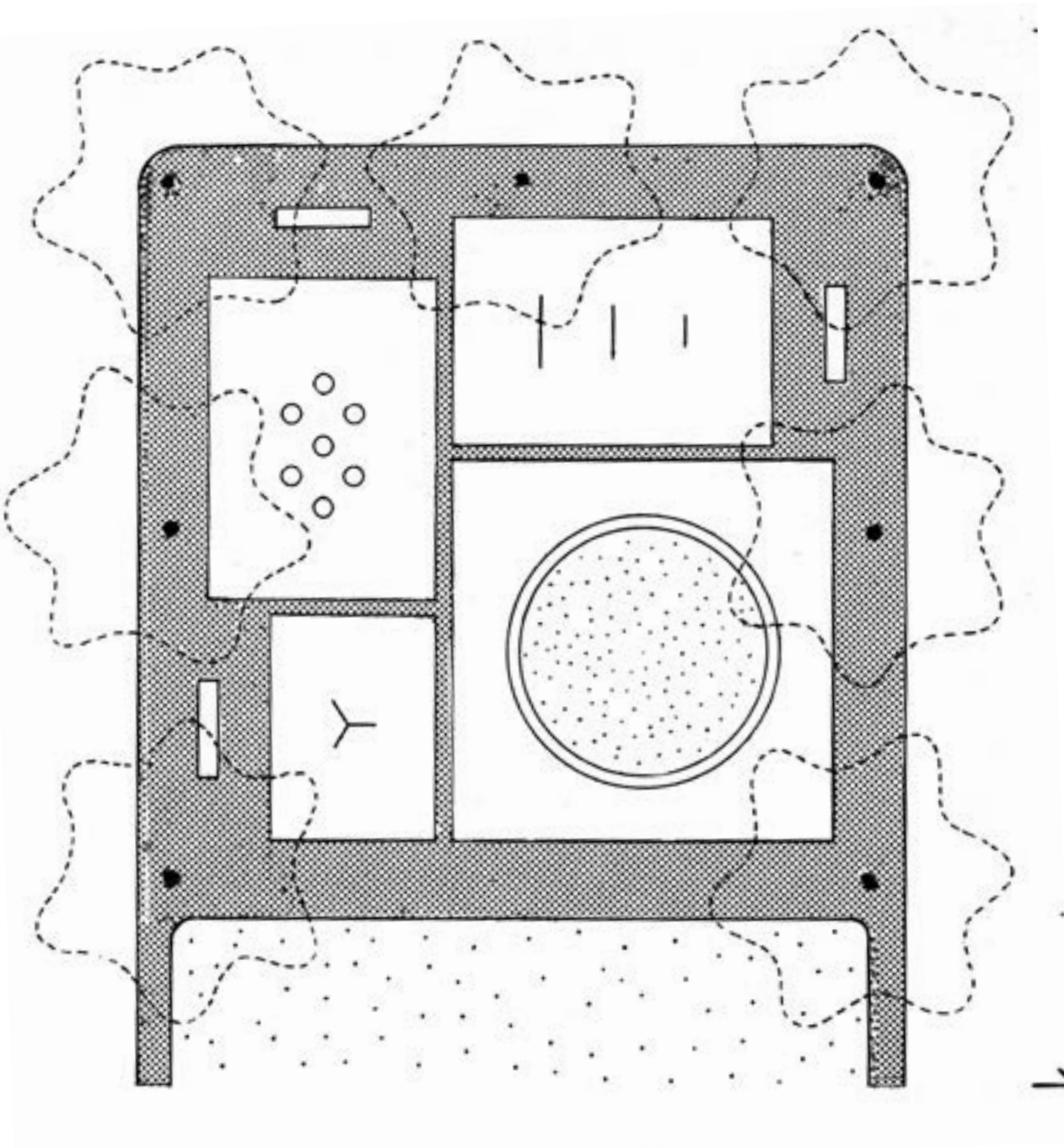
*"Working with the play elements: the sandpit in a square, rectangular, circular, and hexagonal shapes, the steel tube climbing elements in arched, domed, and conical shapes, which, depending on whether one was above or beneath them, could be either exposing a hill or enclosing a house, the steel somersault frames that could stand in serail sets or join together to create weblike enclosing walls: and the stepping stones or jumping stones of varying heights and shapes, circular, square, and hexagonal."*

- Aldo van Eyck[14]
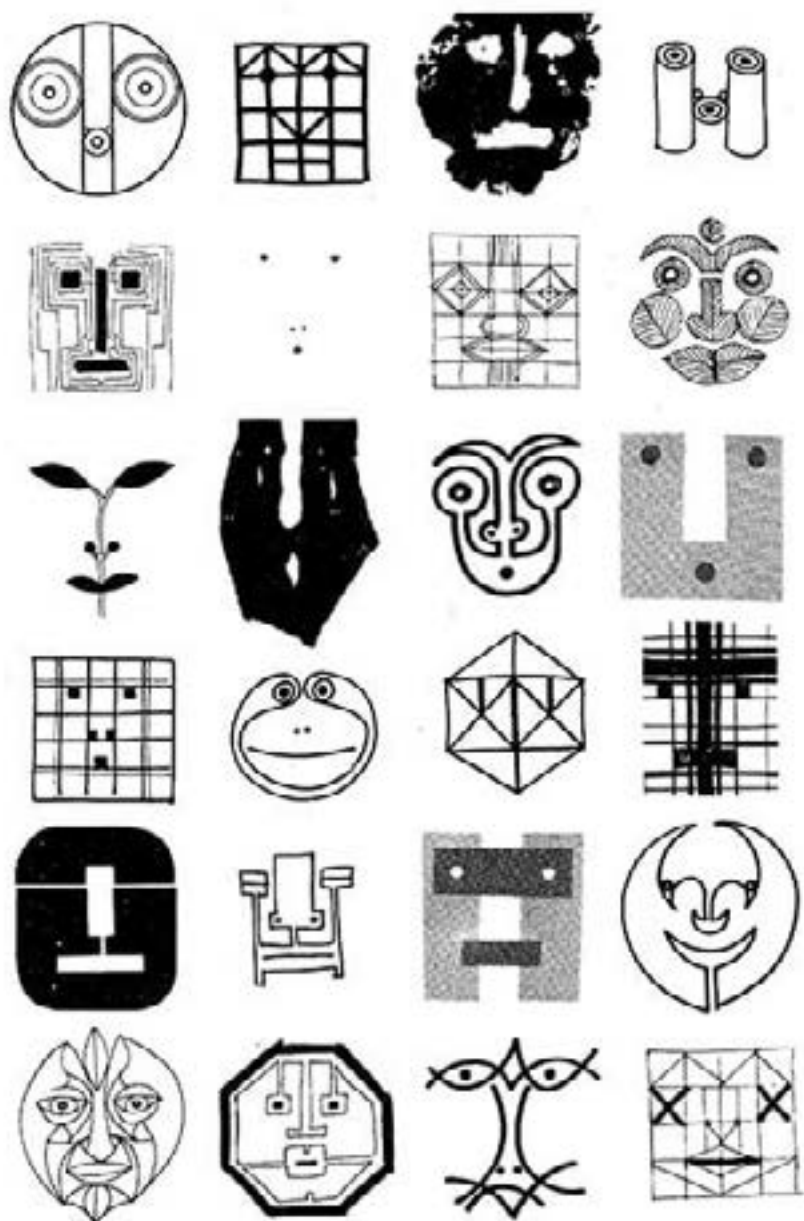
To learn more about these primary forms on which Aldo van Eyck bases his designs, I did research about the way Bruno Munari is thinking about the meaning of the square, the circle and the triangle related to people in urbanism structures. Bruno Munari was a visual artist from Italy that works on all kinds of different projects out of the modern futurism. He wrote the children's book ABC by Bruno Munari where he describes the combination of the alphabet with the primary forms. His way of looking at these basic, primary forms is interesting to work. How this forms are structuring the spaces, designs and playgrounds.

**07** The square is a basic form, a form where every other form is starting from. It is an expression of a special idea in and of itself. In order of representing the charged spiritual symbolism. *"The square is a high and as wide as a man with his arm outstretched" Bruna Munari.*[15] A square is a closed form with corners, it is the form that you draw when you want to convey the idea of home. It is the starting point of every design, the form of the paper. It is the beginning of something new to a plain canvas. The structural possibilities are helping artists and architects by giving the option to structure the elements as a surface that supports and determines a particular construction.

Also, when looking at games that utilize the square, such as chess, checkers, and dominoes, you have the corner to push someone in a possession and have control on what is happening. This form uses the corners to categorise portions in a good or bad position. Dividing the bigger square into smaller squares, you can use the space in a lot of different kinds of options.

In 1878, Sam Lloyd made the game with the name "15-puzzle". It was a simple game, a small box with five-teen smaller boxes in their and one empty spot. The goal was too but the numbers in the right order. The numbered squares can be moved around in 20,922,789,888,000 different options, which means that finding one of the correct solutions to solve the puzzle was difficult to reach but possible.
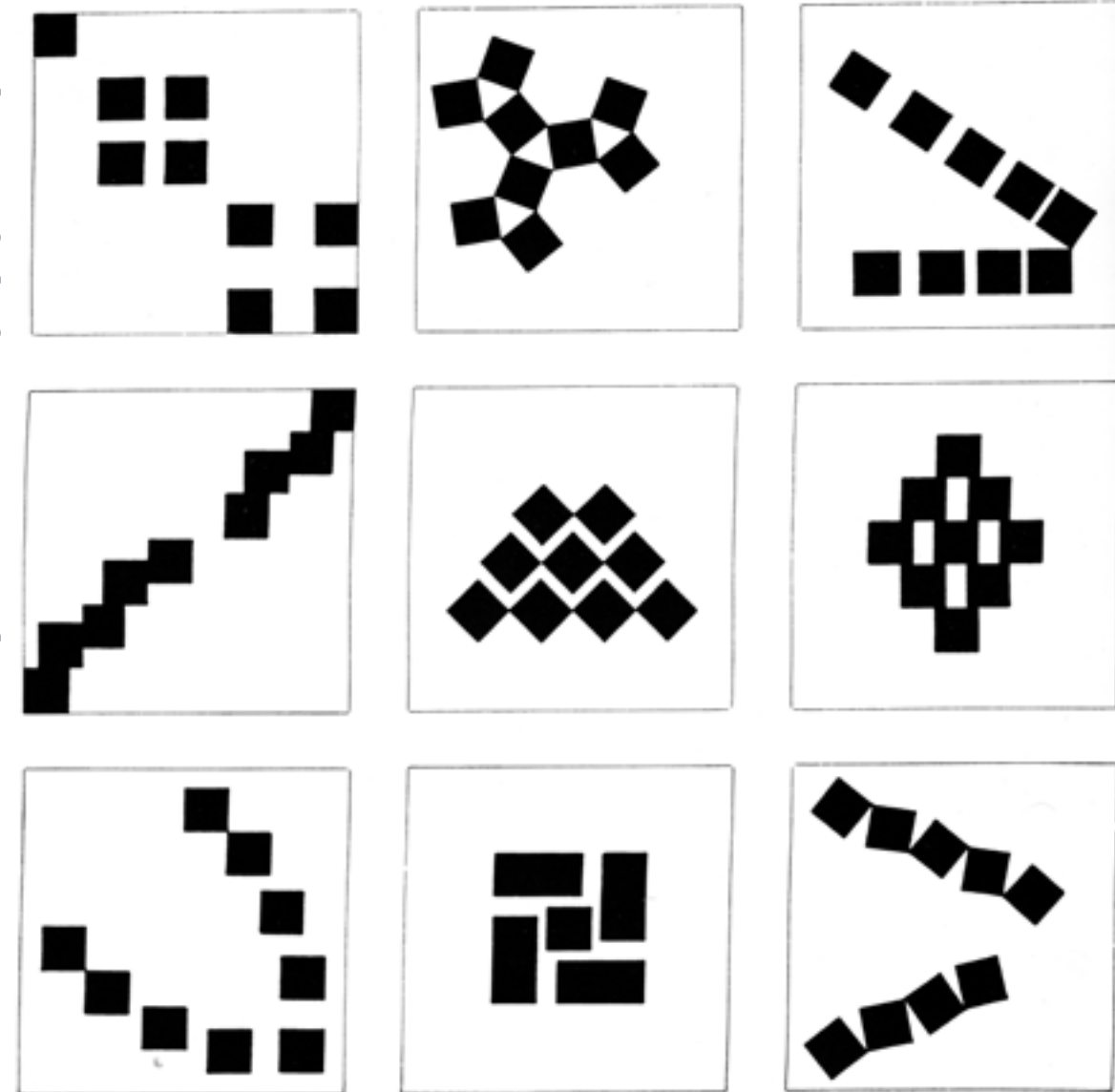
A journalist claimed that this game was more harmful than tobacco and alcohol[16]. It shows that a square is a form with so many different kinds of options. You can create everything that you want and play all kinds of different games. Create any kind of game. The options are unlimited. Mazes are square shaped forms what gives you the feeling that there is no ending, now limited. It gives you the optical idea of a never ending story where the beginning is really clear but is ultimately possible. The options of a square is that wide open that the options are never ending inside. But when you go outside a square, the sharp corners and the clear lines tell you that you are leaving the space with the never-ending options.
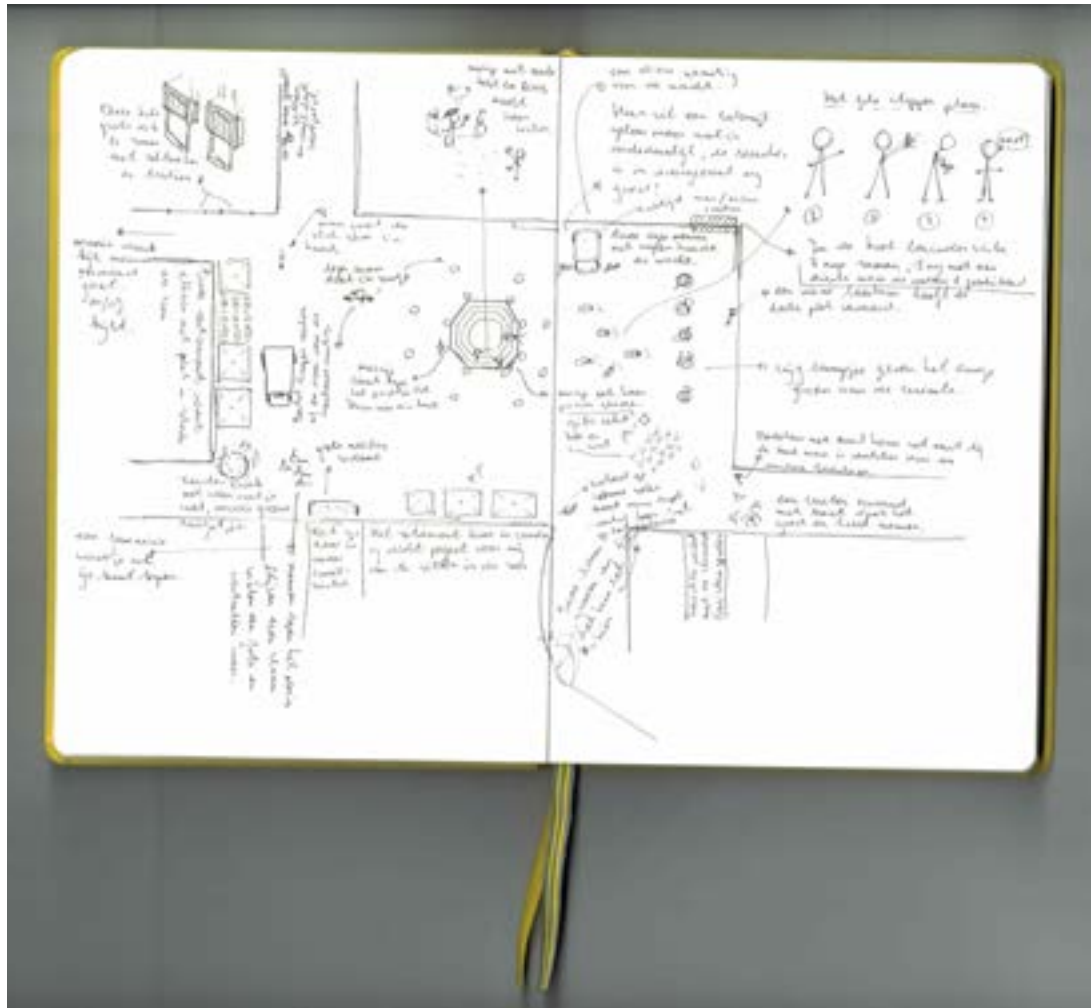
the field
square
the square
the city
square
the prison
square
the tomb
square
the tent
square
the pupil
square
the square
is
society

1.Society Square Piazza di Santa Maria - Rome, Italy
2.From poems on elementary geometry 1959 by Belolli

**08** The circle is the form that a child is drawing for the first time. It's a form that people arrange themselves with. It is the form that you use to have a closer look on something. It let you focus on the original form of the subject. The circle is a form with no beginning and no ending, not stable but dynamic. It is easily identifiable in nature and easy to find in your direct circumstances. The form stands for action and is endless. Because the circle doesn't have just one side there is no good or bad side to enter; it is always the right way up.

Everyone is part of the group when standing inside of the circle. There are no corners or good or bad sides to place yourself. The circles create the feeling that everyone is the same.

"The circle is one of the oldest figures in mathematics. The straight line is the simplest of lines but the circle is the simplest curve" Bruno Munari[17]

Playing together in a circle creates a situation in which no one is the last one or the first one. The rhythm of the movement is controlling the sense of infinity that arises in human beings. The most of the games that children are playing are based on circles, with the biggest example the ball.

The form allows you to play freely around without thinking of the way to control the object, because the object speaks to you in every single form, out of any kind of side. The form that is on all his sides the same what means that when the form is going from person to person it talks to every person the same language. This makes it understandable for everyone to access and join the game. For example, when children are playing with the ball outside, you can enter the game from any side because the ball is going from person to person. Walking into the game from the left side to right side makes no difference. The ball also doesn't have a specific side and can come your way from any direction. The threshold to join is very low, making it easy to bring people together.



Israels Plads Square  - Copenhagen

**09** The Triangle is the most stable of the three forms with a fixed structure. It is also the most important form that is used in construction structures with three equal sides and three equal angles. The triangle fits in the square and in the circle. Working with the forms of triangles in the space you modified the space with unexpected flow of using. For design and exhibition facility that must stand out in de setting, it is a form to great other forms. The way of moving through space can be created by placing triangle forms, creating a flowing route. The structure form of the triangle is so strong that you can fold all kinds of triangles together and create a complete new shape. Because the triangle is built up out of three aspects there is an uneven shape which is perfect to work with spaces in different forms. With three sides the probability that everyone in playing together is bigger, making a team of two not possible, ensuring everyone gets a chance to play. A example where the triangle is the main form for designing and forming the surface in a playground of Aldo van Eyck is the design at the Saffierstraat Amsterdam in 1950. The space where the playground needs to be formed was one-hundred and twenty meters by six meters. The structure of the tiles were placed in a diagonal pattern within five triangles sections and three triangles sandpits.
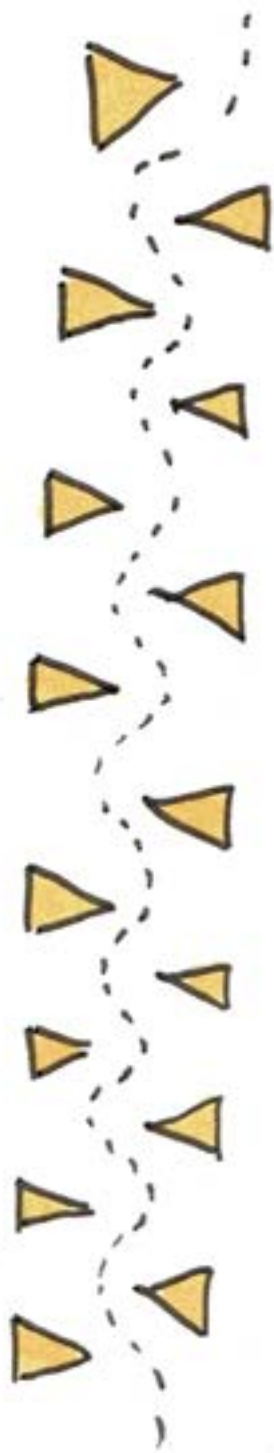
Because the space was that narrow, using the form of the triangle worked in the way that the small space was still able to split up in different kinds of categories. The triangles were placed on the surface in the same pattern as the diagonal placed tiles but the tiles in the triangle are in the brown brick paving inserted on alternating sides. Together with triangular sandpits that are placed off-center in the playground together with the triangles running roundabout. The length of the playground into smaller spaces by using the triangle form by contrasting the diagonal paving.
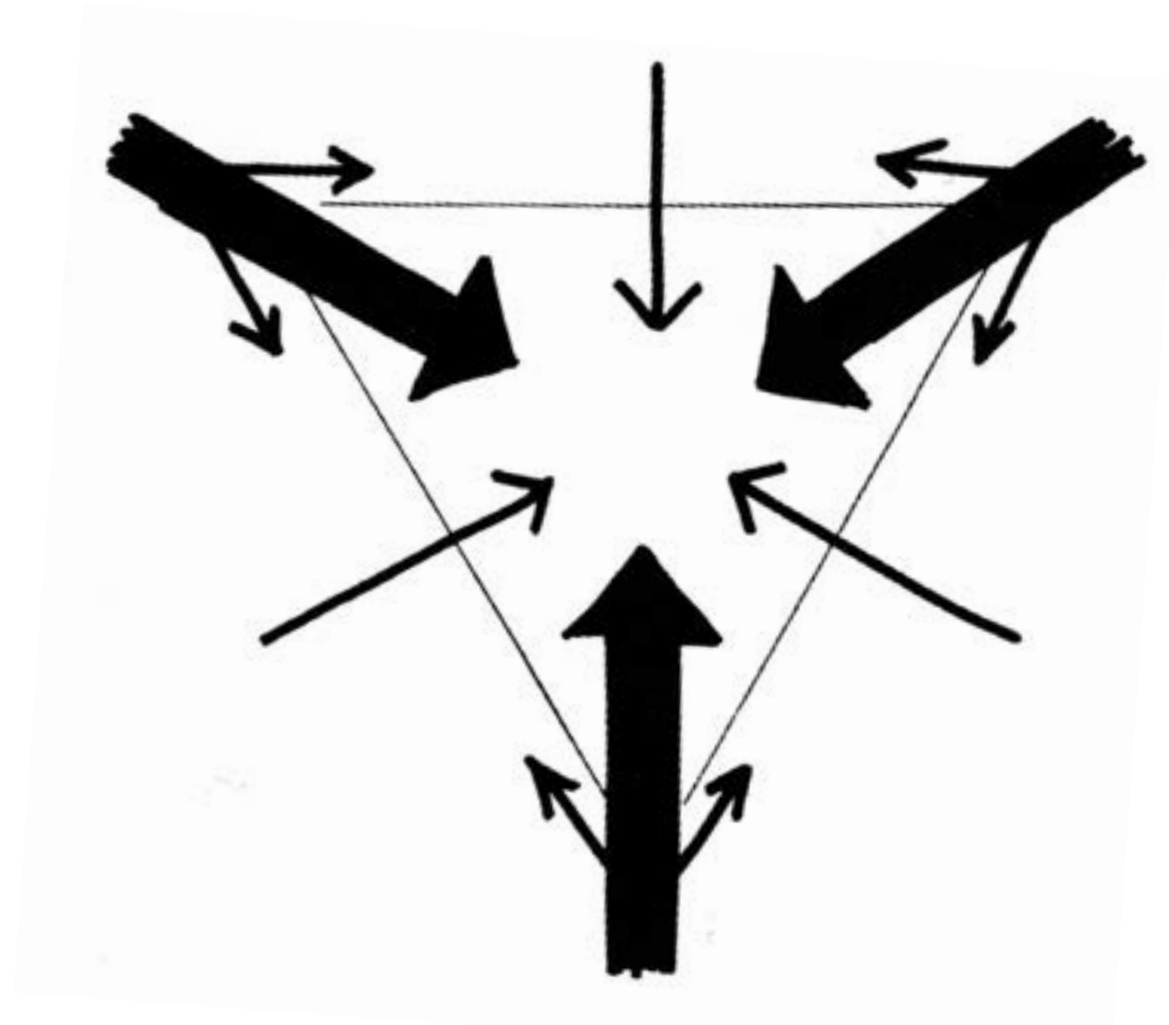


Graphic Representation of "gray in itself", by Paul Klee

These forms are the basic forms of human society and behavior; the playground is the culture of daily life where children learn basic social roles and norms. Teaching themselves in making rules to follow. Rules that are being formed in shapes that are coming out the space where they are playing. The connection between the play and the ground is made in using the forms of social life. The culture of the element in play is the way how people develop themselves in the culture of their primary needs in primary forms.
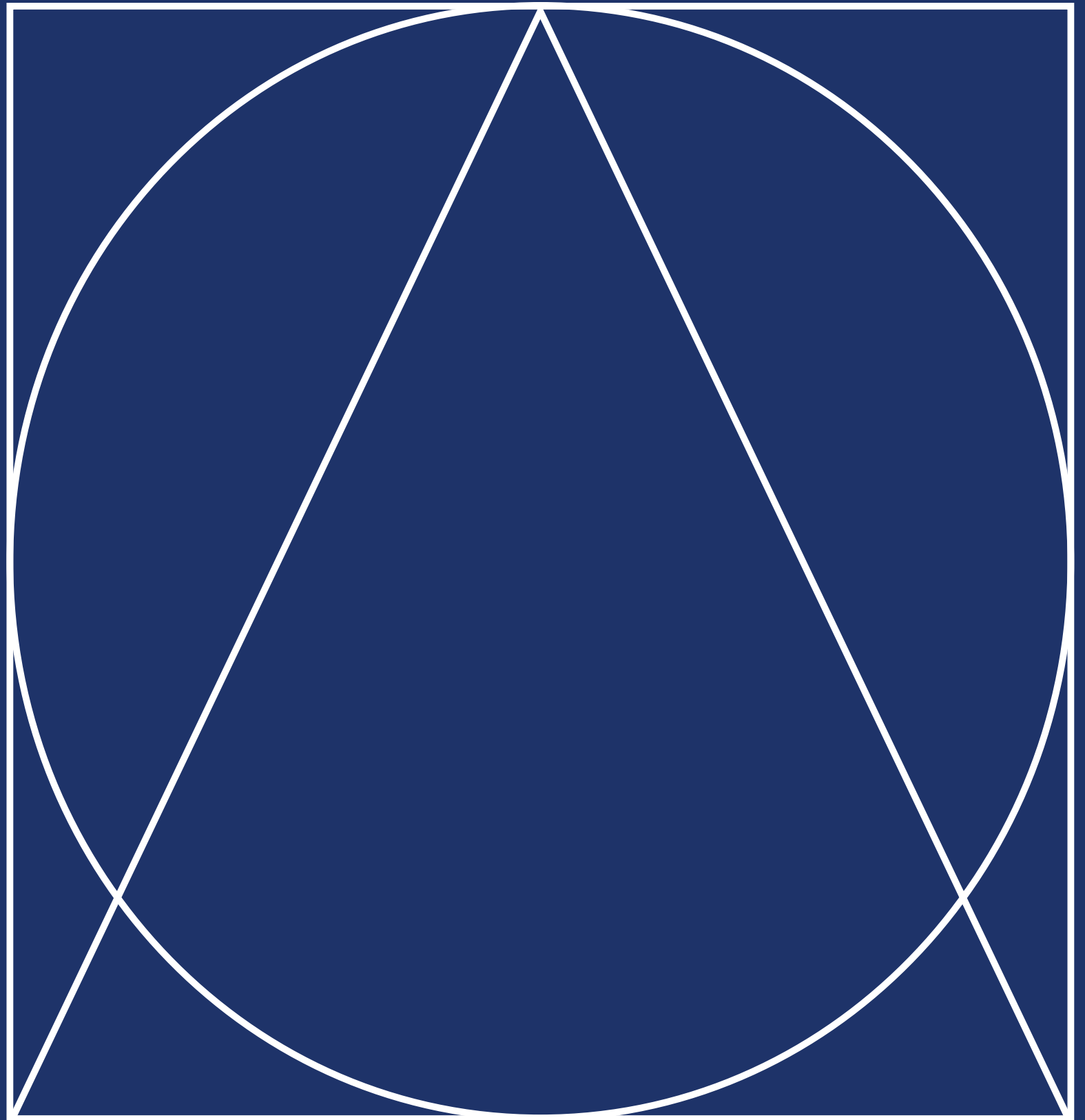
**10**

Playgrounds nowadays are almost always over-designed architectural places in the city where the goal of playing is not the most important anymore. They are an isolated place and not simple to enter. Sometimes there is a design that fits the complete need of the children. To have a better understanding of these new designed play areas, I focus on two different playgrounds. One playground where the design and location in the public space is completely mismatched with the children's needs, and the other, where everything comes together in a good way. The playgrounds are both located in Denmark and I visited them in September of 2019 and August 2020. To have a better understanding of what this thought behind the designs of these playgrounds are doing in the space I'm diving in the thoughts of the architect behind these projectes.

### "PARK'N'PLAY" - JaJa Architects

JaJa Architect designed a playground on the top of a parking garage that is standing in the middle of the new built-up urban district Nordhavn, Copenhagen. The project has the name "PARK'N'PLAY", and was designed by a team of architects under the direction of architect Kathrin Gimmel, partner of JaJa Architect. The building is finished in 2016. The idea behind the design of the playground on top of the parking is to create a hybrid structure between the parking and play areas. The hand rail that starts on the street level takes the visitor "by hand" and invites them to the rooftop of the building where the playground is located. This handrail transforms into the equipment that is standing in the playground to play with.

The interesting facts on this playground is that the playground by itself is a designed space that fits the needs of children nowadays. Also adults can use the space in a completely different way to do different kinds of sports outside using the elements in the playground.



JaJa architects is saying: it provides a recreational area and a view of the horizon, often only for the privileged few.[19]
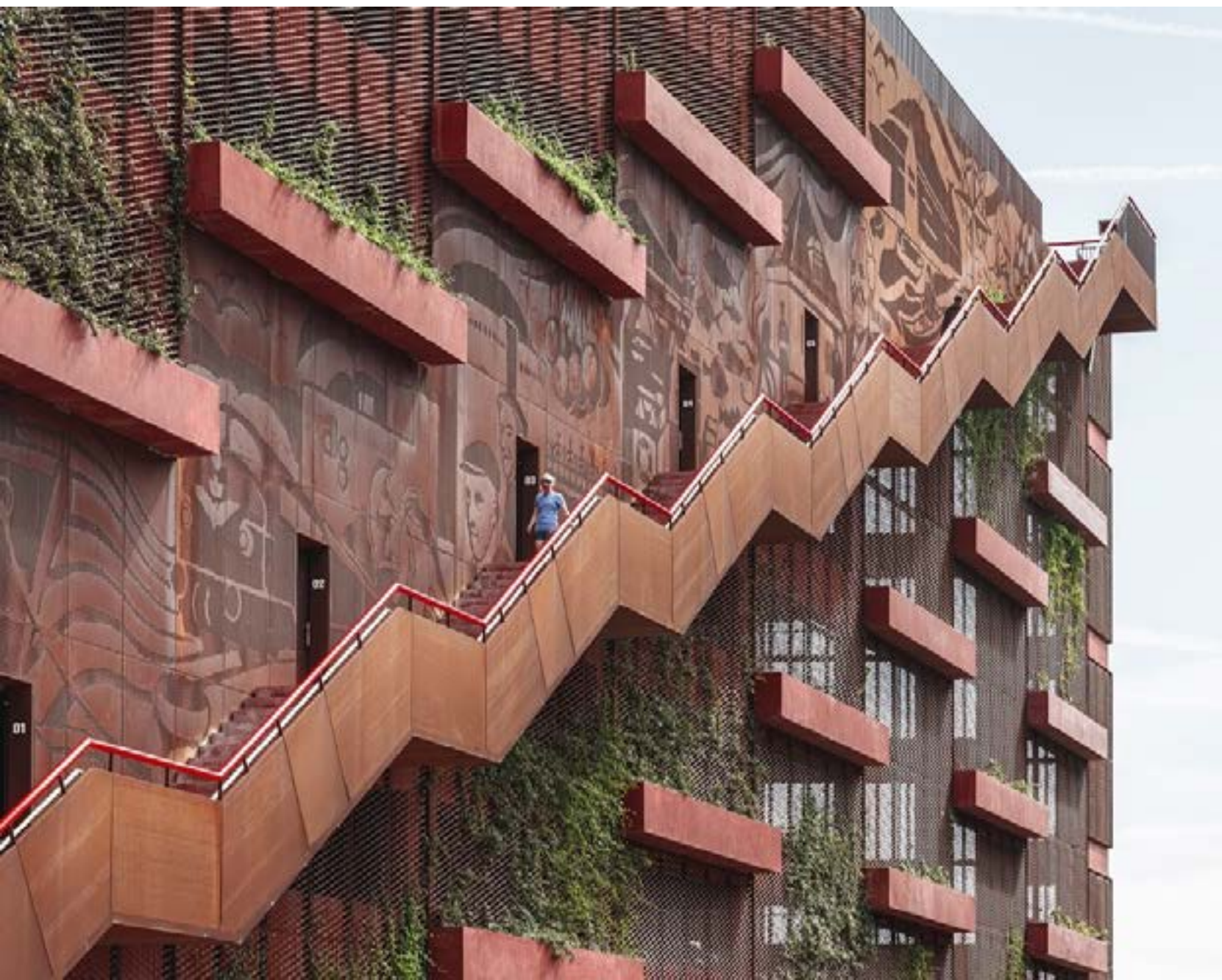
The focus for the playground is not only play but also give you a privileged feeling in the city. But a playground is the place that needs to be open for everyone and part of the urbanism form in the district. The fact that the playground is located on top of a garage building is making the playground an isolated space in the area. The stairs to enter the playground are guiding you around the building, but it is also the exit end the entrance for the parking building. What means that when you as a child pass by these entries where the cars are parked this is way more interesting than walking further to the top. This is also what I saw when I was there: children playing in the parking space, running around the cars. Hanging youngsters are chilling somewhere in the corner smoking, and I see someone peeing in the staircase. The playground that is on top of the building and made for the children to play in is already an existing, and thus boring, image in their minds. Every other type of playing and running around is way more interesting. Also because in a parking garage the cars are parked at the lower levels of the building, which means that the higher levels are most of the time completely empty and a paradise to play around with their complete freedom. This means that the playground on top of the building is not well-designed in the way of the connections of the playground with the space around the building. The play area is still an isolated space in the area. The entrance and exit is a literally a big step, for an adult but more importantly, for the child. Entering by yourself when you're five years old is not possible to go to the playground by yourself, which means that playing outside is always under the guides of an adult that is controlling the child's actions. The main design structure that is based on the handrail can be improved in a construction throw the the building where on your way you finding different kinds of play element. For example when you are entering the building, the handrail  guides you to different kinds of platforms around the building where you can play. When you are older and taller, you can go higher up. Involving parts of the parking in the play area makes the parking area less interesting space than when it is hidden behind a fence. Because something that you can not see is always way more interesting than when you can see what is happening.

Looking at the playground that is designed by Cobe Architects, designed by a team of architects under the direction of architect Dan Stubbergaard, located at the Isreals Plads in Copenhagen. This play area is a combination of different facilities in the city. First there was a big parking lot that covered the complete square as a carpet of cars. On the sides of the square there are three different schools, a park and a market area located in the middle of the city of Copenhagen. The space has a connected factor in the city to be a place for the people that are using the city and a place for the children that are going to school and are living in this area to play outside[20].

With the transformation of this square that was finished in 2014 the designers had the goal to create a vibrant diverse space for all kinds of different people with their own leisure and sport and play use. The new surface is designed like an urban carpet where different types of elements are incorporated. The cars are now hidden underground in a parking-garage that is the same size as the square.

The urban carpet that is placed on the Isreals Plads is a square made out of two different materials, concrete and recycled rubber from old Nike shoes. The square is completely flat, but in the flat surface there are different kinds of elements involved, in the two corners of the square there is an installation where people can sit, hang and skate but, also features a waterfall and artificial creek. In this creek there are different kind of jumping stones installed. When the water is high enough, you can jump around and over the water. The minimal design of the urban carpet with forms creates a space that is open to use in all kinds of different ways. The square is located on the same level as the space around it. The colors and materials that are being used in the square are the same in the urban structure around the square.

In the middle of the square there is a big sports field where there are different kinds of lines. This together with different kinds of goals and basketball equipment, fenced behind an open construction is creating a space in a space. The rubber surface of this part in the square is continuing around the fence in a wavy form. Because the rubber is a soft material, the waves also act as seating elements in the squares. This together with all kinds of universal elements in the square the most of them formed in circles are creating an urban place that is diverse and livable. Going from the playground for children during the day to meeting with friends after work, to a market on Saturday.

This way of combining the play area in open structure in the urban form of the city makes the way of using and going to use the space relay easy. Using forms that are speaking for everyone and are open to use everyday in a complete different way. In combination with a clear sports field in the middle of the square what marks down that this is a place to play. Trees with the round green circles under them with round benches are creating small private spaces in the big space. The compact but good organized skate-ditch is special for the skateboards but can also be used in all kinds of different ways.

The power of this is public space is that it is open square for everyone, and there are trees and water elements. The schools around the space use the place most often as a playground. The playground is built up out of clear materials and cirkel forms. Forms that the children can use every single day in a completely different form is supporting the way the children are using their creativity.
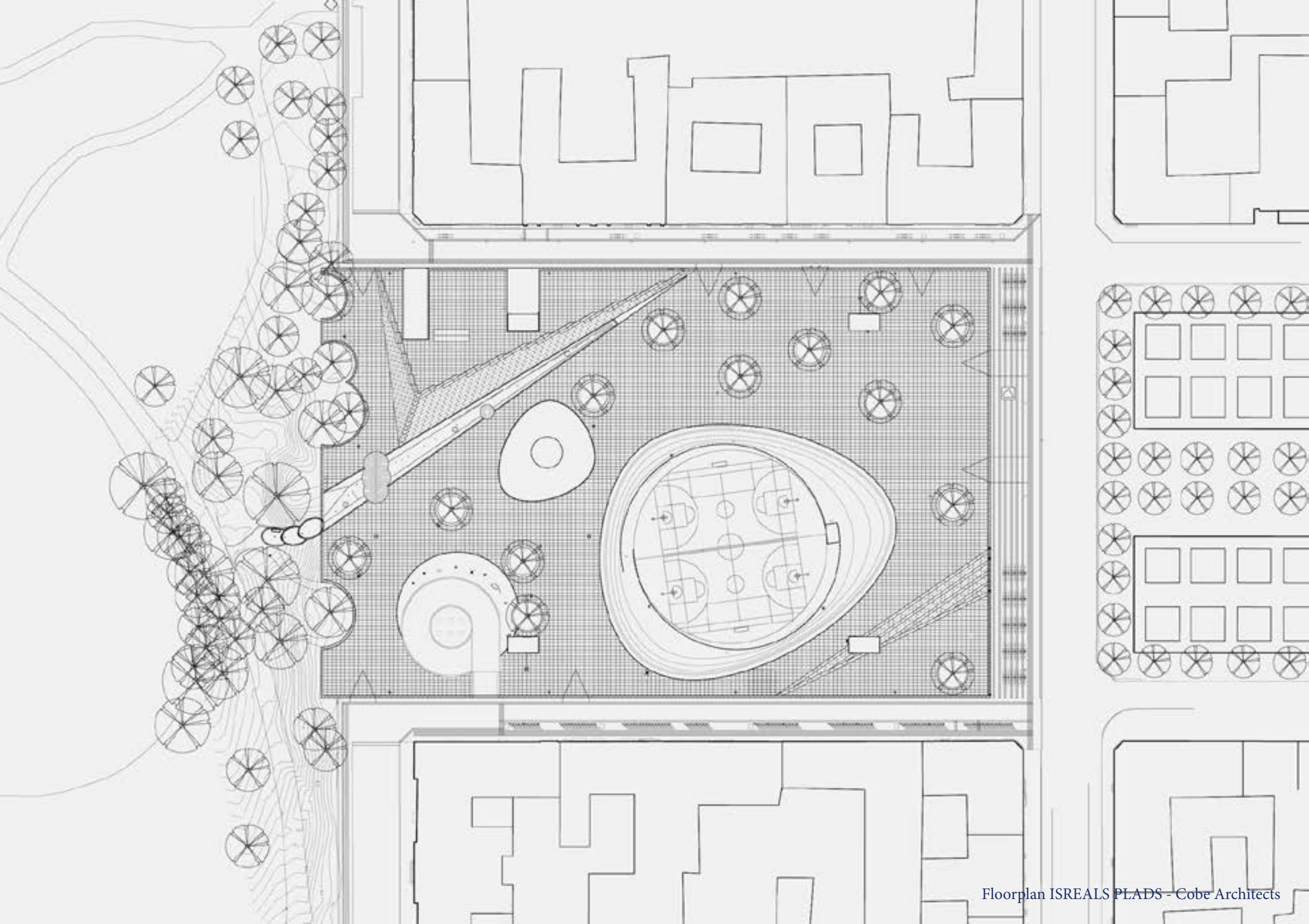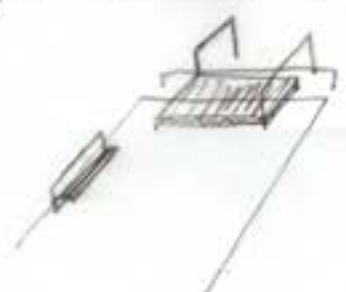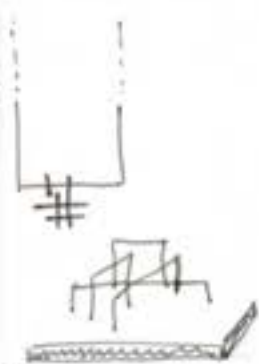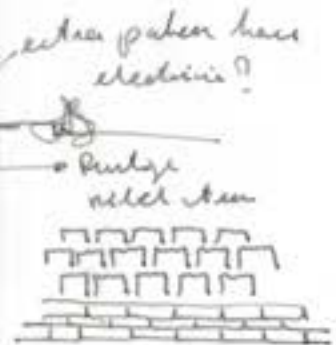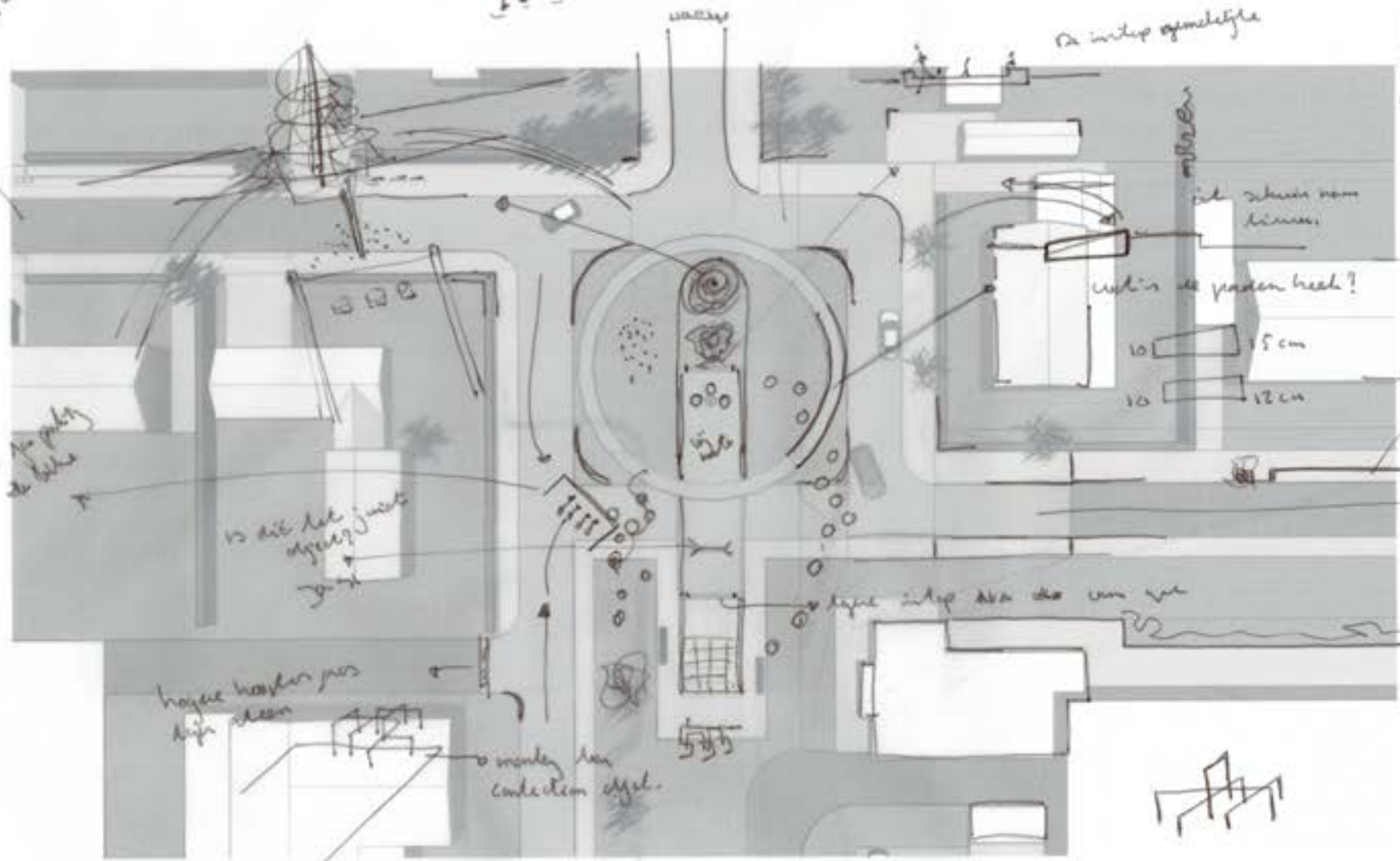
Floorplan ISREALS PLADS - Cobe Architects

# *PROJECT*

**01** The project is a design made for the location where my fascination in the experience of playing outside started. The playground in my street is a miscommunication with the surrounding, not answering the need and the questions in where the children are looking for. An isolated space in the neighbourhood where everyone is moving around in their personal safe space. How can I make a new design for this place? Together with al the information that I found end learned, during making my thesis about playgrounds. Combining all this information in a project for a new play area that supports the self-educating, self-risk control and freedom in making your own, personal games in an open surface. A space that is part of the neighborhood and teaching everyone that is passing by.
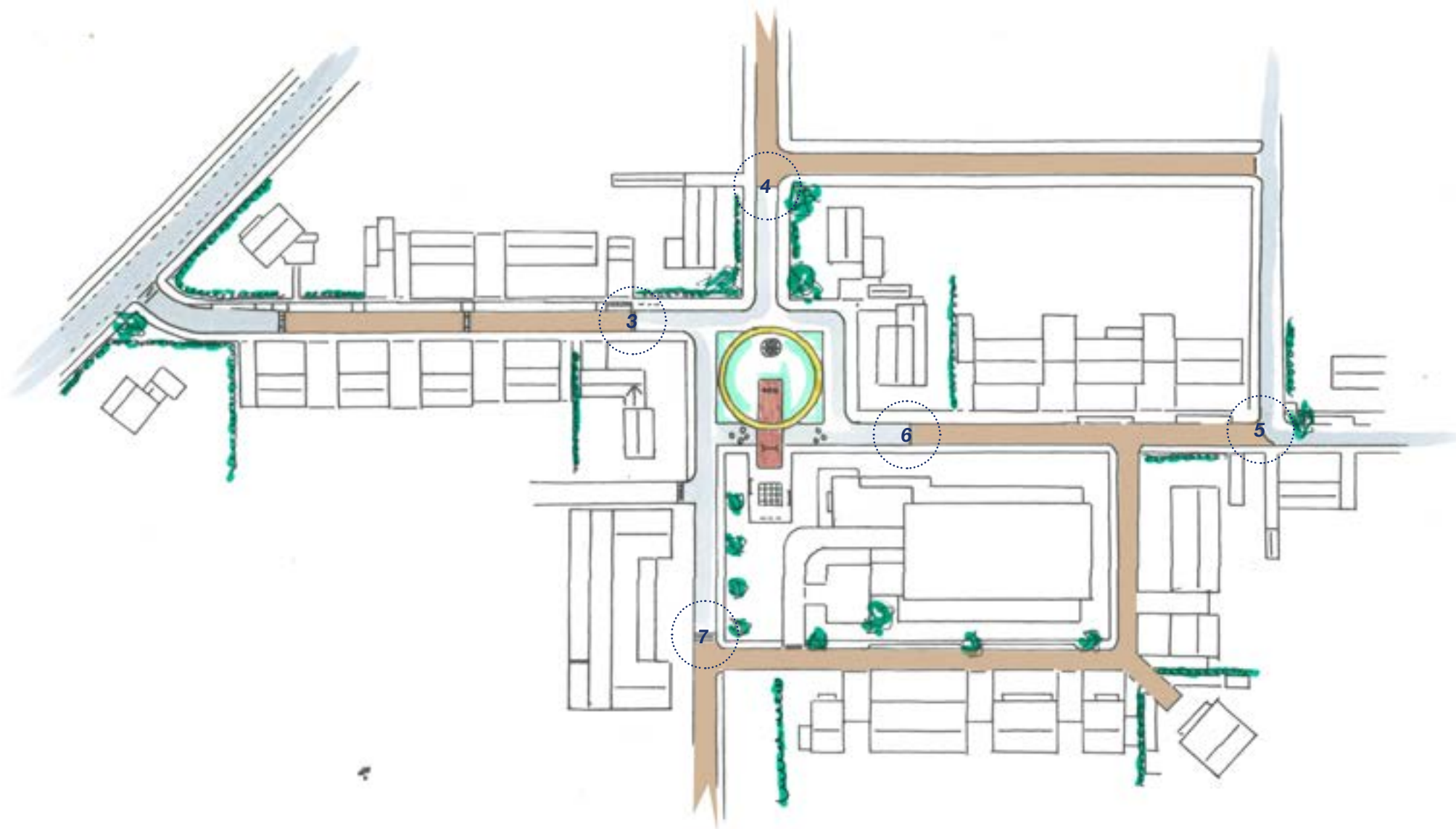
Focusing in not only making a new design for the play-area but also include the connection points when entering the play-area. Making a street structure with points that *"wake u up"* that you are entering a new area, showing that something is going on. But also force you to look where you are riding, if it is by car or bike. I made seven points, excluding the mean design for playing, that forcing you to have a good look around in where you are going end what is happening, using a different kind of materials and structures in the street surface. Placing objects in vision lines, using high differences end making the surface of the street slowing you down.

**02** The existing speed bump when you are entering the street is short. Already before you can have a view in the street you are back towards riding on the asphalt, which means that the awareness moment when entering a new space is short. By going form asphalt to asphalt with the same texture your driving style is coming back. By prolonging this transition and allowing it to continue in the street with a different surface ensures that the awareness moment of entering another area is physically present, this makes it more conscious that you drive into a new space. When the speed bump is ending you are further down the street where you can see that you are in a different, new area.



1



existing situation

**2**

Making a speed bump in the middle of the road, in between the beginning of the road and the play area makes it not possible to have a higher speed after leaving number 1. Coming from number 1 the road is going downhills, which means that automatically the fastness of the vehicle is going up. To control that the movement of the car, the speedbump is forcing you to slow down. Also, the speed bump is just 15 centimetres with a slope of 50 centimetres. What makes the slope in the road visible but not uncomfortable to drive over. On both sides of the road, there is a gap in the speed bump, this makes it easy for people on the bike to drive trough.





existing situation

**3** This area in the location is the moment just before entering the play area. To make sure that the people that are passing by now that there is a new space starting I made a high difference of 10 centimetres with a small slope of 50 centimetres, and new material in the surface. Also directly on the side, there is a small monkey-bar to give the person in the car the understanding that she or he is entering a play area where children are playing running around. To make the surface with stones that are not comfortable to drive on you make sure that the speed of the traffic is not going to be too high. This higher level is starting a view meters earlier than the play area is starting, this means that the car is not slowing down on the very last moment but safely already before.

Location four and seven are the most silence part with traffic around the play area. This part of the road is only being used by the view of people with a car that are living there. For bikes, it is out of the neighbourhood the route that they are using to go to the city. Because this part is not used that much the interruption in the surface is as minimal as possible. Again I'm using a speed bump that is 15 centimetres with a slope of 50 centimetres. On both sides of the road, there is a gap in the speed bump, this makes it easy for people on the bike to drive trough. There is a material difference in the surface that gives a feeling in entering a new area.


existing situation 4

4


existing situation 7

7
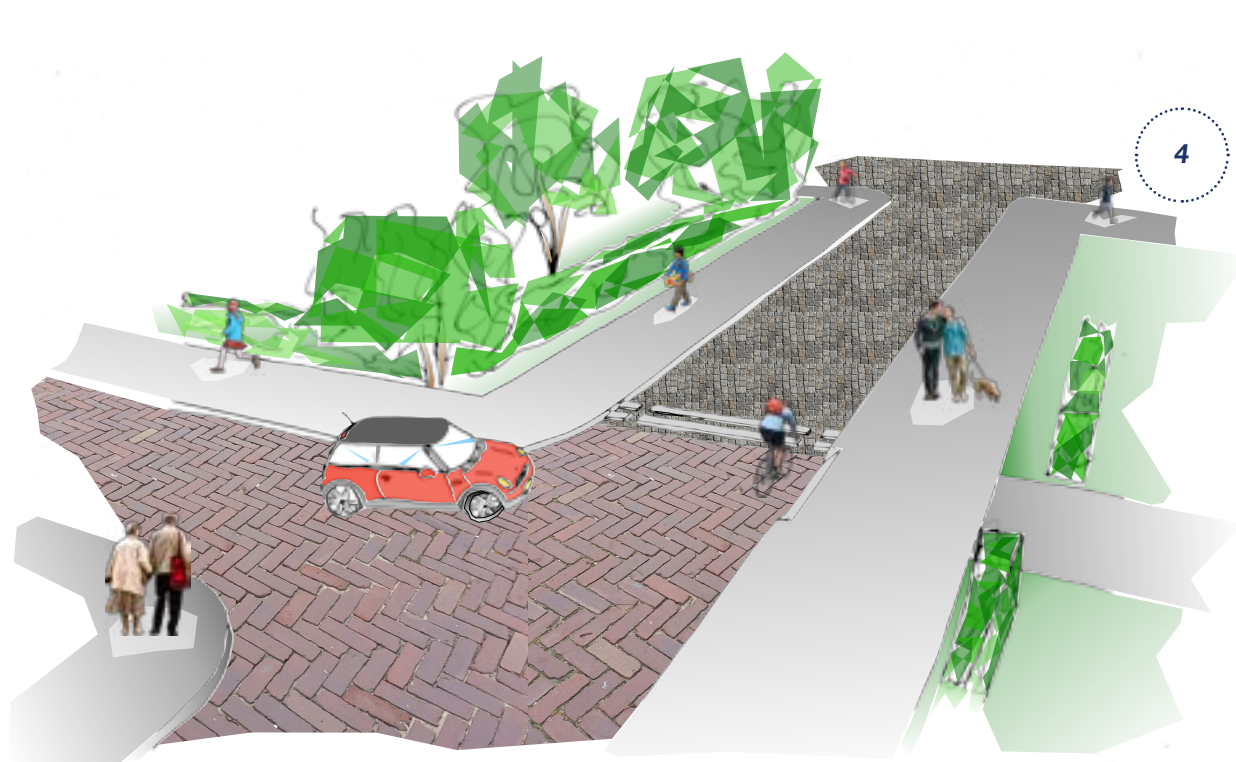
Location five is entering the area from the other side. Form this site you're driving up hill. The problem here is not to slow down the traffic but to let the traffic know that there is a play area coming. To make a difference in the surface, not only changing the material but the form of the road. By creating in making a turn in the road in the ground surface. The feeling in driving is that the main road is going around the corner. The new area, the play area, has the feeling that that is a new street to enter. But in real life is just the street that is continuing.

5


existing situation

existing situation
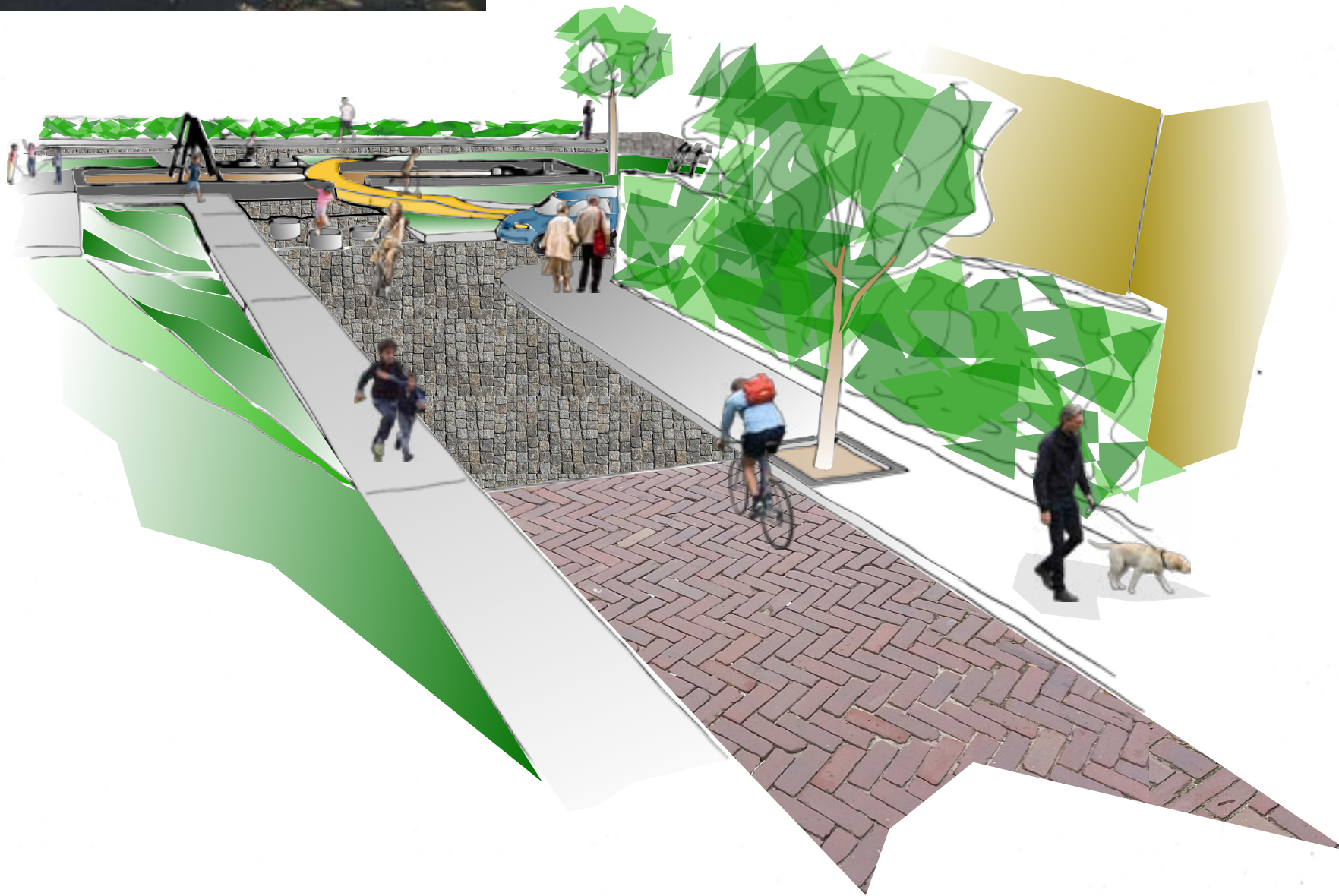
From this moment you are entering the play area, riding uphill. Again there is a material change in the surface, the material is not comfortable to drive on, the traffic is slowing down automatically. The stones in the street are suggesting it is going straight ahead. But when you are passing, children are playing around on the same surface where you are driving. What means, that you have to be careful when you want to turn the corner. All of these small interruptions are supporting you to have a good understanding of the space where you are at that moment.

# THE NEW PLAY AREA
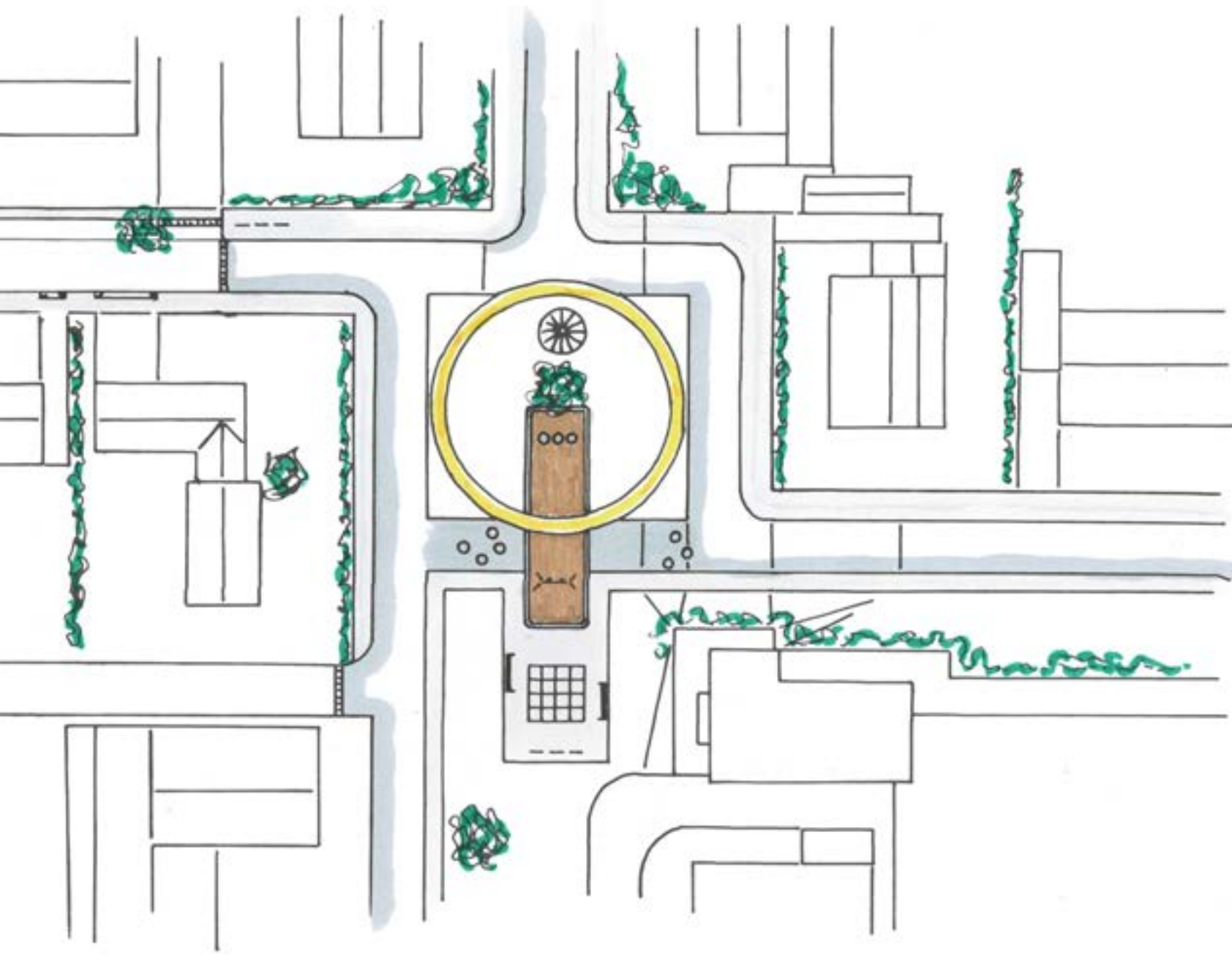
**03** In the new play area, there is space to great your own space. Working with the different kind of elements where children are looking for in expressing their fantasies. To run and race around, to learn end educate themself and each others. Creating an open connection with the space around them. But still a safe and organized area in-between the lines and the grit of the safety rules from the municipality. Space for parents to have an overview of what they are doing. But with a distance in freedom from the child. In this new play area, they're different kind of element for the child to develop themself. In the view next pages, I'm going to describe the elements in the play area. How are they being placed in the playground, and what is this space doing for the children?

**04** The big yellow circle is the main form of the playground. It is the space where you can run and race around, using it as a circuit. Making the circle out of bright yellow asphalt it is the perfect surface for your scooter, skateboard or roller-skates. Making the circle not flat but just a little bit slanting from the outside to the inside. This is protecting the children not flying out of the curve. They always going to the inside of the circle and not to the part where the cars are going. When the children are playing with a ball inside the circle and the ball ends up to go outside of the circle. The slanting form takes care of that the ball is not ending on the streets.
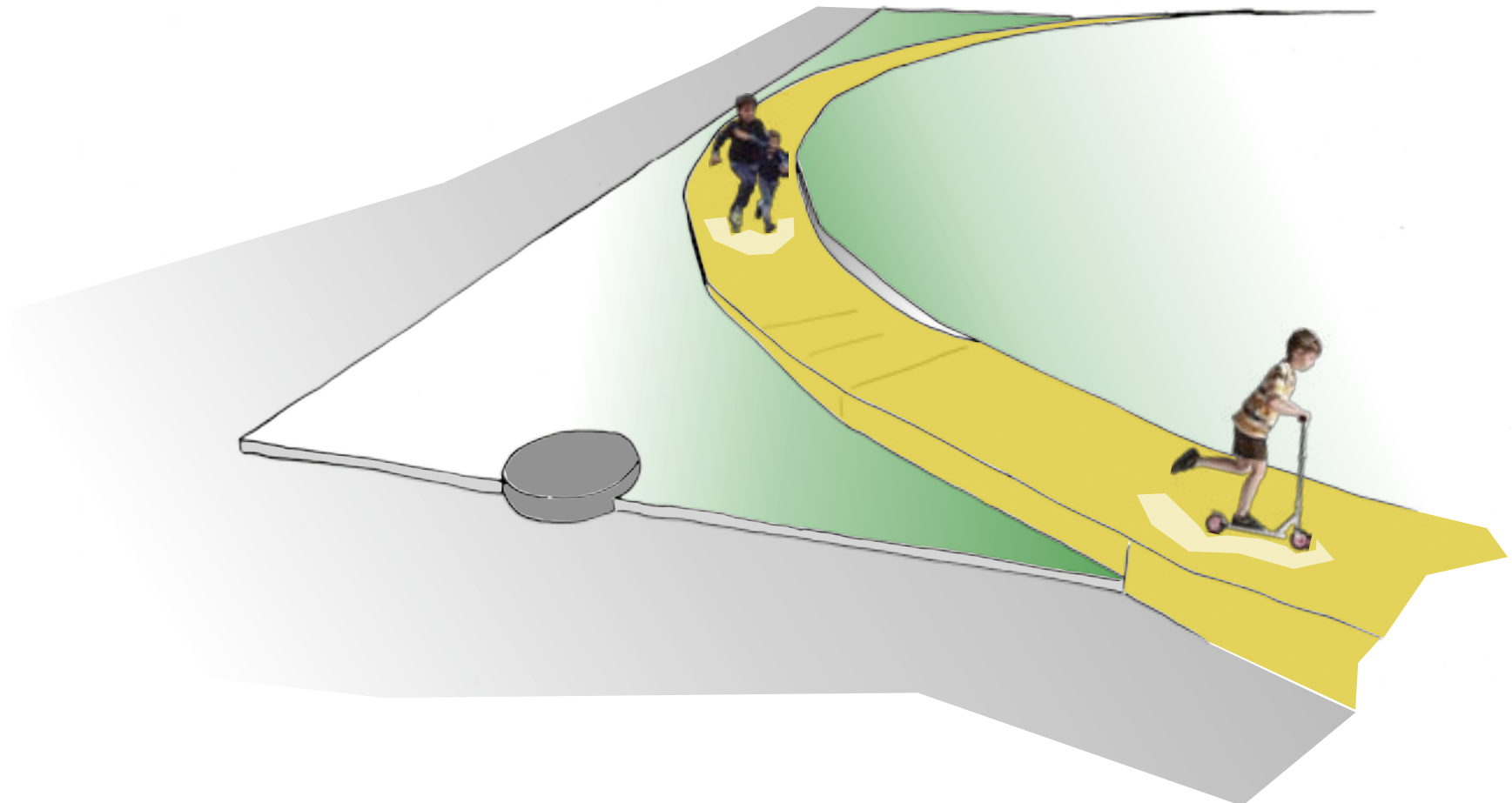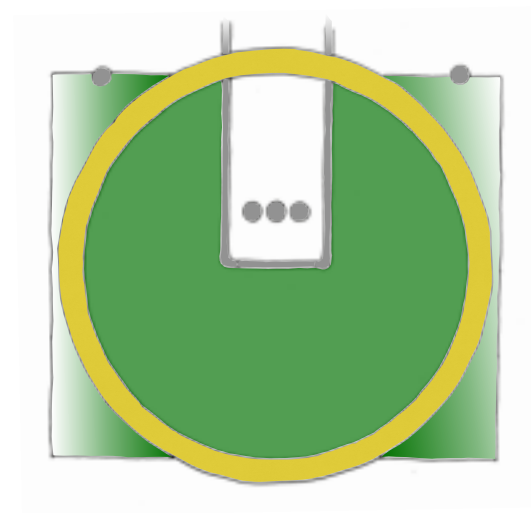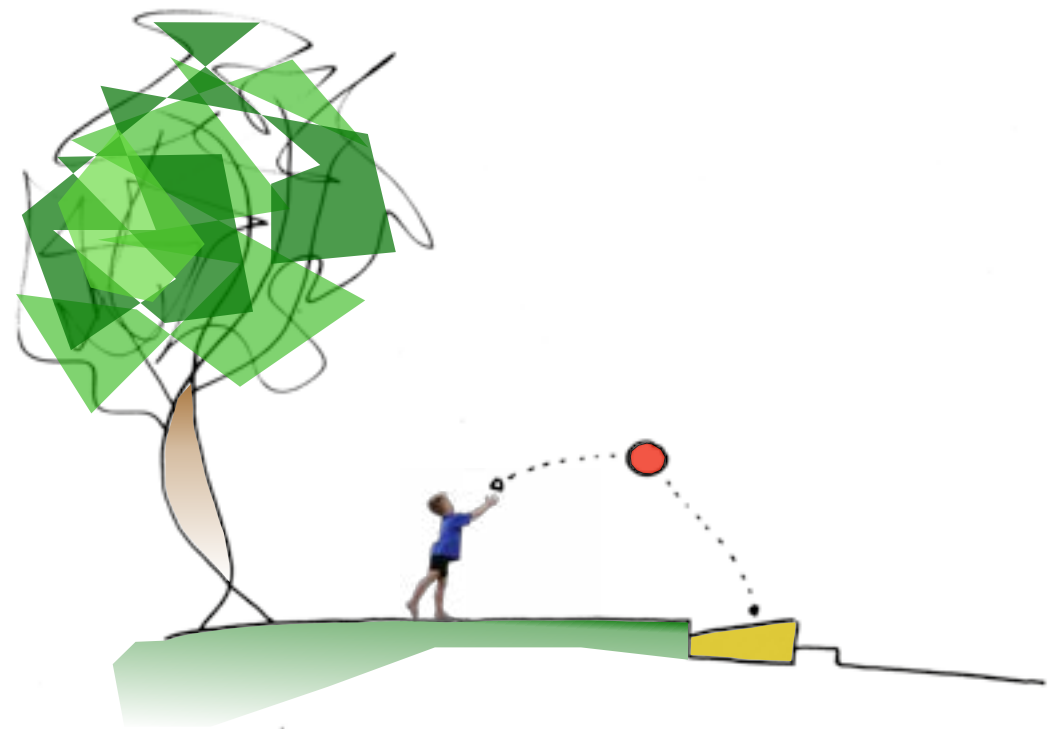
By creating that the circle is overlapping a part over the street you can see the bright yellow circle already form a really early point. Also, you can see the children from a distance playing en running around. This interruption in the street allows that just one car can be passing. That means that cars need to wait for each other. The option to drive fast past each other is not there and is making it, even more, a wake-up moment that you are driving through a play area.
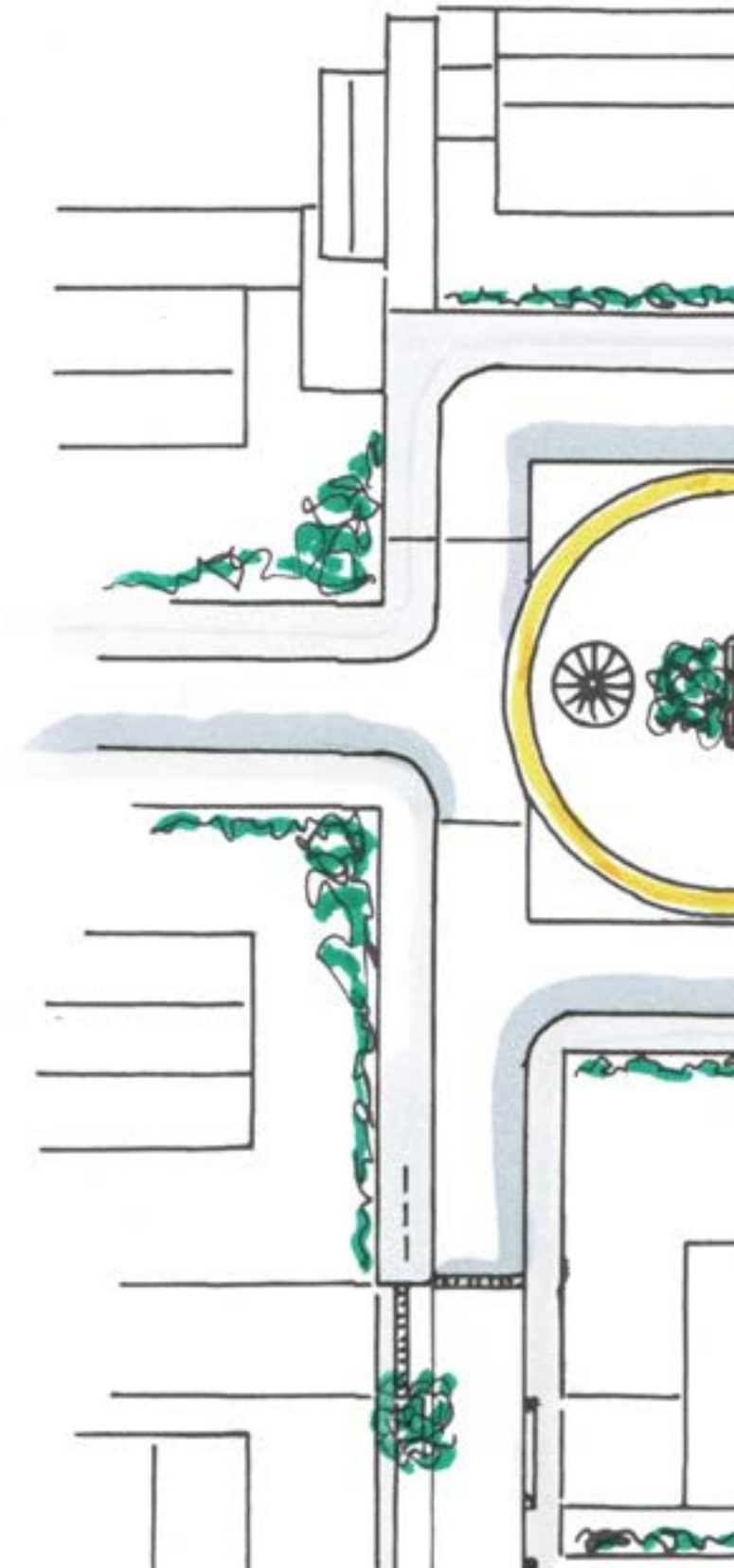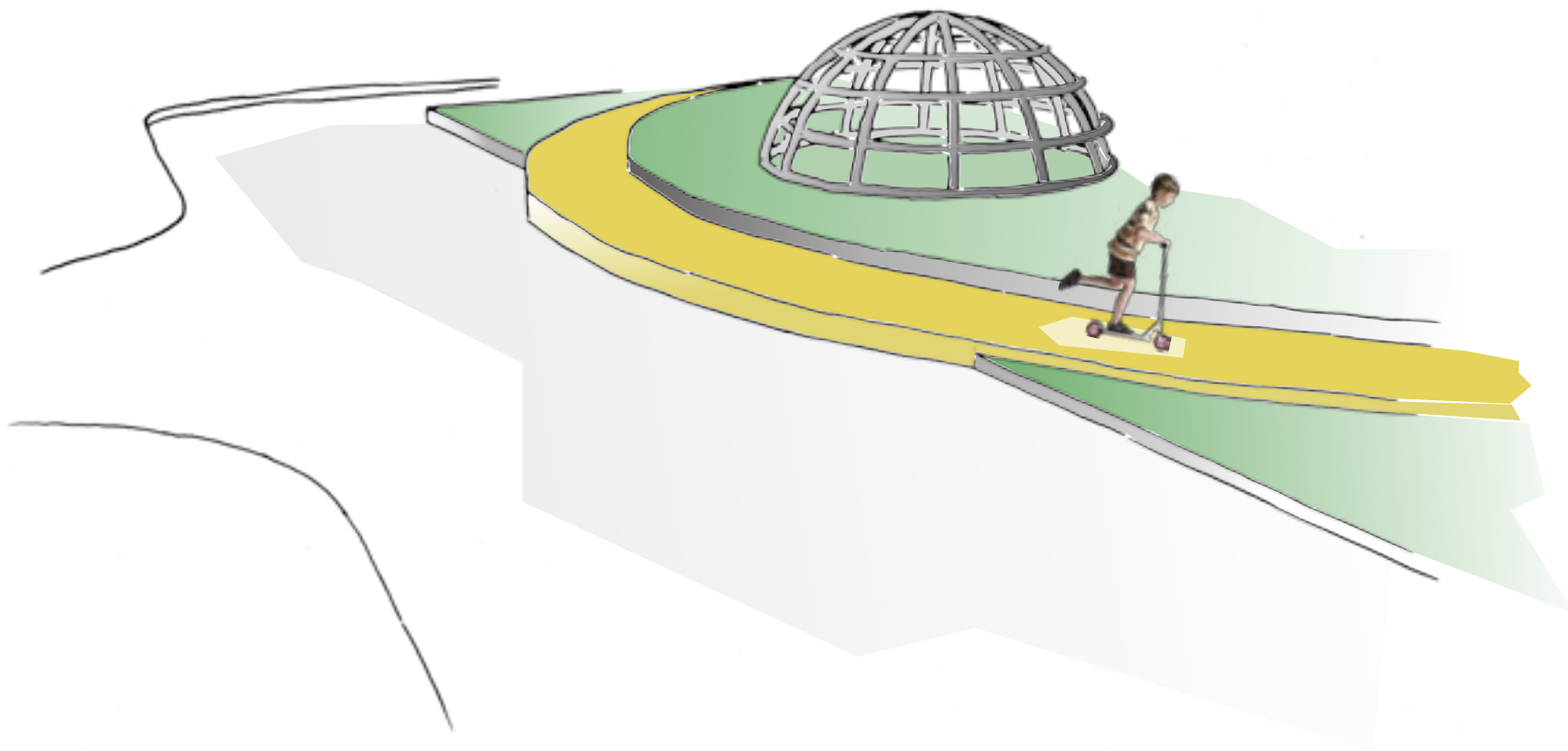
**05** The sandpit is located in the middle of the play area. It is the connection between the two parts of the playground. The running and racing part, and the flat open play area. Splitting the sandpit into two different kinds of spaces. One side for the swing, standing there as a symbol that this space is the place to play around. The sand around the swing is soft sand to protect the children from falling. The other side of the sandpit is with hard sand to build your installation. This together with the three Aldo van Eyck steppingstones you can great everyday a new kind of installation, diving into the sand and make a volcano, river, castle, tunnel etc. The options are open, end the sand is from good quality to build. On the other side the sand stays around the swing, comply the safety of the municipality.
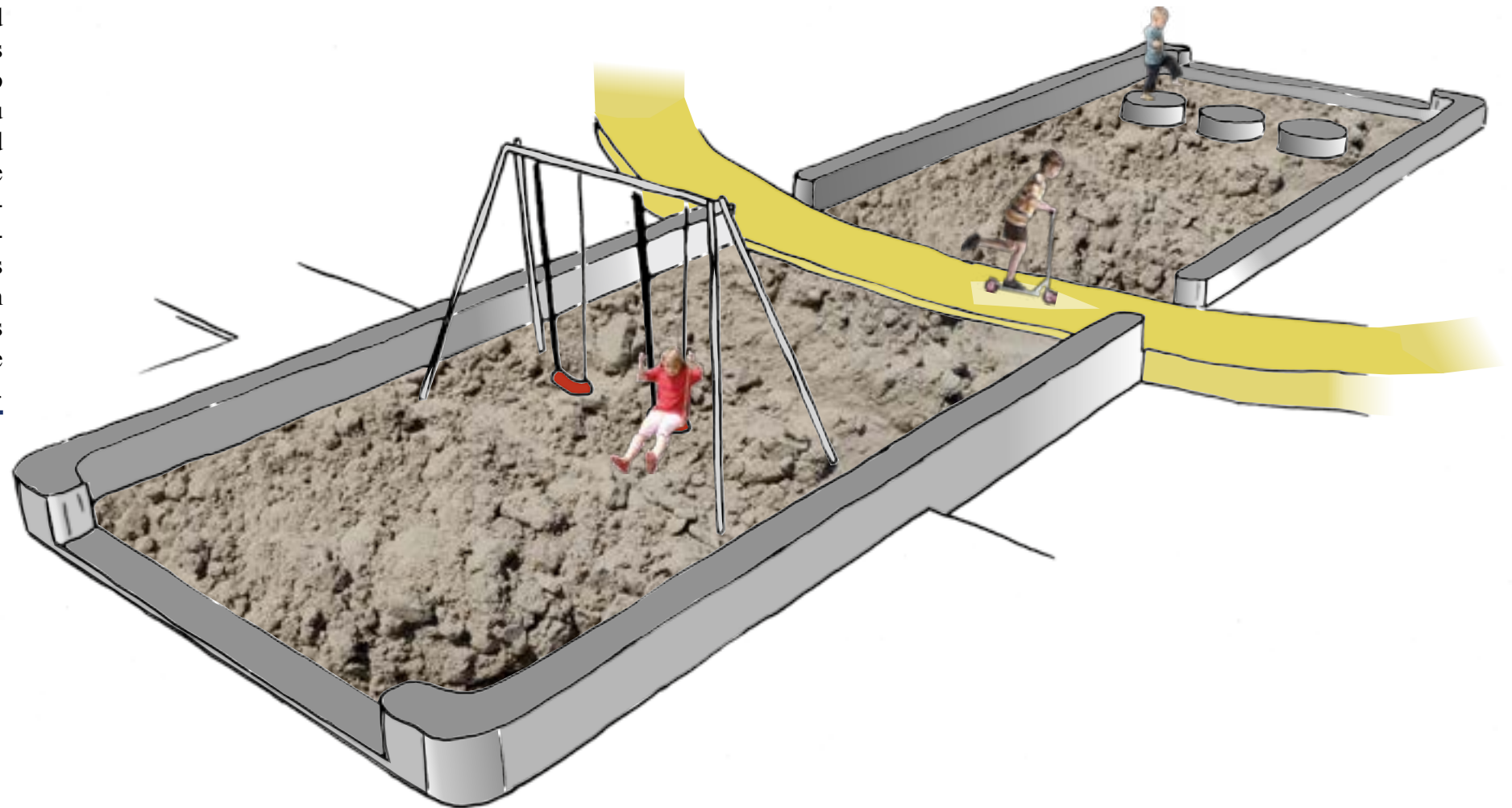
The open square with a grid in the middle allows the children to make and use this space in different kind of ways. The grid can be interpreted in making a different kind of games by using the small squares in the grid. The small squares have unlimited options in creating your own space in the space. Making the surface out of flat tiles for drawing all kind of different options. With your chalk making a different kind of forms and shapes in the grid, using the grid or completely ignoring the grit everything is possible, it's up to you. This allows the children to teach them self in making games with rules, to learn how to work together with each other and finding out how to control them selfs with other children in their games. Without a father or mother, that is looking over the shoulder.
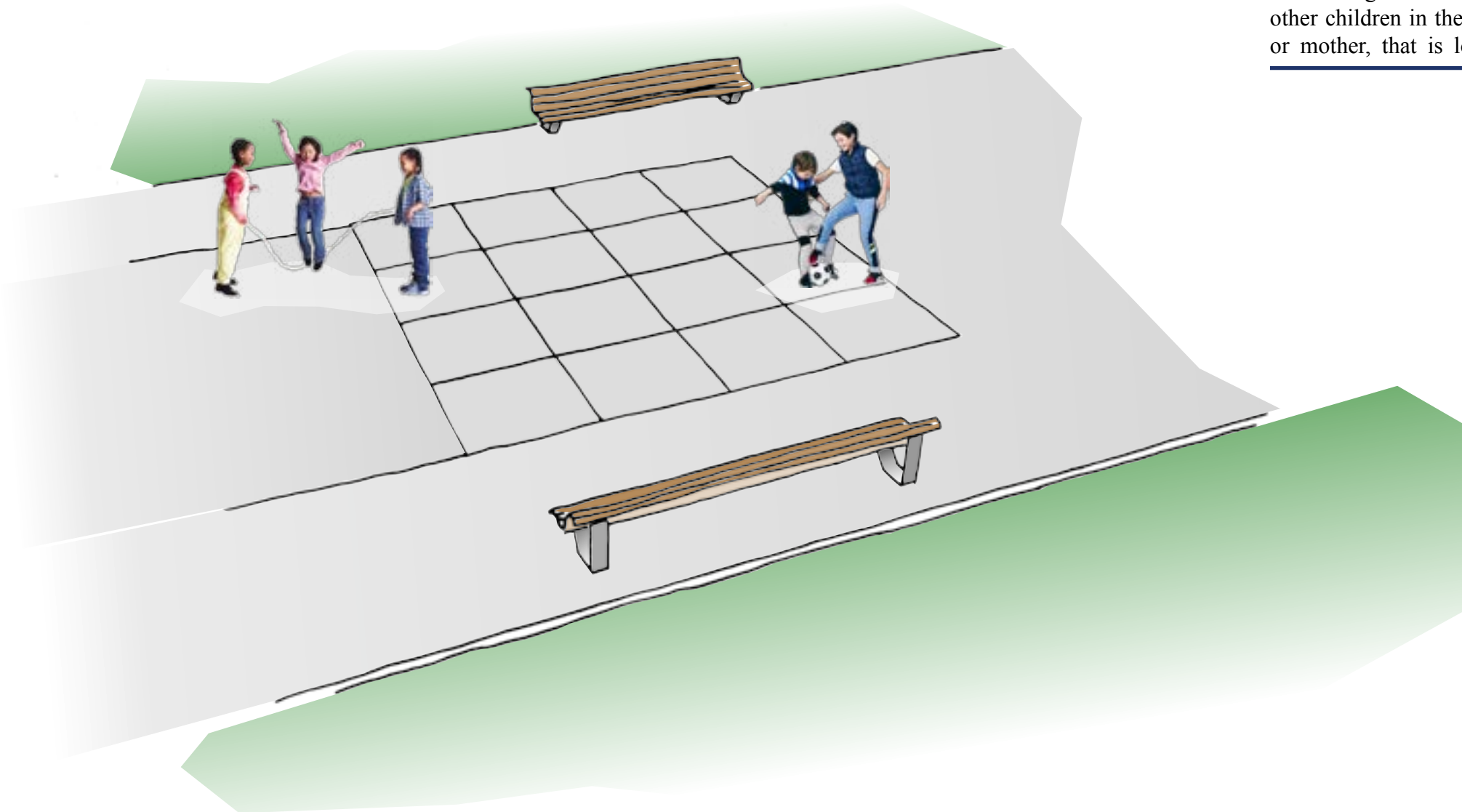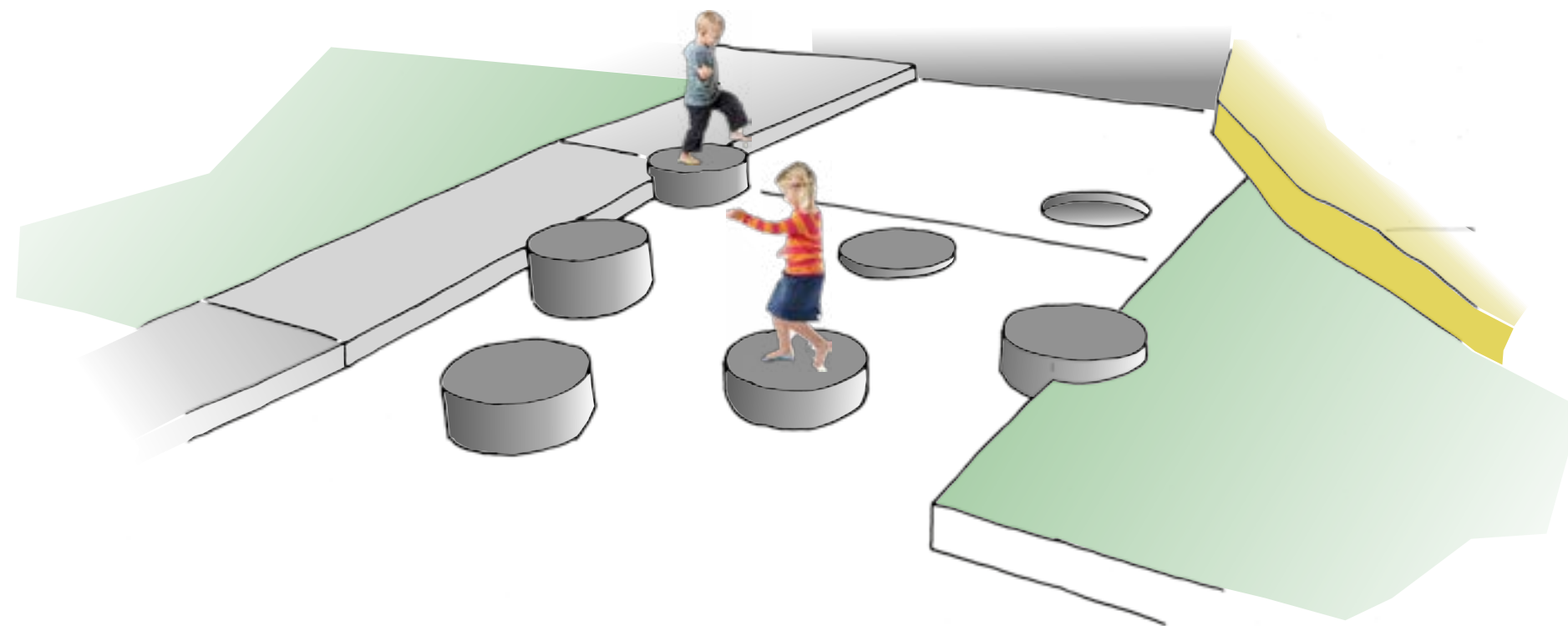
## 07

The jumping stones are a direct translation from Aldo Van Eyck. Placing them in the play area between the open play area and the circle, crossing the surfaces where the stones are the same as the street around the play area. It feels like you can jump over a river, lava or something completely different from the other space. It is also protecting the play area form these sides when the cars can make the mistake to drive through, this is not possible with the stones in de middle of the street. It's a bumper protection. The steppingstones are not higher than 60 centimetres, this means that they don't need a pacific safe surface around them. It makes it perfect to bring it in the same architecture form of the urbanism structure. The stones are in different highs what makes it possible that children who are bigger or smaller can still be at the same height and level as there peers.
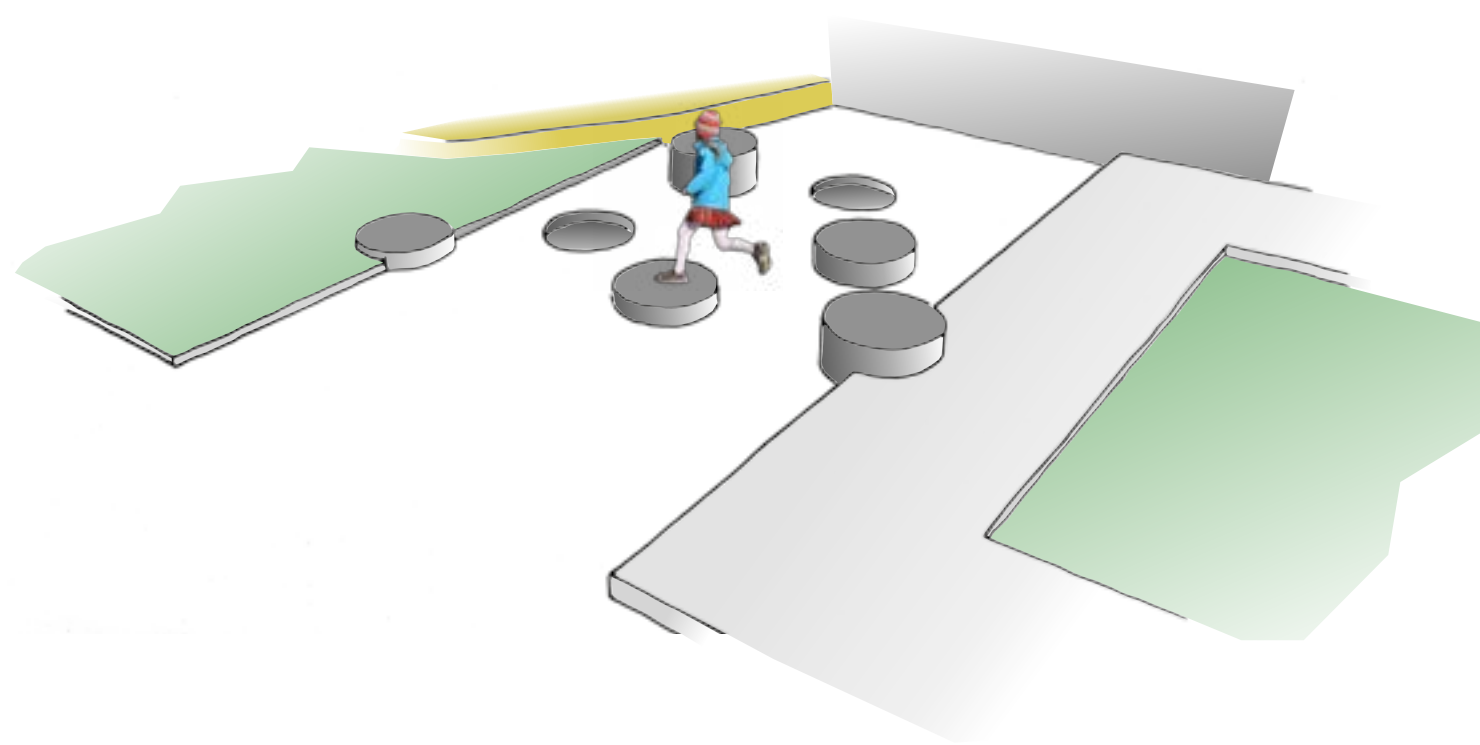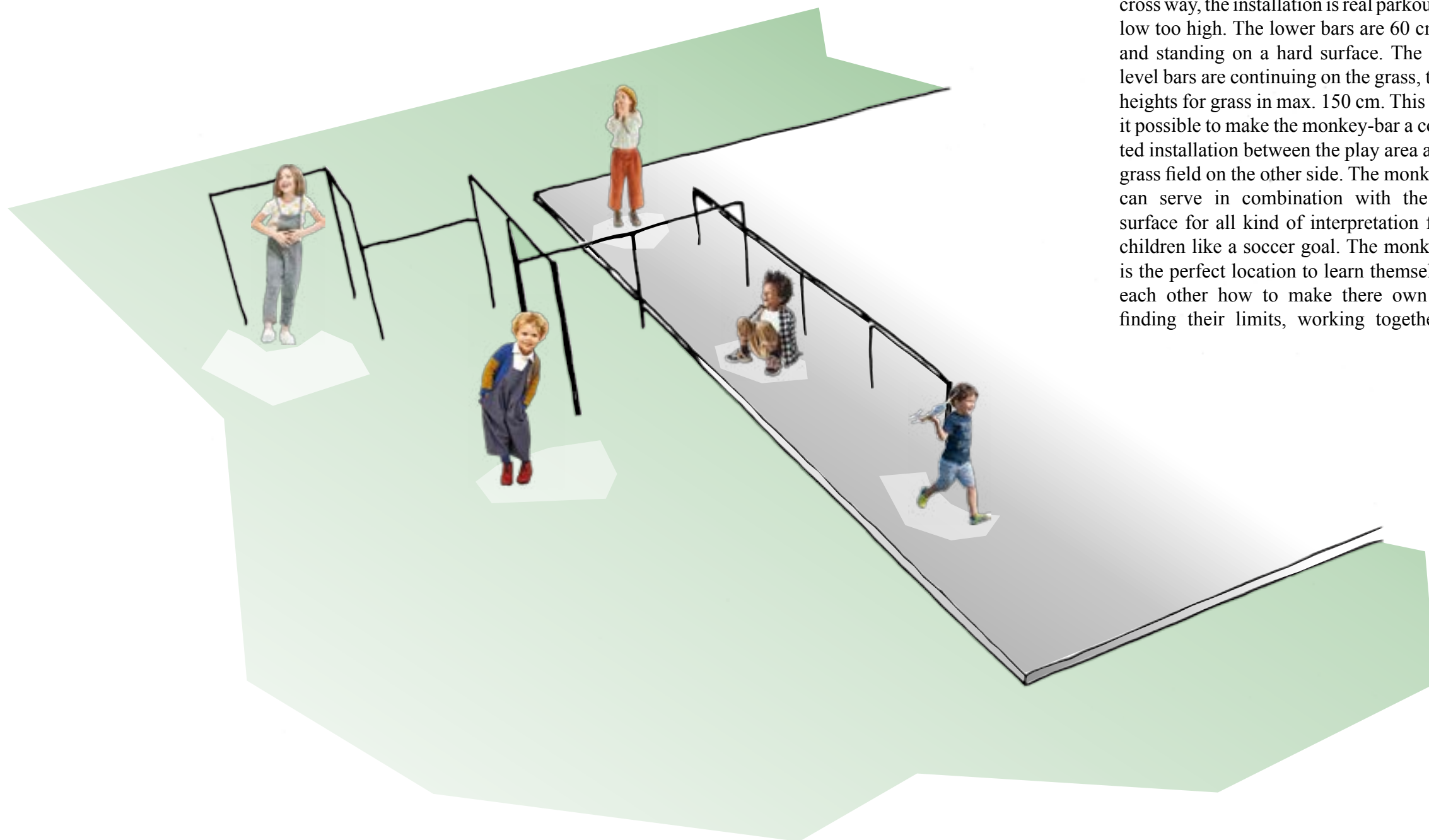
**08** The monkey-bar is a popular obstacle for the children to play with. It is the element in the playground that is confronting you as a child what your limits are in a small scale. The taller you get the higher you can climb in and around the monkey-bar. Every new hight in the monkey-bar is like a new level you reached. To make the monkey-bar, not in a straight line next to each other but in a criss-cross way, the installation is real parkour from low too high. The lower bars are 60 cm high and standing on a hard surface. The higher level bars are continuing on the grass, the fall heights for grass in max. 150 cm. This makes it possible to make the monkey-bar a connected installation between the play area and the grass field on the other side. The monkey-bar can serve in combination with the grass surface for all kind of interpretation for the children like a soccer goal. The monkey-bar is the perfect location to learn themself with each other how to make there own rules, finding their limits, working together etc.

# *CONCLUSION*

The playground needs to be part of the area, part of the neighborhood, mixed with the different kinds of functions in the area. Using the materials that are already existing in the urban city or neighborhood structure. Using the thoughts and design method of Aldo van Eyck and Bruno Munari in the primary forms of a circle, a square, and a triangle have an impact on how people use the space. How they learn and teach themselves with these forms. Making installations that give children the opportunity to find out their own personal limits with themselves but also with the other children and people in the playground. Positioning the objects in the space in relation to each other so that parents and the children have the idea of freedom but still have control. Making the playground connected with the space around it, the different spaces seeing each other and learning from each other, educating each other.

Playgrounds nowadays are over-controlled safe spaces, isolated in the urbanistic form of the city structure. They use forms that can only be used in one specific way, focused on one person's use, taking away all the risk. Working together and finding your own way in training yourself in the social skills of life. The playground is the place where you have the opportunity to train yourself and educate yourself in where you personal limits are. The freedom in finding these limits is very important. The playground needs to be formed in a way that it can be used in all kinds of different ways. Making and using installations, forms and materials that don't speak one language. One of the most important things when you are a child is how old you are and how big you are. When a play element is overly focused on one specific age, then the complete playground is for that age. When you're not that age any more, then you don't go to that playground, because that is for "the younger" children, although they are just a few months younger than you. Making the playground as minimal, gender, and age neutral as possible is the main goal of the design of a well-functioning playground for all people, between the ages of zero to one hundred and fifty.

"seeing each other
and learning from
each other"

The playground is the first social space where the children have control in what they do on their own. It is the place where they can teach themselves what they want to do, train their creativity, work together, and make their own rules. When you learn the basic social norms and values in small scale situations in the playground, when you get older you can better handle new and different kinds of situations on a bigger scale. When the playground is an open minded, free space that can be interpreted differently for everyone, it constantly creates different situations. This results in learning and personal development in all kinds of different ways. The small scale situations in the playground are examples for bigger situations when you grow up.

*"Focusing in the freedom of using play in a creative, educating and self-controlling way."*

When the playgrounds stay in the form that they are right now, where the children are together with the over-controlling parents, the children are going to have a bigger problem in all kinds of situations when they get older. When they are not being forced to help themselves in small situations in making decisions, making bigger decisions later on becomes bigger problems. The trend in limiting the risk opportunities in combination with excessive focus on safety can pose a threat to the health of the children. Thus it is better to work with the playground with the idea of making the space as safe as necessary and not safe as possible. Focusing in the freedom of using play in a creative, educating and self-controlling way. Making the space an open, easy to access space part of the urbanism form in the city structure. Starting this research with the fascination in how the design of playgrounds arise, I found out that play is the first social activity and daily culture that children live in. Playing is the start of how you as a child represent yourself to the outside world. Learning from the people and the space around you forms your perspective on the world. I think in the topic of play, the space of the playground is the location where you'r basics in your norms and values arise, your way in looking at the world around you. This thesis is not the end of my fascination in playgrounds, but rather the start of diving into how the playground can play a role in educating children in all aspects of social life.

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## Interview: Mats, Julia and Elis

Interview with Mats and Julia from
Futuraskolan International Stockholm, 18-04-2020

*Floris*: Yes Mats now it is recording everything that you are saying. But Mats, where I want to talk about with you, is playgrounds. Does a playground today still have the things where you wanna play with? A lot of times is seen children playing with scooters, skeets, hoverboard and everything in between. But that I am looking to a playground and is see a big sandpit with a swing and/of a slide. Is the playground in this kind of form still what you are looking for, end what do you want when you are going outside to play?

*Mats*: Aah sometimes, we have a playground here in the top of the hill. There are a small sandpit and a really small thing and two swings. I would be nice if there should come something else.

*Floris*: Oke because the swings and the sandpit are not nice to play with?

*Mats*: Its oke but the swings are nice but there is just one thing you can do with them.

*Floris*: A oke the swings are nice but you can only do one thing with them.

*Mats*: Yes

*Floris*: So you'd want more things in the playground that you could do different things with?

*Julia*: Yes, for example at school we have monkey bars, there are really nice. Of those rods where you can roll over, they're super fun! But they are always really busy.

*Floris*: Yes are there always a lot of children around? Space is to small for all the children that wanna play with the monkey bars?

*Julia*: Yes!

*Mats*: There's only three of them.

*Julia*: Yes three, one is really low perfect for me. But the other ones are super high everyone wants to go on those ones:

*Mats*: Its feels like a Ninja Parkour.

*Floris*: And al of these things are in the schoolyard, end around your house in the neighbourhood there is one playground?

*Mats*: Yes

*Julia*: Yes

*Floris*: Are you going there often? If you're bored or think what am I gonna do? He lets go to the playground?

*Mats*: I went there a view times but it was not that fun.

*Julia*: Nobody is using it a little bit, they put at the wrong spot.

*Floris*: Really? Is the location too far from here for you?

*Julia*: Yeah, it's just this kind of neighbourhood with young and small children. When I am walking with the dogs I only see young children playing there.

*Floris*: Oke so the younger children really like the playground?

*Julia*: Yes they are playing there and also on the street.

*Mats*: It would be nice if something else could come into the playground every now and then.

*Floris*: So you guys found it really boring the playground types of equipment that are standing there and can use just in one way?

*Mats*: Yes that is making it a little bit boring.

*Floris*: You guys actually want some kind of parkour where you have more freedom I what you can do? Being a monkey haha!

*Julia* and Mats: Yes!

*Floris*: What do you guys like about that?

*Mats*: You have a different kind of ways to use it. You can start in the middle, of on the end and go the opposite way. You don't have to do the same thing over and over again, there are more options possible.

*Julia*: Yes and you can do races!

*Mats*: You can do every moment when you are coming there something else.

*Floris*: Yes this kind of options is what I also miss when I am looking at a playground. There are a lot of this already planned what you can do with them. You see to towers with a hanging bridge in the middle. Is that fun to play with or is that something you see everywhere and not new anymore to play with and automatically boring?

*Mother Elis*: A zipline is what you are liking a lot right?

*Mats*: Yes that is something super nice. But I don't see it a lot of times in playgrounds.

*Mother Elis*: De best playground is I think where it is not clear what you can do with them. When it looks too much on something and a child is looking at it and looks at it but doesn't have anything to do with it, then it won't play with it. Abstract and action are really important.

*Mats*: Floris maybe can you make a playground with different certain holes in the ground where you can put different playground equipment in.

*Floris*: Like that, you make me more flexible in what kind of equipment you are pacing there?

*Mats*: Yes that on one moment there is standing en swing and when you don't like it you can change it for a slide or a round barrel you can run on.

*Floris*: And these different playground types of equipment you are taking them with you from home and replace them by yourself?

*Mats*: No they are in storage next to the playground.

*Floris*: But are you not afraid that people are going to steal this?

*Mats*: Why should you stele play equipment when you can not put it in the ground.

*Floris*: A that very smart of you Mats!

*Mother Elis*: A system that only fits there.

*Julia*: At my school next to the monkey bar there are lines on the ground where we can play. There is a different kind of form so we can make a different kind of games, and when someone brings a ball we can do games with the ball.

*Floris*: So different lines on the ground where there are different options to make a game by yourself is nice to play with?

*Julia*: Yes you can make thing up out of your own mind!

*Floris*: And if you are playing on a playground are you guys feeling safe than? Do you know when the moment is there where have to what's out for the traffic and when not?

*Julia*: Most of the time there is grass or another border in-between.

*Mats*: But the one here in the neighbourhood has a big fence around it.

*Julia*: The one at grandpa and grandma is in a large field.

*Mother Elis*: That's true. And they build a big hill around it so when you are playing with the ball is not going on the street and you know when you leaving the play area. And as a child, you have an overview where traffic is coming.

*Julia*: yes in the middle of the grass field there is a playground.

*Floris*: Oke so when you leaving the playground you go first over the hill and then you are crossing the street.

*Mother Elis*: Yes and the hill is also an object what children are using to play within al kind of different forms.

*Mats*: End one thing is really important. At our playground you got a really good spot to park your bike and that is super.

# Interview: Noor and Oscar

Zoom meeting guided by Hanneke Meijer director of primary
school Dr. E. Boekmanschool, Amsterdam, 02-04-2020

*Floris*: Hi Noor and Oscar can you hear me loud and clear?

*Oscar*: Sort of, you freeze on the iPad, I think the wifi is not that good?

*Noor*: Now you not moving

*Floris*: Oke gives me a second I change the wifi. Oke, now I'm in my 4G network. Can you see me now?

*Oscar*: Yes

*Noor*: Yes

*Floris*: Nice! Oke look where I want to talk about with you guys are playgrounds, what do you think about them and are you using them a lot?

*Noor*: Yes I'm going a lot to the playgrounds when it is nice weather. It close to my house.

*Oscar*: I go there now and then. Especially to the slide, you can go down really hard. And they're almost in every playground. And if there is a small little house in a tower that is also really nice.

*Noor*: I really like swings and the steep slide that is really high. Also, the little playhouse is nice to end the really big swing!

*Oscar*: At my house in the park you have to parts in the playground. A smaller part and a bigger part. One is for the little kids and the other one for the bigger ones.

*Floris*: And what do you think about the sandpit do guys like to play in that?

*Noor*: No I don't play that much with that.

*Oscar*: That for the really small kids.

*Noor*: We don't like that anymore.

*Floris*: O, I often hear that the sandpit is very nice because you can build your own things there.

*Oscar*: I like a sandpit but most of the time the sand is not good in enough to build with. The site is too soft that building is not an option.

*Noor*: Yeah that's what I think, the playground in my street also has only soft sand.

*Oscar*: Then you keep shovelling and shovelling.

*Noor*: I really like climbing frames they are so much fun.

*Oscar*: O yes but not for me I have fear of heights so a climbing frame is not that much fun for me.

*Floris*: Yeah, you shouldn't climb in there. And when you're playing in the playground do you feel safe, that you can play freely around?

*Oscar*: My house is located in a part where also the playground is so there is no traffic at all. But what is really nice in my playground that there is a water pump with a pipeline system what you can control by yourself! But the water pump is a lot of times out of order.

*Noor*: I also have a bigger playground just a block away from my house with two water pumps but they also never work.

*Floris*: That's too bad something is built and you can't use it at all.

*Oscar*: Yes and I really like water.

*Noor*: I also really like water but I like climbing frames the most!

*Floris*: End what do you think about the swing and the seesaw?

*Oscar*: Yes I like them but I already used them too much and now they are boring. End most of the times you need someone else to use them, with your mom or dad and if they don't want then you can't use him. And the swing just goes up and down.

*Floris*: What do you think about the underground of the playgrounds? A lot of time this is sand but you also have stone tiles and rubber tiles.

*Oscar*: Most of the time this is sand, but when you walk to somewhere else it just normal stone tiles. But actually, they are always large sandboxes and in there than where are standing the play elements.

*Noor*: My playground there are a lot of tiles made from stone. Only at the swing, you have this rubber thing, end around the slide there is sand. At the playground at Hendrick de Keijserplein, there is a big football and basketball field and space where you can play with your skates and scooters. But the basketball field and the football field is always really crowded because everyone was to use it.

*Floris*: End are you going to the playground with your own step, scooter or bike?

*Noor*: I'm going a lot of times with on my skates.

*Oscar*: I'm walking always.

*Floris*: And how is the playground at school end what are you doing there?

*Oscar*: Most of the time I'm just walking around and playing games, there are not that much playground elements to use. The climbing frame is always really busy with a lot of children. And I don't like football.

*Floris*: What kind of games are you playing?

*Oscar*: Playing tag or hide-and-seek

*Floris*: Oke I think that I ask sort of all my questions and I want to thank you guys for your help. Do you have any kind of questions for me?

*Oscar*: On this moment we don't have any kind of questions and if we have questions we can ask the teacher or we are riding them down in the back of our drawing that we are going to make.

*Floris*: Nice oke than my last question, how old are you?

*Noor*: I am seven years old.

*Oscar*: I am eight and three-quarters and my birthday is on the eighteen of may.

## Interview: NIJHA, Frank Hullenman

*Floris*: He with Floris!
*Frank*: Hi Floris this is Frank from NIJHA!
*Floris*: Hey Frank how is it going?
*Frank*: Yes everything is fine.
*Floris*: Nice good to hear.
*Frank*: Are you phone standing on the speaker?
*Floris*: Yes because then I can ride down about the thinks that we are talking about.
*Frank*: A oke, I can see that you are from Lochem.
*Floris*: Yes that's correct.
*Frank*: So you know NIJHA already a little bit?
*Floris*: Yes the playground next to a school and in my street are made by NIJHA.
*Frank*: Oke and Sweden is a little bit difficult with playgrounds? They don't have that much?
*Floris*: There are almost now playgrounds in Stockholm and in the suburbs. And if there is a playground its made of wood what looks like a mess together with not organized structure at all. My fascination was starting with the playground here in my street. I know the place very well and before the playground that is standing there right now, there was no playground. On that moment the place was functioning very well to play with, but when this playground was placed here, the structure and the forms are not working at all. Also, always when I'm travelling I get really fascinated by all the different kind of playgrounds that are seen. But when I look at Stockholm there is not that much small playground compared to The Netherlands. And when I look at children in the city, they can make form every kind of object in a play area. Because of the situation that is happing right now, I'm back at my old room back to my parents looking at the playground where my fascination about the urbanism form of playgrounds started I decided to make a project around this. Wist the focus point of the playground in my street.
*Frank*: How nice! And where is this playground located?
*Floris*: It is in the middle of the Johan van Oldenbarneveltlaan that is connected with the Hugo de Grootlaan, and in the middle part there is a playground with the name Van Lutterveltplein.
*Frank*: A oke nice I google it so I can see it.
*Floris*: OK, but unfortunately is it not possible to look at it from Google Maps Street View because the playground is still too new.
*Frank*: Hmm, oke
*Floris*: In 2008 this playground is played thereafter reorganizing the neighbourhood. But the playground becomes that small in combination with the playground equipment that is not answering the questions of the children the living here. End when you are looking at the urbanism form of the playground the children can not see the traffic and vice versa. This is also because the playground is fenced with a fence and hedge.

*Frank*: Yes that is difficult when we are talking with local residents a lot of people are really a fan of a fence. Because a fence is a physical object that you can see so than it is working. But does not apply in reality and does not have the effect of safety.

*Floris*: Yes in this kind of way there is not a moment of eye contact. And because it is going uphill, the car is even lower than the playground so the contact with the playground is not there at all. That meant that the cars brake just before the playground, end when they passed the playground there are giving full gas what gives the feeling that the power limit is always exceeded.

*Frank*: Yes, you often hear this. You have got the same with speed bumps. But when you are checking the speed there is no difference.

*Floris*: All this kind of small things I found really interesting to think about and to look at. That is also the way I want to go. How can de playground work more together with his surroundings to make it for everyone more efficient? There I have a view questions about how this playground is formed.

*Frank*: Yes, I also looked at your site and you can see that you have a good point of view on this kind of things. Playground and play-areas are really important and everything can be seen as a play to play. A small wall can already be an object that transforms into a play area. Seesaw or swing a being skipped a lot of times because the step to use it is fairly large.

*Floris*: A thanks! Yes because when you are looking at most of the time there I placed this kind of equipment in the playground but when you are talking with the children they don't really like it.

*Frank*: Yeah, that's what happens at NIJHA. Because the big selling model is to sell playground equipment as much as possible. I'm the only landscape architect at NIJHA at we are doing only rally small projects where we are designing the complete space. We are making the money with selling the playground equipment to you the municipality.

*Floris*: A oke, so the selling of the playground equipment is the money maker?

*Frank*: Yes, we are also working on redeveloping public spaces and how we can do this in the most efficient way. In what kind of different ways are people moving outside. But the way of changing the outside space is going really slow. Because in the meantime you still have to make money to keep up the company going and get people used to new forms of forms outside in playgrounds.

*Floris*: And who decides what kind of equipment will be installed in the playground?

*Frank*: The municipality has a certain space and budget available for playgrounds. Most of the time they are looking at the space than the budget is deciding what kind of equipment are fitting there. We always try to have some input in how to organize the playground. The municipality has most of the time an idea what the age group is of the children in the neighbourhood and how they want to fill in the playground within the budget. The sellers out of NIJHA would say yes to any kind of offer because they are having their targets. But I would but the money back and first talk about what fits the best in the space.

But know there is an environmental law coming what means that the municipality has to be really close in contact with the neighbourhood and with initiatives to make space the most efficiently as possible. The demographic data where you can see what the movement is of a different kind of age in a pacific area to use how you can create an outside space for everyone. In this way, you can see if a swing is really needed or that something else is more worth it.

*Floris*: That's really interesting what you are seeing about looking at different ages and if there a is coming a second generation that is going to use this play area.
*Frank*: You mean that more children are coming?
*Floris*: Yes, for the playground where I am working on, a long time there was not that much happening. But now there are a lot of new children in the neighbourhood. And they are using the playground nowadays again, not in the way how it is built but the space around it is really popular.
*Frank*: Yes, it is important that the residential area is being used efficiently. Not only for the younger children but also for the older ones and the adults so they can use it for sport activities
*Floris*: Yes, I saw on your website that you are working with a concept of flexible playground equipment?
*Frank*: Yes, we called it klick and play where it is possible to change the objects in the playground in a really easy way. Flowing the moved of the age categories in the area you can change the objects in the need of the people and the children. In this way, you can also work on making the playground sustainable. By switching the objects in a really easy way. Also is this for the municipality when you are looking to the budget a different kind of investment, this means as well that they are "renting" the equipment and not buying so they don't have to maintain it.
*Floris*: And how do you know what kind of flexible playground equipment need to be placed, how do you know what connects with the area?
*Frank*: The most we do is on experience. But we are going more and more in direct contact with the people that are living around this playgrounds. With Klick and Play, we are trying to create a kind of library where you can really easy switch the equipment. You can decide to just rent them for 3 months or a view years. I'm also talking with a lot of children what there a looking for in a playground. But then you see already that they want big high slide and rollercoasters. Nice but not the ambition level where we want to go. But we try to go as much as possible to go to the residential area to have direct contact with the people, but also a little gambling all the time.
*Floris*: And in what kind of way are the existing playgrounds being in the picture? When you are looking at maintenance etc? Or is this after selling the play-objects not you responsible anymore? Or there is any kind of update necessary for one of the equipment?

*Frank*: Basically after selling it out of our control, sometimes they are sold with a contract that we are responsible for the maintenance. Every owner is required by law to make an annual review about the conditions and the safety of the playgrounds.

*Floris*: When I look at the playgrounds, all of the objects having a sticker what is the meaning of these stickers?

*Frank*: The stickers are for the moment that the playground equipment is placed there. You can see the date and the serial number where they can check on what the last time it was that they checked the swing for example. This we also call the 0-measurement. But where we are really wanna go to is that playground equipment can count how much there are being used. Sort of Smart Playground, but then in the way that you can see how often a play is being used. When you can see that something is not being turned around that often you know that it is not that popular and with a low-maintenance.

*Floris*: How many years you assume that playground equipment can be used?

*Frank*: The municipality is going for a time between 10 and 15 years old. But when we are more focusing on the reusability of the equipment it is possible to go for 30 years. If we taking a swing back and replacing the view small pieces then you can use it maybe even longer.

*Floris*: I think you can skip the swing completely. For so far I talked with children the swing is not that popular at all. The founding it boring.

*Frank*: Why do you think they find it boring?

*Floris*: There is just one option what you can do with it, weaving back and forth and that is nice for the first view times but after this the don't look at it anymore and when they are thinking about the playground and the swing is staining there the associate this with the swing the complete playground is automatically boring for them.

*Frank*: I'm a little bit surprised about this because the swing is still one of the most popular playground equipment that we are selling. But this depends also a lot in what kind of environment these kids are living. Have a lot of space around their house yes or no? Also important when you are looking at the polarity of playground equipment is how much children are seeing this in their normal life. At school, friends etc because that it makes it not that special anymore.

*Floris*: What I also found out is that when I talk with children that the swing is not really the objects where they wanna play with but it is more the symbol that this is the place where the can play outside.

*Frank*: There has been researching a project about the amount of use of equipment in the playground, end that is just 5 to 20 % end the rest of the time they play around the objects. But the playground equipment is also function as a communication object for the parents to the children. They can point out where the can play, how far they can go, where they being picked up. It is a really concrete for a child and a parent. Most of the playground equipment is made out of metal and sometimes out of a hardwood.

*Floris*: When the playground equipment is being sold to the municipality are coming with a description of the space that needs to be empty around the swing for example. I'm asking this because the swing in de playground her in the street is when you are using it, going directly through the entree of the playground.

*Frank*: Yes, this legally binding, you are talking about obstacle-free space? Like falling zones?

*Floris*: Yes, because that is not going really well here. The space is so limited that the playground equipment and the children that are playing in-between what result in that the children are playing everywhere outside the fence, the hedge etc what the put there. Al this kind of border is not working.

*Frank*: The ideal situation would be for the children and for the budget of the municipality to make minimum kind of form to play with, a what the biggest space for there own input with a recognizable object in the middle for the commutation with the parents. In the long term end short term this is best for everyone.

*Floris*: That sounds great. I was wondering if there is any kind of thoughts behind the sand that is being used as the underground. A lot of times I see children dig deep into the ground to find the sand that they are looking for to build with. Is there a precise sort of sand that is begin used in playgrounds?

*Frank*: At a certain height you need an underground that supports you when you are falling, but most importantly why they are using sand because it is cheap, but it needs more maintenance. It needs to bee round granular river sand otherwise it doesn't have the value of absorbing the damping. It is possible to put sand in there to build with but then it doesn't have the right amount of damping and you can not place any kind of play equipment there.

*Floris*: I also read that the high demands what kind of damping there is needed. Because you also have this kind of tiles? And with what kind of hight you don't need to do any kind of surface?

*Frank*: Maximal 60 cm.

*Floris*: And everything above the sand of tiles?

*Frank*: Or grass, that is possible till a high of 1,5 meter. The rubber tiles depend on how thick the tiles are. By sand, the surface is how higher the equipment how deeper the sandpit with round granular river sand. But you can find all this kind of info also on the website.

*Floris*: A long time you are using the colours yellow and purple what came out the old logo, is this some kind of marketing that you are using of is there a thought behind it?

*Frank*: Yes, but a long time ago we were only using primary colours because children under the age of eight years old are seeing this better. Now we want to go more to the pastel colours and the natural colours to blend to have a better connection with the surroundings.

*Floris*: Oke thanks Frank for this interview and for now have a nice weekend!

*Frank*: Same to you Floris was nice meeting you and hopefully you can come over to our office to give you opinion about the design that we are making, bye!

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