



# FUNDAMENTAL

.....  
**DESIGN OF A YOUTH CENTER THROUGH APPEALING  
ARCHITECTURE OF OPERATIVE SURFACES**

**SENA AKÇIÇEK**





Master Thesis of Architecture and Urban Design  
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# ACKNOWLEDGMENTS

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I would like to thank my parents who have always supported me for following my dreams. They have been a source of motivation throughout the process of this work and even in the most stressful moments they made me feel their presence from thousands of kilometers away.

I would like to also thank my thesis examiner -Emílio da Cruz Brandão and my supervisor -Kengo Skorick for their constant support and help, for me to get the best learning experience out of this work. Additional thanks for two more mentors, Joaquim Tarraso and Marco Adelfio, who have helped me in this process with their inspirational ideas.

All my friends and the Urban Challenges team have built a great network of care and support, which I will be thankful forever. It was great to have their encouragement in both cheerful and challenging times.

I would like to thank the Adlerbert Foundations for awarding me with Adlerbert Study Scholarship throughout my master's education which made it possible for me to reach to this day and graduate from one of the most prestigious universities of Scandinavia.

Finally, I must add a special thanks for Rita Ravari, a devoted and generous teacher, who has been an role model for me for her motivation to do best for her students and opening discussions with her surroundings to make people start thinking about issues of today's society. She has a great part in the process of finding the right questions to ask in this thesis.



*The Youth Center needs to stand out – if you think the outside is interesting then you will be curious and want to go inside. It should be impressive and appealing.*

A Young Person who took part in the participatory design process of Youth Centers within joinedupdesign project. (The Sorrell Foundation, 2010)



# ABSTRACT

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Culture, as a notion, may be one of the hardest words to be defined. Everyone has an idea about what 'culture' is, yet there is no definition that has been recognized by all. Goffman (1959) and Van Maanen (1979) say culture is observed behavioral regularities, while Smircich (1983) describes culture as a social or normative glue based on shared values and beliefs (see Pascale and Athos 1981) that holds organizations together. But in today's world where the individuals are not bound to live where they were born and mobility is key to better living conditions, what binds the communities that do not share similar socio-cultural backgrounds?

The technology age, has brought high-mobility and accessibility to humanity. Although as a side effect, it has broken the communities that were once formed with the resemblances of identity, behavior and manner. Since the industrial revolution, especially in the cities, the formerly well-bound, alike-group of people, that is to say again, communities, are replaced by the new societies that are built with people of different, and even-contrasting backgrounds. Some groups in this process, have been vulnerable and unfortunate to not get the same opportunities and chances as the others. The thesis aims to propose a solution to these loosely tied and unevenly-provided groups in the cities, through architecture which can act as an adhesive matter by creating spaces that are appealing and need-responsive to bring people together. Therefore this research is an investigation of forms that can resonate and take shape of the program it encloses and attract people by providing a variety of atmospheres which can engage with every individual with different needs and desires. With the belief that the change in society can only start if we learn to embrace the cultural differences from the younger ages, the final product of the thesis is defined as Youth Center proposal from the beginning. The investigation has resulted by defining a design methodology which gives the possibility to apply the process in different scales and locations.

The findings and the developed methodology are explained through a design proposal located in Angered, a community that have been overlooked in the city of Gothenburg. By doing so, it is aimed to raise attention and to attract more people to the area. The architecture of the youth center is expected to create a setting where individuals can interact, exchange and learn from each other but even be a didactic element itself. The form arises from the design of sections defined by the methodology and the designer's intuition. The project is narrated in multi-scalar manner by making unexpected switches between the scales.

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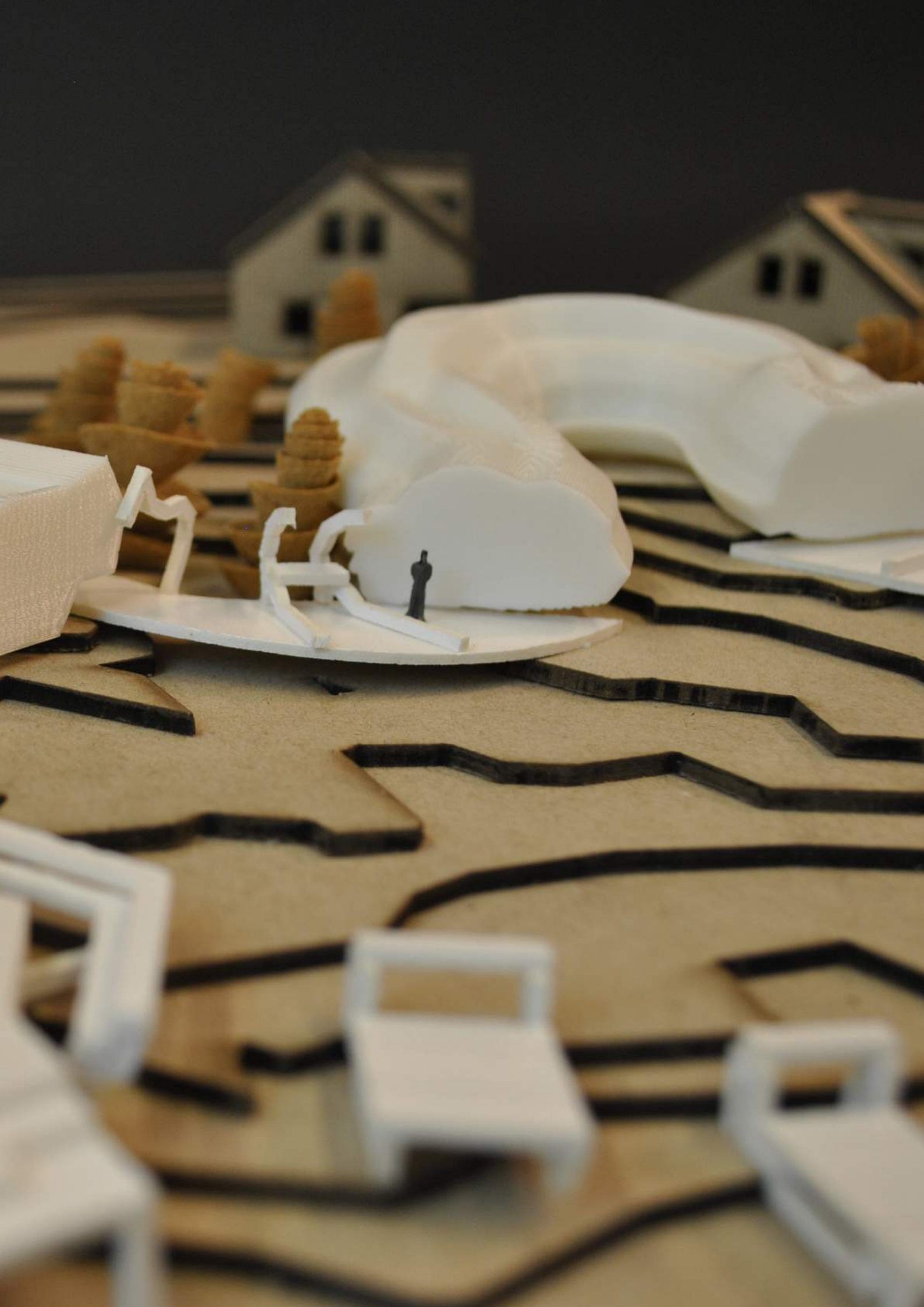
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CHAPTER ONE

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# INTRODUCTION



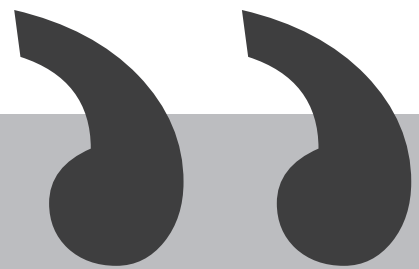


# BACKGROUND

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The background of this project does not derive from academic, literature or precedent references, but it is built on precise ***occasions, people and stories***. One of which was a conversation with a middle school teacher in Gårdstenskolan.

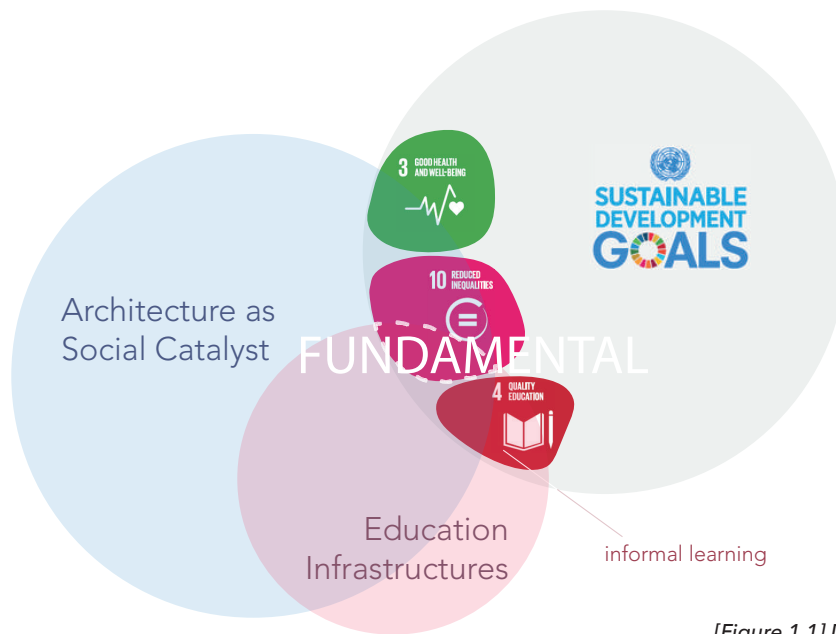
After the discussion the feeling of frustration and despondency caused the following questions to be asked; Do I as a future-architect, have any power to spark a change? Can the architect bring communities together through appealing forms? Can architecture be a didactic element to prove the differences are what makes communities better? What kind of atmospheres are needed to attract to young people? And how one place can reach out to a great extend of youth? All these eventually formed the thesis question...



# THESIS QUESTION

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*Can appealing forms composed of operative surfaces attract youngsters from all over the town and provide an inclusive space where young people interact and exchange with each other?*



[Figure 1.1] Diagram of Discourse

## DIAGRAM OF DISCOURSE

During my undergraduate and graduate education, I have academically filled-in myself on education infrastructures. Concurrently the academic culture I acquired, from Chalmers University of Technology, has formed a sensible perception towards every form of sustainability (not just ecological but also social, cultural, etc) Due to my interests on architecture's effect on social systems especially the spaces that become social catalysts/ nodes of interaction and of which gain more significance through its users experiences; this work is devoted to a real life problem that is currently happening all around the globe. This problem can be portrayed as the inequality of opportunities, specifically education and welfare standards, between the favored and unfortunate communities. In light of these, one can say 'FUNDAMENTAL' is a work that is shaped in the backdrop of my academic background and the interest to propose a solution to the inequalities in the cities.

Due to my current position, an overlooked area of the city of Gothenburg was defined as context with the aim of exploring how architecture can be a binder of cultures and a node for cultural exchange in a setting where there are not many opportunities and encountering to "the other" is not encouraged. Youth Center is selected as the architectural program from the beginning of the research to create a platform where learning in informal settings can occur. Therefore the discourse reaches out 3 points of Sustainable Development Goals; '10. Reduced inequalities,' '4. Quality Education' and '3. Good Health and Well-being'.

# GAPS

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Despite the existence of beautiful/enticing/functioning/interesting/attractive/inclusive/welcoming youth center projects, it seems like none of the built designs had the specific aim of bringing people together from different backgrounds especially contrasting individuals or groups such as locals/immigrants, sane/insane, young/old, wealthy/impoverished. On the ground of difficulties while searching projects with similar aims, one might say that this topic has not been explored yet, the researches has not been done about the case or even if it has been done, it has not been published.

# RELEVANCE

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The thesis work raises attention to architecture's binding quality and propose a solution to a present-day problem which is unequal distribution of public services and the fragmentation of the societal formations in the city . Therefore the work pursues societal, social/cultural sustainability discourses and the research of forms to inhabit the needs of youth and attract them to meet and exchange in one place.

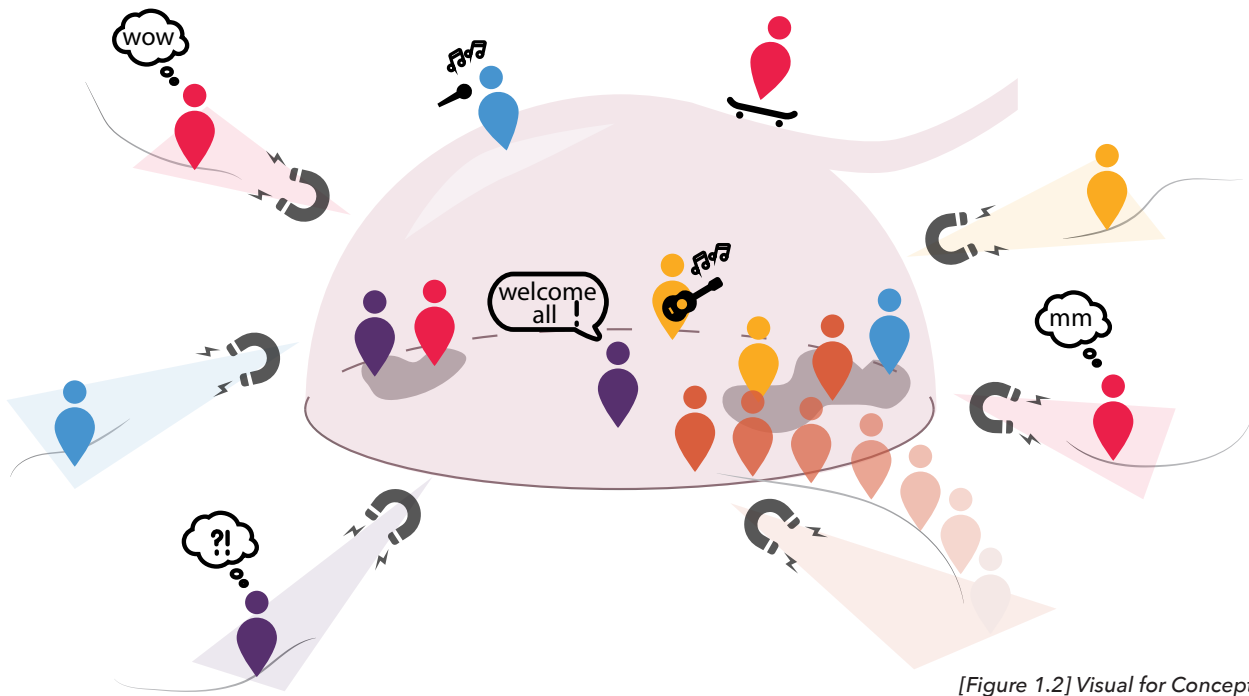
# DELIMITATIONS

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The study focuses on architecture's ability to change human behavior and interaction with each other. While it covers architecture's spatial qualities and the situations that it can embody, the work will not be able to go in detail in architectural techniques and construction details due to limited time. At the same time it will be limited to architectural scale. Urban analysis is conducted in relevant areas, nevertheless, the work does not go further in the application of project or its expansions in the urban scale.

The project will be a composition of spaces for cultural and avocational activities but will not focus on Swedish regulations for youth centers or any other technicalities. It will be dedicated to a very specific age group, while other age groups can also use the space.

During the user involvement part of the research, there might have been impediments due to lingual and cultural differences and the distinct background and perspectives. This part was not a deep research but a scratch in the surface to get the opinions of the 'youth' while designing for them but as a spin-off, this process has been educative for the participants and for me.



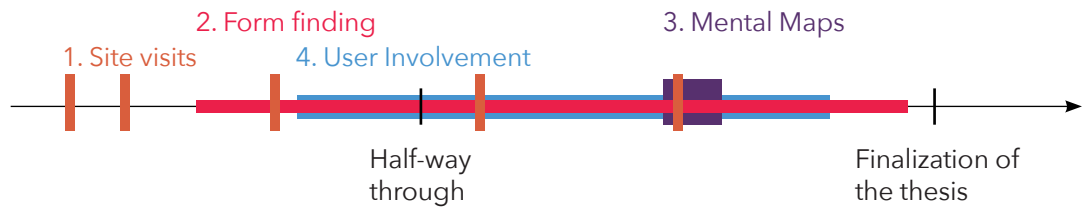
[Figure 1.2] Visual for Concept

# CONCEPT

The work explores how to bring together the youth from different cultures and informal learning situations by using architecture as a binder. In this process, firstly literature review have been done to have a simple understanding of the culture of interaction from perspectives of psychology, linguistics, philosophy and anthropology. Site visits have been conducted to understand better the context in terms of its physical location, locals' norms, values and way of communicating.

User's opinion was taken in different points of the design process. It aims to get the perspective of youth on such an intervention, if they would use this kind of place, and what kind of activities would be interesting for them. Simultaneously, physical model making and digital analysis were conducted.





*[Figure 1.3] Use of Methodologies throughout the process*

# METHODOLOGIES

---

4 main methodologies have been used in this thesis according to the time-line shown above.

1. Site Visits
2. Form finding through Emotion Maps
3. User Involvement
4. Mental Cognitive Maps

## SITE VISITS

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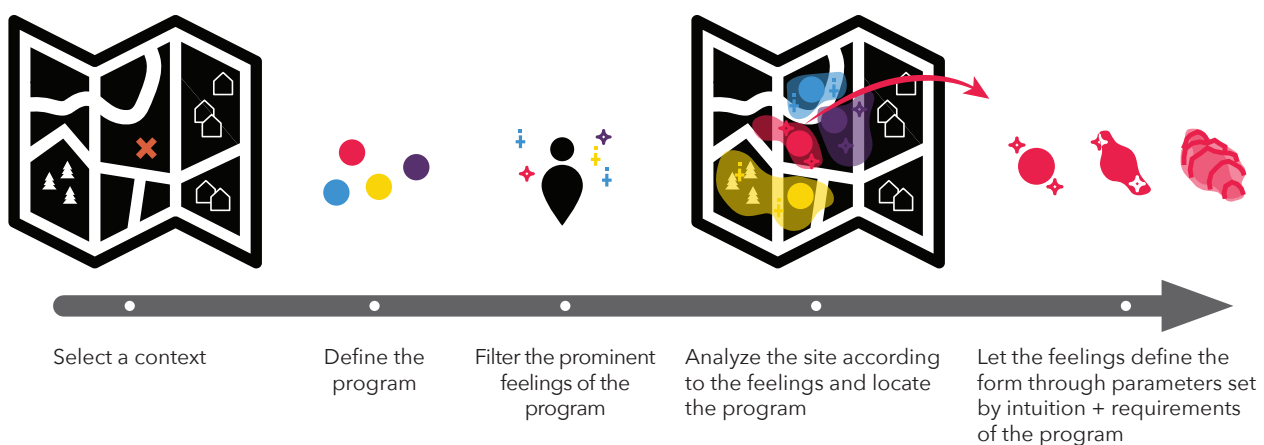
The context is essential in the process of design. To be able to visit the site as much as possible an area in close proximity was selected. To build a good idea of the place is crucial for the project. Consequently, observing and starting conversations with the locals in the area was planned to understand the local culture better. Interviews and user involvement has been done in parallel to site visits.

During the site visits, some casual encounters have been made with some young people in the area and questions were asked to understand their opinion about the chosen site. Additionally people were observed to see their instinctual way of interacting with the site that doesn't have any human intervention. Many photographs were taken. Some of them were used to analyze the naturally present materials and the existing color scheme. While others were used to correctly locate the natural elements in the digital model to have a correct physical understanding and memory of the place.

## FORM FINDING THROUGH EMOTION MAPS

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A self-structured method has been used during the design process. As the selected context carries great qualities, the architecture needs to preserve these qualities without degrading them. One way to achieve this was to apply the method below which simply picks the prominent feelings of the program to be added, analyzes the site with those qualities and finally reflects these on the architectural form through intuitively defined parameters.



[Figure 1.4] Form Finding Through Emotion Maps

## **USER INVOLVEMENT**

---

User and possible-stakeholders' participation was used throughout the project to get their opinion. In the beginning the plan was to involve the young target group by conducting workshops and games where participants can actively engage. Nevertheless, it was not possible to arrange workshop due to long-term planning of school schedules and communication issues. But through Rita Ravari, (see page 31) it was possible to reach to some students. The initial number was bigger than stated, but in the last minute some of the students changed their mind to meet so the participation was low. In my opinion, it was because the meeting point was changed to a central point rather than Angered and the students did not feel comfortable to join.

Multiple interviews were conducted with Rita Ravari, to understand from a teacher's perspective who has close connections with her students and has a capability to understand her students' reasonings and motivations.

Additionally some interviews were conducted with people working at Blåstället. Some of the sentences were spread as quotations throughout the thesis booklet. The rest of the data gathered from these interviews were recorded only as audio and not documented as text. It was rather used as a background information during the design process.

## **MENTAL COGNITIVE MAPS**

---

It is often difficult to define feelings about a particular thing from our daily lives. It has been repeated so many times that we may not be able to distinguish the negative things as negative anymore. It becomes 'normalized' over time. By asking the right questions these unnoticed obstacles of daily life can be brought up.

With this methodology the intention was to find the spots in the neighborhood where people feel unrest. If the public space intervention is located in such places, it can confront these kind of situations to bring the feeling of safety and comfort both for locals and visitors. So, this method will be used for understanding the dynamics of the neighborhood and choosing the site for the intervention but also to locate the future intervention points in the conclusion part.

CHAPTER TWO

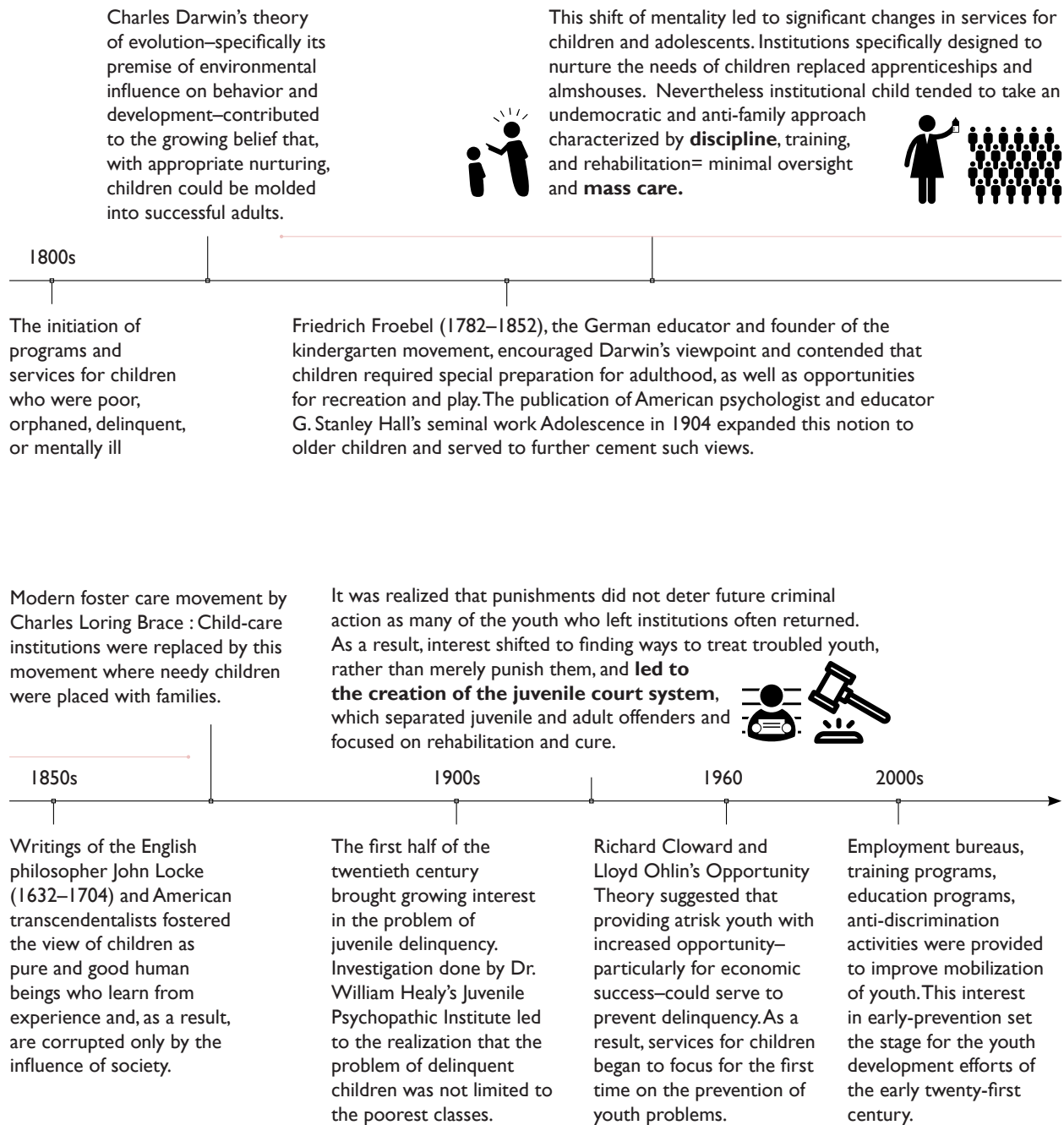
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# PRESENTATION OF DATA



# HISTORY OF YOUTH CENTER

Youth development programs seek to improve the lives of children and adolescents by meeting their basic physical, developmental, and social needs and by helping them to build the competencies needed to become successful adults. Throughout history youth development programs were provided under community services, mentoring programs, and neighborhood youth centers. (Van Alst, D., & Peterson, N.; n.d.) To understand today's Youth Centers we must have brief knowledge on the influential theories on children's development and history of the services provided for youth.



[Figure 2.1] History of Youth Development Programs. Data gathered from web source. (Van Alst, D., & Peterson, N.; n.d.)

# TODAY'S ASPIRATIONS FOR YOUTH CENTERS

---

'Joinedupdesign' for myplace, a participatory design process project for 15 youth centers in UK, have published a report in 2010 where they display their research of 6 months collaborating with 160 young people over 155 meetings. This report presents the following key points for describing the ideal Youth Center from the perspective of young people. (The Sorrell Foundation, 2010)



## ***Distinctive architecture***

Young people want their youth Centers to look iconic and modern – buildings they can feel proud of and inspired by. They are clear that they should not feel institutional



## ***A place to realize opportunities***

Young people want places where they can discover talents, develop skills and showcase abilities. Their centers should act as a route to further education and work, providing them with guidance and training.



## ***Accessibility and inclusivity***

It is important to clients that their youth centers are open to people of all ages, genders, ethnicities and abilities.



## ***Communicating a positive image***

Design is one way to communicate the positive activities going on in the youth center to the community. Creating a shop window or a 'street' through the building, allowing people to see what goes on inside.



## ***Enterprise and income***

Young people are very entrepreneurial and want high quality facilities that can generate income. A café was a popular idea for revenue, along with ticketed events and performances.



## ***Reputation and identity***

An effective name and brand for their center is important. Youth wanted a strong brand that represents them in a positive way and will attract young people to the center.



## ***Visibility***

Young people want their youth centers to be highly visible landmarks, helping young people to feel respected, proud and valued.



## ***Somewhere colorful***

Young people ask for vibrant, dynamic, modern interiors that use color to enhance mood and help with way-finding. They like the idea of using large wall graphics to animate and explain different spaces.



## ***Flexible spaces***

Young clients recognize that having multi-functional areas can help overcome space and budget restrictions. A dance studio might double as a drama space or an indoor sports hall, for example.



## ***Dedicated spaces***

Youth centers also need spaces dedicated to certain activities. Young people ask for special areas for using computers, studying, holding meetings and learning specialist skills.



## ***Outdoor spaces***

Outdoor spaces are a priority for young people, providing alternative areas for performance, sports and socializing. Some were keen to develop kitchen gardens, art studios and skate parks.



## ***A welcoming entrance***

Feeling welcome and secure as they walk into their center is crucial for young people. Cafés or gallery spaces could be positioned at the front of the building to attract users and the wider community.

## REFERENCE PROJECT

Project Name:  
Kavel K

Architects:  
Carve

Location:  
The Hague, The Netherlands

Area:  
1650.0 sqm

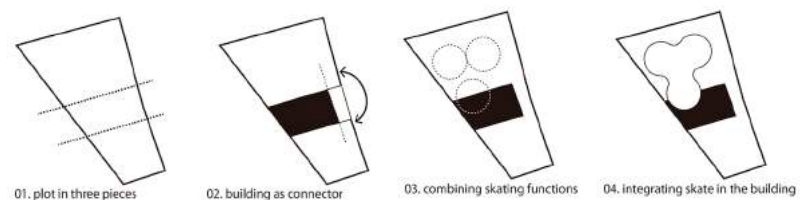
Project Year:  
2014

Photographs:  
Marleen Beek

## BUILDING AS THE PROGRAM ITSELF

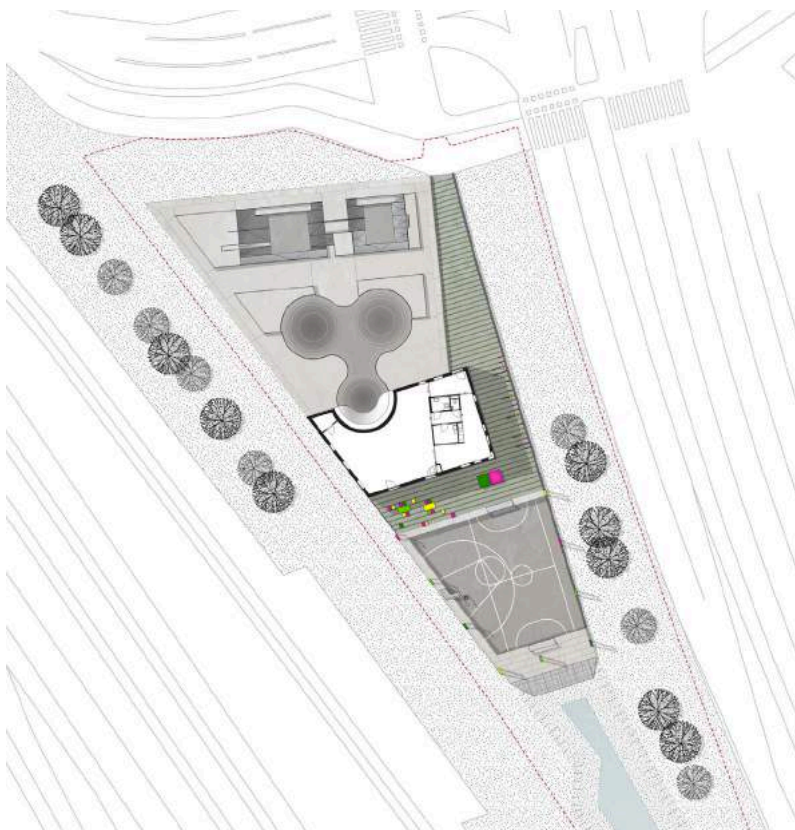


[Figure 2.2] Perspective from Kavel K



[Figure 2.3] Design process diagram

*"the public space  
and the building are  
designed as a unity;  
the facade and the  
skate-cradle even  
'melt together'."*  
(Archdaily, 2014)



[Figure 2.4] Situation plan



## CALLING FROM THE STREET



[Figure 2.5] External view from Sticky Fingers

## REFERENCE PROJECT

Project Name:  
Sticky Fingers

Architects:  
Rue Royale Architectes

Location:  
Lyon, France

Area:  
2094.0 sqm

Project Year:  
2013

Photographs:  
Erick Sallet



*"juxtaposing  
programs, rather than  
separating them"  
(Archdaily, 2014)*

*"aim was to bring the  
different groups  
together, and to  
organize activities at  
different times"  
(Archdaily, 2014)*

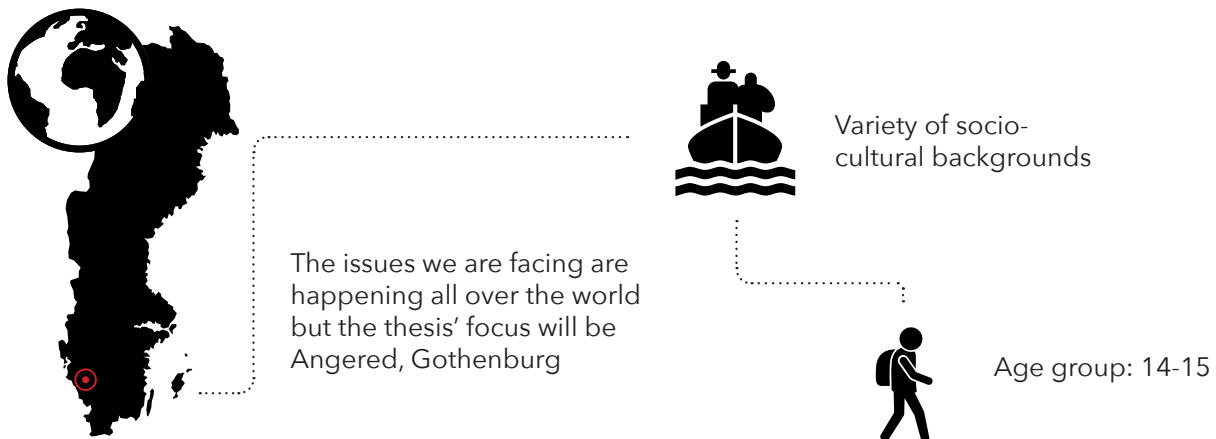
[Figure 2.6] Situation plan

CHAPTER THREE

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# ANALYSIS





[Figure 3.1] Defining Users

## DEFINING USERS

The limitation of the users is crucial since the design process takes shape according to the users which program addresses. As the diagram above describes, thesis work has a secondary aim to be applied in different location and contexts nevertheless for the project proposal part specific location and users need to be selected. The selection of the age was based on the students the main contact person has the reach. Since she was a middle school teacher at Gårdstenskolan this number was defined as 14 to 15 years old.

The age group was limited to two years span, considering the interviews. One of the conclusions was that in these age groups, even 1-year difference may change the communication among individuals.

## IMPORTANT FIGURES

The first interview was conducted with the main contact person, Rita Ravari and she has been following the process since the initiation of this project. There were two more meetings with her -one of which was with her students in a semi-formal format of interviews and discussions through prototype models. These interviews were important for understanding the stakeholders' perspectives and the most important findings are spread throughout the booklet in a quotation format.

Blåstället has been one of the institutions in Angered that promotes cultural and leisure activities successfully. Therefore an interview with the head of Art and exhibition productions (Producent Konst / Utställningar) and the head of Kids and Youth (Producent Barn & Unga) was conducted. This interview gave an understanding of the opportunities present in the area. Nevertheless a finding was that, the youngsters living in Gårdsten do not come to Blåstället in a regular basis unless they are interested in a specific activity for example in Atom Culture (a Youth Club with breakdance focus), or crafts activity events. This interview was important for understanding the relation between proximity and usage. Despite the fact that Blåstället is a great facility, the participation from satellite towns (such as Gårdsten) to Angered Centrum is low. Therefore this finding have supported the decision that the choice of context needs to be close to the addressed target group.

### The main contact person: Rita Ravari

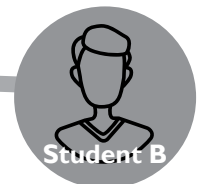
- A middle school teacher at Gårdstensskolan during the education year of 2017-2018. Now works at Frölunda area.
- At the same time was an SFI teacher after school hours.



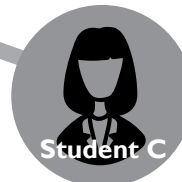
Göteborgs  
Stad



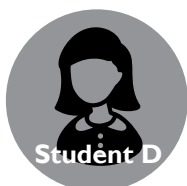
Student A



Student B



Student C



Student D



Student E



### Blåstället - A Culture Center in Angered Centrum.

- Bibbi Forsman: Producent Konst / Utställningar
- Petra Ahlqvist: Producent Barn & Unga

[Figure 3.2] Defining Important Figures



[Figure 3.3] View towards Kryddhyllan

# ANGERED

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Angered, as Municipality of Gothenburg describes, is a neighborhood in Gothenburg hosting to approximately 53 000 people originating from a hundred different countries, giving the area an international character. It has an exciting mix of apartment building areas with residential and traditional rural areas. There are magnificent scenery points close-by the public, cultural and shopping places. (Göteborgs Stad, unknown)

Nevertheless, as Khorramshahi and Hellberg puts; the living conditions differ in a great extent in this point of the city compared to the rest. In 2018, Angered was the district of Gothenburg with the least educated population aged 25-64, about 15,6% of the population has a post-secondary education of three years or more (Göteborgs Stad, 2018.) About 25,1% of pupils have not completed primary education and so are not eligible to attend secondary school. 11,7% of the population between the ages 25-64 is unemployed. (Göteborgs Stad, 2018.) Inhabitants in Angered have low levels of trust, about half state they do not have trust in other people. Criminal gangs are show presence in the area and gang related violence occur openly in public spaces and is directed also towards non gang members as well as rival gangs. (Khorramshahi, Hellberg, 2017)

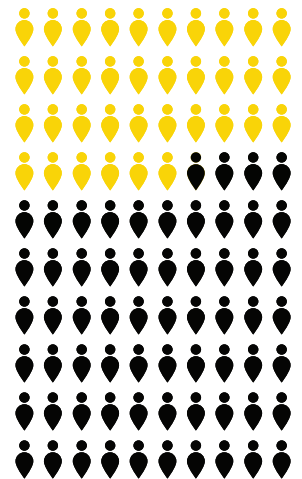
## INFOGRAPHICS

More than **52,720** people live in Angered.

About half of the population is born in a country other than Sweden.



About 36% of all households in Angered are children's households.



29% of the population is between 0-18 years

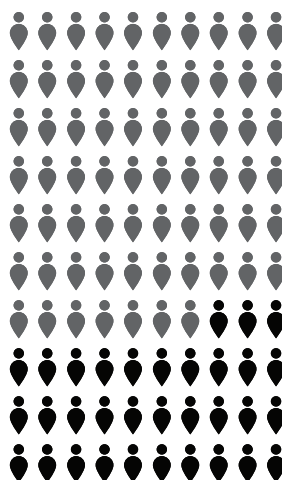


In Angered there are several different **forums and councils** that aim to give children and young people influence eg. youth councils, youth councils, Angereds Riksdag and young urban developers.

Data from Göteborgsbladet 2018 - områdesfakta report (Göteborgs Stad, 2018)

## YET

67% of the population has education less than post-secondary education



25,1% of pupils are not eligible to attend secondary school.



11,7% of the population in Angered is unemployed.



Data from Särskilt utsatta områden i Göteborg (2016) and Khorramshahi, Hellberg, (2017)



# GÅRDSTENSBERGET

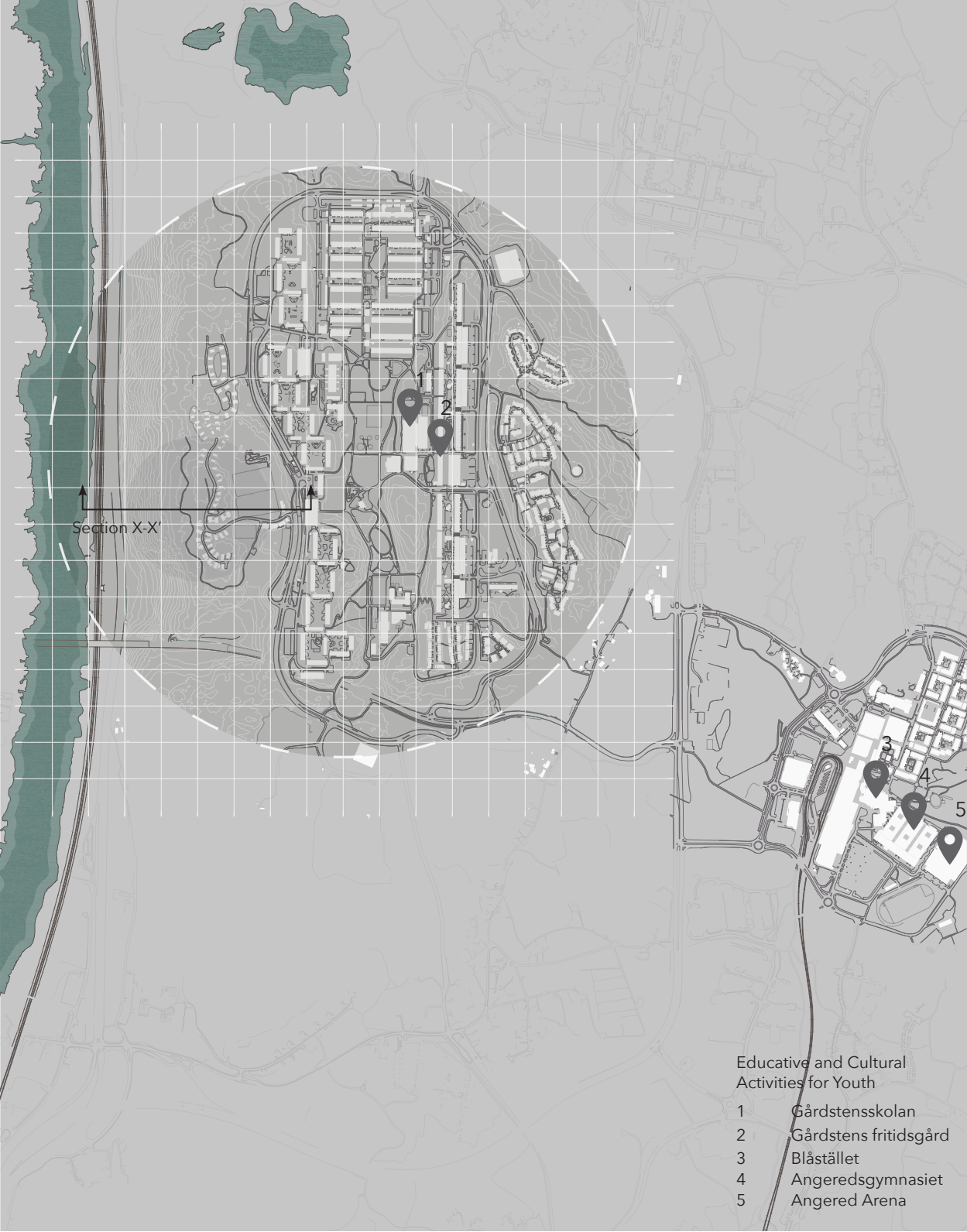


[Figure 3.4] Map of Gårdstensberget with public transportation stops





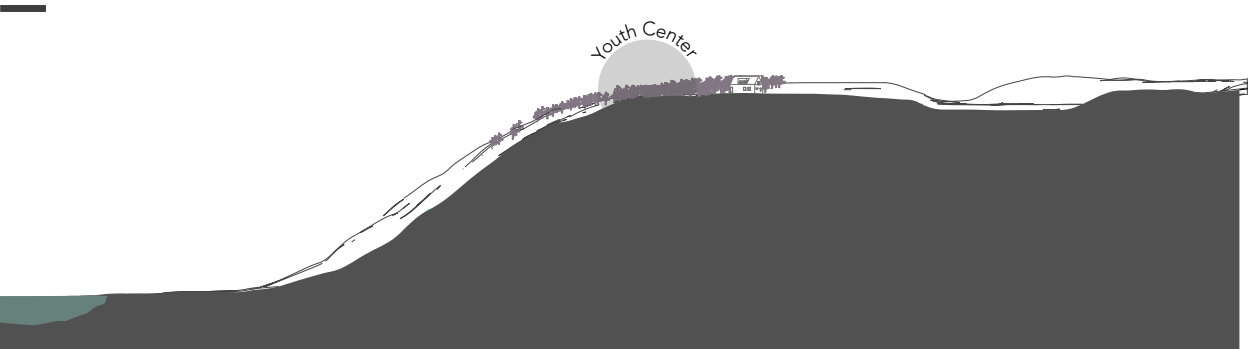
# GÅRDSTEN



[Figure 3.5] Map of Gårdsten with Educative and Cultural Activities



# URBAN SECTION



[Figure 3.6] Urban section X-X'

# GEOLOGY AND VEGETATION



Rock formations



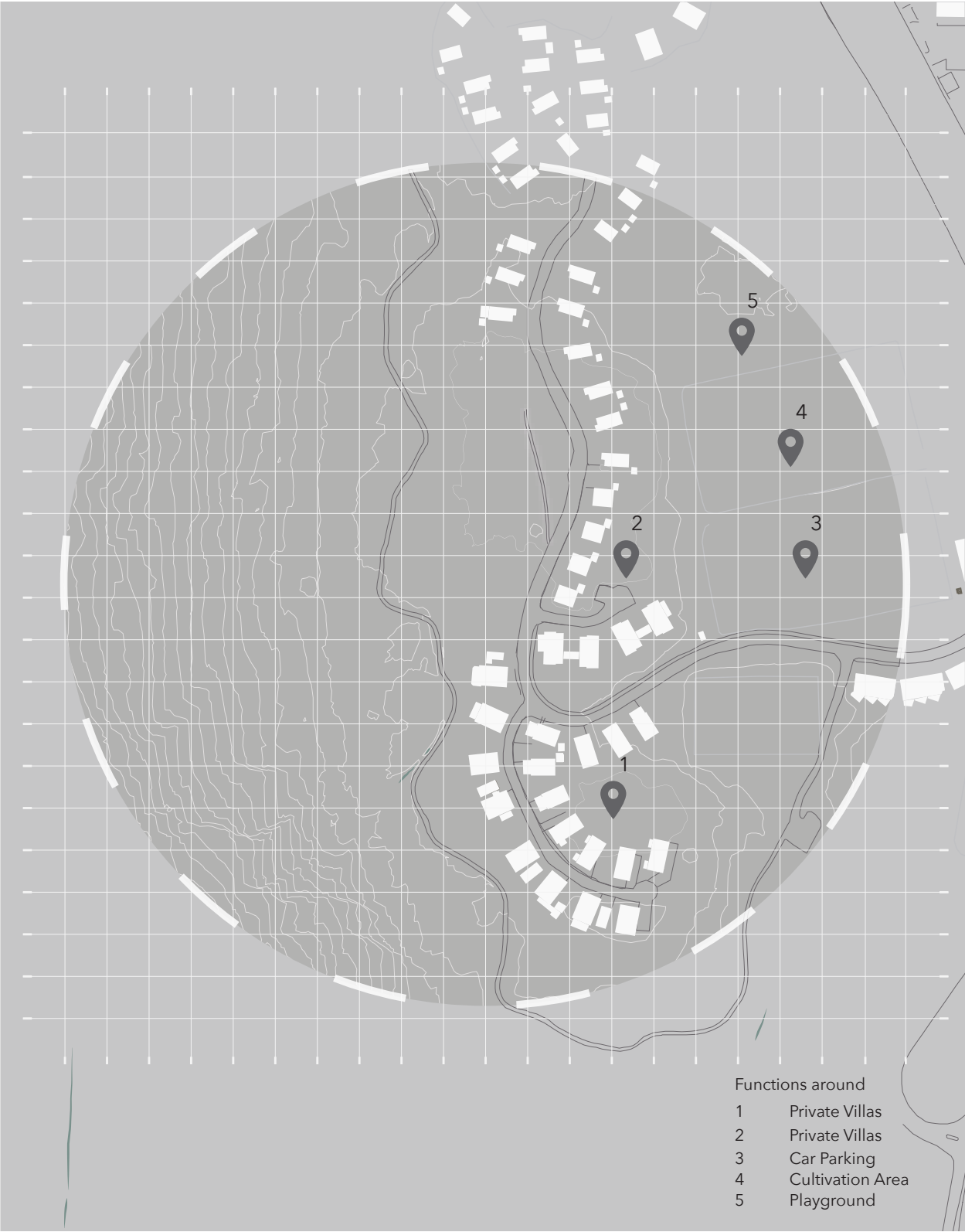
Trees



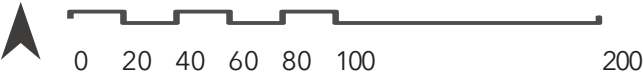
Bushes

[Figure 3.7] Analysis of Natural elements and the dominant colors

# CHOSEN SITE



[Figure 3.8] Chosen Site and functions around



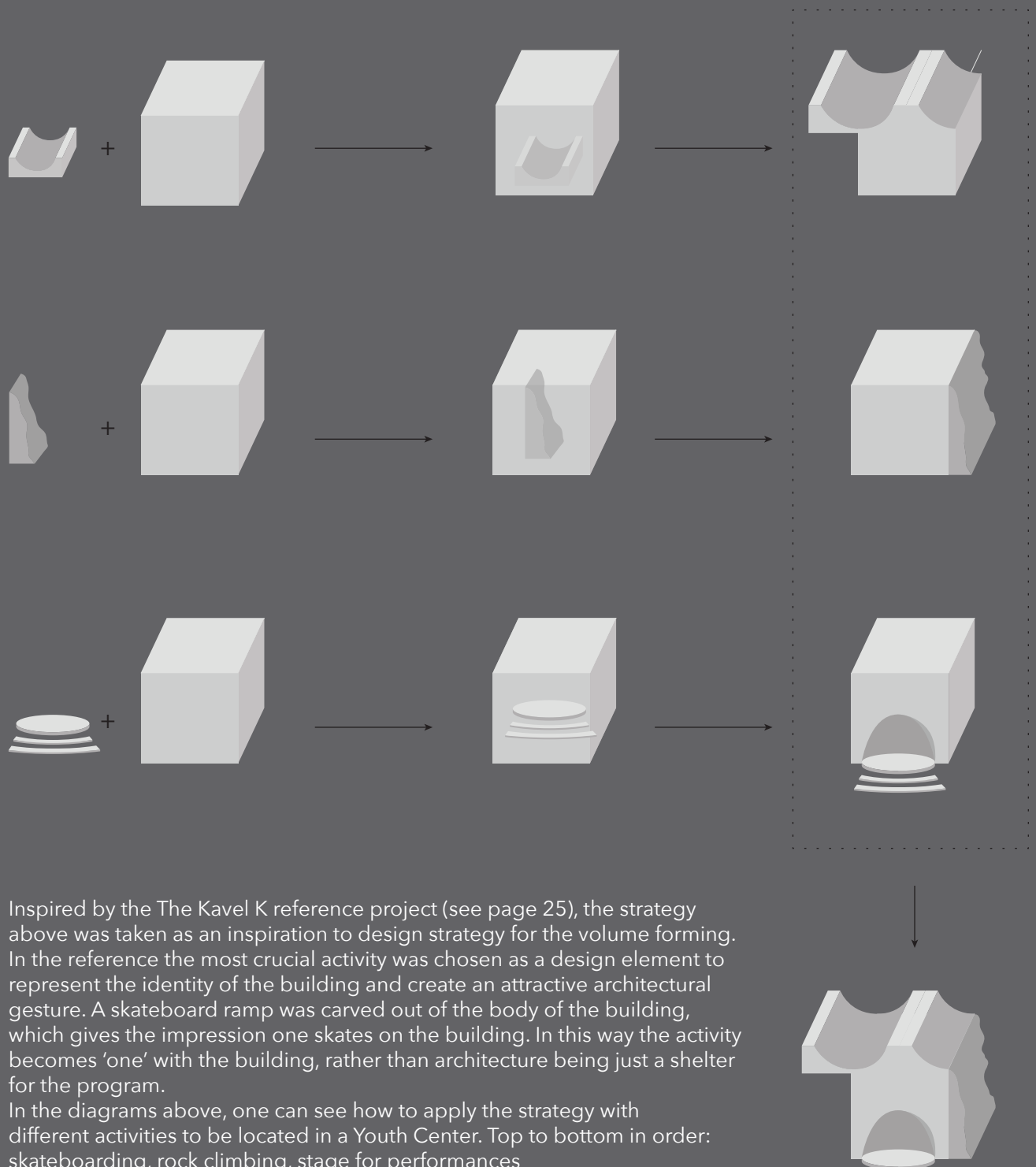
# DESIGN STRATEGY

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The system behind this project is very simple. The agents are People, Activities in Building's program and the View points at the possible buildings sites. The building is shaped according to these 3 elements which are uncontrollable and are directly deducted from the context and users.

On the other hand, operational surfaces, openings and entrances are design elements one can control. The term operational surfaces derives from the rejection of the common idea that surfaces that makes a building are either plain walls or floors. In this project this perception will be disregarded through making surfaces that are operational. This is expected to make the architecture more relatable and interactive while adding a value to its existence through engagement of the users.

## INSPIRATIONAL IDEA

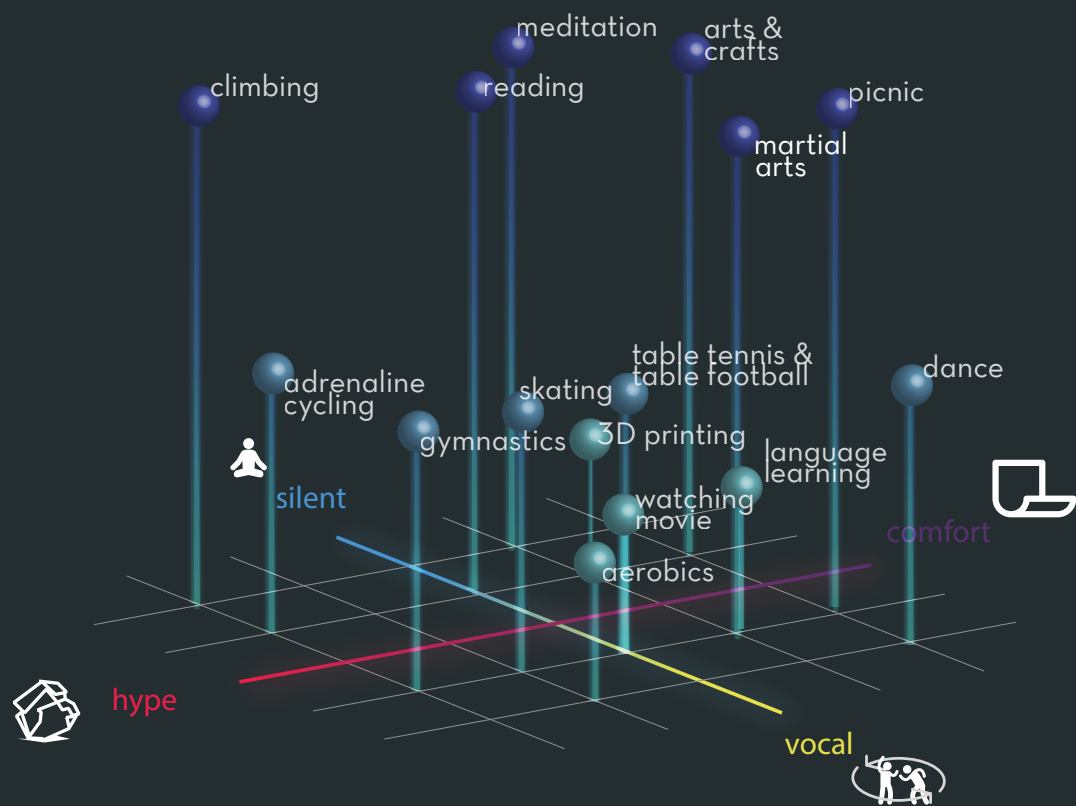


Inspired by the The Kavel K reference project (see page 25), the strategy above was taken as an inspiration to design strategy for the volume forming. In the reference the most crucial activity was chosen as a design element to represent the identity of the building and create an attractive architectural gesture. A skateboard ramp was carved out of the body of the building, which gives the impression one skates on the building. In this way the activity becomes 'one' with the building, rather than architecture being just a shelter for the program.

In the diagrams above, one can see how to apply the strategy with different activities to be located in a Youth Center. Top to bottom in order: skateboarding, rock climbing, stage for performances

[Figure 3.9] Form Shaping strategy of Kavel K reference

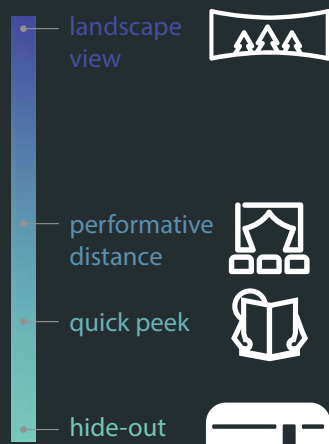
# CLASSIFICATION OF ACTIVITIES



[Figure 3.10] Classification of activities



Legend for z axis



The chosen context is very particular in the sense that it may arouse many contradicting feelings. To give an example, the sunsets experienced there are exciting but at the same time soothing. Or, the site provides different distances in visibility which can provide different levels of safety-feeling to the visitors.

In this way it can provide many different emotions at once, which is the reason why it is already popular for many youngsters despite their differences in character. Therefore it is crucial to keep alive this spirit of the site and blend in the architecture successfully to preserve the experience.

It is suggested to group the activities similar in terms of character. According to their feeling of thrill, expressiveness or proxemics, the activities are graded in a three-dimensional graph to make it easier to grasp for the reader.

## TRANSLATION TO ARCHITECTURAL LANGUAGE

Hype x Comfort >> Edgy x Smooth



[Figure 3.11] Meditative space

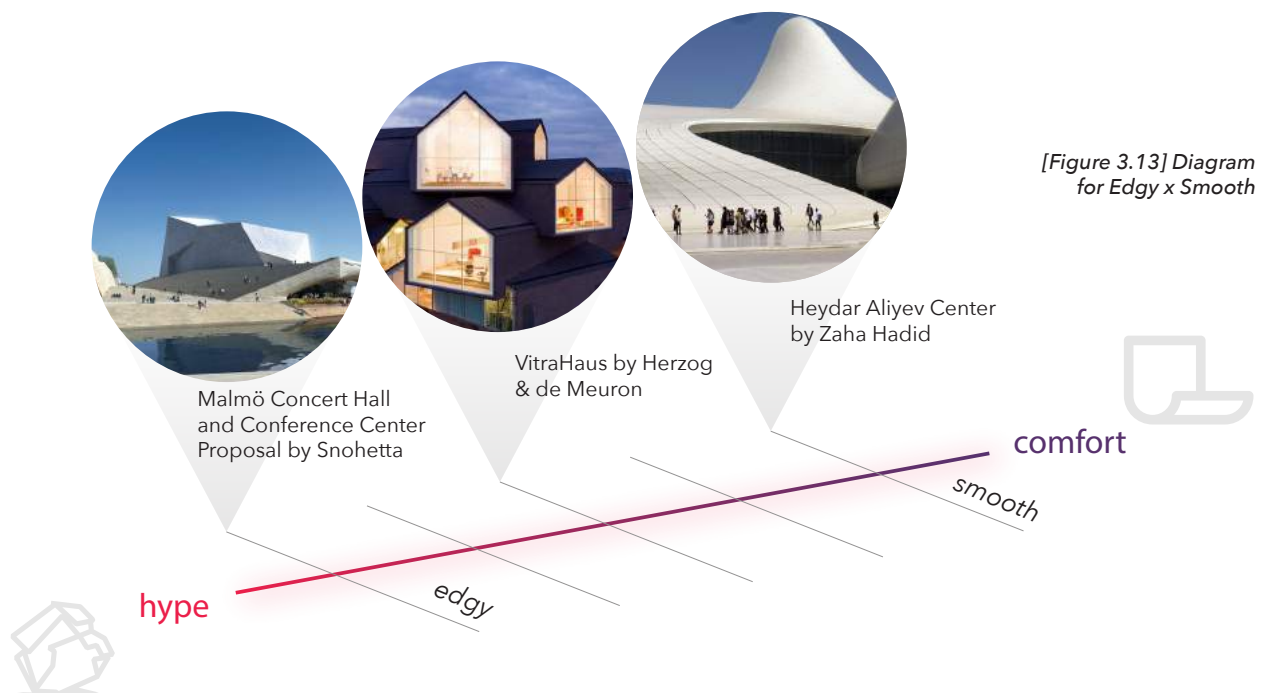


[Figure 3.12] Center for Cancer and Health  
by NORD Architects

In a study published in 2013 in the Proceedings of the National Academy of Sciences, Vartanian and colleagues found that for research subjects -both men and women- viewing curved spaces fired up activity in the anterior cingulate cortex (Van Paassen, 2013) an area of the brain associated with attention allocation (Pardo, 1990), decision making (Bush, 2002.)

Considering the cingulate cortex has been described as a neural interface between emotion, sensation, and action (Hayden & Platt, 2009); the smooth curvilinear contours defined for comfort spectrum activities are expected to encourage and boost intellectual actions.

While sharp edges bring up a little more aggressive sensation. But not in a negative way, it could be almost called exciting. That is why the hype feeling relates to a user group that seeks adventure.





## Vocal x Silent >> Standing-out x Blended-in

Due to the nature of the silent activities, where the focus is mostly in one's self, the material of the form is suggested to be more subtle, almost disguised in the context that it exists. Just as the mind plunges in thoughts within the body, an architectural form can dissolve within the landscape imitating the process of such intra-personal journeys. To portray this identity the selected material will be blended into its surroundings.

The vocal activities, in contrast to silent ones, are there to raise attention and stand out from the rest. Thus, the forms allocating vocal activities shall be easily distinguishable and eye-catching in higher magnitudes of explicitness which is achievable through the materials completely different from their context.

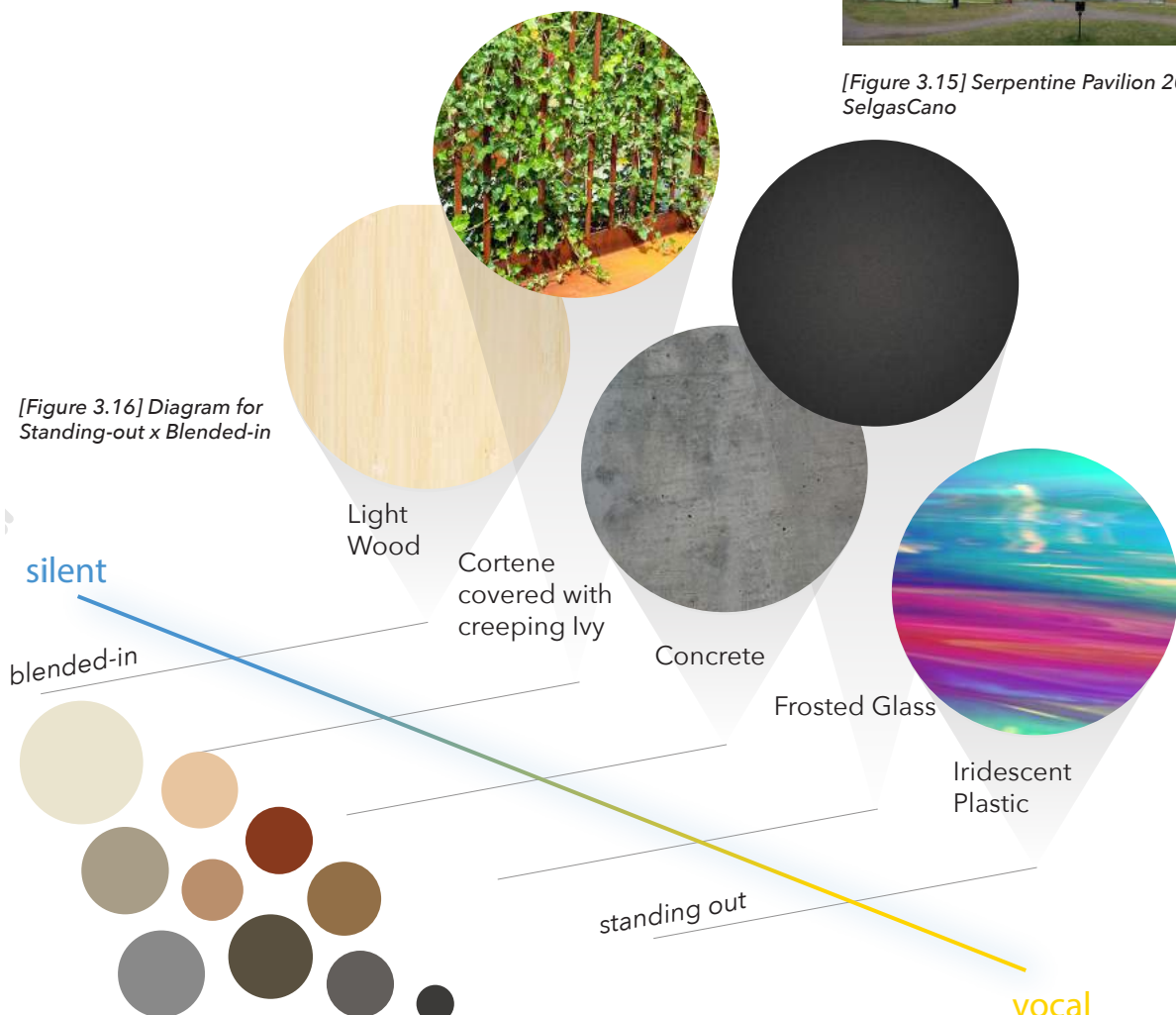
Below you can see the site's color palette in terms of naturally existing color tones. The bigger the circle the higher coverage this color has in the area. Therefore, as the magnitude in the spectrum gets further from the silent values - the more material can be differentiated from the site.



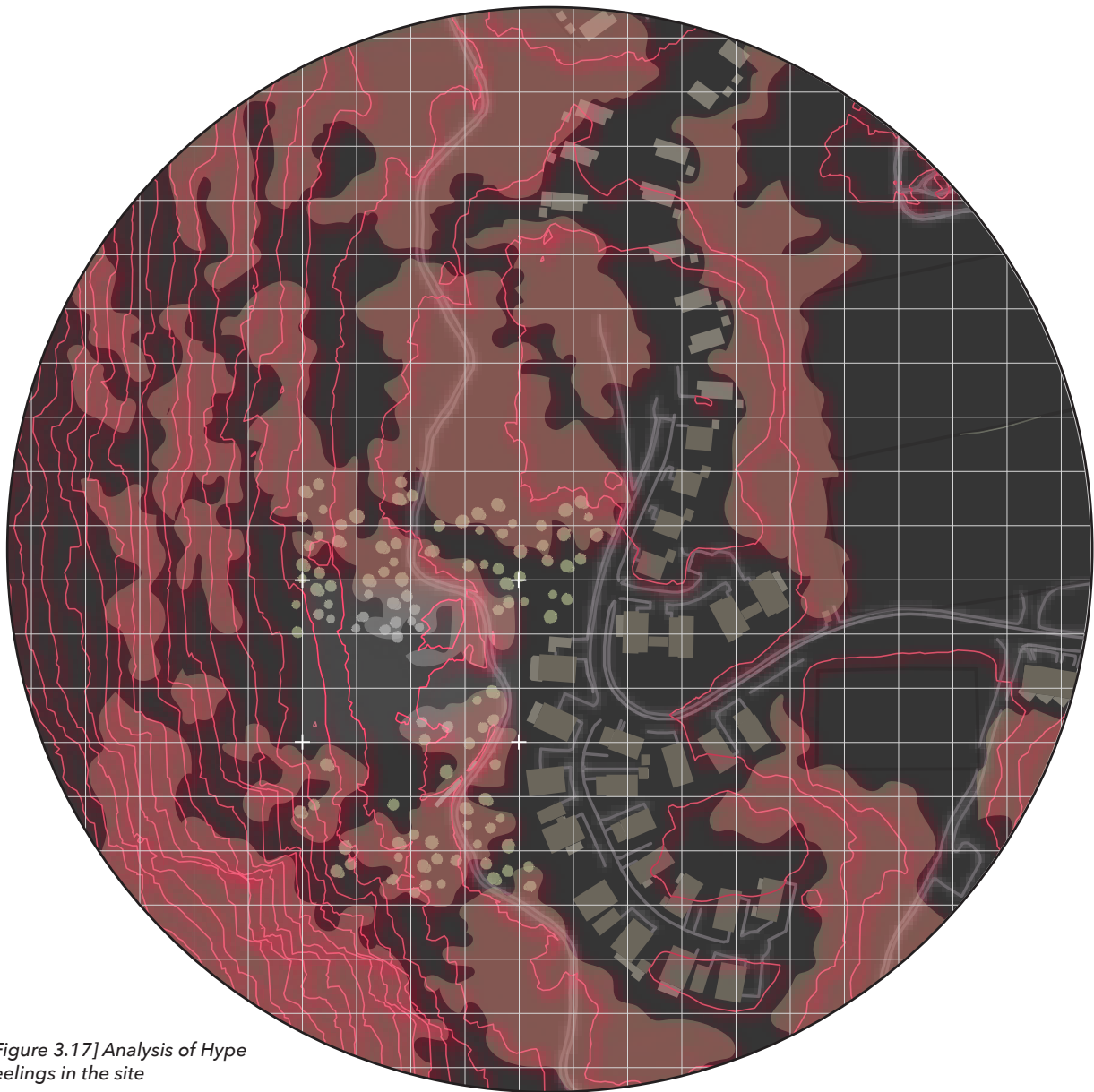
[Figure 3.14] Sancaklar Mosque by Emre Arolat Architecture



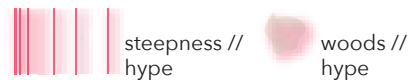
[Figure 3.15] Serpentine Pavilion 2015 by SelgasCano



## HYPE IN THE SITE

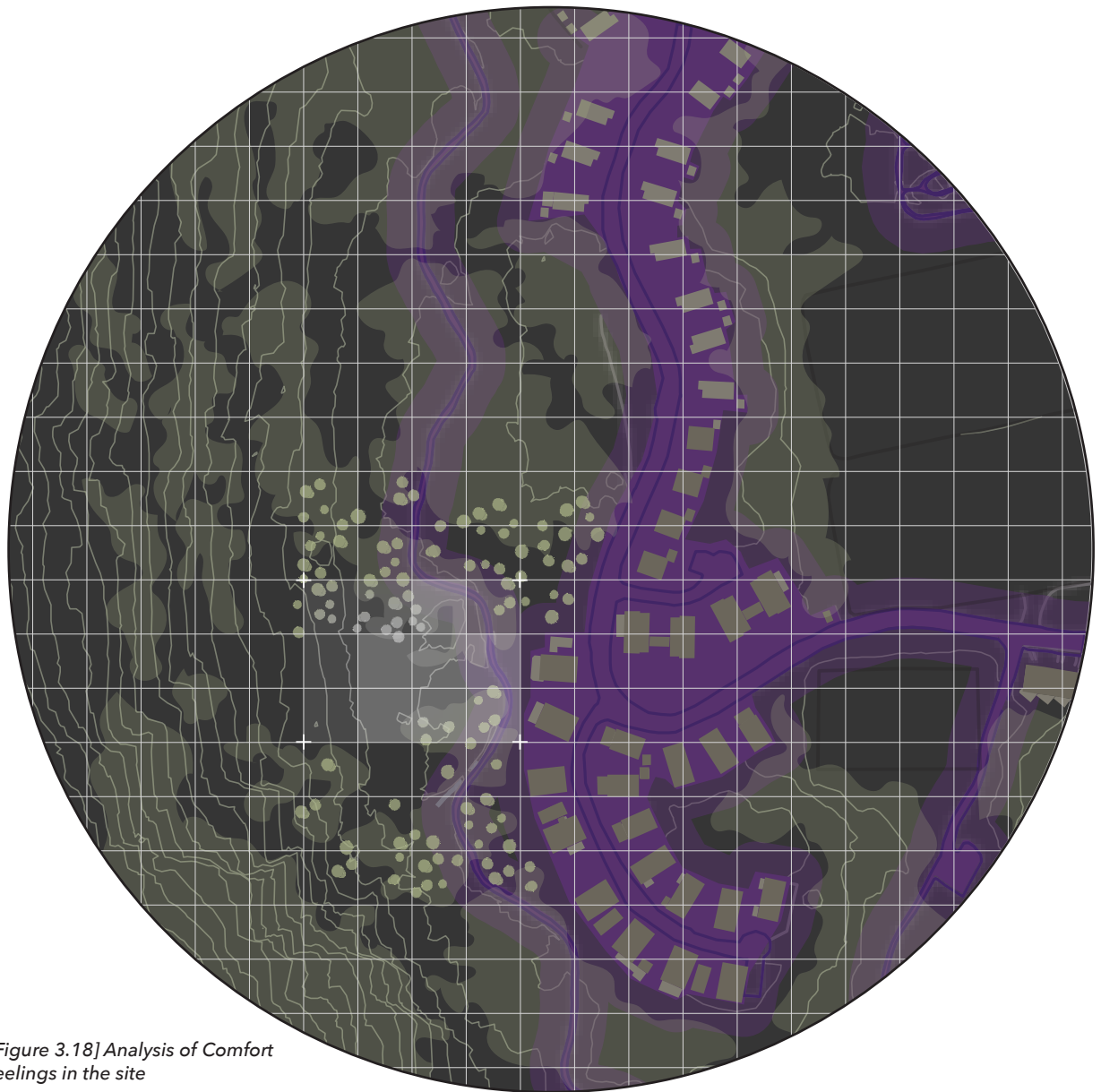


[Figure 3.17] Analysis of Hype feelings in the site

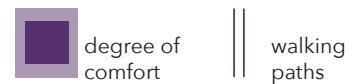


The chosen site has been a popular spot discovered by local youngsters for some time. It is considered fun and exciting for the young people as it provides an enjoyable sunset panorama. To measure the site's adventurous aspect that provides the hype feeling, 2 criterion were set. Firstly, the steeper it gets, the site can be considered more exciting as it provides different landscapes and gets more difficult to reach. The density of the contour lines is sign of steepness therefore steeper areas are more pink in density. The other aspect of measure was, the existing woods in the area. Woods can conceal the reality partially which suggests a more mysterious environment enriching the 'hype' feeling.

## COMFORT IN THE SITE

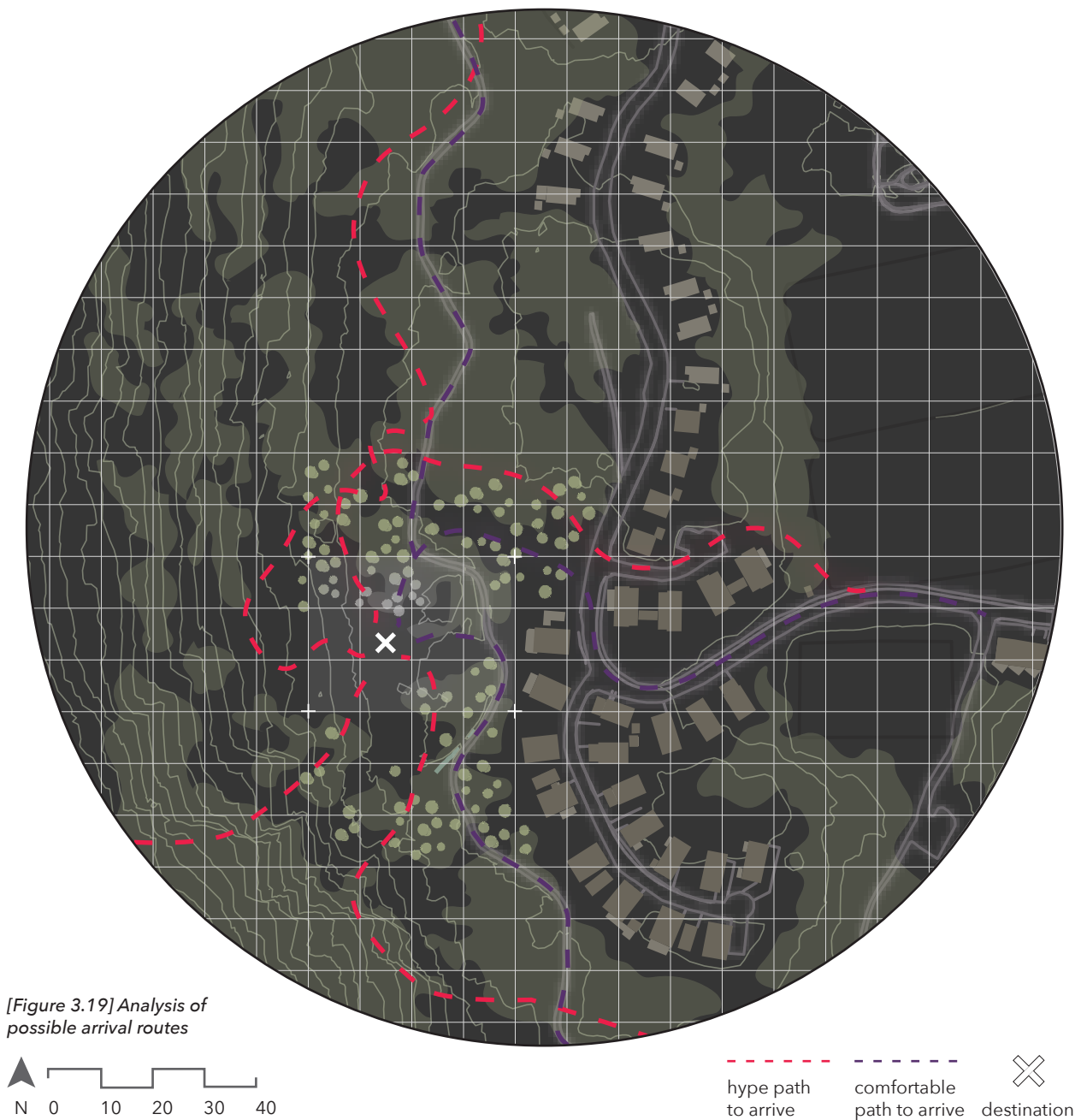


[Figure 3.18] Analysis of Comfort feelings in the site



The degree of comfort is analyzed through the paths dedicated to pedestrians, which are either asphalted or built from cobble stones. Also the residential zones are marked in the comfortable zone for the youngsters arriving from the residences. As the possible routes gets further from the existing paths, the comfort level decreases.

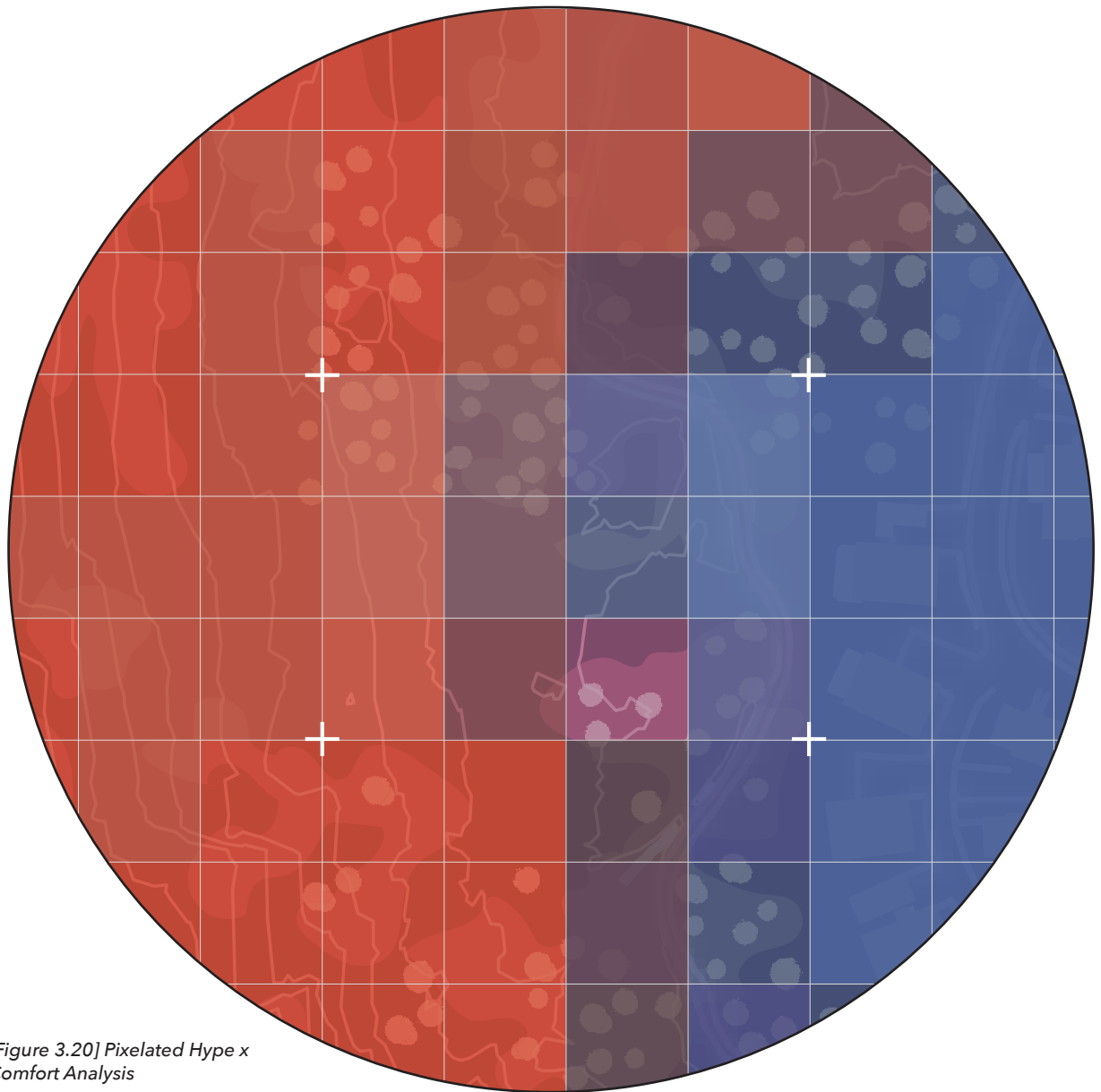
## ARRIVAL TO THE AREA



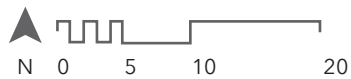
The possible routes to reach to the site are analyzed. Following the 'hype & comfort in the site' data on the previous pages, each are given a feeling. While the paths following the existing parts are providing a comfortable reach, the routes off the paths provide a more hyped way of arrival.

## HYPE X COMFORT

—

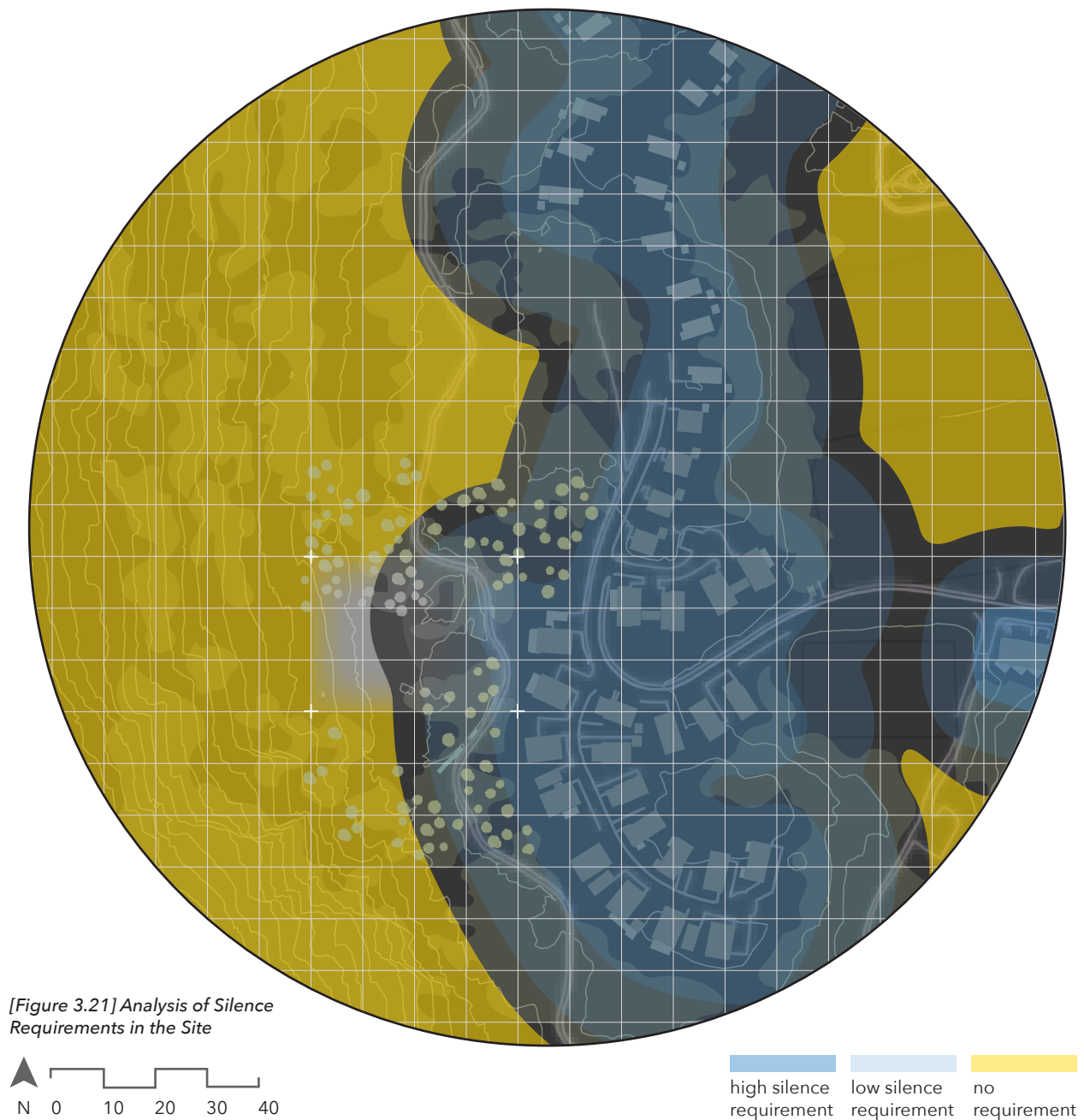


[Figure 3.20] Pixelated Hype x Comfort Analysis



The previously presented data of hype and comfort is merged into one map and processed into pixels according to their magnitudes. Whereby, pixelated gradation moderately quantifies the information and the data extracted from this map will set the architectonic language.

## SILENCE REQUIREMENT IN THE SITE

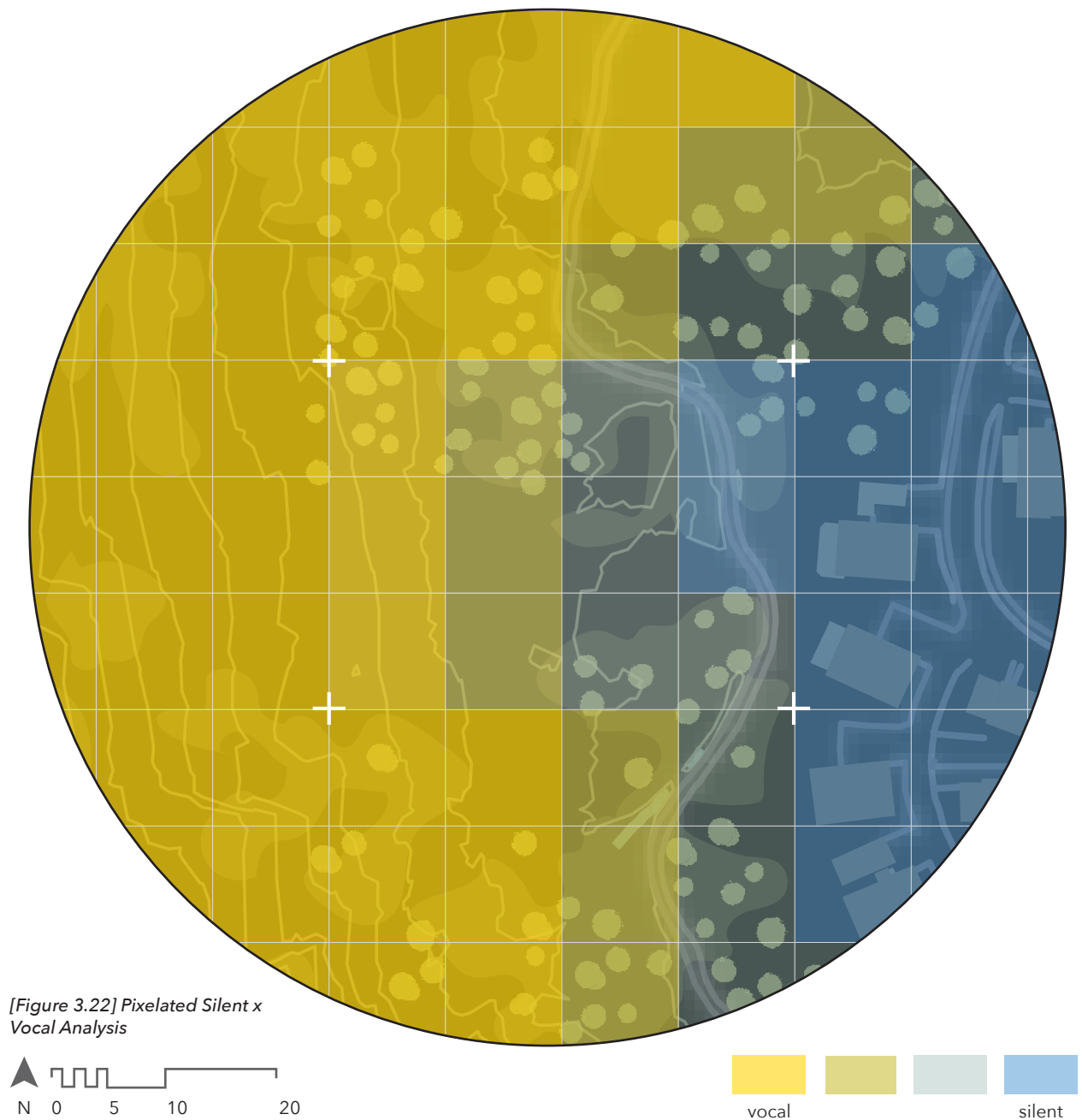


Without the frequency and acoustical power data from a certain activity, it is not possible to assess the noise level in a two-dimensional map. Therefore the analysis is conducted by measuring the distance from the residential areas. In the first 10 meter distance to the houses it is set as 'high silence requirement' and in 20 meters distance the silence requirement is lower. 25 meters from the houses are set as no-requirement areas where activities involving music and shouting can be located.



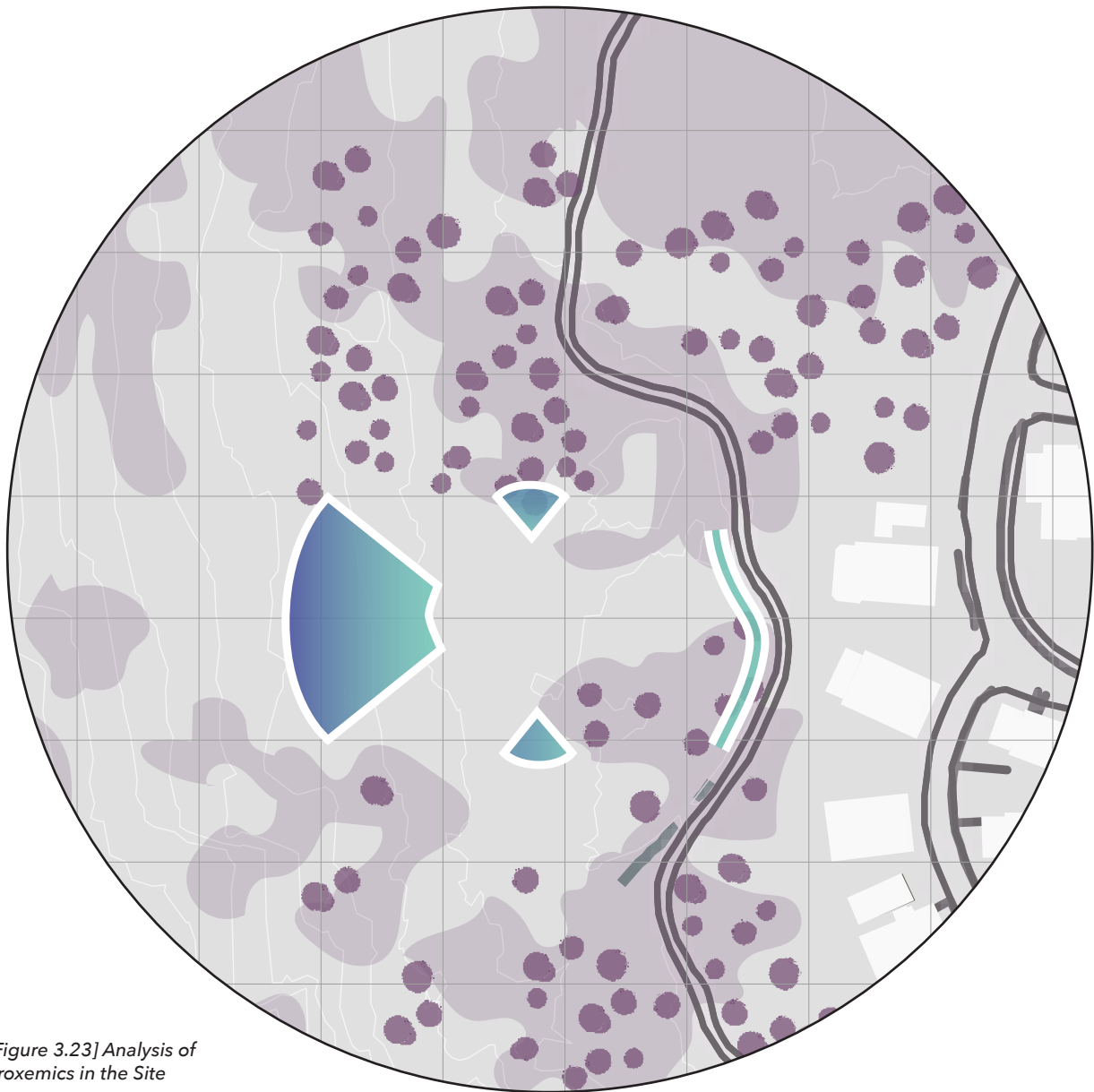
## SILENT X VOCAL

—

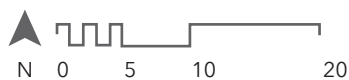


The previously presented data of 'silence requirement in the site' is passed into the map above and processed into pixels according to their magnitudes. Whereby, pixelated gradation moderately quantifies the information and sets the material of the designed form to be blended-in or standing out from it's context.

## VIEWS IN THE SITE



[Figure 3.23] Analysis of Proxemics in the Site

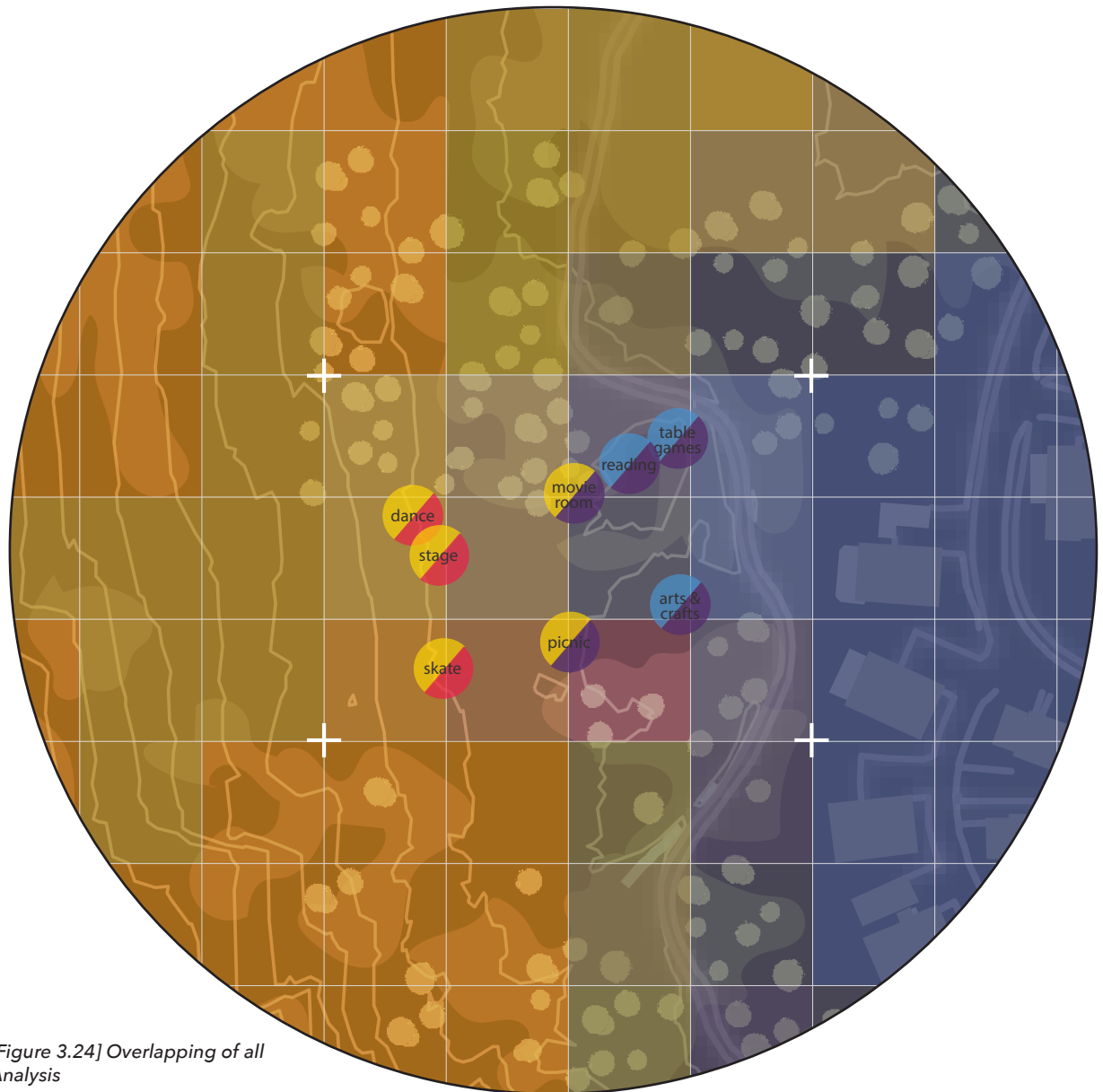


Edward T. Hall describes four distances in his book called *The Hidden Dimension*. These classifications of distances are; intimate, personal, social and public -each associated with their own relationship categories. As intimate and personal relationships and distances cannot be per-calculated in this analysis, the social and public distances will be analyzed. T. Hall describes the social distance as 'Intimate visual detail in the face is not perceived, and nobody touches or expects to touch another person unless there is some special effort.' (1966) And he describes the public distance as a distance that is 'out of circle of involvement.' To this information I would like to add 2 types of relation; one- no visibility from another and two-an infinite distance towards another. which will correspond to hide-out distance and landscape distance in the z axis of the 'classifications of the activities' diagram (see page 40.)

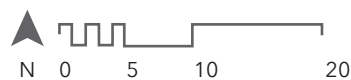
In this analysis one can see the different proxemic qualities that the site provides in different view directions. Towards west, there's an open panoramic view that is not blocked by the ground or the vegetation. While towards north and south the views are blocked with the woods therefore provides a distance greater than 3.8 meters (corresponding to Public Distance of T. Hall) . In this distance of view, one can recognize the other person's body movements which is crucial for an activity-to-be-performed. On the other hand, the views towards east are often facing the existing running path which means it provides a more dynamic, stimulating and interactive view to the user (the Social distance.)



## OVERLAPPED



[Figure 3.24] Overlapping of all Analysis



The 4 qualities on the activities diagram are represented in this overlap map. According to the 'classification of activities' diagram, each activity are positioned according to 3 spectrums. The x-and-y spectrums which are hype-comfort & vocal-silent are shown in the map above. While hype-comfort spectrum aims to define the section of the form around the given activity (operative surfaces,) the vocal-silent spectrum aims to set the material to be used in the form of that activity.

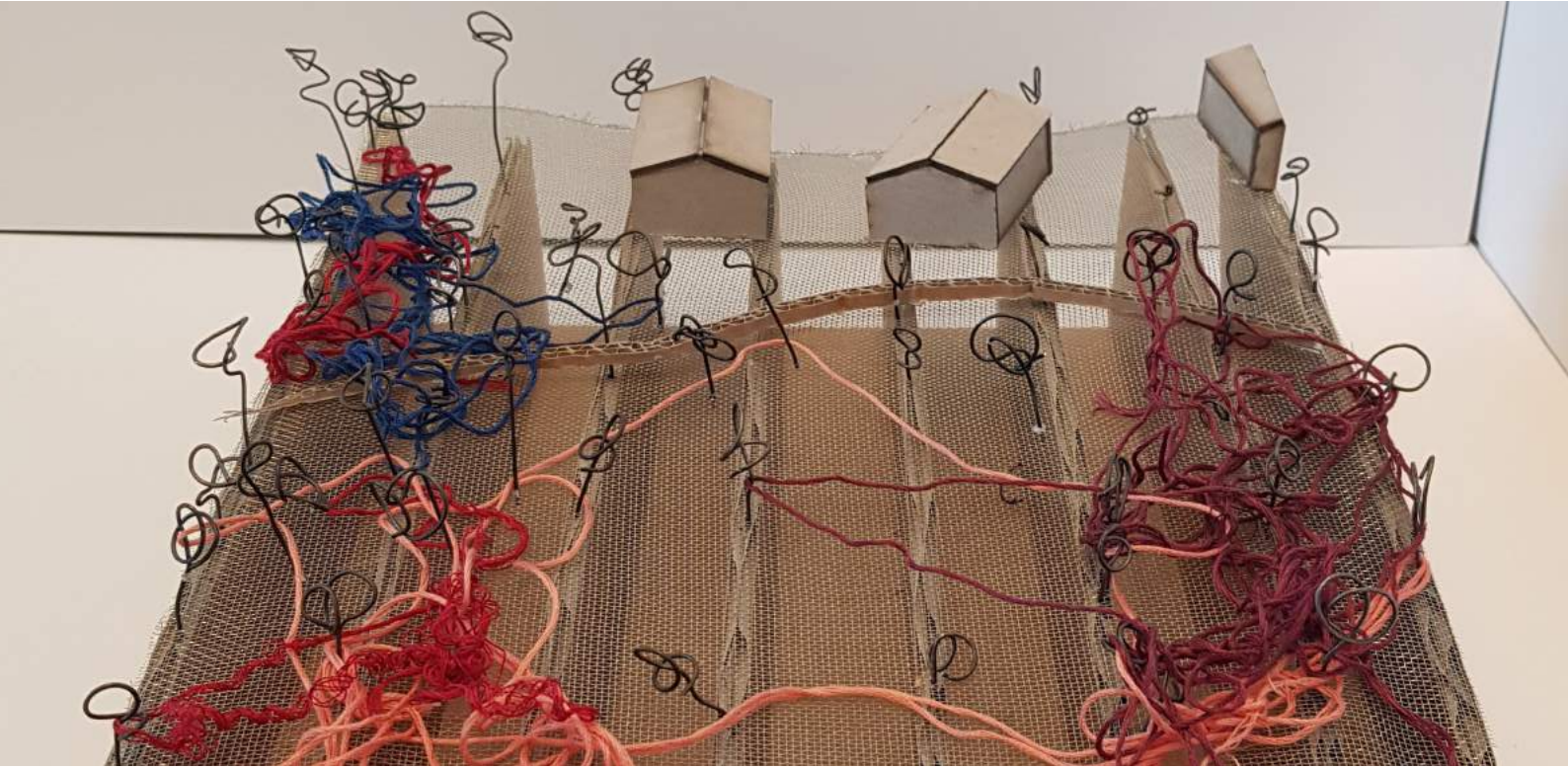
According to the spectrums of x-and-y axis the activities are located in the map then they are translated according to the needs of the visual distances. The related operative surfaces and material of the enclosure will be determined from data taken from the map above.

CHAPTER FOUR

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# DESIGN PROCESS





[Figure 4.1] Investigation through context model

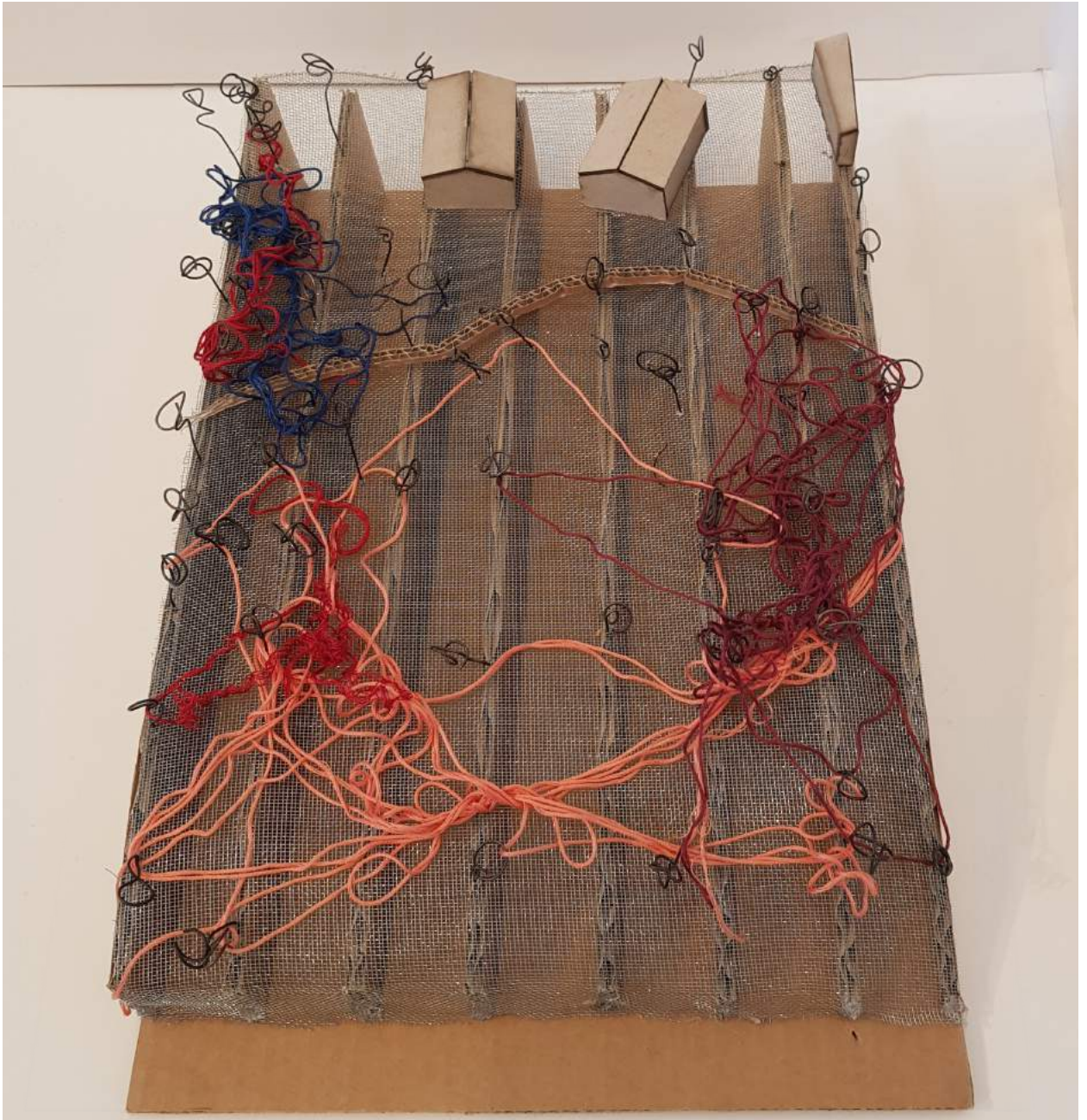
## INVESTIGATION THROUGH CONTEXT MODEL

The first step taken to understand the area was this quickly-crafted site model. It was important to realize how site goes steeper and steeper after the residential area is over. This steepness was taken as a quality which contributes to the hype- feeling harvested from the nature of the selected area. The blue and red tones of strings represent the comfort and hype feelings in order.

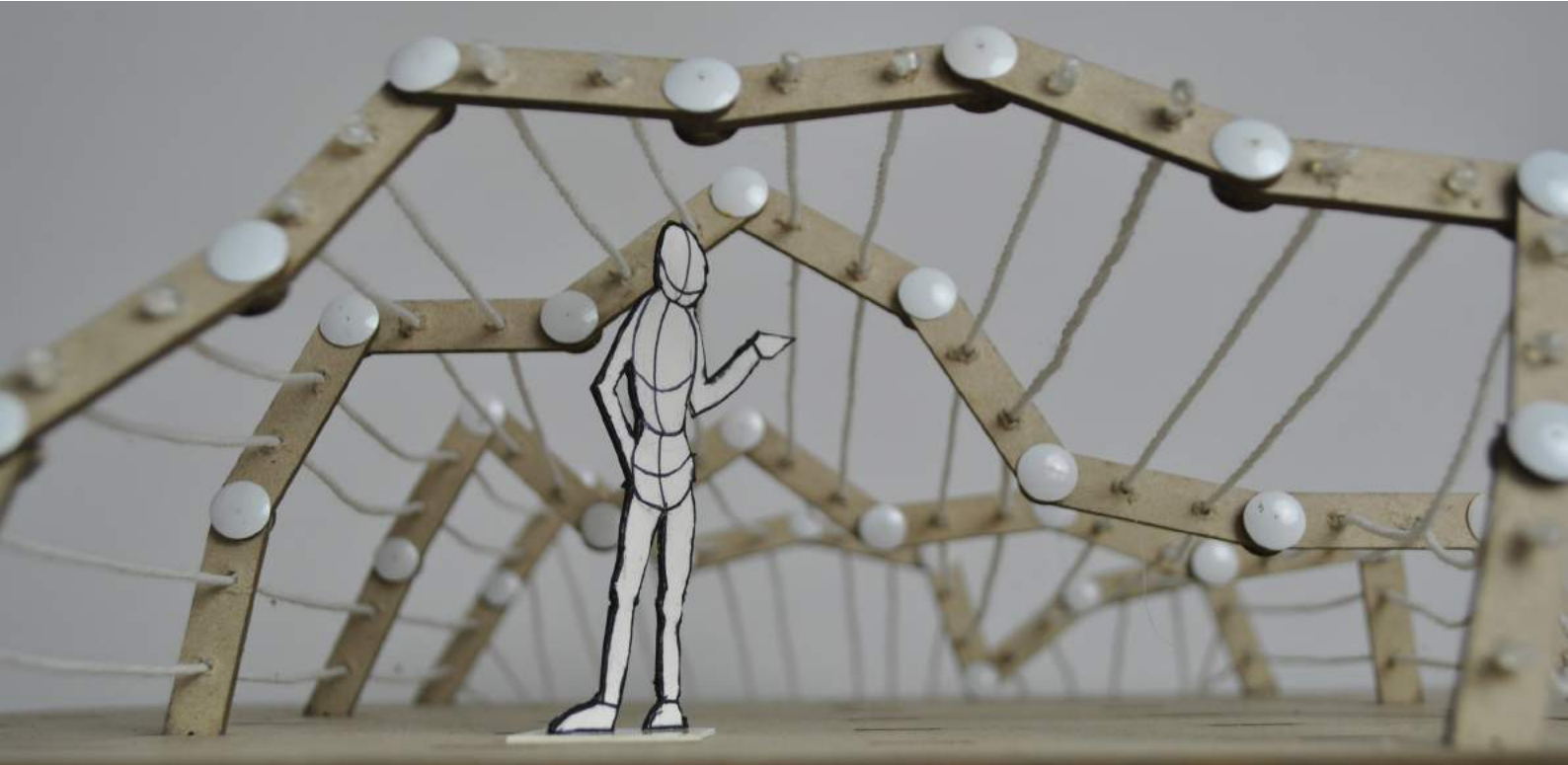
While admiral blue is situated in the areas close to the existing running path and the desire path (a type of path where the ground is created by the erosion caused by human footsteps.) The crimson red and the wine red represents different type of woods. In these kind of situations passing through the woods gives a sense of excitement to the visitor, but they are different since the first type of red represents the trees with higher branches and the darker with lower branches and leaves. While one only physically blocks the way, the other both physically and visually blocks the visitor.

Finally the peach color represent the high level of height change, as the steepness adds an adrenaline rush to the experience therefore contributing to the hype feelings in the site.





*[Figure 4.2] Representation of hype and comfort feelings in the site*



[Figure 4.3] Prototype Model

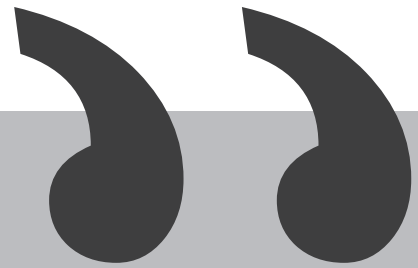
## DESIGN THROUGH PROTOTYPE

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The prototype is a demonstration of how the design through section methodology is being used throughout the process. It becomes a machine to let the designer explore through different formations and the spatial qualities that sections bring in.

In this way, it becomes possible to experience the outcomes of the series of sections, both from an internal and external point of view.

As understood from the interviews, the youth in Gårdsten needs a diversity of leisure activities and facilities to host them. Therefore the prototype also provided a way to experiment with incorporation of these smaller scale situations. By playing with the prototype one can understand the idea of 'building as a tool' where user-informed needs take shape. Can a place to gather around and socialize turn into a bench? Or can a place for doing physical exercises, become a climbing wall?

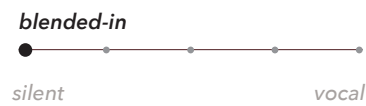


*The kids in Gårdstenskolan do not go out much mainly because they don't have a place to go! They need a motivation to go out. They have so many needs; having fun, watching a movie, meeting, working out... They won't be satisfied with a basic place, they need to be able to choose.*

*Rita Ravari. During a discussion on 11 November 2018*

# ROOM OF INTELLECTUAL GAMES

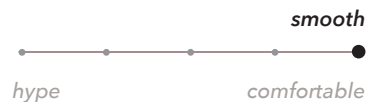
silent x vocal spectrum



proxemics band



hype x comfort spectrum



Room of intellectual Games is a proposal of a space that encloses thinking related games as it can be understood from its name. The space hosts activities such as chess, cryptic crosswords games or other intellectually-stimulating games which matches with the comfort rather than hype in the diagram on page 40. As high level of comfort translates into smooth architectural forms, the sections created for this space is curvy with convex connections.

activity requirements



5 m<sup>2</sup> x 4  
required space for a chess board with 2 players



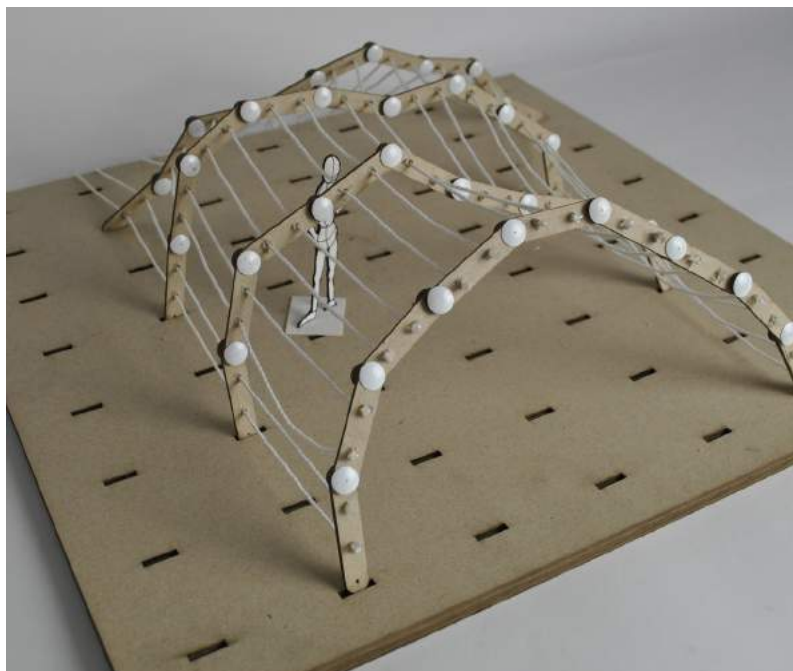
5 SEC  
minimal visual distraction from external factors



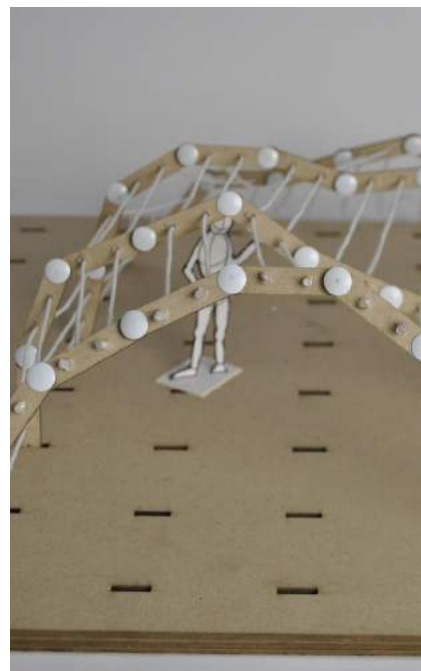
minimal visual distraction from internal factors



comforting view towards nature

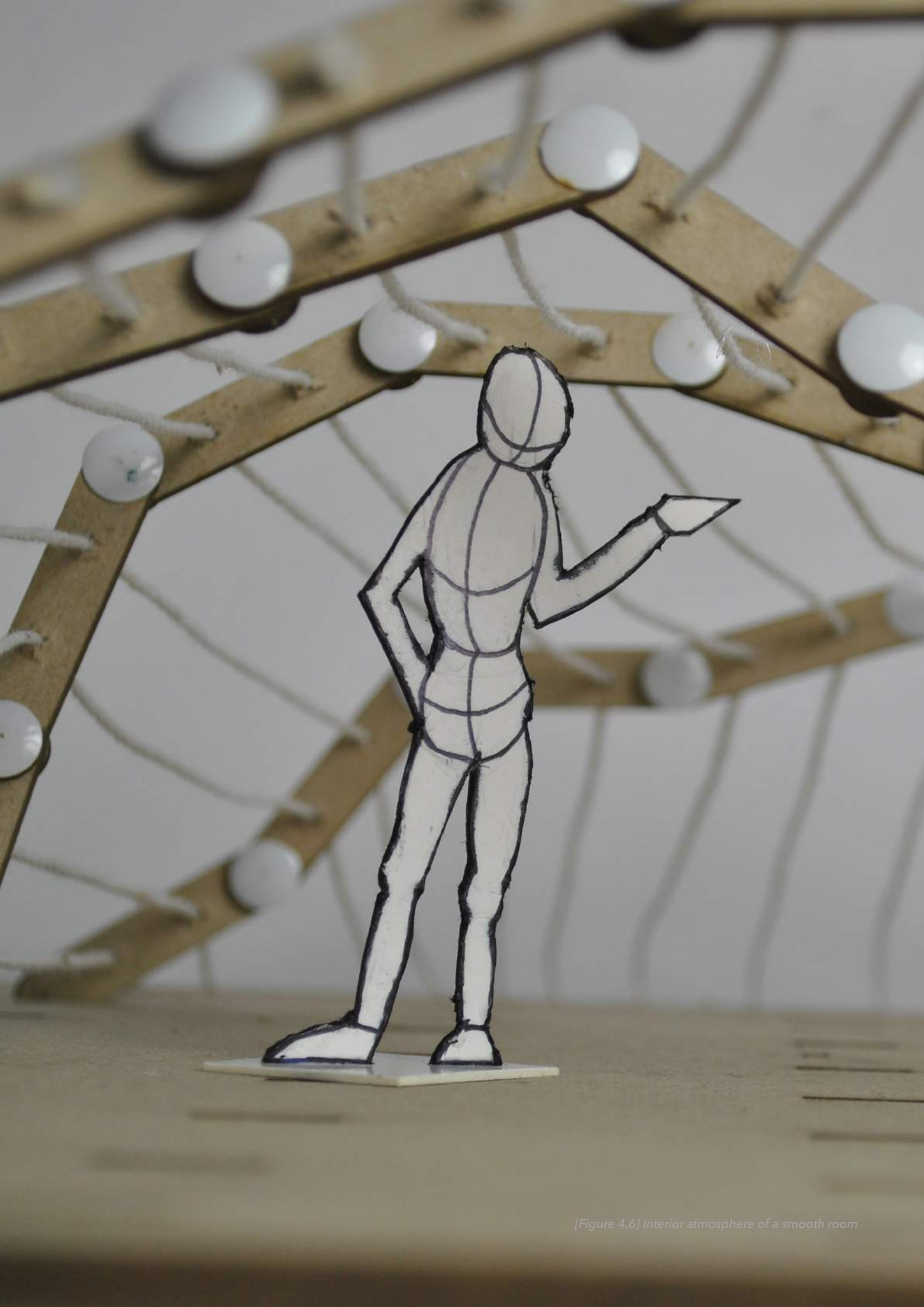


[Figure 4.4] External view



[Figure 4.5] Outer surface

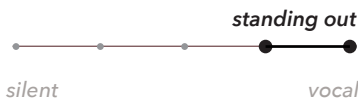




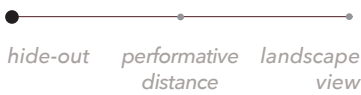
[Figure 4.6] Interior atmosphere of a smooth room

# ACTIVE ROOM

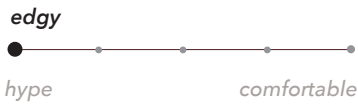
silent x vocal spectrum



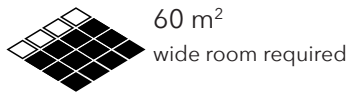
proxemics band



hype x comfort spectrum



activity requirements

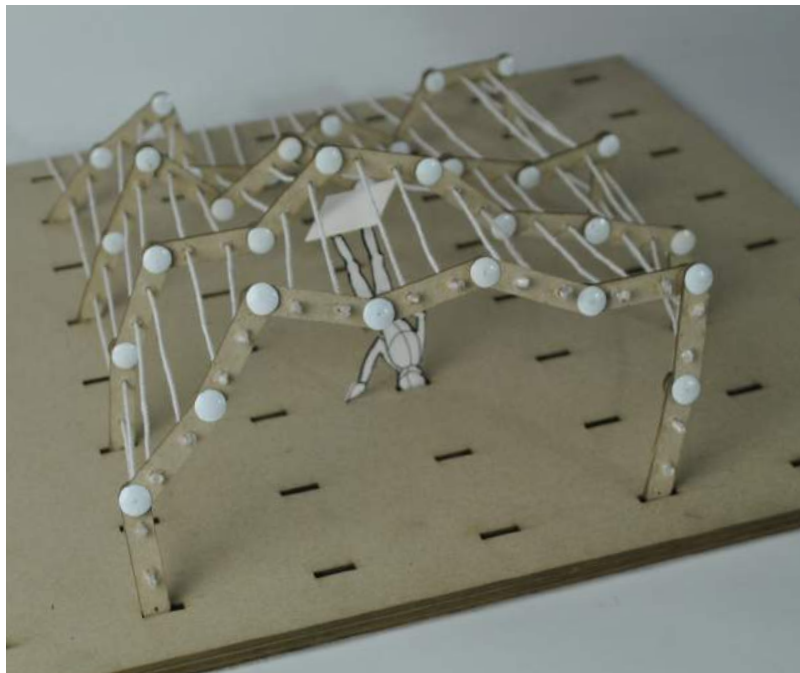


mirrors required, therefore the operational surfaces must be planar

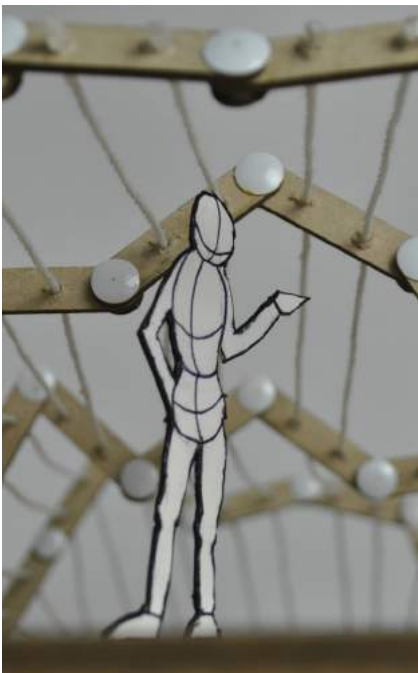
Active Room can be a space that users may chose to listen high level music and dance. It can host a variety of actions that promote physical activeness. One may dance to hip-hop, do sword-play or acting.

As we have a look into the dancing activity in the diagram (see page 40) it is located on the hype end of the hype x comfort spectrum. Therefore the form derives from the activity translates into highly edgy section lines.

In this way, space represent the dynamics of dancing. The edginess effect is achieved by using both concave and convex connections in the joints.



[Figure 4.7] External view



[Figure 4.8] Atmosphere



[Figure 4.9] Active room with a figure dancing to hip-hop

A large, dark gray opening quotation mark is positioned on the left side of the page, spanning across the white top section and the gray bottom section.

*Don't put activities that are calm.  
Kids in Angered do not like sitting  
down calmly. Nobody will sit silently.*

*Student A. During a discussion on 23 April 2019*



# MENTAL COGNITIVE MAPS



[Figure 4.10] Areas that are appreciated (more than others)

A couple of meetings were conducted with youth in Angered and the main contact teacher in Gårdstensskolan. The semi flexible interviews and mental maps have helped to gain a better understanding of the local culture and the context. The gathered knowledge from the interview is selected and placed as quotes throughout this book.

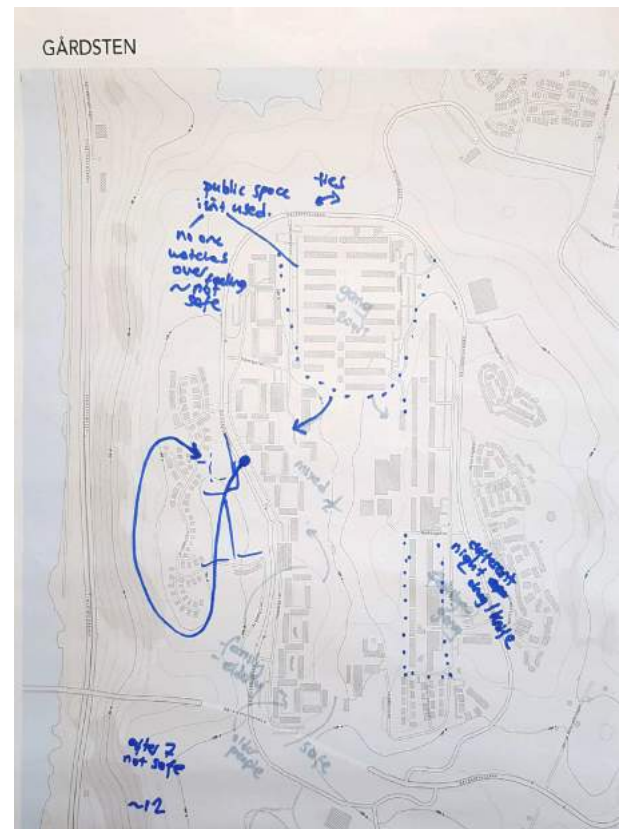
On the other hand, the mental cognitive maps that were drawn can be seen on this page.

[Figure 4.10] When the question 'Which points of Gårdsten you like?' was asked to the Students A, B and C, at first they could not come up with any place, as they did not have any. Later when the question was asked as a comparison, which areas do you like more than others - the answer was the green valley in the center of the area. They later said that the area is being planned to turn into pricey residential zone. They also told many of the recreational functions such as playgrounds and dog park are demolished. Later, 2 of the areas by the cliff were marked, one of which is the location chosen for the project proposal.

Other two maps also show that there's a strongly felt gentrification process in the area [Figure 4.11] and sense of safety is very low. [Figure 4.12]



[Figure 4.11] Gentrification that is being sensed



[Figure 4.12] Safety and accessibility

CHAPTER FIVE

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# PROPOSAL



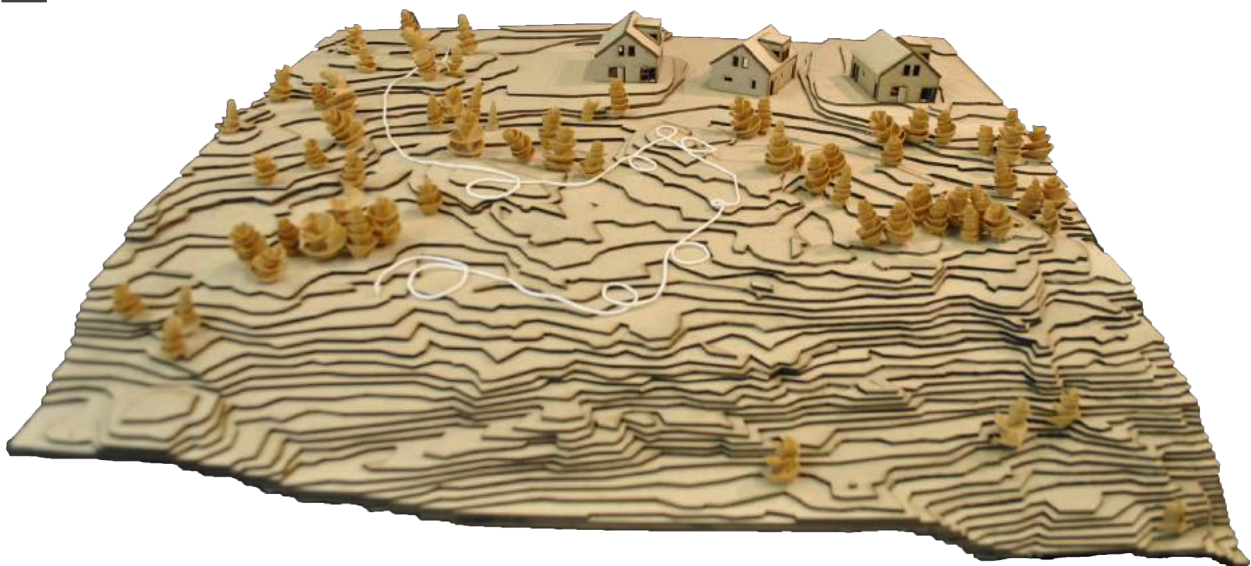


[Figure 5.1] Designing through Sections

# PROPOSAL

After deciding in the design process chapter that the forms and urban functions will develop around the sections, the next step was to define a trail in the site so that the sections can follow. After Trial the application of the self-developed methodology, the following process was applied. See 'Trail, Program and Sections.'

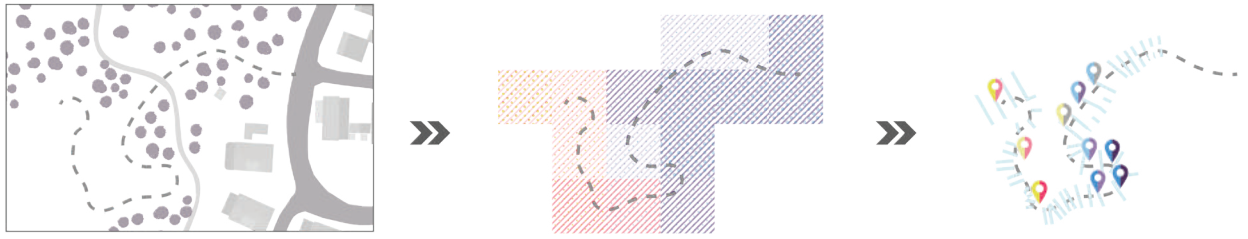
## DESIGN OF THE TRAIL



[Figure 5.2] Site model with the trail



## TRAIL, PROGRAM AND SECTIONS



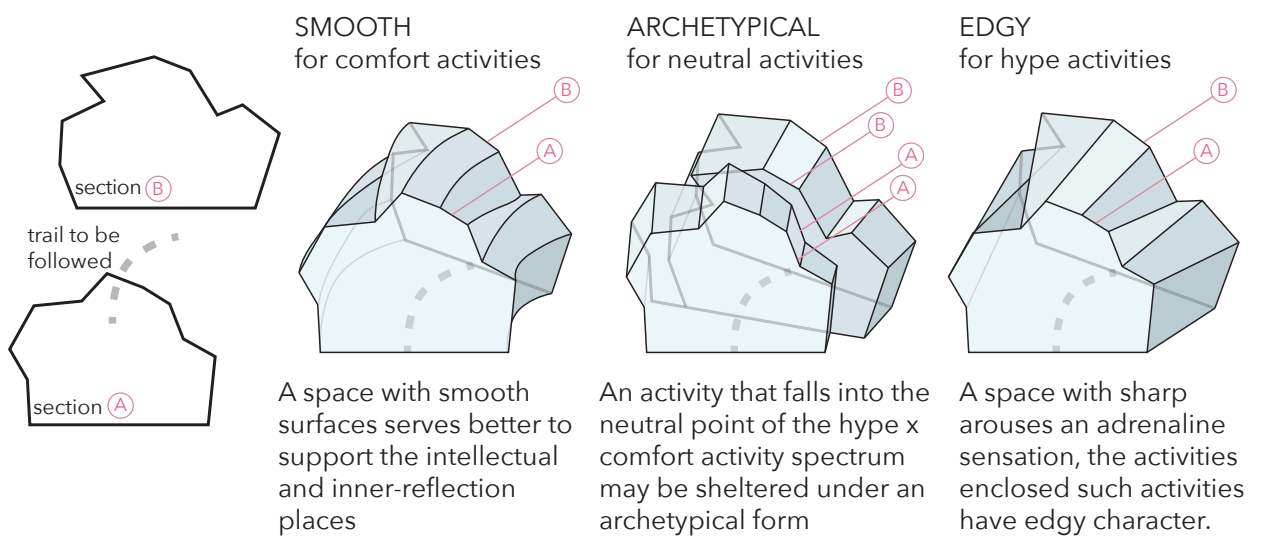
The situation plan of the Youth Center is based on what kind of user experience it can provide to its visitors following a certain trail. It starts from the most common arrival spot and takes the visitor to a journey throughout the site.

Later [self-defined methodology] site is analyzed according to the spectrums of emotions that were used to analyze the activities in the research previously. In this way the newly added program will not break the characteristics of the site which made it a popular hangout-spot.

In this step activities are located to their matching area in terms of their character<sup>1</sup> on the trail with the aim of creating the envisioned empathetical and site specific forms to host the new Youth Center.

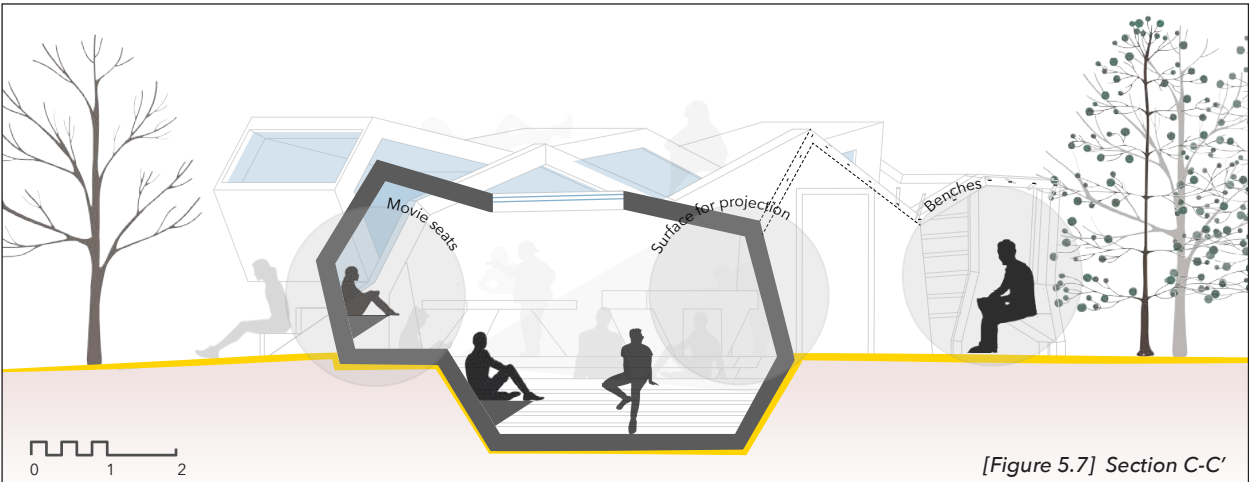
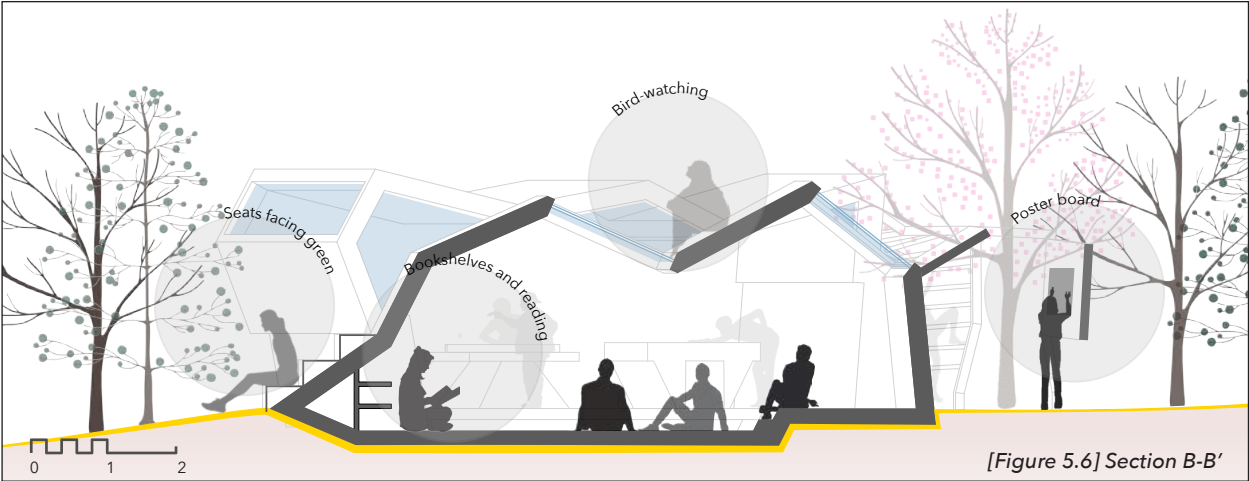
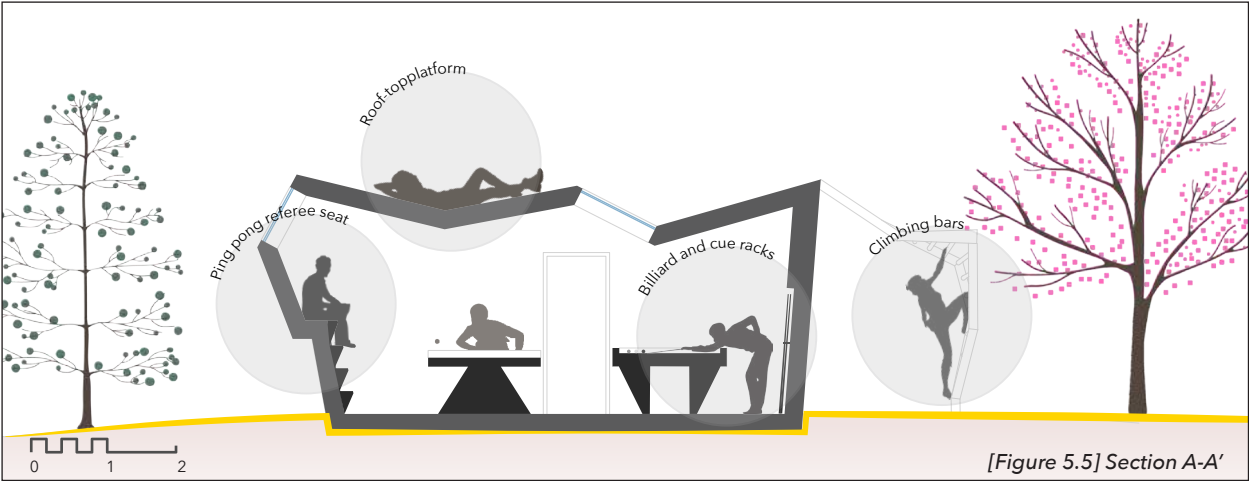
[Figure 5.3] Process diagram

## ARCHITECTURAL TRANSLATIONS OF SECTIONS TO FORMS



[Figure 5.4] Sections to Forms

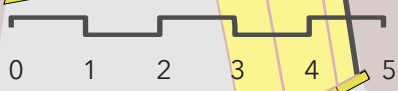
COMMON ROOM



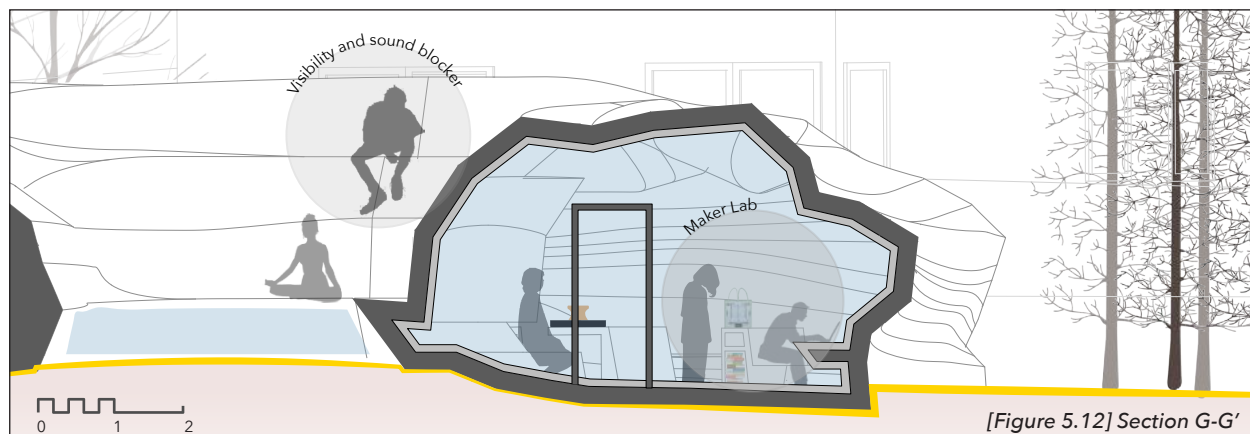
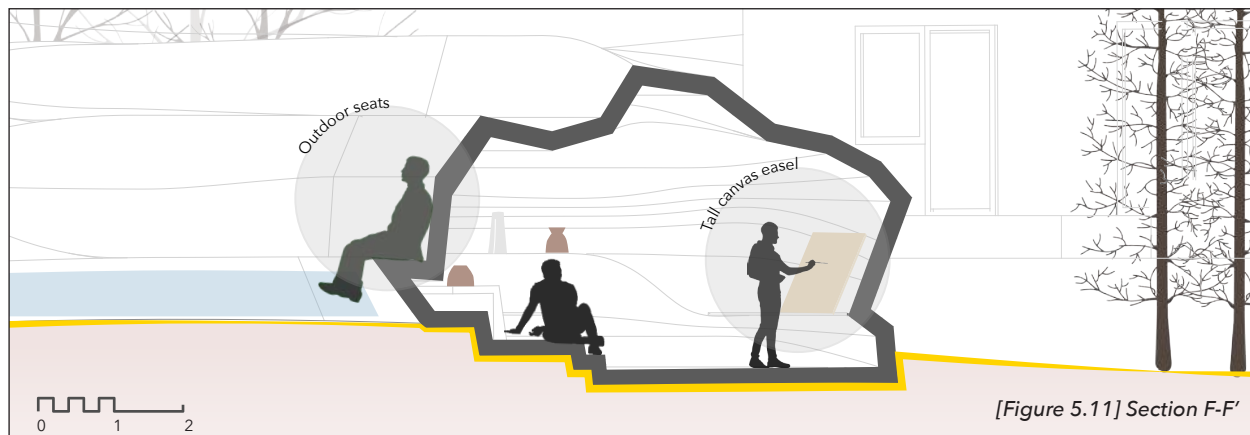
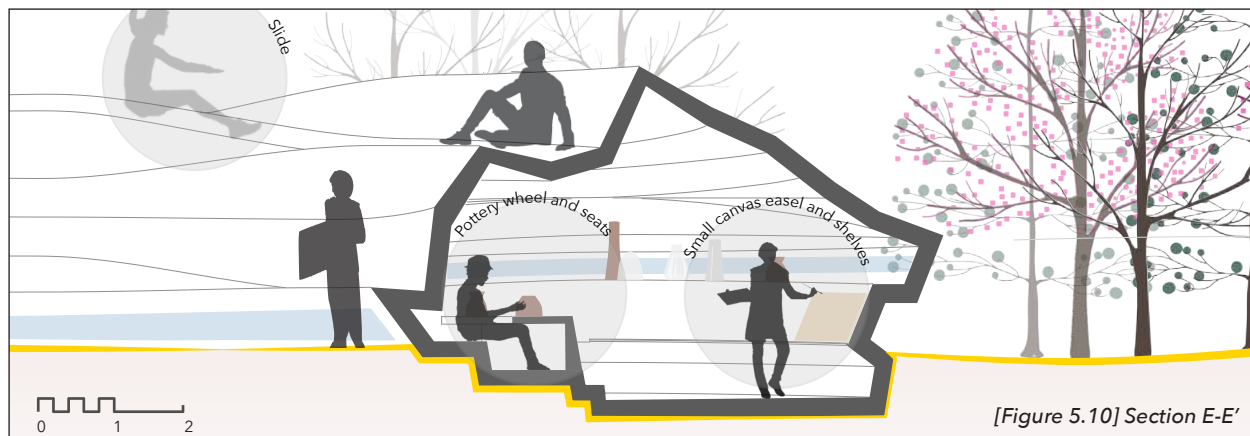
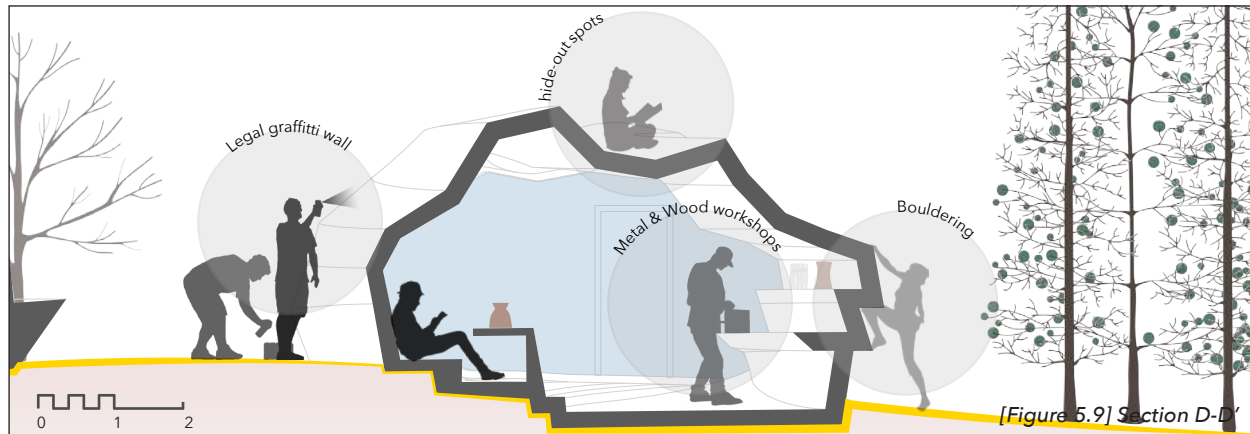
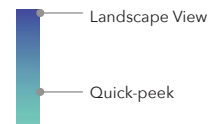
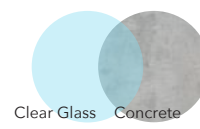
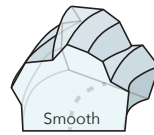


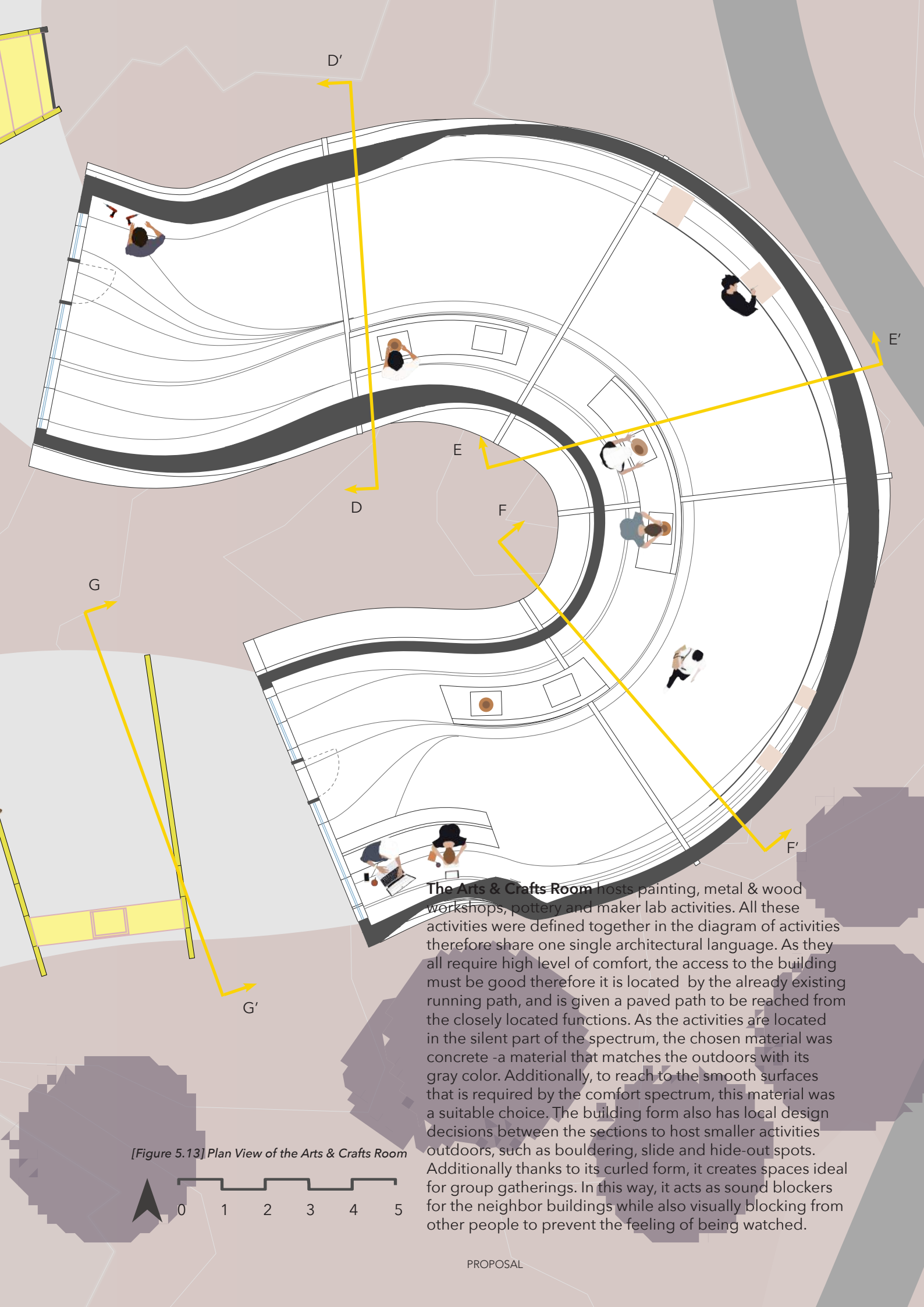
The **Common Room** seeks to be the first building to encounter as one approaches the site. It provides two options to visitors. you can pass through it or walk parallel under the outdoor structures shaded by ivies. The room hosts activities such as reading, movie watching and sports that do not require an extensive energy consumption. These three activities are all mild in their characteristics which makes them easier to cluster. They all have a neutral nature in terms of Hype x Comfort which means they have an archetypal volume in their formation. Nevertheless they slightly differ in the characteristics of vocalness. Therefore the building is segmented to 3, and have different material use in each segment. The building volume does not only encloses these functions but also becomes an outdoor facility in the rooftop where visitors can gather, enjoy the sun while laying or watch birds on the close-by trees. The sections extends outside of the building to facilitate other functions such as benches, climbing bars, poster boards.

[Figure 5.8] Plan View of the Common Room



# ARTS & CRAFTS ROOM



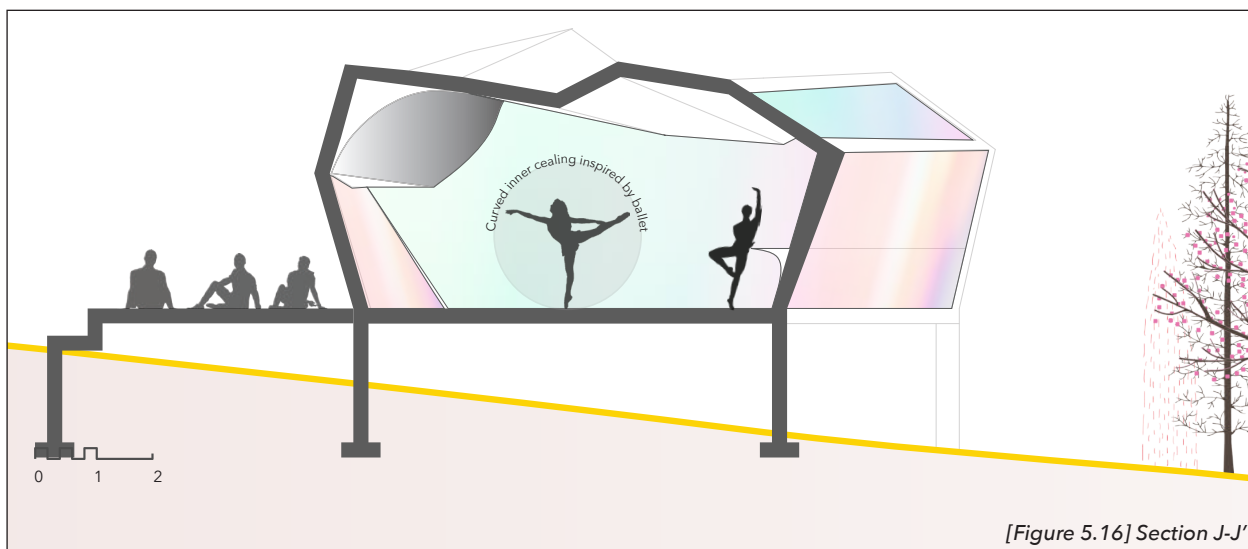
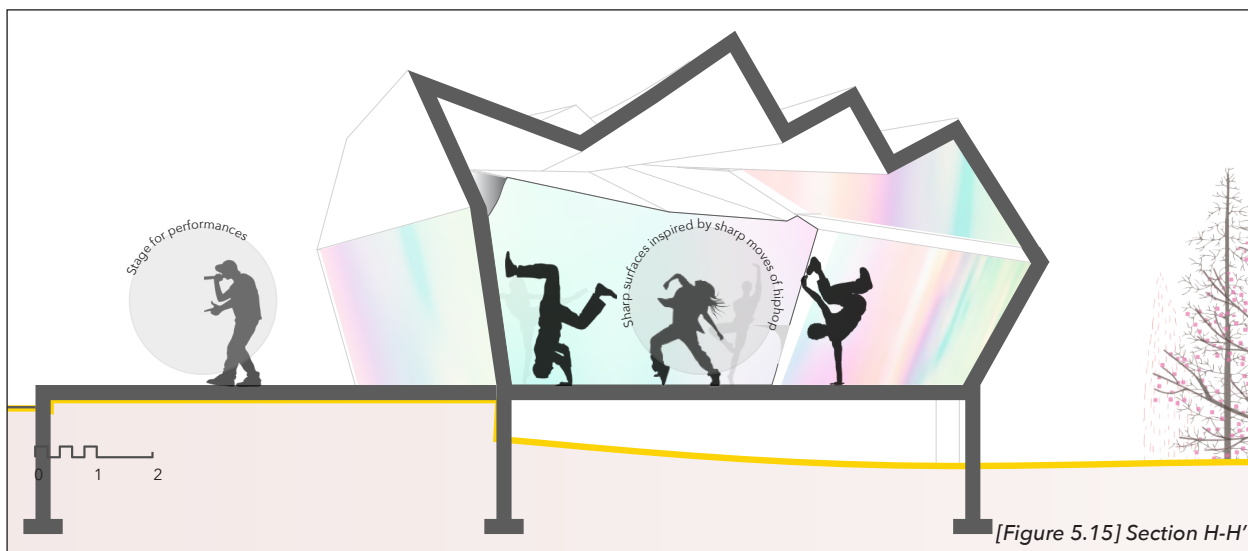
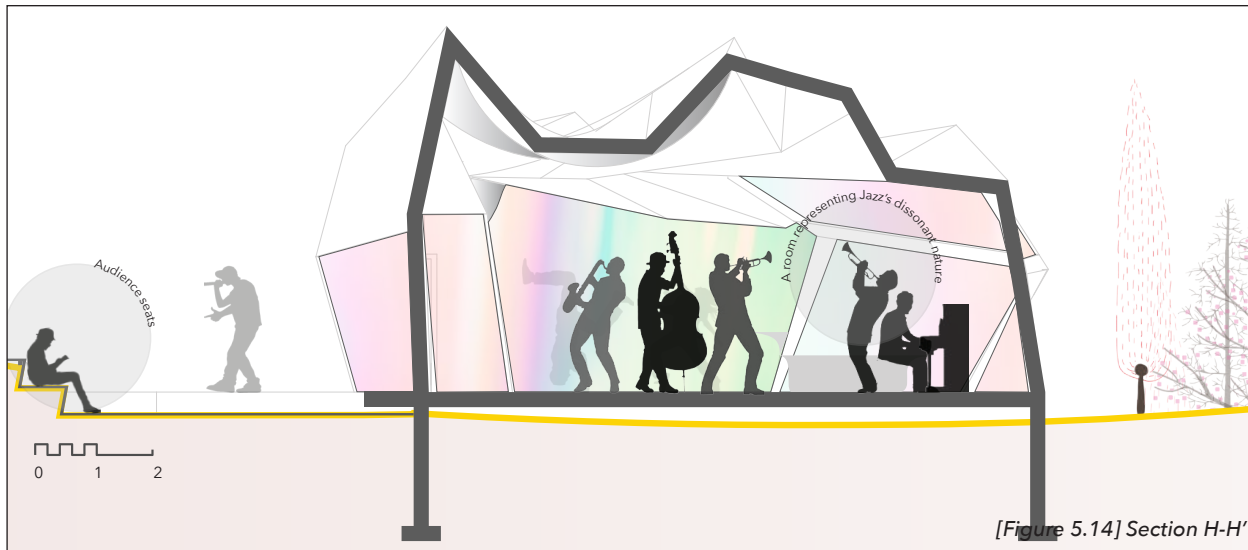
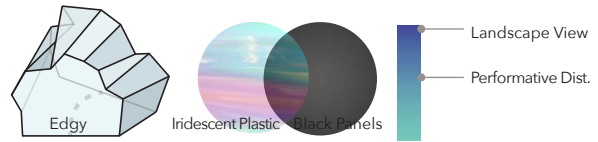


**The Arts & Crafts Room** hosts painting, metal & wood workshops, pottery and maker lab activities. All these activities were defined together in the diagram of activities therefore share one single architectural language. As they all require high level of comfort, the access to the building must be good therefore it is located by the already existing running path, and is given a paved path to be reached from the closely located functions. As the activities are located in the silent part of the spectrum, the chosen material was concrete -a material that matches the outdoors with its gray color. Additionally, to reach to the smooth surfaces that is required by the comfort spectrum, this material was a suitable choice. The building form also has local design decisions between the sections to host smaller activities outdoors, such as bouldering, slide and hide-out spots. Additionally thanks to its curled form, it creates spaces ideal for group gatherings. In this way, it acts as sound blockers for the neighbor buildings while also visually blocking from other people to prevent the feeling of being watched.

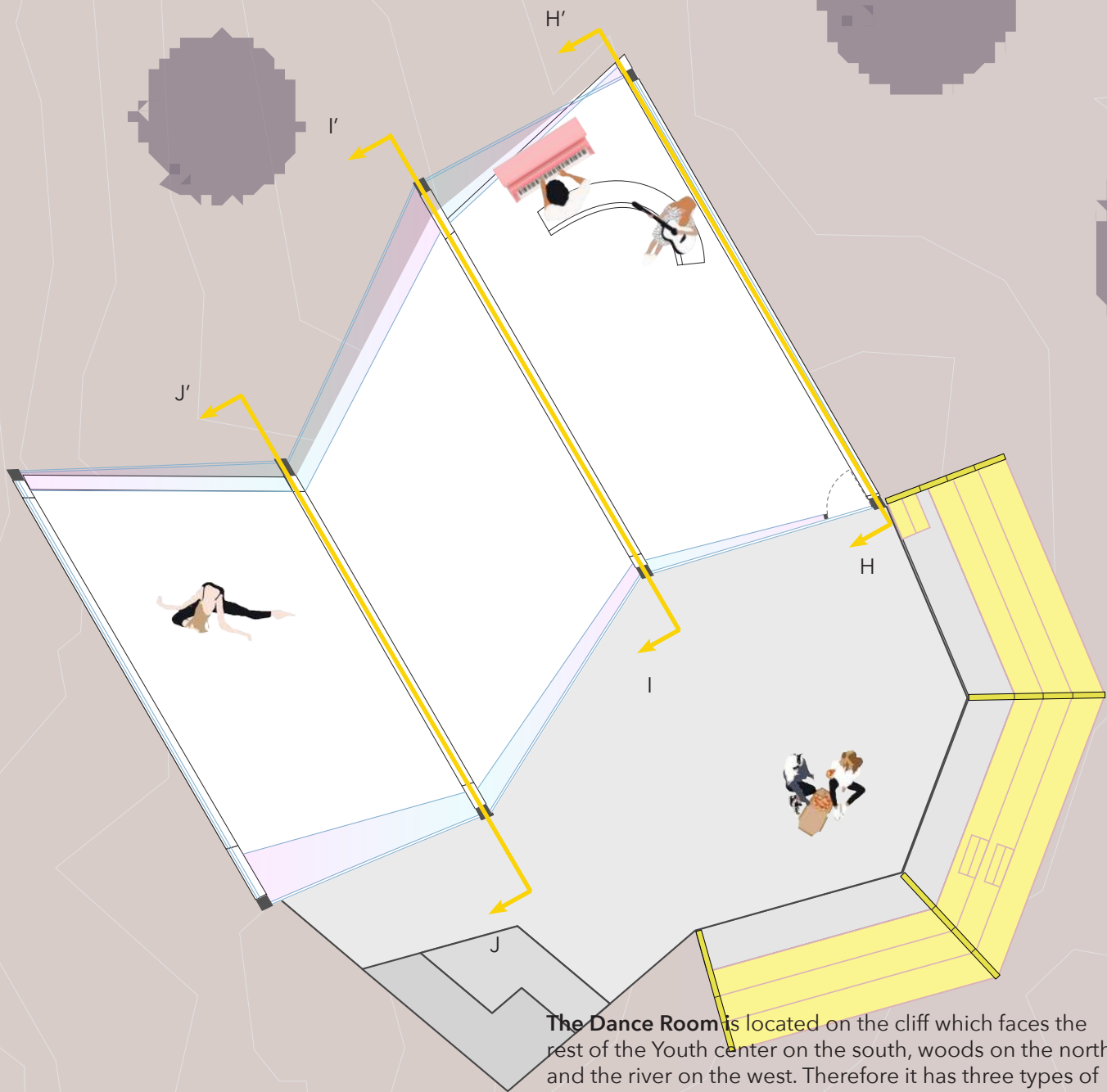
[Figure 5.13] Plan View of the Arts & Crafts Room



# DANCE ROOM

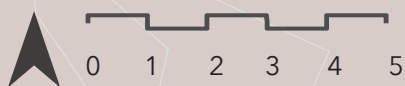






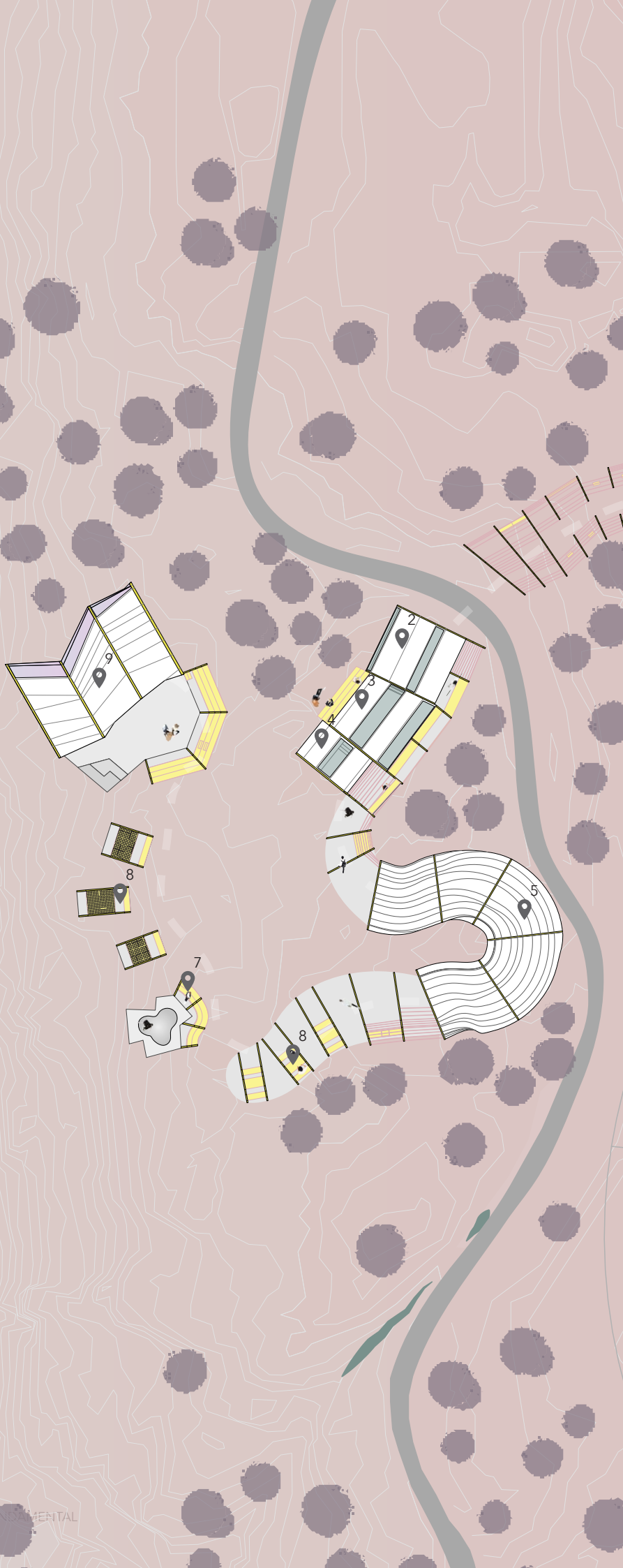
**The Dance Room** is located on the cliff which faces the rest of the Youth center on the south, woods on the north and the river on the west. Therefore it has three types of proxemic qualities for someone standing inside. It provides both interactive visual communication with outside, a serene view of the woods and a panoramic view towards the sunset. Since it is located in the furthest point to the residential areas it is not limited by the noise restrictions and users can be as loud as they wish. Which means dancing, acting, playing instruments can be done in this building. A stage is attached to the public facade of the building so that is the building is used for the mentioned activities, the related performances can be hosted in this stage. As the activities allocated in this building is located in the strongest magnitude of the hype spectrum, the sections that produced this building, have very sharp edges. Nevertheless to provide a variety of feelings in the inside, there are addition of curvy surfaces. In this way room reflects to different types of musical expressions, such as jazz, hip-hop and classic music.

[Figure 5.13] Plan View of the Dance Room

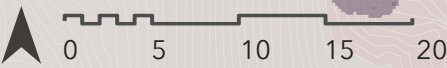


# SITUATION PLAN

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[Figure 5.18] Situation Plan



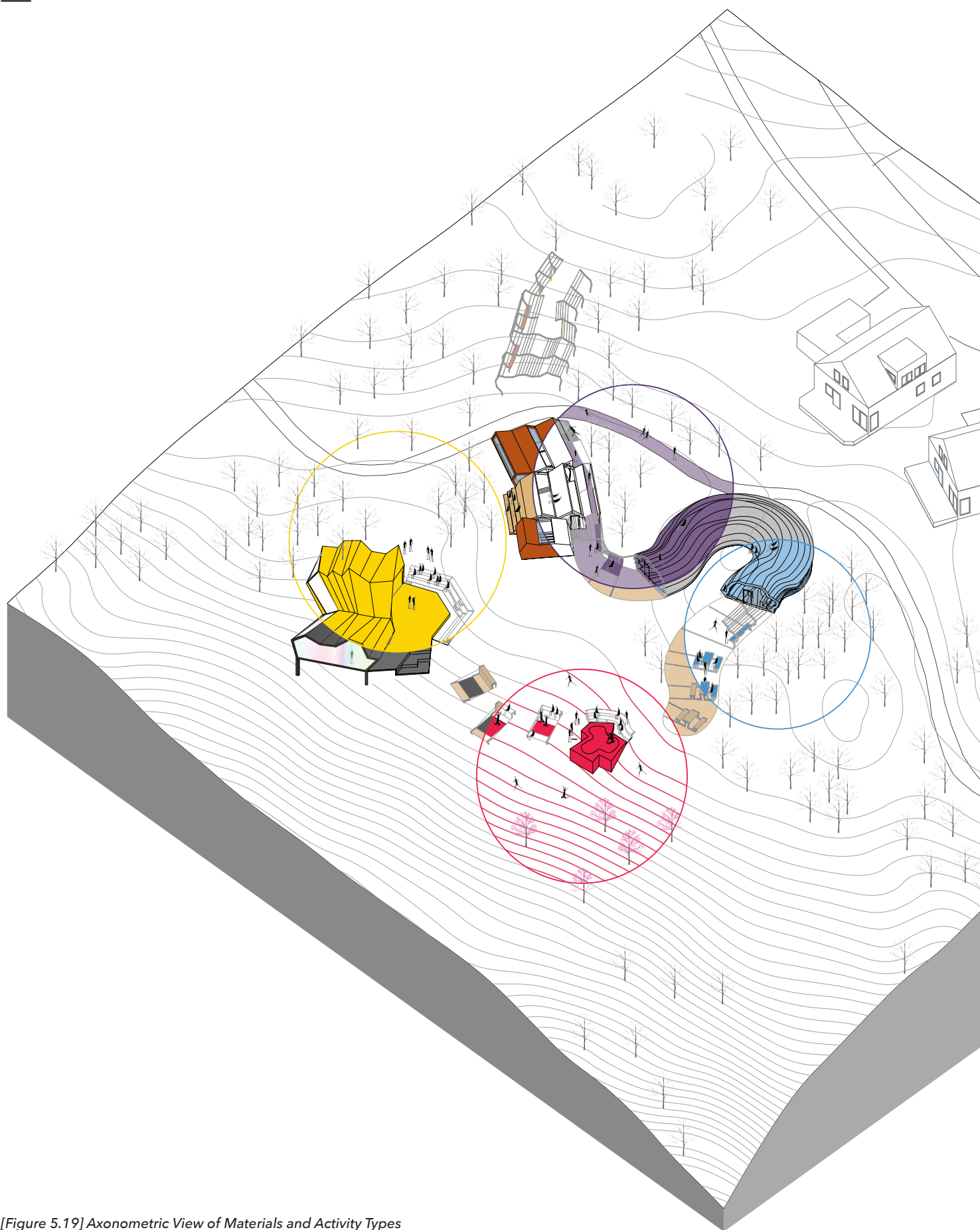


The outdoor facilities are located on the trail after the building forms are positioned. One can enter the site from the point where sections slowly build up set of arches with functions such as swings, slides and benches. Later, the sections take the solid form of the common room. After this room, path becomes a transition zone and leisure points are located before the Arts and Crafts Building. Following this second room, the picnic zone starts which can be characterized as a social area with high requirement of comfort, and a preference of a panoramic view. Therefore the paved path continues up until this point. The outdoor structures turn into a grill and cooking board, and eventually to section of a picnic table to host these activities. After this point the trail continues with more hype related activities such as skateboarding ramp and trampoline. To avoid undermining the existing hype feeling that site possesses, the pavement is stopped. Rather the youth center invites its user to enjoy the rock formations' interesting figures. The sections continue to take the form of the outdoor activity and turn into tiered seating platforms or benches combines with trampolines.

- 1 Entrance
- 2 Games Section
- 3 Reading Section
- 4 Movie Section
- 5 Arts & Crafts Room
- 6 Picnic Area
- 7 Skateboard Ramp
- 8 Trampolines
- 9 Dance Room

## MATERIALS AND ACTIVITY TYPES

---



[Figure 5.19] Axonometric View of Materials and Activity Types





In this graphic one can see the feelings that activities bring to the site. If compared, it can be verified that any added activity corresponds to the feeling previously transmitted from the site.

Additionally, one can also see the materials of the architectural forms. Note that each material was informed from that certain activity's magnitude and position in the Vocal x Silence spectrum [see Figure 3.10].



## STRUCTURE AND ATMOSPHERE

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[Figure 5.20] Perspective Section of the Common Room





## OPERATIONS OF SURFACES

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[Figure 5.21] Entrance to the Youth Center



[Figure 5.22] Sun Lounge, Climbing Wall and the Arts & Crafts Room





[Figure 5.23] Sun Shade, Grill and Picnic Tables



[Figure 5.24] Skate Ramp, Trampolines and the Dance Room

CHAPTER SIX

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# CONCLUSION







Outdoor  
classrooms  
by the Valley  
in Gårdsten?

Sun Lounges by the  
tram stops in  
Angered Centrum?



Bus stops by  
Nordstan?



[Figure 6.1] Future expansion



# CONCLUSION

---

The thesis has explored how to make architecture appealing to bring communities together by challenging the norms that buildings are made out of plain walls and floors. In this way, the proposal for the new Youth Center of Gårdsten, aims to be appealing through the use of operative surfaces where architecture refuses to be just a shelter but rather becomes a tool for learning and interacting with others.

The research part was composed of literature & reference project reviews, site analysis, interviews, conducting mental cognitive maps and defining the self-developed 'form finding through emotion maps' methodology. This methodology was a research translating emotions to distinctive architectural languages. Later the research and design process went parallel while improving the methodology through investigation and prototype models. The design process continued with experimentations with sections that are specifically designed to take shape of the user needs.

My discourse was using education infrastructures to act as social catalysts while providing opportunities to the less fortunate communities in the city. I believe, my contribution to the discourse was developing the mentioned methodology that is applicable in different locations and social contexts and showcasing a proposal that stimulate the reader on the discussion. Addressing social sustainability from an architectural design perspective has been an interesting investigation for me. I hope with this work I have managed to inspire the reader about architecture's potential to bring together communities through appealing and operative forms.

A topic that I could not cover as much as I wished was: How to expand the reach of the design proposal? This would possibly strengthen the part of the aim which was 'to bring people together from all around the town.' Could applying the same design strategy in different scales [see figure 6.1] all around the town be a solution? This seems to be a wider question that deserves another research on its own. Therefore I will be leaving this question open in case another researcher would like to take it forward.

Overall, this thesis work has been completed by proving that the explored building design concept and process can be used 'as a tool' to achieve socialization and didactic aims. This exploration of context, content and user informed-design have resulted in uncommon forms which produced attractive yet need-responsive spaces. These two qualities cherish the social and educative aims of the building and therefore gets in a virtuous circle that fosters each other.

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