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## KOSMOPOLIS

A centre for Integration in Stuttgart

by Veronika Stejskal

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## DIPLOMARBEIT

# KOSMOPOLIS

A CENTRE FOR INTEGRATION IN STUTTGART

ausgeführt zum Zwecke der Erlangung  
des akademischen Grades eines Diplom-Ingenieurs

unter der Leitung von

O.Univ.Prof. Dipl.-Ing. William Alsop

Institut für Entwerfen,  
E253-4 Abteilung für Hochbau und Entwerfen

eingereicht an der Technischen Universität Wien  
Fakultät für Architektur und Raumplanung

von

Veronika Stejskal

0927385

Wien, 26. Oktober 2015





# KURZFASSUNG

Stuttgart ist die Stadt mit dem höchsten Prozentsatz an Menschen mit Migrationshintergrund in Deutschland. Trotzdem, oder vielleicht gerade deshalb, ist Stuttgart ein Vorbild für andere Städte was ihre Integrationspolitik anbelangt.

Diese Diplomarbeit befasst sich mit der Aufgabe ein Gebäude zu entwickeln, welches die Integration von Migranten fördert und die multikulturelle Seite der Stadt darstellt.

Der Bauplatz liegt an der Talsohle des Stuttgarter Kessels. Seine topographische Lage ist ausschlaggebend für das formale Konzept. Dieses sieht vor, die Landschaft über das Grundstück am Dach des Gebäudes in das Tal weiterzuziehen und somit den Park und die Wohngegend am Hügel mit der inneren Stadt zu verbinden.

Nach einer Vielzahl von Gesprächen mit Migranten, Einheimischen und Integrationshelfern über ihre Ängste, Wünsche und Ideen für die Zukunft wurde ein Integrationskonzept entwickelt, in dem das gemeinsame Essen als Basis für Kommunikation zwischen Menschen verschiedener Herkunft im Mittelpunkt steht.

Die vier Aspekte Anbau, Handel mit Lebensmitteln, gemeinsam Kochen und gemeinsam Essen bilden die Basis für das Raumprogramm.

Das Ergebnis ist ein Entwurf, welcher eine neue Möglichkeit zeigt, wie in der Zukunft Integration stattfinden kann.

# ABSTRACT

Stuttgart is the city with the highest percentage of people with migration background in Germany. Despite of this, or maybe even because of this, Stuttgart is a leading city concerning integration politics.

This diploma project deals with the planning of a building which promotes integration of immigrants and represents the multicultural city.

The site is cut into the hillside of the Stuttgart basin. Its topographic situation defines the formal concept. The idea is to connect the park and residential area on the hill with the inner city in the basin, by continuing the landscape with the roof of the building.

After many conversations with immigrants, residents and community workers about their fears, wishes and ideas for the future, an integration concept was developed. This concept is based on food as international language. The four aspects planting, trading, cooking and eating together are the foundation of the spatial program.

The result is a design which offers the architectural structure to accomplish new programs of integration promotion in the future.

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Rendering  
View from Gebhard-Müller Platz

## INTRODUCTION

When I started this project I did not know that migration would be such a much discussed topic by the time I finish it. I did not imagine how many sad catastrophes were about to happen to the huge number of refugees who are coming to Europe at the moment.

Many people are working on projects to help the refugees right now while they are trying to get to a safer place. My project deals with the problems which are coming up after they arrived here. What happens after they found a place where they want to stay?

The next challenge is to help them integrate into the society they ended up in. They did not plan to come here. They fled from their homes in a hurry with their only goal to find safety for them and their families. After they reached that point they are lost in a new place. Now it is time for them to start a new life and make the city they ended up in their home. For the residents the next step to help them is to integrate them into their society. The building which I planned during my diploma project is supposed to make this process easier for immigrants as well as the residents.



Foto  
Suitcases  
Nuttakit Sukjaroensuk

## PROJECT IDEA

With the centre for integration a place will be created, which offers the architectural structure to accomplish new programs of integration promotion and to simplify the bureaucracy of the migration process in Stuttgart.

Through the combination of the governmental contact points and the social integration it should be easier for immigrants to settle in and feel welcome in the new city. For residents it will be easier to get to know other cultures and connect with newly arrived people.

The centre is supposed to illustrate and strengthen the cultural variety of the society in the city. It will be a place where citizens who grew up here can get in touch with other cultures and newly arrived people can learn about their new home or teach the residents something from their home country.

A large spatial program should make this building a place of encounter for people of different origins and offer a location to get to know each other.

Merging of all these offers should encourage the coordination and synergies between different organizations. This should make the process easier to create a new cosmopolitical society.

RESEARCH

There has always been movement in this world. Migration has been a part of almost every phase in our history. People left their home countries because of existential threats such as hunger, war, political and religious persecution and natural disasters or just because they were hoping for better economic circumstances for them and their families.<sup>1</sup>

Usually migration started as a reaction to a historical event and ended up being the trigger for change in the country of immigration as well as in the country of their origin.

Because of population growth, worldwide media and transport networks, an exacerbation of conflicts and a growing gap between life standards, migration has been a growing topic in our society.<sup>2</sup>

Due to a report by the United Nations in 2013, the number of people who are not living in their country of origin has reached a historic high of 232 million people. This means that about 3% of the world’s population have left the country they were born in.<sup>3</sup>

The countries in the European Union have different experiences with international migration. The former colonial states such as France, Belgium or Great Britain were faced with a large number of immigrants from their colonies since the 19th century. The countries in the south like Italy, Spain or Greece were usually seen as transit countries until the 1980s.

Germany used to be an emigration country until the first half of the 20th century, when Germany started to recruit

“Guest Workers”. They came as temporary “guests” for a specific amount of time, but a lot of them stayed in the country and brought their families here later. Germany became one of the most important target countries. By 2013 17 million of the 81 million people living in Germany have a migration background.<sup>4</sup>

Most of the privileged countries have very strict migration policies which favour immigrants with high qualifications or large material possessions. Refugees suffer under the prejudice that they are jeopardising the safety, economy, culture, and politics of the society.<sup>5</sup>

The European Union is also only working on separate government control over illegal immigration and boarder control in each country instead of finding a collective solution for the rights of immigrants. A cooperation between the member states is failing because of the sovereign claims of the different countries.

Efforts to reach a coherent migration policy in the European Union have failed in the last few years, mostly because the different states have such different opinions on the topic, based on their history and experiences with immigrants.

Just recent events, such as the death of 71 refugees in a truck in Austria trying to get over the border with the help of people-traffickers, have started a new discussion to find a joint solution regarding migration policies within the European Union.

Migration policies and integration started to be a much discussed topic in Germany in the beginning of the 1920s when immigration in Germany reached a first peak.

Important milestones in this discussion were the “asylum-compromise” in 1993 which limited the access to political asylum, the Law on Citizenship in January 2000, the introduction of the “Green Card” to recruit IT-Specialists and the passing of the immigration bill in 2005.<sup>6</sup> Even though many measurements have been taken to improve the situation, the migrant population is still characterised by a high economical and social insecurity. The unemployment rate among immigrants is much higher than in the German population. In higher education schools the rate of students with migration background is much lower than in lower education facilities.<sup>7</sup>

By now the necessity to make changes is clearer than ever. Many drafts for a new integration-concept have been made. The integration concept of 2001 in Stuttgart called “Alliance for Integration” was quite a success and works as an example for others.<sup>8</sup>

<sup>1,3,6</sup>Allmann: “Kosmopolis” Stuttgart 2014  
<sup>2</sup>Oltmer: “Globale Migration in der Zukunft” 2013  
<sup>5</sup>Schuster: Fortschreibung des “Stuttgarter Bündnis für Integration” Stuttgart 2009  
<sup>4,7</sup>Statistisches Landesamt Baden-Württemberg: “Bevölkerung mit Migrationshintergrund in Baden-Württemberg” Stuttgart 2012  
<sup>8</sup>Pavkovic: “Städtische Wirtschaftspotenziale von Migration und Integration” 2008

„STUTTGART IS AN IMMIGRATION CITY,  
EVERYBODY WHO LIVES HERE IS A STUTTGARTER.“

2001, Oberbürgermeister Dr. Wolfgang Schuster

# MIGRATION

## ALLIANCE FOR INTEGRATION

Germany has a history of immigrants from other countries coming to work here. Especially after the Italian–German recruitment–agreement in 1955 the number of foreigners in the country started to rise. Since then, Stuttgart became one of the cities with the highest percentage of immigrants in Germany.<sup>1</sup> Of the approximately 600.000 inhabitants about 130.000 are foreigners. 42% of the people living in Stuttgart have a migration background and 60% of the under 18–year–olds come from families with migration background.<sup>2</sup> Still, Stuttgart is known for their great policies with foreigners partly because of the integration concept of 2001, the Alliance for Integration (*Bündnis für Integration*).<sup>3</sup> The foundation of the agreement is, that every population group is an important part of society.

„Stuttgart is an immigration city, everybody who lives here is a Stuttgarter.“ is what the mayor of Stuttgart Dr. Wolfgang Schuster, who developed the alliance, said about it.

- The three main goals are:
- Promotion of participation and equal opportunities of people with different origins
  - Promotion of peaceful cohabitation
  - Utilization of the cultural variety for the engagement of the personal and professional competence.<sup>4</sup>

The diversity in Stuttgart is supposed to be seen as a characteristic of the city and its population. To reach that goal cultural variety will be promoted and appreciated. The urban society is supposed to change from a multinational to an international society, from a multicultural to an intercultural and from a segregative to an integrative society.<sup>5</sup>

<sup>1</sup>Allmann: “Kosmopolis” Stuttgart 2014  
<sup>2</sup>Statistisches Landesamt Baden–Württemberg: “Bevölkerung mit Migrationshintergrund in Baden–Württemberg” Stuttgart 2012  
<sup>3,4,5</sup>Schuster: Fortschreibung “Stuttgarter Bündnis für Integration” Stuttgart 2009





Stuttgart  
Migration Consulting Centres today

## CONSULTING CENTRES IN STUTTGART

- 1**  
*Erstberatung für Neuzuwanderer*  
Eberhardstraße 33
- 2**  
*Caritas Migationszentrum*  
Weißenburgstraße 13
- 3**  
*Abteilung Integration*  
Eberhardstraße 61
- 4**  
anglo-german institute Novosel gGmbH  
Friedrichstraße 35
- 5**  
Welcome Center Stuttgart  
Charlottenplatz 17
- 6**  
*Agentur für Arbeit Stuttgart*  
Nordbahnhofstraße 30
- 7**  
*Forum der Kulturen Stuttgart e. V.*  
Marktplatz 4
- 8**  
*Staatliches Schulamt Stuttgart*  
Bebelstraße 48

## MIGRATION

### BUREAUCRACY IN STUTTGART

With the current situation an immigrant has to find his way through a jungle of bureaucracy and different kinds of integration programs while getting to know a new city. The map on the left shows how spread out the migration centres and consulting offices are over the city.

Every department is at a different location. Even if someone finds the right address during the opening hours, it is very hard to know where to go with which problem.

Right now integration of immigrants is separated from the bureaucratic migration process. Arriving people are sent through a labyrinth of offices instead of being welcomed and supported.

There is just little or no cooperation between the different associations which leads to a lot of confusion and a long migration process.

There are very few places where citizens, who were born here or immigrated a while ago can meet newly arrived people.

What is missing is a combination of counselling, consulting, bureaucracy and integration programs.



ALTER: \_\_\_\_\_

GESCHLECHT: männlich ☐ weiblich ☐

HERKUNFT: \_\_\_\_\_

MIGRIERT AM: \_\_\_\_\_

MIGRIERT NACH: \_\_\_\_\_

MIGRATIONSGRUND: \_\_\_\_\_

ANKUNFTSART: \_\_\_\_\_

VISUM?: \_\_\_\_\_

ERSTE ERFAHRUNGEN: \_\_\_\_\_

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INTEGRATIONSWUNSCH: \_\_\_\_\_

ERWARTUNGEN AN EIN MIGRANTEN-WILLKOMMENS-CENTER: \_\_\_\_\_

---

Diplomarbeit „KOSMOPOLIS“

Veronika Stejskal

## RAUMPROGRAMM

	sehr wichtig	wichtig	flüchtig gut	neutral	unwichtig	überflüssig
<b>INNENRAUM</b>						
GASTRONOMIE						
BIBLIOTHEK						
THEATER-/ MEHRZWECKSAAL						
VERANSTALTUNGSRÄUME						
COMPUTERTERMINALS						
NOTANLAUFSTELLE						
AUSSTELLUNGSBEREICH						
INTERNATIONAL FOODSTORE						
KINDERBETREUUNG						
SPRACHSCHULE						
ÄRZTLICHE BETREUUNG						
FRAUBEREICH						
GEMEINSAME KÜCHE						

	sehr wichtig	wichtig	früher ich gut	egal	unwichtig	überflüssig
AUSSENRAUM						
PARKANLAGE						
SPORTPLÄTZE						
VERANSTALTUNGSPLATZ						
RÜCKZUGSRÄUME						
SKATERPLATZ						
PICKNICKPLATZ						

### WEITERE IDEEN FÜR DAS RAUMPROGRAMM:

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Diplomarbeit „KOSMOPOLIS“

Veronika Stejskal

Interview with immigrants

## IDEAS FOR THE FUTURE

During my research for the project I talked to many different people in different situations: Immigrants, people with migration background, social workers, people who work in the migration offices, and residents.

I asked them about their thoughts on the situation now, about their problems, their worries and about their wishes for the future.

For most of them it was really hard to formulate their ideas or even to think about change no matter if they were immigrants, social workers or residents. After talking for a while I found out that what they want is a place where people feel welcome, a meeting-place for immigrants and residents. They told me that the consultation is important but what they really want is an „open living room“ with a combination of souvenirs from their home countries

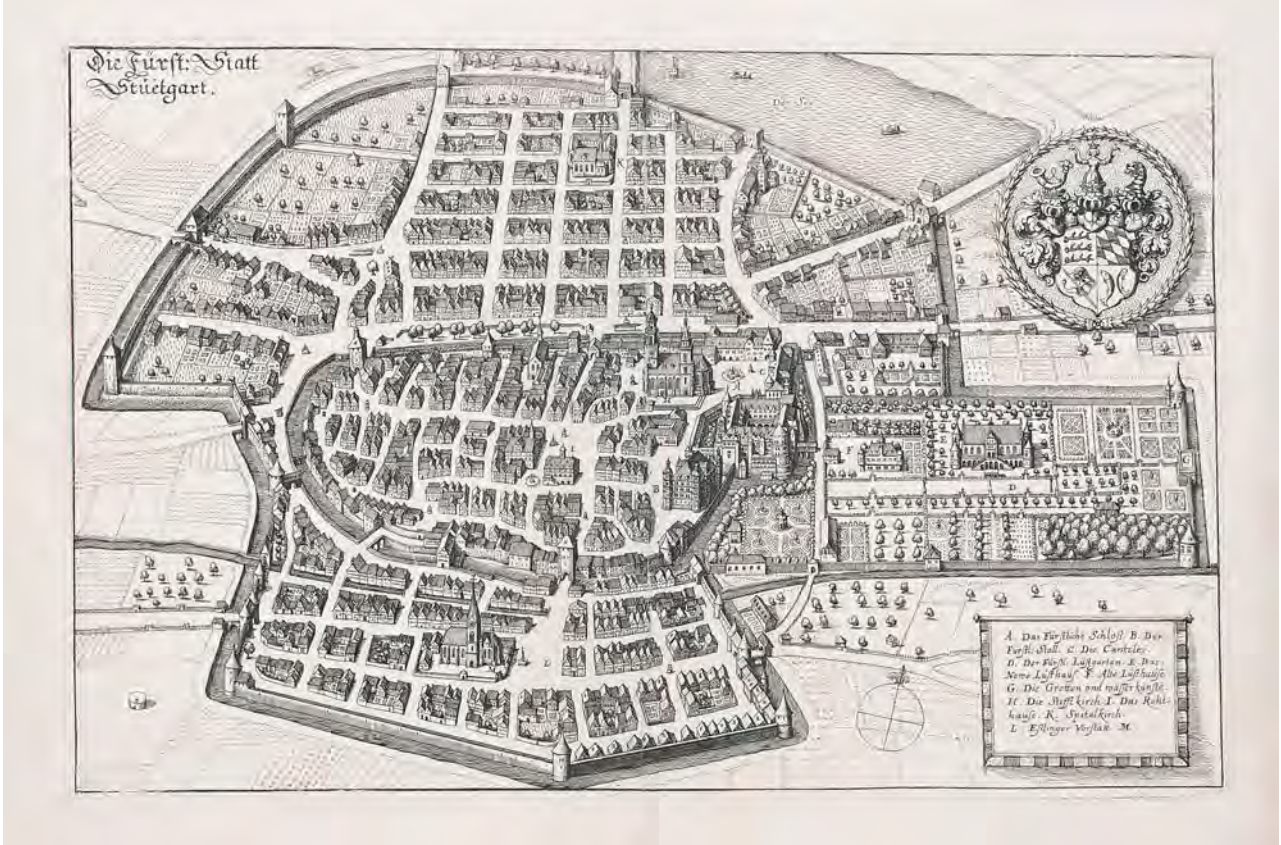
and characteristics of the new one, they want the possibility to get involved in the decoration of the place and integrate their own ideas. They want a place where they could bring their own culture and get to know other cultures, a place where they could get information and connect with new people.

My personal hope is, that in the future people learn to respect and appreciate other cultures, that they have the chance to get to know each other and are not afraid of the unknown. Right now immigration is a huge topic in Europe and I sincerely hope that we manage to grow together peacefully. It seems like the current situation is a milestone in Europe's history and I hope that we are able to create a new cosmopolitical society.

# SITE ANALYSIS

## A SHORT SUMMARY OF STUTTGART'S ARCHITECTURAL HISTORY

Matthäus Merian  
Stadtplan Stuttgart von 1638



Stuttgart, the state capital of Baden-Württemberg and is situated in the southwest of Germany. Although it is a relatively young city, there are some old settlement structures along the Neckar, for example Bad Cannstatt which was founded by the Romans in about 90BC. Stuttgart itself was founded by Duke Luidolf of Swabia about 950 when he built a stud *Stuotengarten* during the Hungarian invasions of Europe. Only in the 11th century a village formed around the stud where you find the collegiate church today. In the 13th century Margrave Hermann of Baden built the oval city complex with the castle and the fortification. He also promoted Stuttgart to the status of a city in 1321 when he announced it official royal residence and capital of their territory.<sup>1</sup> First city expansions were realised in 1393 in the present *Bohnenviertel* and were continued in 1449 with the development of what is the *Hospitalviertel* today. As a result of those developments a second bigger fortification ring was constructed in 1548. The new castle was built from 1746 till 1807 within these walls.<sup>2</sup> 1806 Stuttgart's status was promoted again from city to the capital of Kingdom Württemberg during the napoleon wars. After the existence of the State of Württemberg which was approved at the Congress of Vienna in 1815, Stuttgart developed economically from a small town to a metropolis of Württemberg.<sup>3</sup>

In 1818 the first general development plan for the growth development of the city was executed and started a change in the city structure. In the following years the state library, the *Invalidenhaus* and the old state gallery were built. 1845 the first train station opened in Stuttgart. The connection to the railway network initiated the industrial development of the city.<sup>4</sup> The historical centre transformed from a residential town to the centre of a metropolis. Whole blocks were torn down to make space for major buildings such as the city hall, *Kaufhaus Breuninger* or the *Warenhaus Tiez*. To regulate this kind of urban development a „Ortsbaustatut“ was enforced in 1871 to control the progression of the city. „On the main streets of the city only buildings are allowed, which correspond to the importance of the street or square, and which show an appropriate style of architecture“. In 1878 an „Ortsbaustatut“ was passed which separated the city into three zones: an industrial, a business and a residential zone. Another law saves the panorama streets which give the city its specific character. On these streets it is only allowed to build on the mountainside of the street.<sup>5</sup> During the NS-Regime restructuring plans were executed between 1935 and 1940. The main goals were to adapt the city to the motorisation, the expansion of the

city to the new train station at Schillerstraße and the “development of the inner city to a centre of power, culture and commerce”. The NS-mayor of Stuttgart Karl Strölon said in 1944: “Stuttgart will have to stay the city of Gardens, of fruit and of wine-growing.”. In the same year 65 to 75 % of the city were destroyed by bomb attacks.<sup>6</sup> During the rebuilding of the city after the war, the main goal was the traffic planning for a car friendly city. To reach that goal, more buildings were torn down. Another goal during the rebuilding process was to create new parks and open spaces. An idea competition in 1947 was the basis for the master plan, which defined pure commerce, culture and administration zones. The number of car parks and garages show how important space for traffic was during this development.<sup>7</sup> During the 60s and 70s new changes defined the city. In 1960 the *Schlossgarten* was renovated and remodelled. In 1974 a law for the protection of the country's heritage was passed. After this, people began to rethink how they were dealing with the rest of their historic buildings in Stuttgart.<sup>8</sup> Since the train station of Stuttgart was built as a terminus

station, they started to make plans to reconstruct the station into an underground through station in 1994. This project called *Stuttgart 21*, was started in the beginning of the 21st century. Since then, the city planners are trying to adapt the planning scheme (*Flächenwidmungsplan*) as well as the landscape plan to solve the problems which occurred as consequences of the traffic planning after the war. The major problems are the separation of the city through traffic constructions and the high disturbance through noise and exhaust fumes. The plan of the city is, to save the historical city centre and treasure its value.<sup>9</sup>



Geographical Map  
Stuttgarts Position in Germany

<sup>1,5,7</sup>Markelin, Müller: “Stadtbaugeschichte Stuttgart” 2. Auflage, Stuttgart 1991  
<sup>2,4</sup>Allmann: “Kosmopolis” Stuttgart 2014  
<sup>3,6,8</sup><http://www.stadtmuseum-stuttgart.de> \_ 15.04.2015  
<sup>9</sup>Amt für Stadtplanung und Stadterneuerung: “StadtKernZiele, Innenstadtkonzepte Entwurf 2006”





Luftbild Orthofoto  
Stuttgart 2015

## SITE ANALYSIS

### THE SITE IN STUTTART

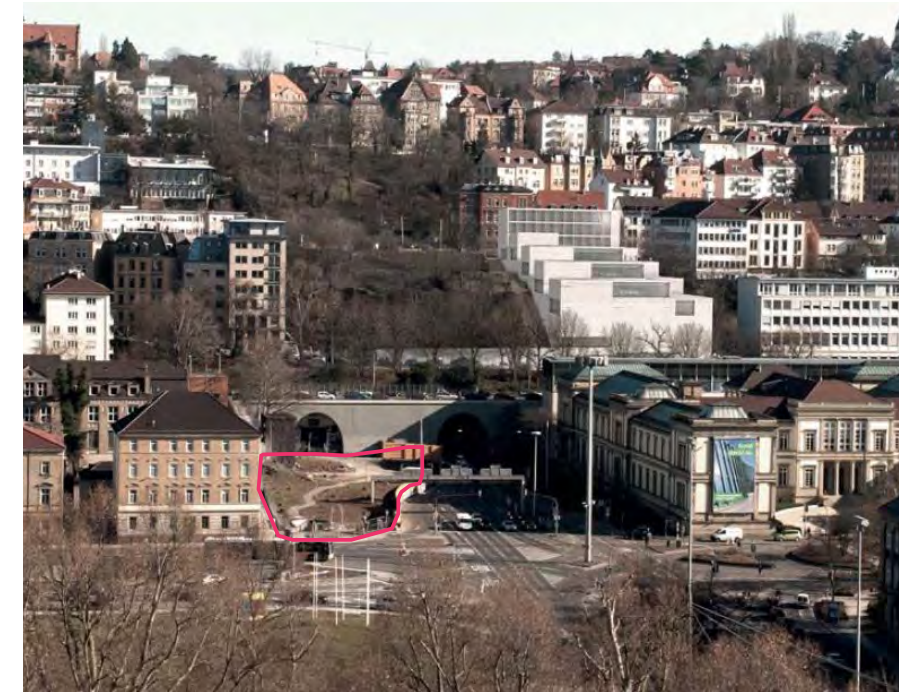


Foto 2015  
View from the Bahnhofsturm onto the Site

Stuttgart is characterised by its position in a valley. The old town in the middle is embedded between hills. From the hills one can enjoy the view down onto the old centre.

The site is cut into the hillside on the northeast border of the Stuttgart basin, exactly at the foot of one of those hills which is called *Uhlandhöhe* in the east of the old town.

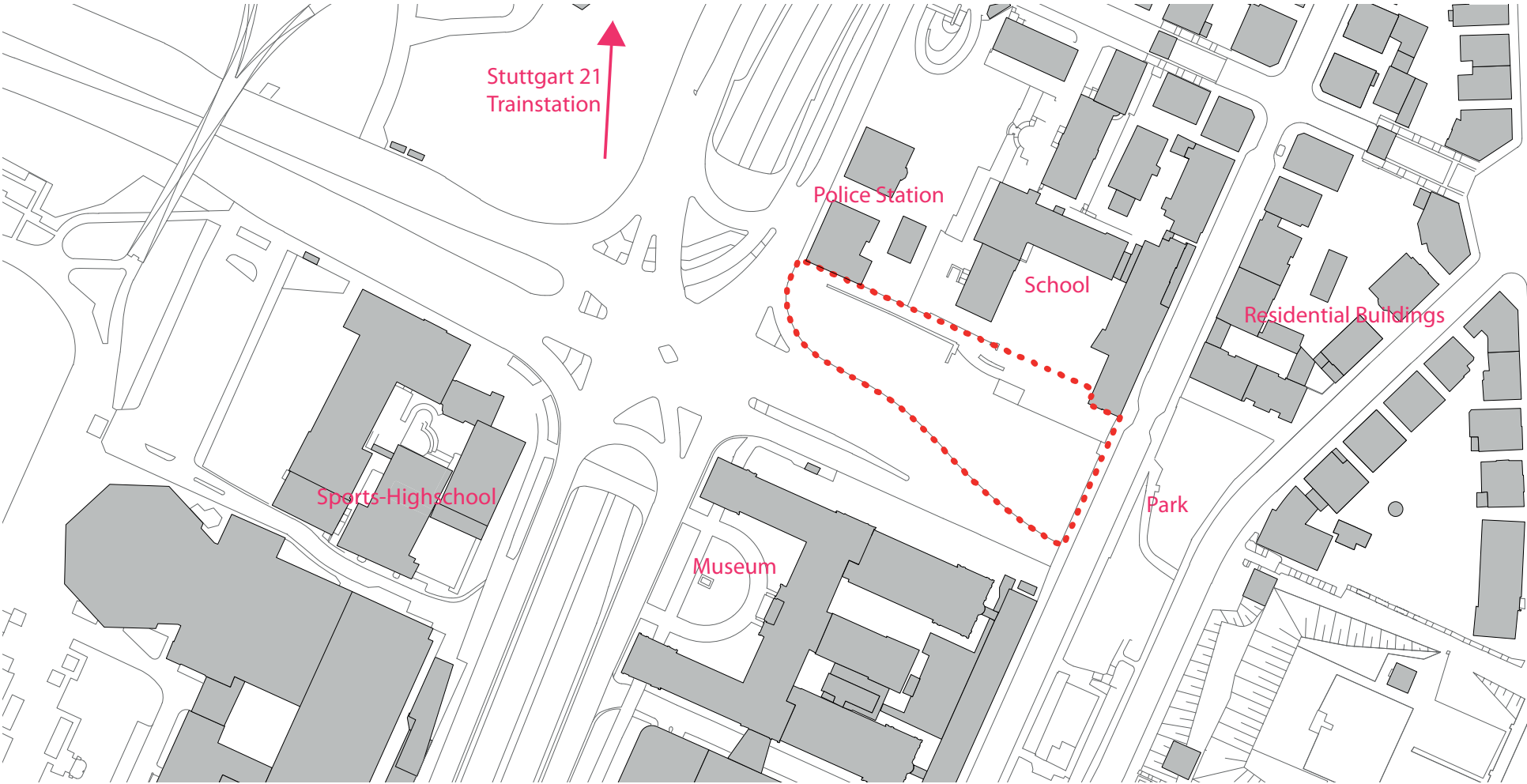
It covers an area of about 3.350 m<sup>2</sup> on *Gebhard-Müller-Platz* close to the train station right next to the access of the *Wagenburgtunnel* which connects the inner city with East-Stuttgart.

The site is bounded by two very frequented streets, the *Willy-Brandt-Straße* in the West and the L 10 14 in the South. In the West a 12 metre high wall terminates the border. There is a footpath in the north which connects the hillside with the centre of the city.



# SITE ANALYSIS

## SURROUNDING



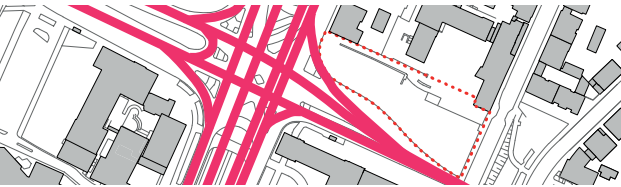
Floor Plan  
Surroundings of the Site

# SITE ANALYSIS

## CHARACTERISTICS

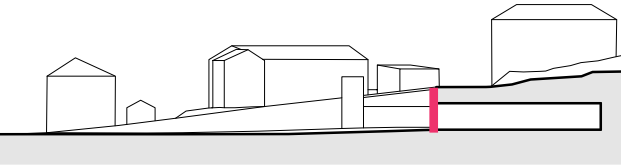
### TRAFFIC

The site is enclosed on two sides by very busy streets. These streets connect north and south and east and west of the city. This makes it harder to reach the site by foot.



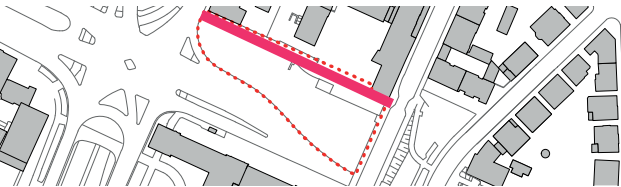
### TERRAIN

The Tunnel entrance causes a height difference of 12 metres between the lower and the upper level. The entrance to the emergency tunnel has to stay accessible.



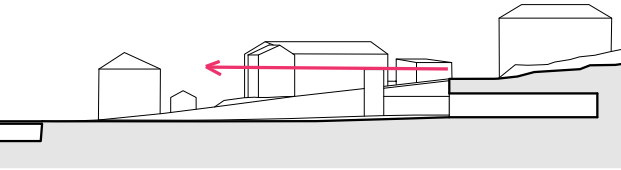
### FOOTPATH

On the north, the site is bounded by a footpath. This footpath connects the inner city with the residential area on the hill.



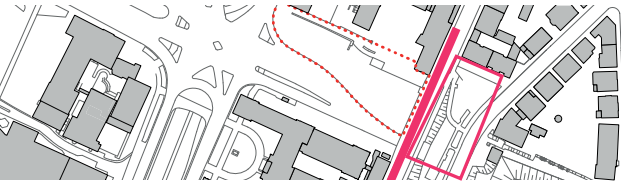
### VIEW

From the top level of the site you can enjoy a very nice view into the valley of Stuttgart towards the centre of the city.



### BRIDGE AND PARK

The bridge in the east of the site separates the site from the park on the hill. The connection to the park could give the building a lot of extra value.



Illustrations  
Characteristics of the Site

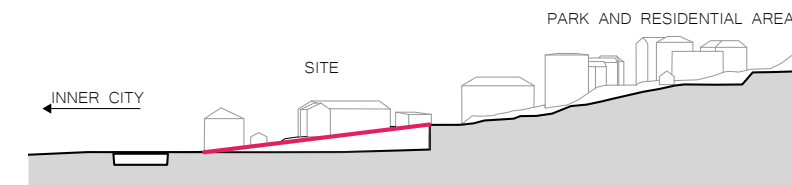
CONCEPT

## FORMAL CONCEPT

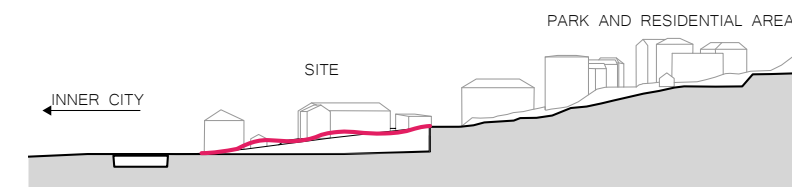
0. CURRENT SITUATION



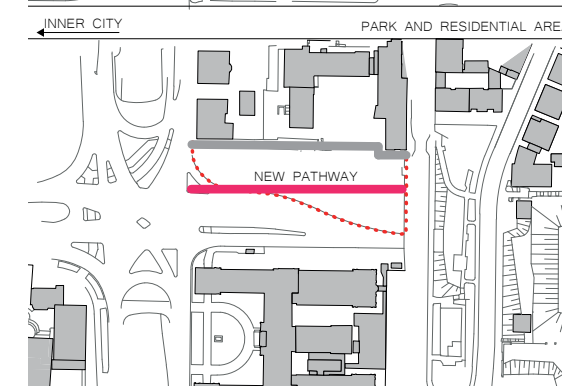
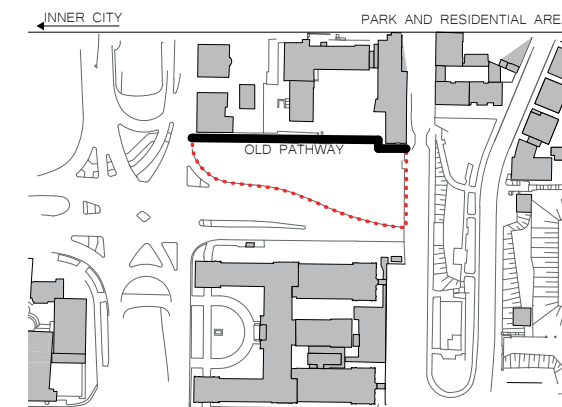
1. CONNECTING THE UPPER AND LOWER LEVEL



2. RESUMING THE PARK DOWN THE HILL



Section Illustrations  
Formal Concept



Floor Plan Illustrations  
New Pathway

As shown in the site analysis, there is a strong separation between the park and the residential area on the hill and the inner city in the valley. Only a small, very unattractive pathway connects the two areas.

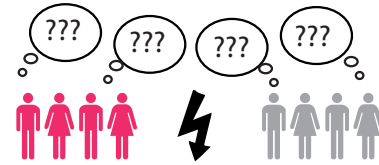
To solve this, the formal idea of the project is to connect the upper and the lower level through the building. On the roof of the building the park is resumed down the hill into the valley. By making the roof accessible, a connection between those spaces is created.

The old footpath will be replaced by an attractive space.

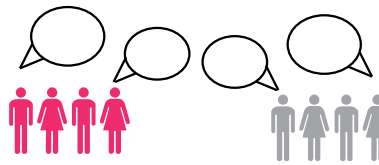
The building will become landscape. The roof will be a new public space for the people of Stuttgart, no matter if they have been living there since they were born or have just arrived in the city and are looking forward to start a new chapter in their lives.



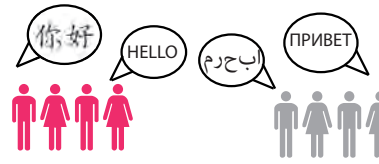
WHAT CONNECTS PEOPLE FROM ALL OVER THE WORLD?  
WHAT ARE PEOPLE INTERESTED IN, IN OTHER CULTURES?



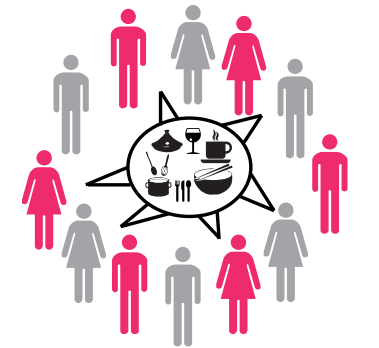
PROBLEM  
FEAR OF THE UNKNOWN



SOLUTION  
COMMUNICATION



CHALLENGE  
LANGUAGE BARRIER



SOLUTION  
FOOD AS INTERNATIONAL LANGUAGE



Fotos  
People eating together in different cultures

Illustration  
Functional Concept

## PROBLEM

A lot of people are afraid of unfamiliar things. This is one of the main reasons why integration is so difficult. The residents do not know the immigrants and the immigrants do not know the country, which makes them sceptical towards each other.

To make integration possible, residents and immigrants have to get to know each other, to be able to understand the opposite culture and their way of living.

To start communication and to get to know each other is easier if the two parties find a common topic and something they are both interested in.

The simple conclusion of this is that a centre for integration has to support communication between residents and immigrants and has to offer a topic to talk about and a space for them to meet.

So the main question is  
WHAT CONNECTS PEOPLE FROM ALL OVER THE WORLD AND WHAT ARE PEOPLE INTERESTED IN, IN OTHER CULTURES?

## SOLUTION

A very simple answer to this is FOOD.  
Growing food, trading food, cooking food and eating food are all topics which are present in all cultures and in every social environment.

Having a meal together is common everywhere and is usually a time when people are relaxed and communicate with each other.

Another positive aspect of food is, that even if somebody is not interested in other cultures he or she usually likes to get to know the culinary side of it, to go to a restaurant where foreign dishes are served or to cook new recipes.

## IMPLEMENTATION

To implement food in the integration centre all aspects of food should be represented.

**GROWING**  
Outdoor gardening and glasshouses provide different climates, which make it possible to grow plants from all climate zones.

There will be gardening classes in which students can study German while pursuing a gardening project.

**TRADING**  
In an open market ingredients for different cuisines are sold. There will also be the possibility to buy cooked dishes.

**COOKING**  
A restaurant will offer dishes from different countries and cooking classes will be held by residents and immigrants.

**EATING**  
Big tables for many people will make it possible to meet people and have a meal together, which gives them a time to communicate.

## FUNCTIONAL CONCEPT

GROWING FOOD



TRADING FOOD



COOKING FOOD



EATING FOOD



Illustration  
Implementation of the Concept

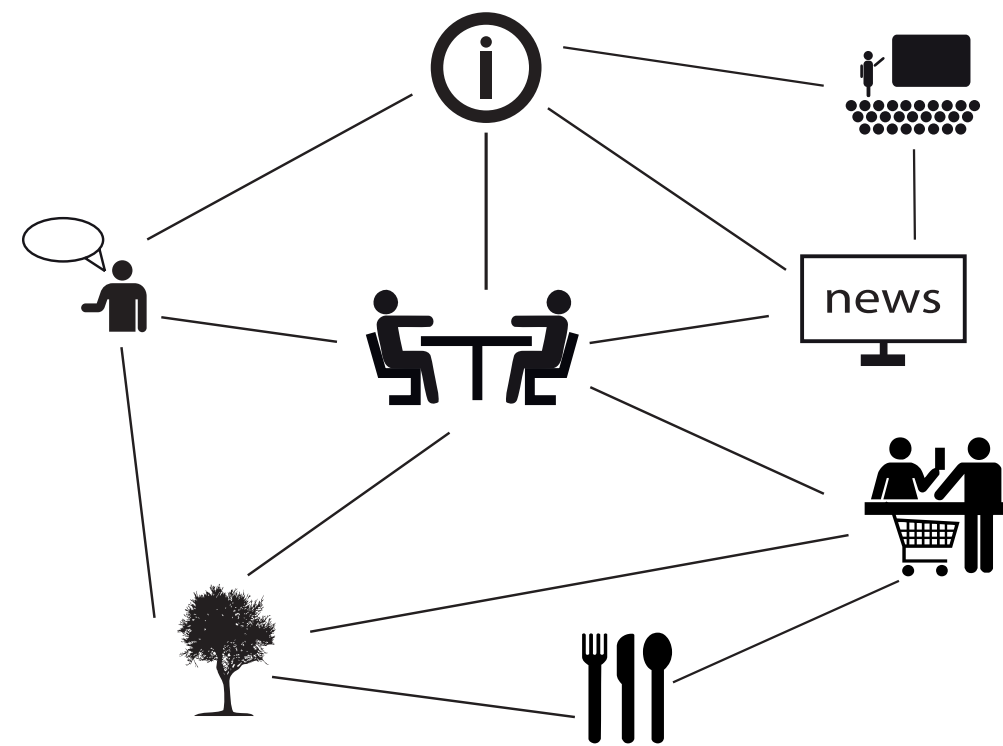


Illustration  
Connection between the Functions

The spatial programme of the building developed a lot during my working process. I started with a very institutional spatial program, containing a lot of offices, classrooms and closed spaces.

While working on the project and talking to different people I realised that all of this is not necessary. If I followed these specifications I would just create another unfriendly and rejecting institution, where nobody would like to go or spend time.

I realised that nobody likes to go to an official department, asking for help in an 'in front and behind the desk'-situation.

So I started to open up the spaces, combining the functions and to create a place where people would like to spend time and feel welcome.



#### FOYER / CAFE

The foyer should represent a central square of a village, a place where people meet and chat for a while. It should be a place in the building, where a visitor can orient himself and find out where he or she wants to go. By the use of different interventions, like chess boards, table football or backgammon, interactions should be encouraged.



#### INTERNATIONAL FOOD MARKET

Ingredients and cooked meals from all over the world are sold here. Immigrants can find food which reminds them of home and makes them feel more comfortable in a foreign country. Residents who are interested in the culinary side of other cultures have the possibility to learn from the immigrants.



#### OUTDOOR SPACE

The outdoor space is especially important. It should be used for events, but also provide quiet spaces for reading and studying. It should become a public space in the city. The roof will also be used for growing plants which will grow in the middle European climate.



#### CONSULTATION

The consultation area offers different services of the foreigners office, as well as services from private associations and intercultural programs.

Here all the different offers are pooled together and logically structured. This makes it easier for immigrants and social workers

An immigrant can find consulting regarding residence permit, legal subjects, financial advice, consultation on career or education and consultation regarding housing and family. Through the merging of those different offers, nobody has to find his way through the jungle of agencies, instead they can find a clearly arranged variety of offers. Social workers have the possibility to cooperate with each other and coordinate their offers in this open space.



#### LANGUAGE SCHOOL / GARDENING CLASSES

There is a huge variety of language schools around the city. Learning the language of a country is essential for integration and therefore a fundamental part for an integration centre.

A new concept of teaching is used here. Every student starts a gardening or cooking project in the building and has to present its progress in German.



#### AUDITORIUM

The auditorium is used for information events but also for different cultural events and concerts. Music is also something that connects people all over the world and the centre should offer a place for it too. The auditorium can also be rented out for theatre groups or personal events.



#### RESTAURANT / COOKING CLASSES

In every country coffee houses and restaurants are places of communication and interaction. In the same way a restaurant in the centre for migration should serve as a place where people can meet and spend time.

They should also be attractive for locals and work as an interface between the centre and the city.

To integrate the food concept, the restaurant is also a room where cooking classes can take place.



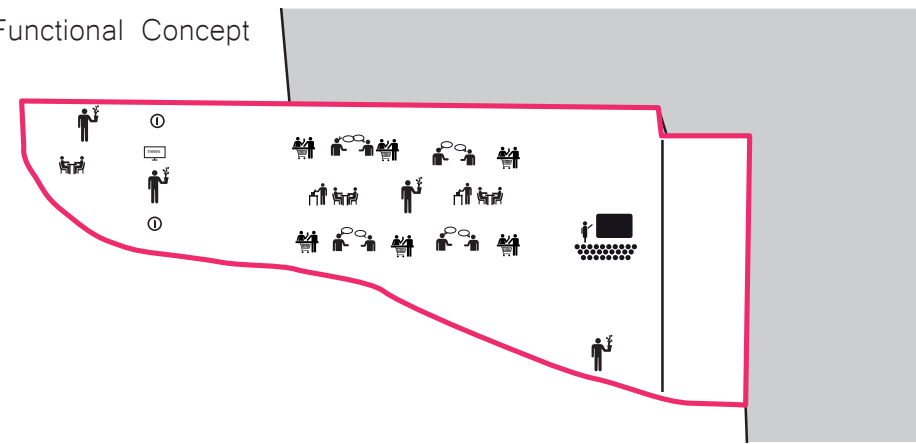
#### MEDIA

To stay connected to the home country, it is very important for the immigrants to reach the news from home. To make that possible international newspapers, internet connection and television channels are provided.

## SPATIAL PROGRAMME

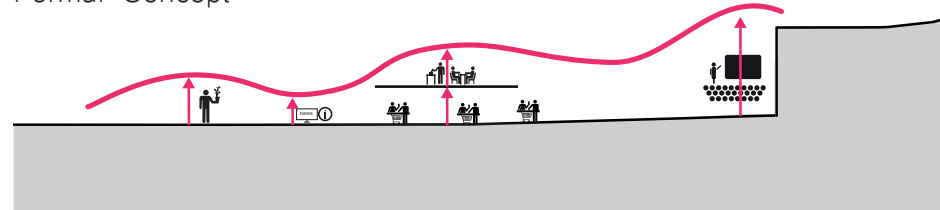


Functional Concept



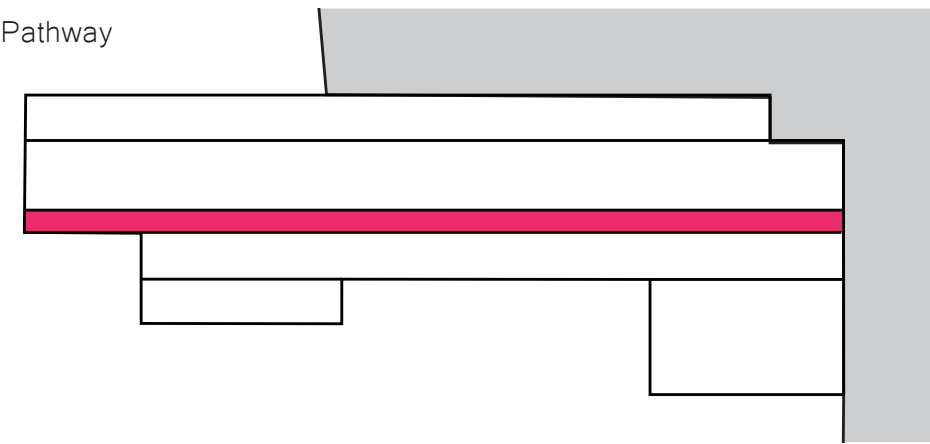
Floor Plan Illustration  
Functional Concept

Formal Concept



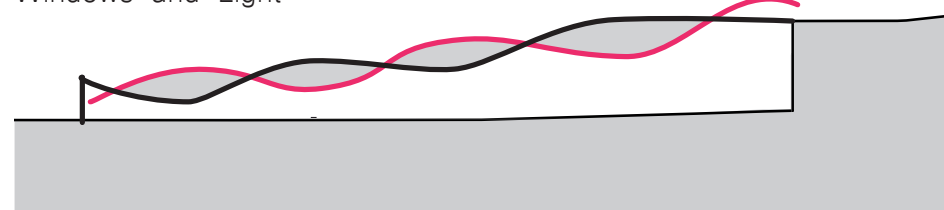
Section Illustration  
Formal Concept

Pathway



Floor Plan Illustration  
Pathway

Windows and Light



Section Illustration  
Windows and Light

## FUNCTIONAL CONCEPT meets FORMAL CONCEPT

To combine the functional and the formal concept the functions were arranged on the site. A ribbonlike landscape forms the surface.

The ribbons adapt to the space the functions need. The width of the ribbons is based on the ground space needed. The height of the ribbon-hills responds to the height of the functions.

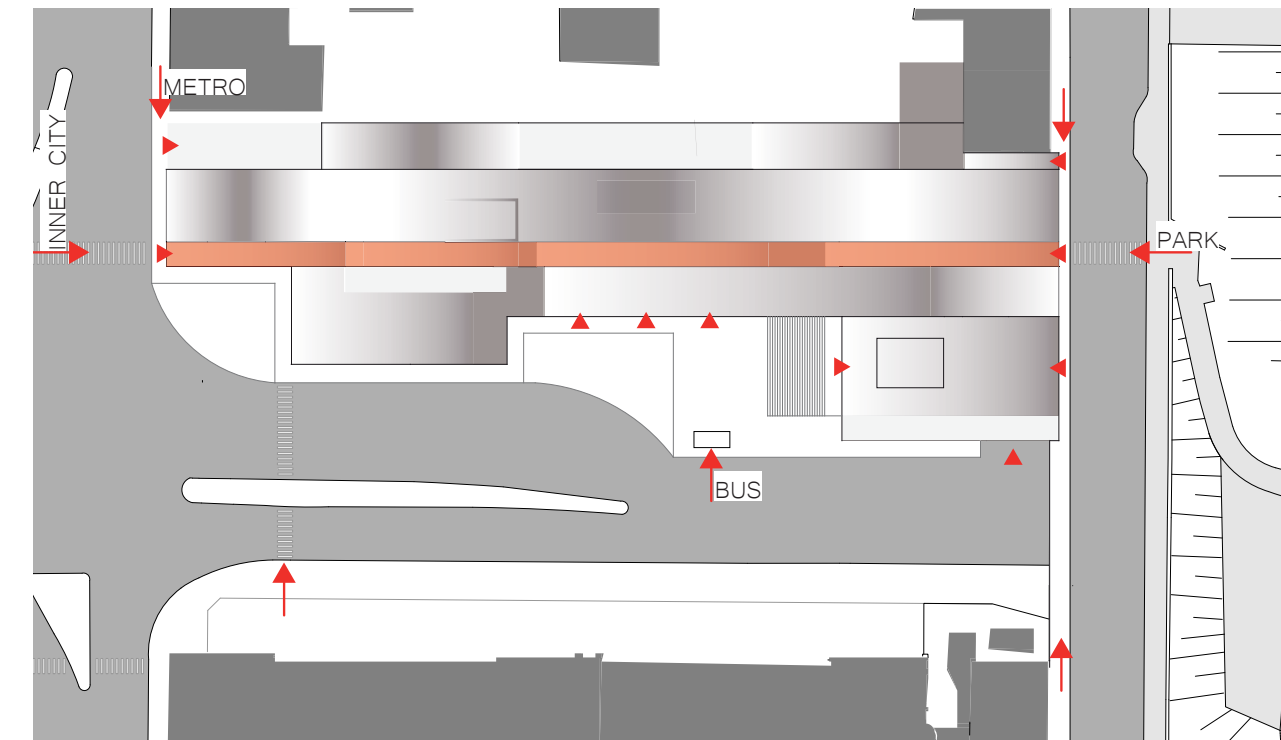
The different stripes of the roof form openings illuminating the building.

One of the ribbons is used as a pathway through the building. People who walk on the pathway walk through the building without entering it and see all the different aspects of the centre.



Rendering  
View from the top of the pathway

## ACCESS CONCEPT



Floor Plan Illustration  
Access Concept

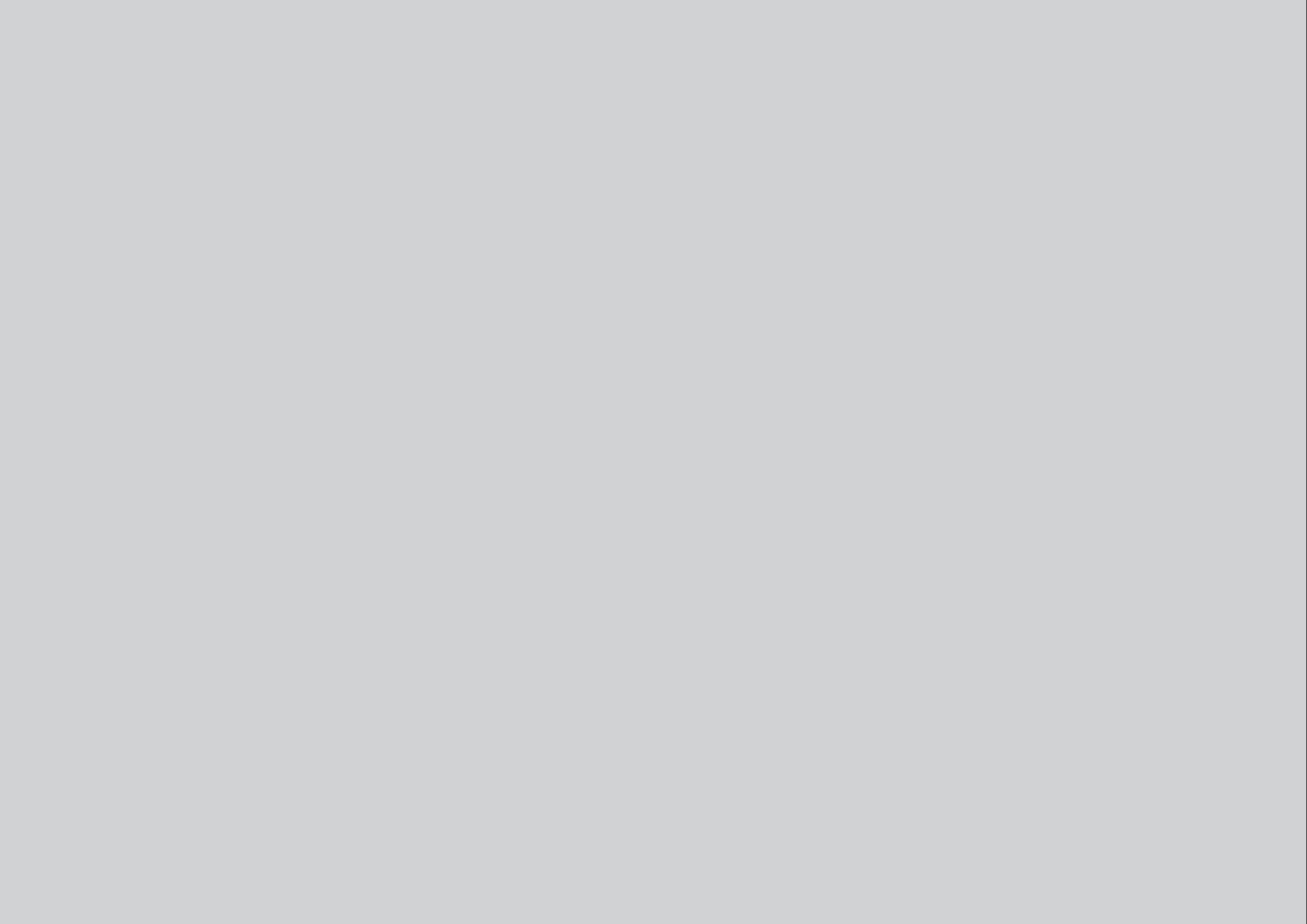
The site is situated between the inner city, the park and the residential area on the hill. The pathway connects these areas and is one of the main accesses to and through the building.

The site is very well connected to the public transport. The metro station *Staatsgalerie*, which connects six main metrolines, is just 100 meter away and the bus line 40 stops right in front of the building.

It is possible to access the building from the upper and the lower level of the site.

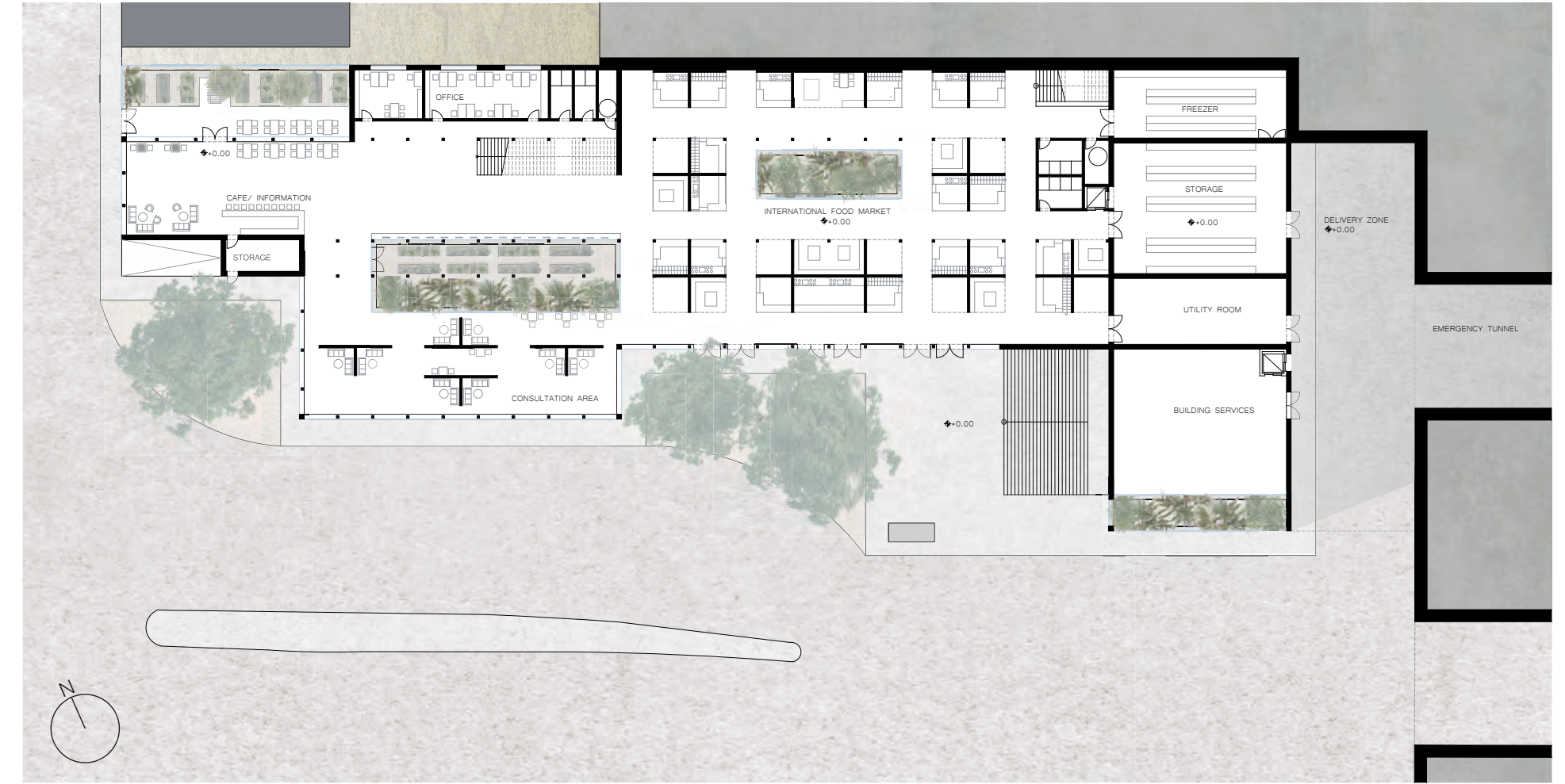
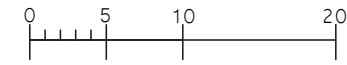
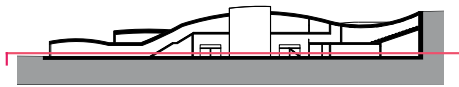
Deliveries can be made by the emergency tunnel entrance which offers a big loading zone.

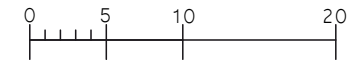
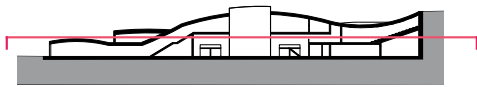
FLOOR PLANS / SECTIONS



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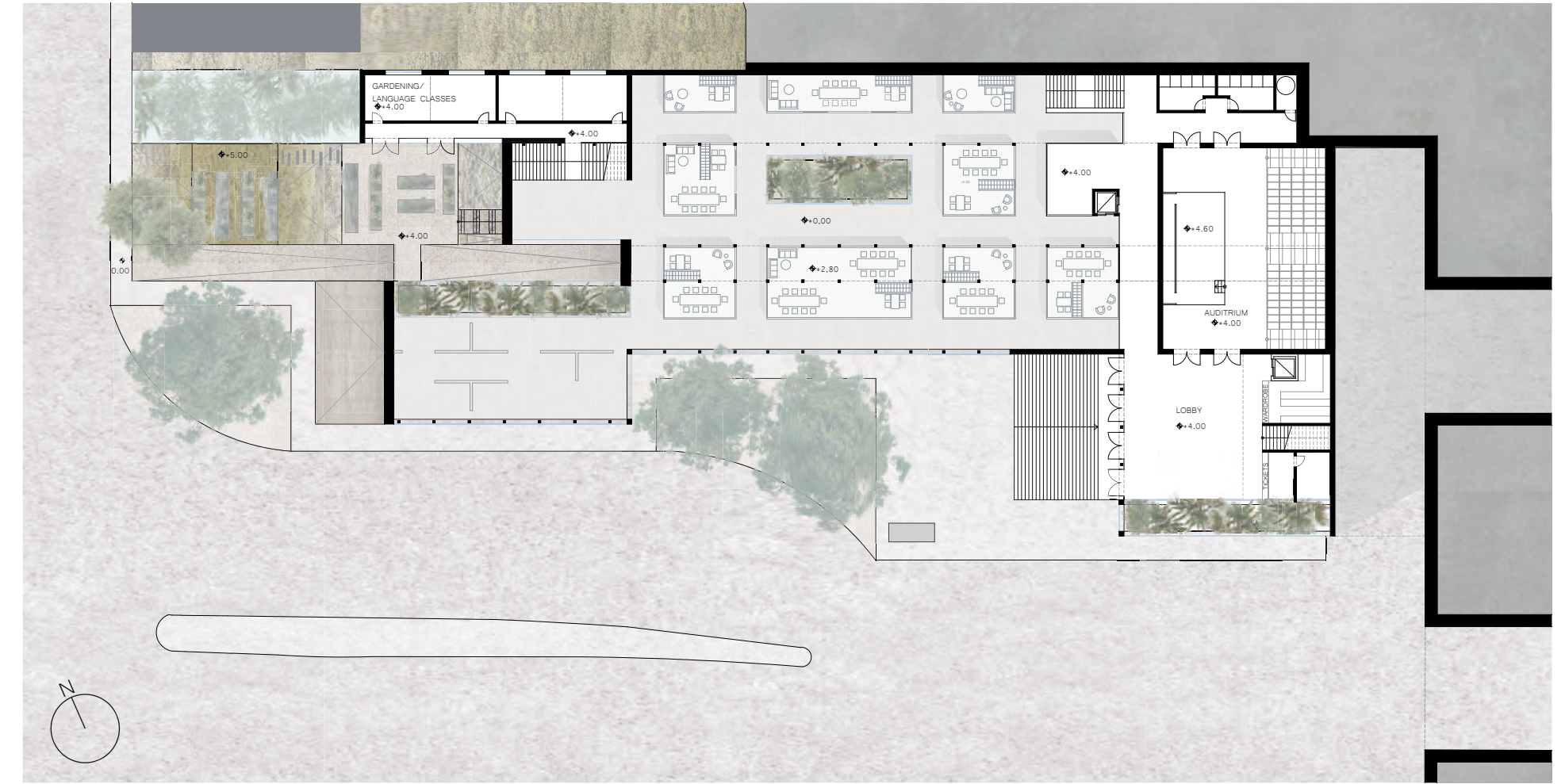




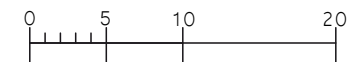
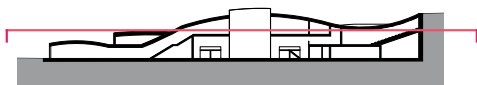


## FLOOR PLAN

LEVEL +4.00m

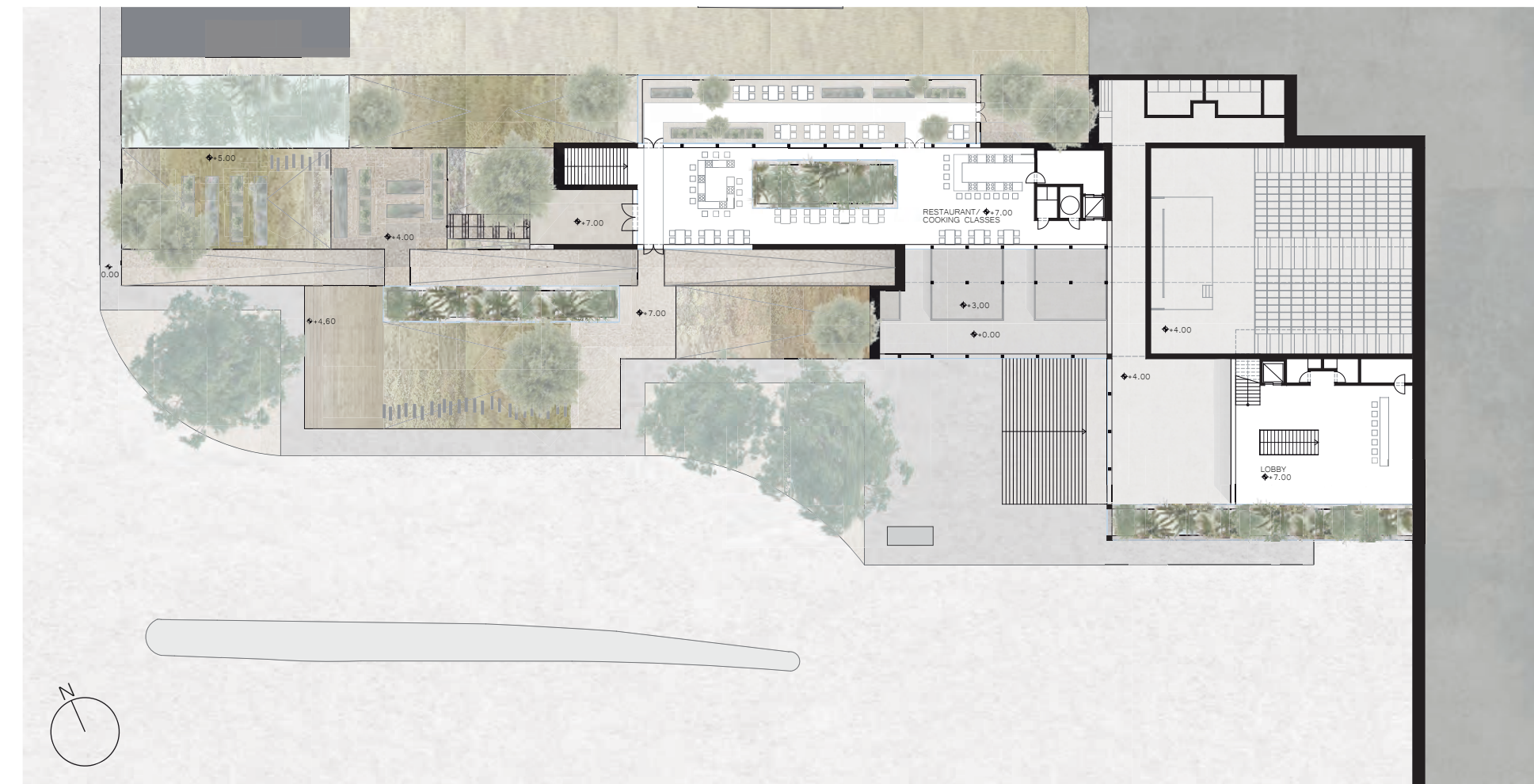


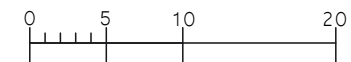
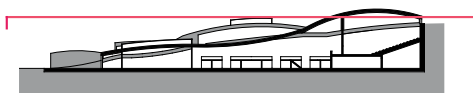




## FLOOR PLAN

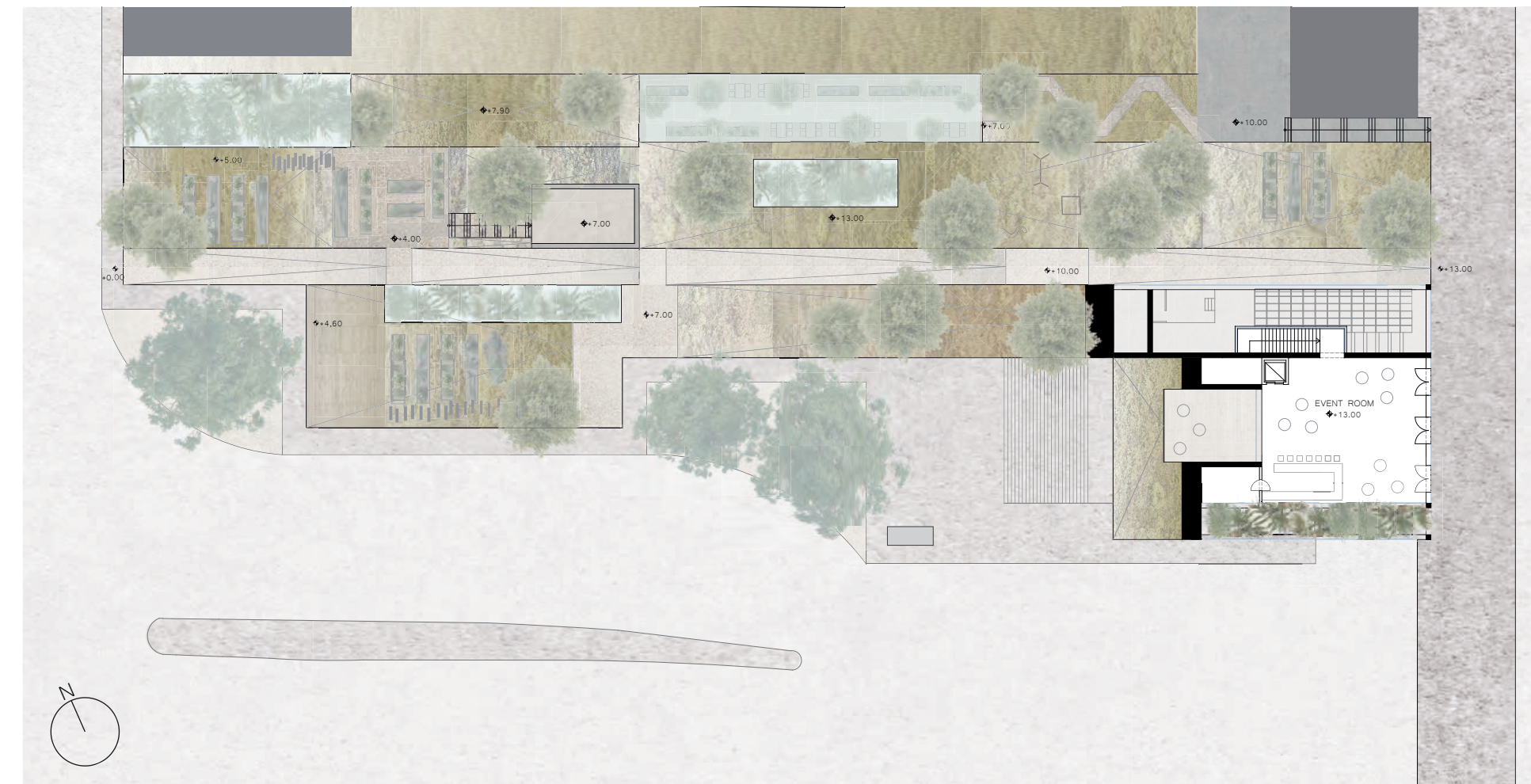
LEVEL +7.00m



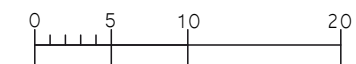
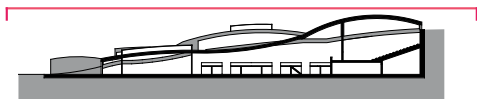


# FLOOR PLAN

LEVEL +13.00m

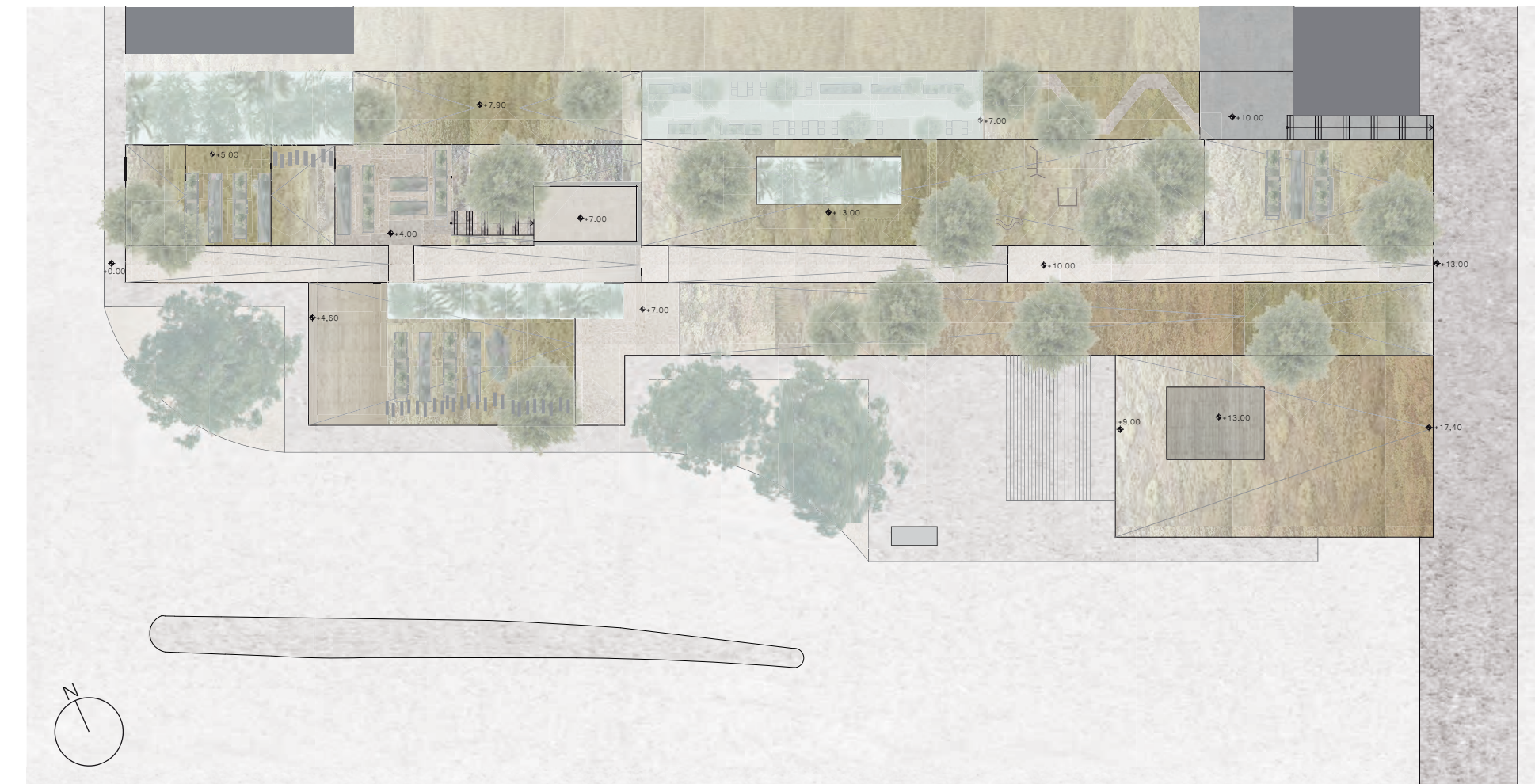


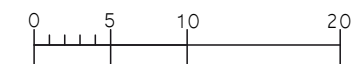
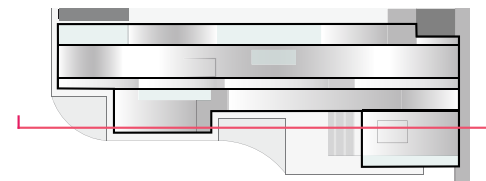




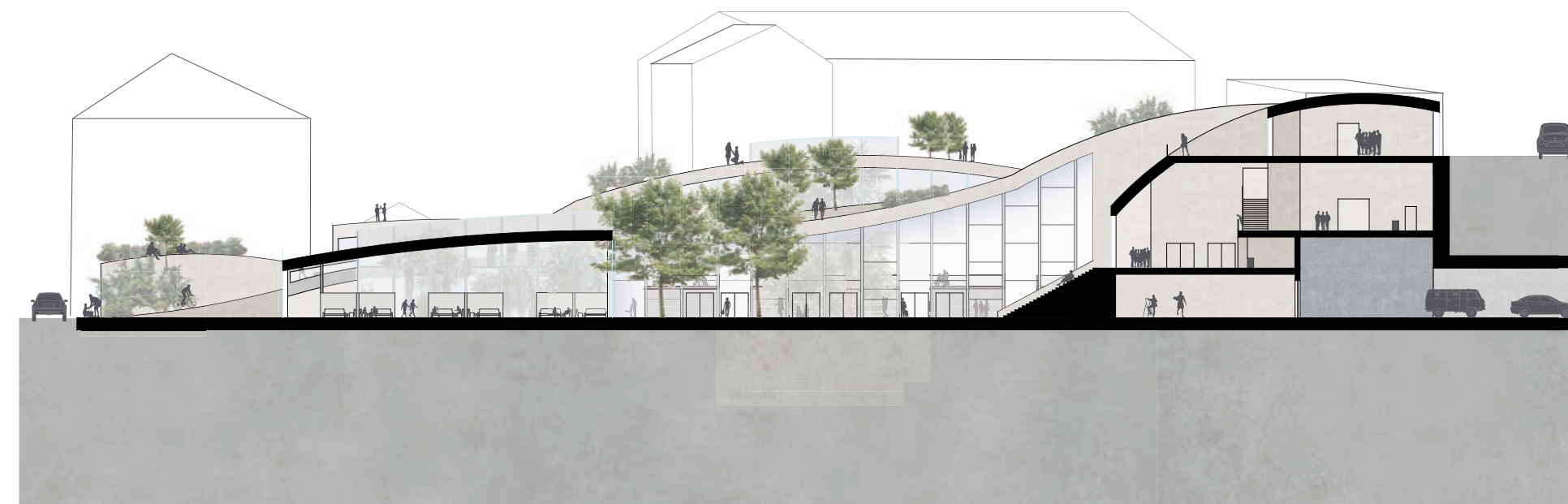
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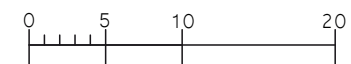
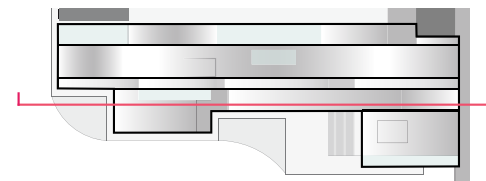
TOP VIEW



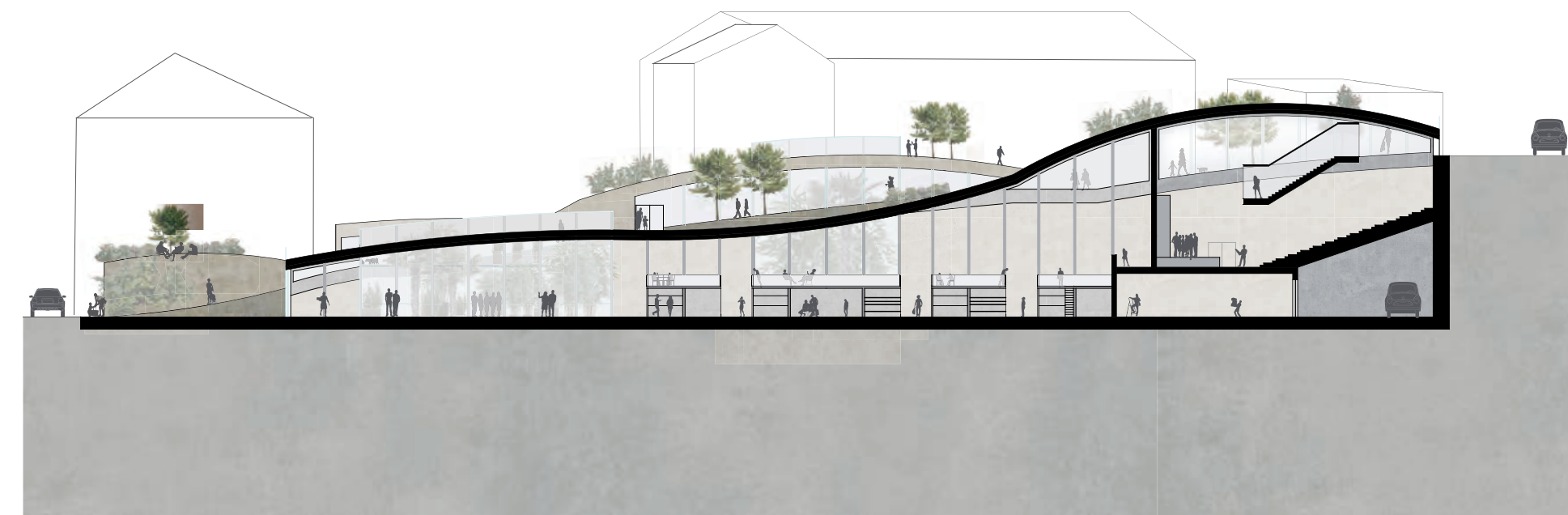


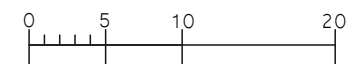
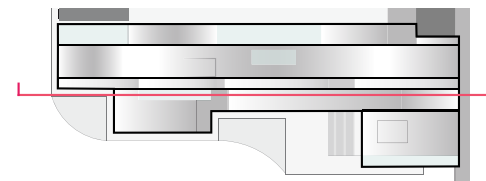
## SECTION A



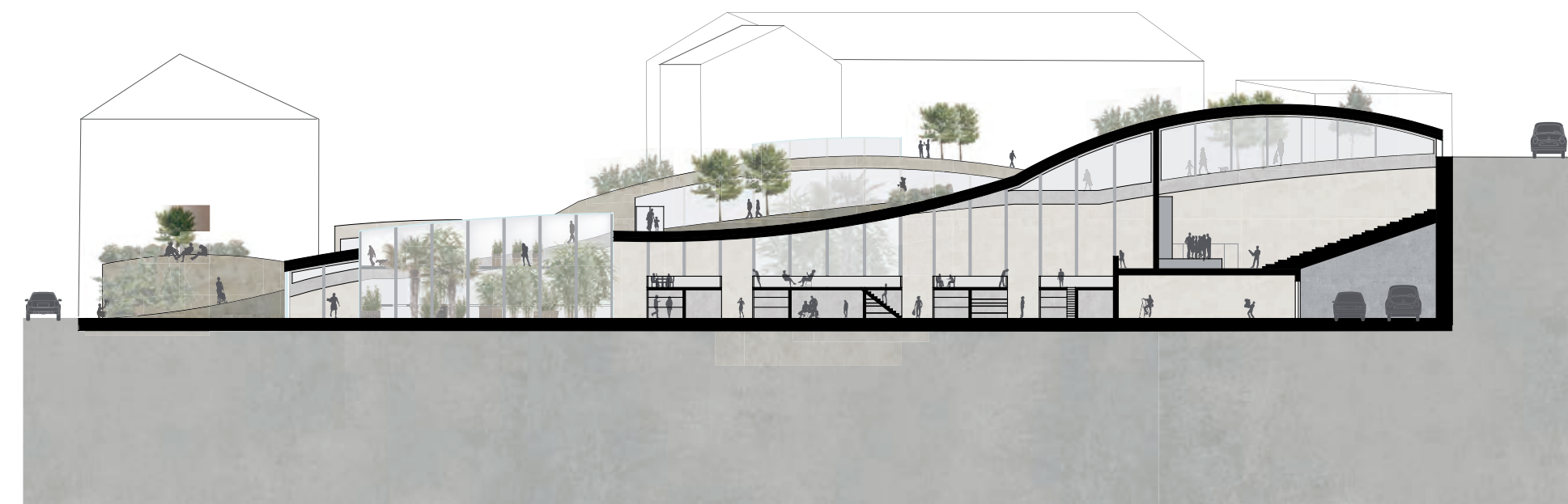


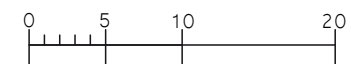
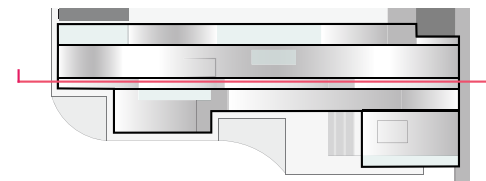
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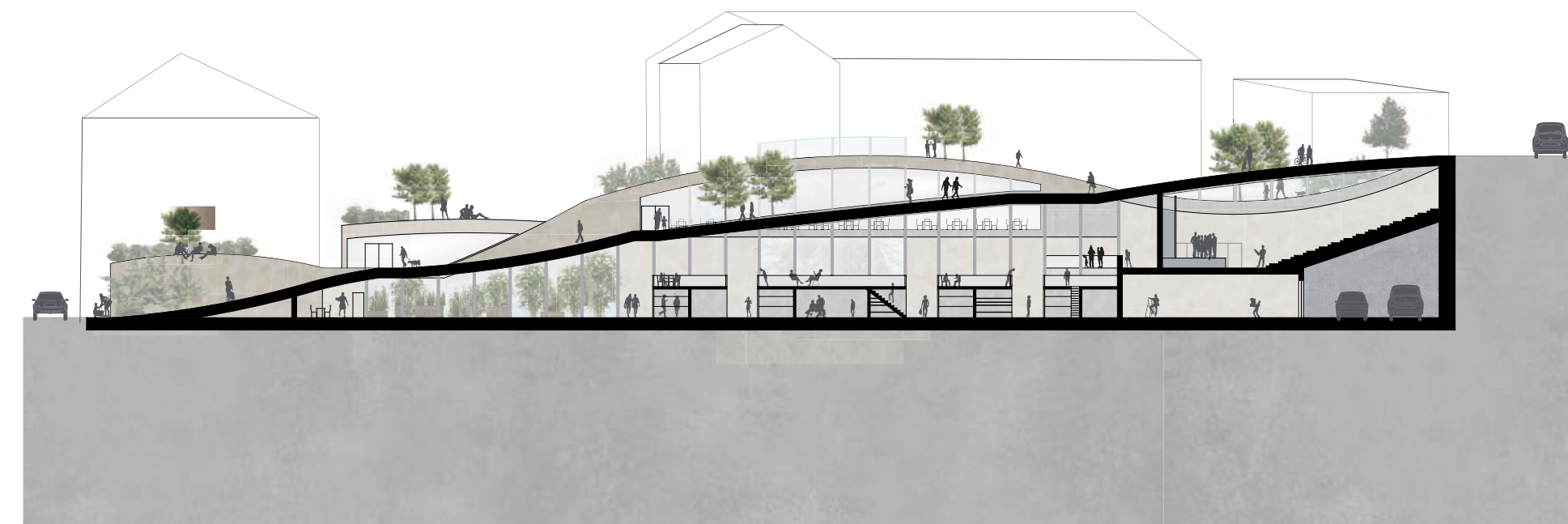


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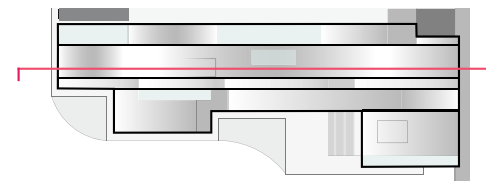




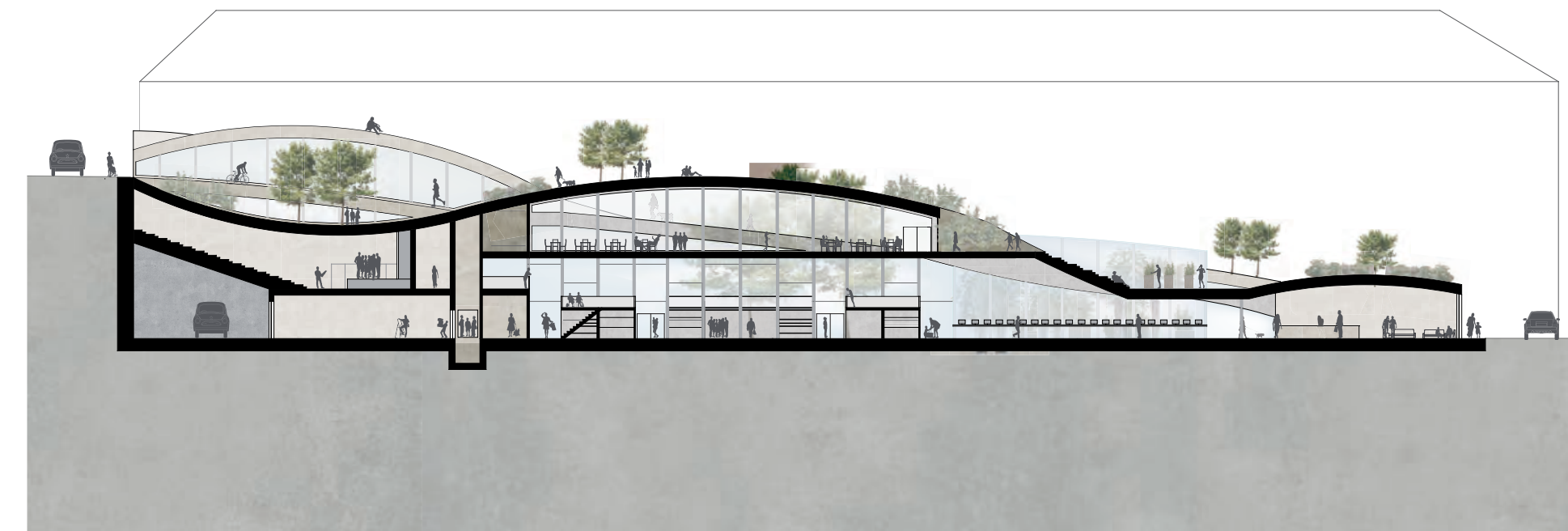
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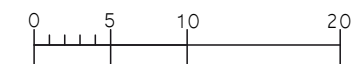
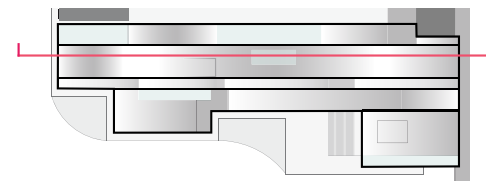






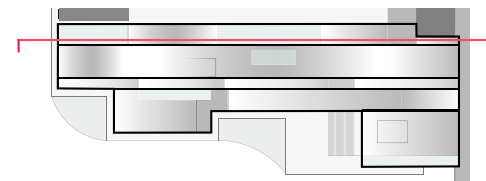
## SECTION E



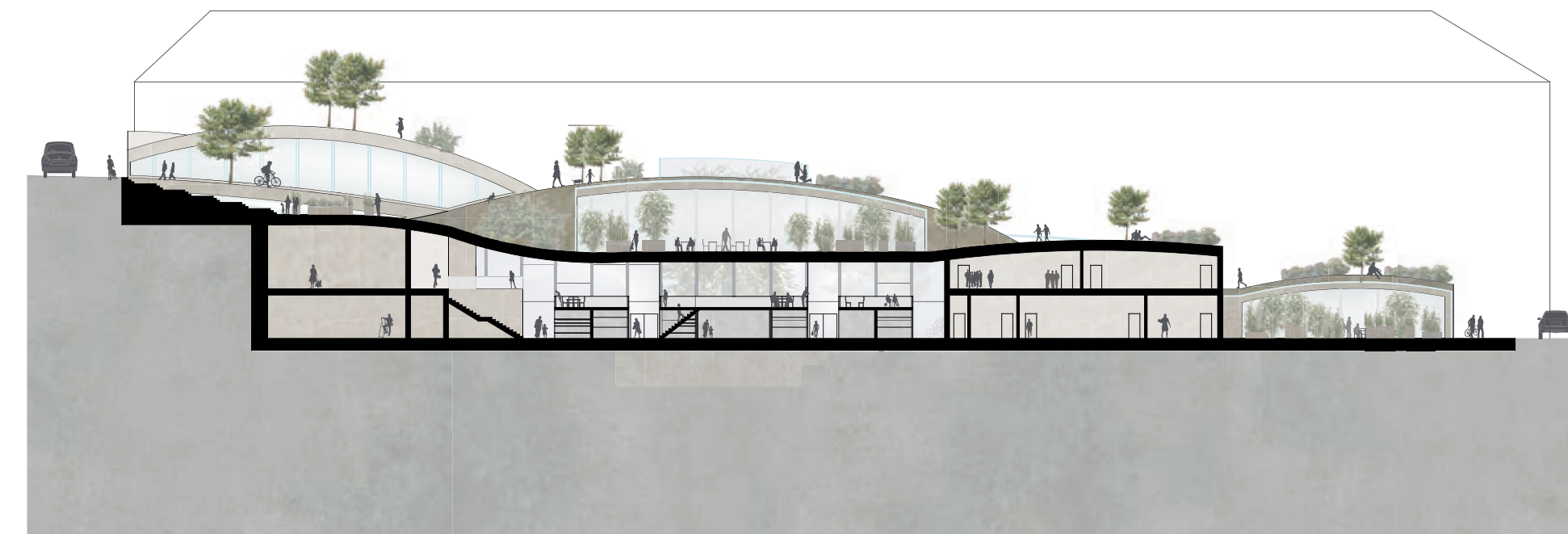


## SECTION F





## SECTION G





FUNCTIONS

# LANGUAGE SCHOOL

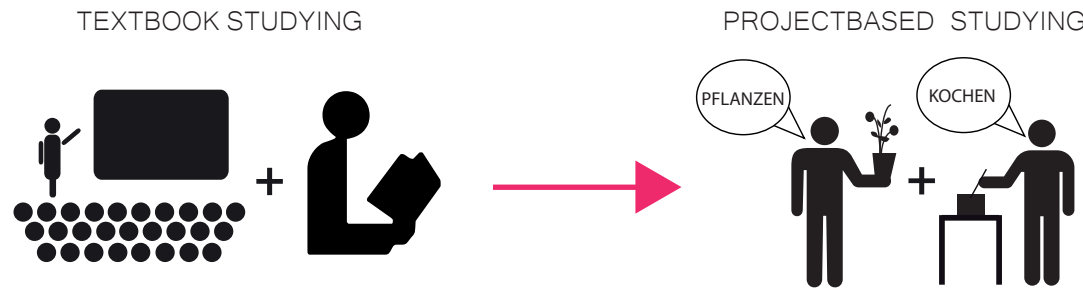
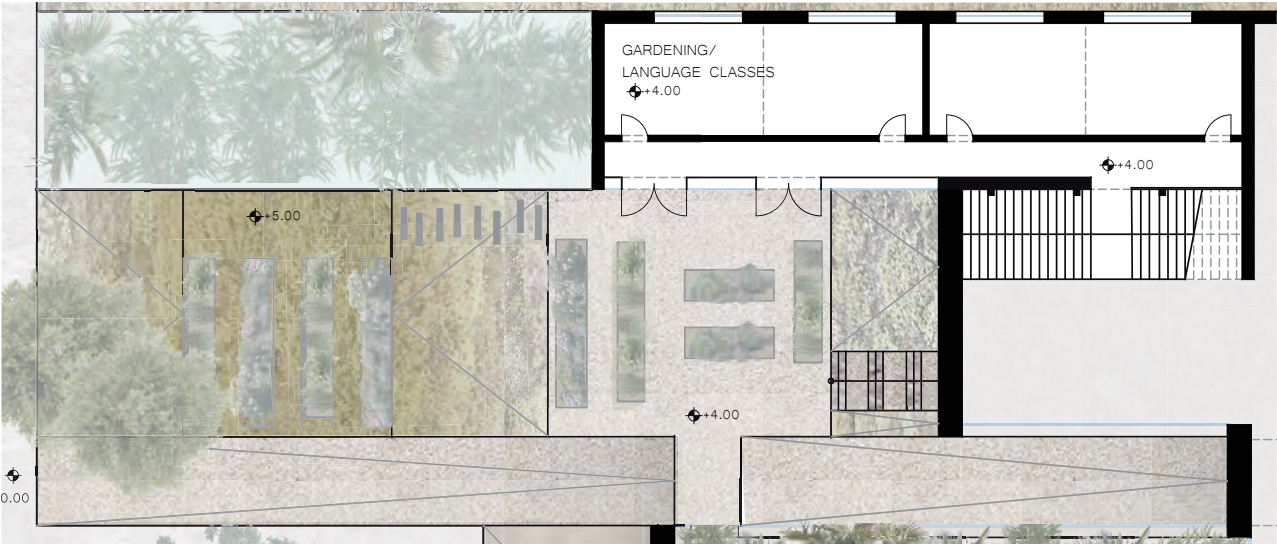
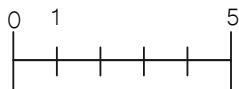


Illustration  
Projectbased Studying



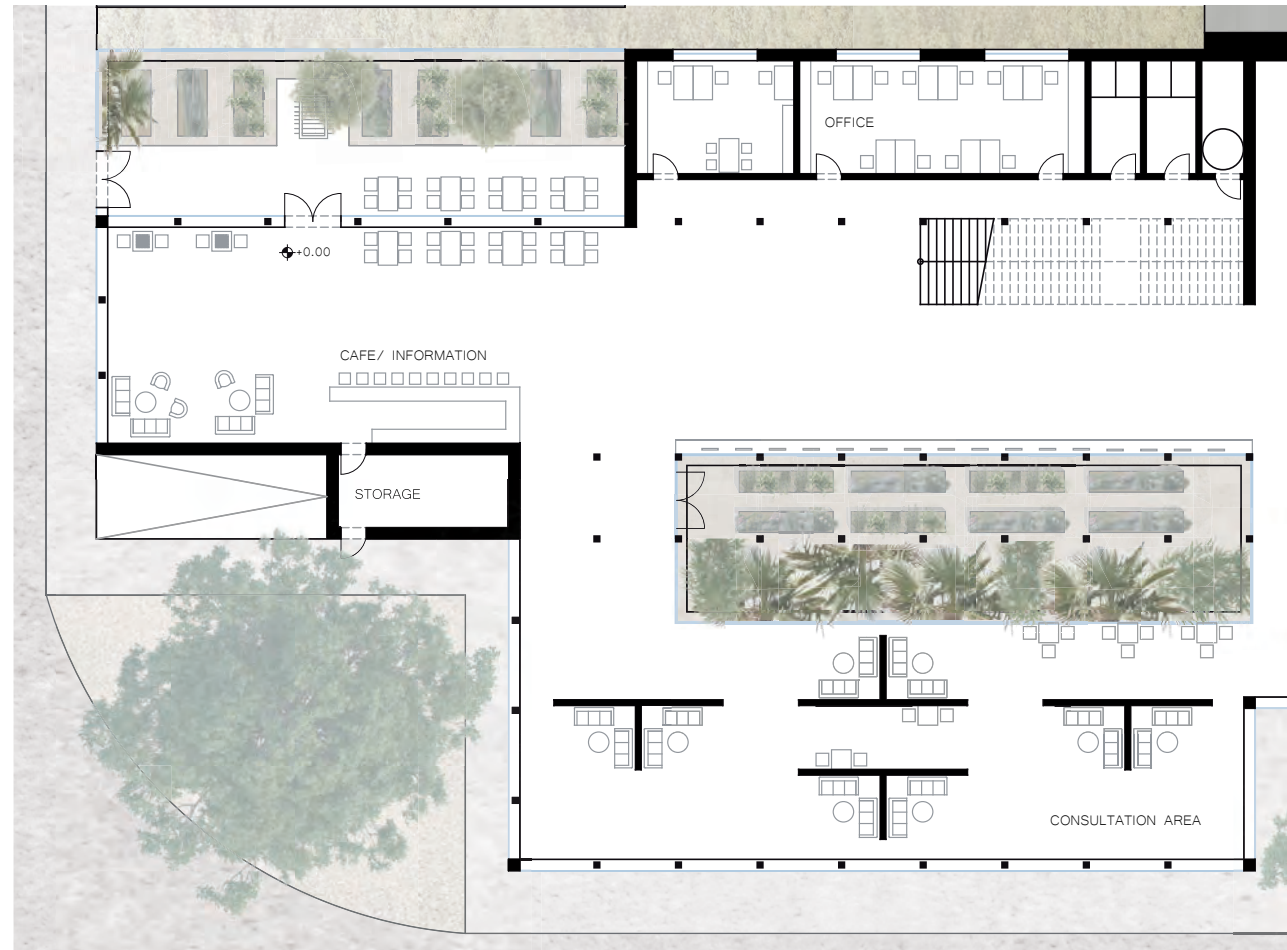
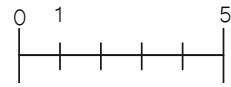
Floor Plan Level +4,00  
Language Classes

Since communication is one of the most important things to get along, a language school is essential in a building like this.

But this school is different from others. Instead of teaching the textbook page by page, the students learn the language by presenting a project based on food. They either plant a crop from their home country or they prepare to give a cooking class. They study the language with a goal and based on a topic which gives the studying sense.

There are two classrooms. Each of them can be separated into two rooms. The language school has a direct exit to the vegetable garden for the projects.

The pupils from the language school are also taking care of the plants on the roof and in the greenhouses.



Floor Plan Level 0,00  
Café / Information / Counselling

## CAFE / INFORMATION / CONSULTATION AREA



Rendering  
View from the café to the market

The entrance to the building is through an open greenhouse into the café. This is how a visitor gets to know the topic of the building immediately.

The area of the café is supposed to be a place where people hang out and meet friends. The bar is the information desk at the same time. So a newly arrived person can just have a coffee first before he or she wants to ask for help. There are chess boards and foosball tables to promote interaction without the necessity of language.

The consultants have a shared office space. They pick up their clients at the information desk to find a place in the consultation area or in the market to talk. Each consultant has his own trolley containing his documents. This system provides a comfortable situation for immigrants to get the information and the help they need without an "in front and behind the desk-situation".

In this area a media wall is provided. These are computers with free internet access for everybody to use. This makes it possible for immigrants to get in touch with their hometown, follow the news or just find out the opening hours of a store.

At the open space next to the big staircase visitors can orient themselves. They have a view to the market, through the glasshouses to the consulting area, or up the stairs to the restaurant, cooking and language school.





Rendering  
View from the auditorium lobby to the market

## INTERNATIONAL FOOD MARKET

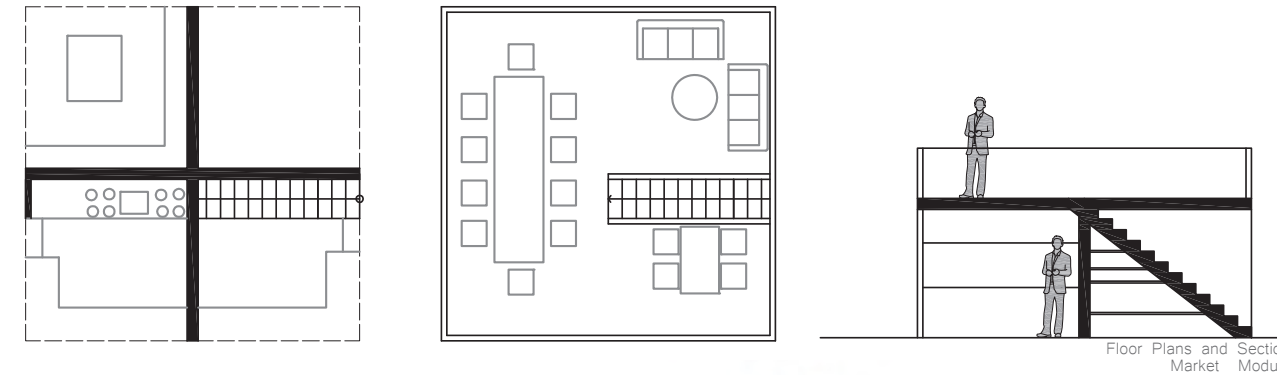


Illustration  
Market Module

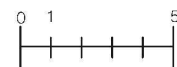
The food trading aspect is realised in a big international food market.

The market is the heart of the building. It is the main attraction for residents and immigrants.

Ingredients and cooked meals from all over the world are prepared sold here. Immigrants can find food that reminds them of home and makes them feel more comfortable in a foreign country. Residents who are interested in the culinary side of other cultures have the possibility to learn from the immigrants.

The market consists of a module, which is repeated within the structure. The module is separated into four squares, which can be used individually by the tenant.

Each module has a top floor which can be reached over a small staircase. On the top couches, tables or maybe just a carpet with some pillows are provided to hang out meet friends or to consume the food which was purchased in the market.

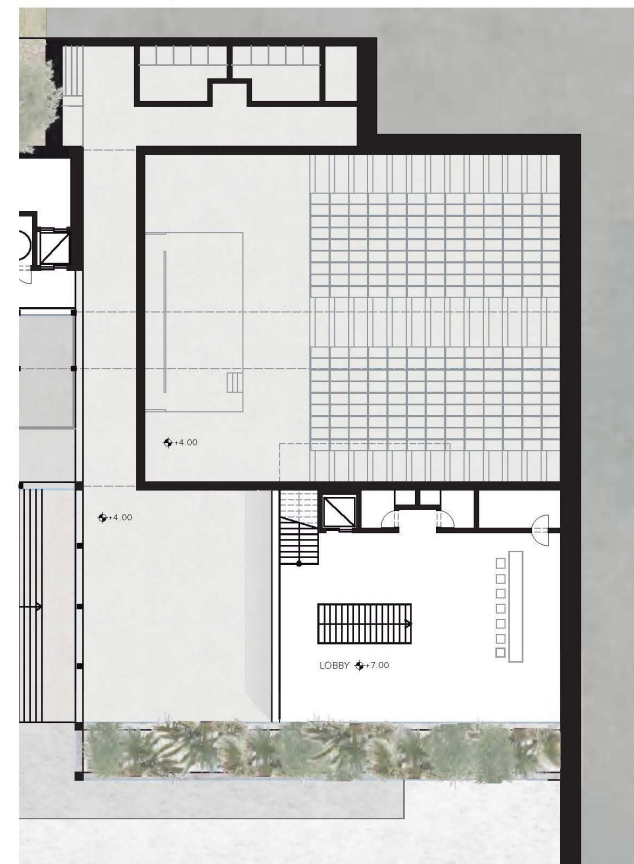


LEVEL +4,00m



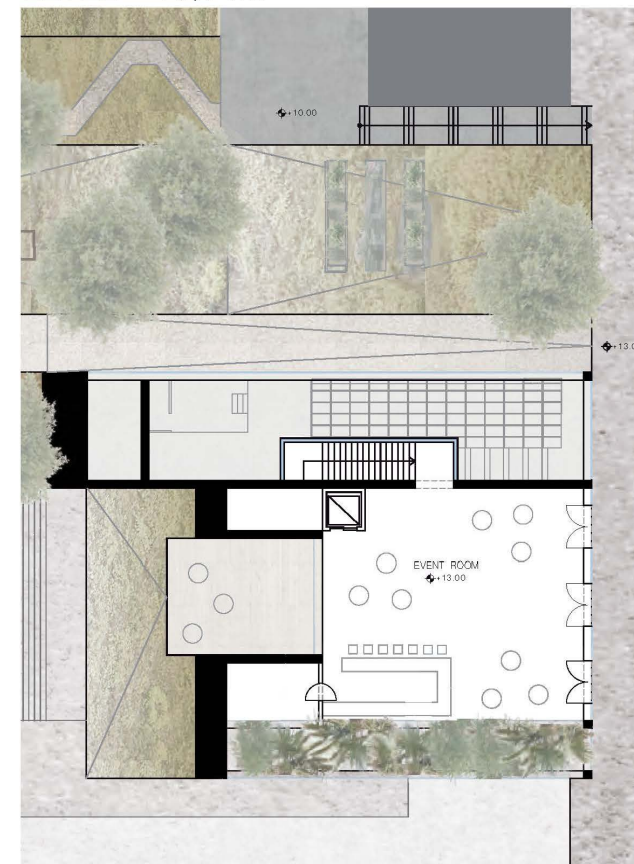
Floor Plan Level +4,00  
Auditorium

LEVEL +7,00m



Floor Plan Level +7,00  
Auditorium

LEVEL +13,00m



Floor Plan Level +13,00  
Auditorium

## AUDITORIUM



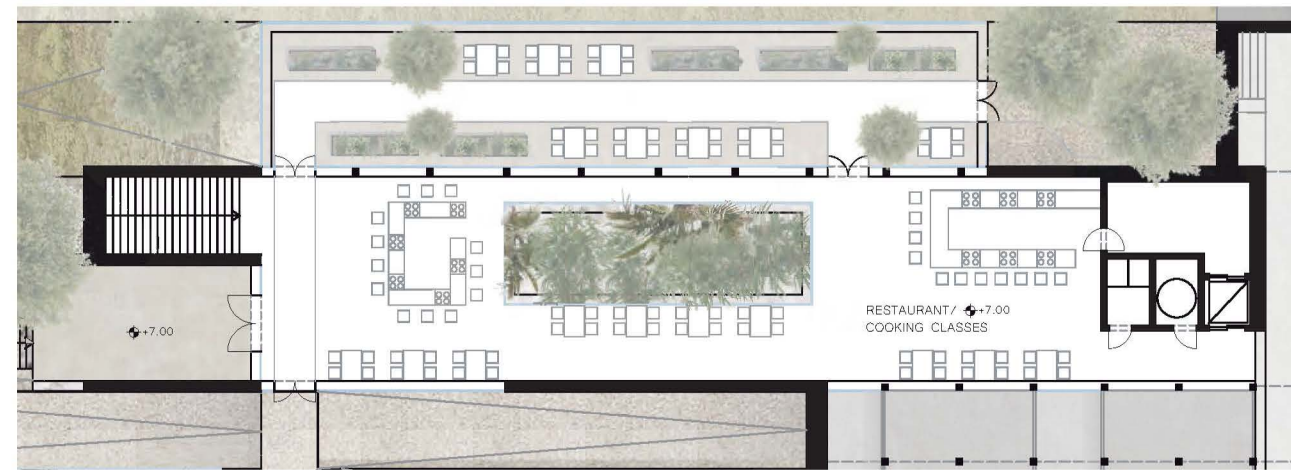
The auditorium is a function not directly linked to the food theme. It is used for information events and for different cultural events and concerts. Music connects people all over the world and the integration centre offers a place for it too.

The spacious lobby can be used for all kinds of events organised by immigrants or residents, or hopefully both of them together.

The space of the lobby and the auditorium can be rented for private events. This is an opportunity to raise money to maintain the building.

The auditorium can also be used by the school next to the integration centre since they do not have the proper facilities for theatre plays and concerts themselves. Maybe this intervention takes the fear of the unknown of the next generation and brings young people together.





## RESTAURANT / COOKING SCHOOL

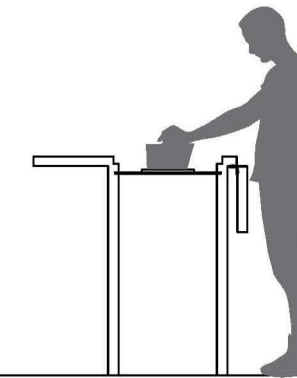
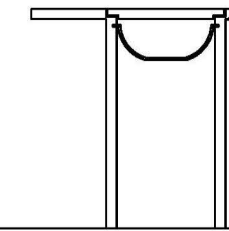
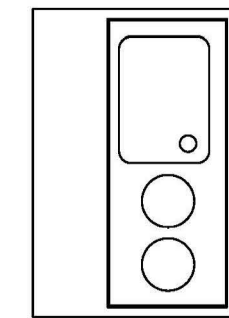
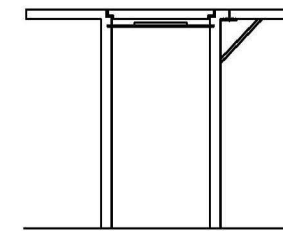
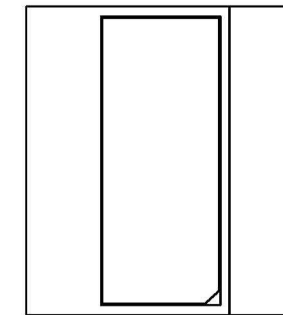
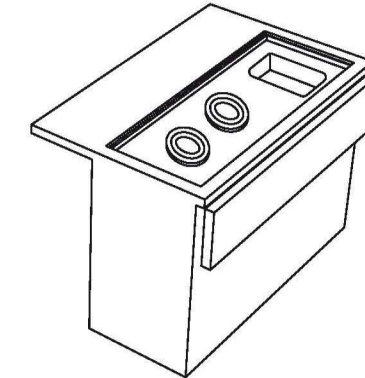
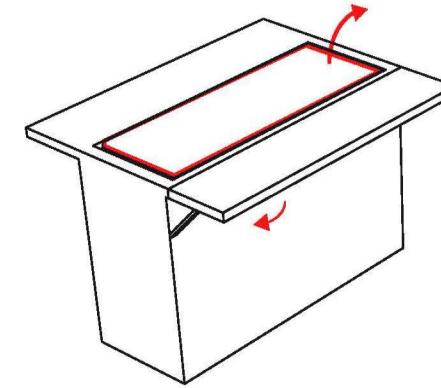


Illustration  
Cooking / Eating Module

In every country coffee houses and restaurants are places of communication and interaction. In the same way a restaurant in the centre for migration should serve as a place where people can meet and spend time.

In the restaurants affordable dishes from all over the world should be served.

The restaurant is also used as a cooking class. The tables in the middle have integrated cooking stations. By opening the counter top, the bar is transformed into a cooking station.

This is place the where everybody is invited to show their cooking skills and teach recipes from their hometown.

Cooking foreign dishes is very popular in Europe, so this could be a perfect way to bring people together.

The outdoor space of the restaurant is an open glasshouse like the outdoor space of the café. This has two advantages: The outdoor space of the restaurant can be used all year long and the vegetables and spices for the cooking classes can be grown right there.

TECHNICAL DETAILS



# GREENHOUSES

## DEFINITION

Greenhouses basically collect sunlight and convert it to heat. They use the short waves of the sunlight to heat the ground, the warmth from the ground rises to heat the greenhouse. The infrared rays are emitted by the ground but cannot pass through the glass, so they are reflected back into the room and heat the air.<sup>1</sup> The original purpose of a greenhouse is to extend the vegetation period by protecting the plants from colder weather conditions.<sup>2</sup> In the 18th century it started to become modern to grow exotic plants such as citrus plants in luxurious glasshouses.<sup>3</sup> For the greenhouse to work properly there are four aspects, which have to be regulated: light, ventilation heating and irrigation.

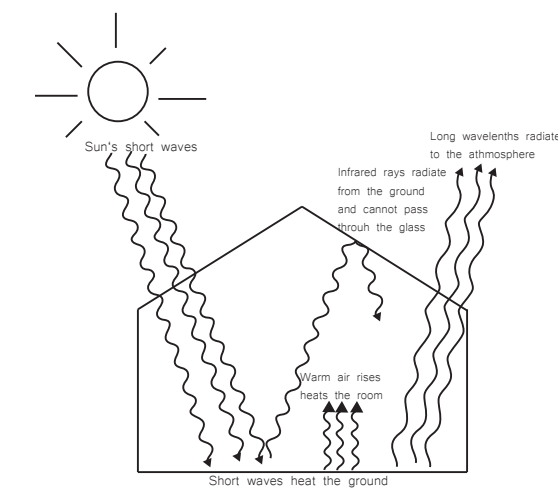


Illustration  
Greenhouses

## REQUIREMENTS

**LIGHT**  
In Winter, the missing sunlight is usually the limiting growth factor but in summer too much sunlight can lead to overheating the glasshouse which makes it necessary to install shades to regulate the sunlight.<sup>4</sup> Free standing greenhouses usually do not require any additional lighting. In our case the glasshouses are integrated in the building. If lighting is provided at optimal levels, artificial lighting with extended daylight hours increases the health, strength and growth rate of the plants. It makes it possible to grow plants from different climate zones all year long.<sup>5</sup>

**VENTILATION**  
With the help of ventilation systems, the air in the greenhouse will be exchanged with air from outside. This is important for many reasons. It helps control the temperature and the humidity, it provides fresh air (CO2) for the plants and it reduces the likelihood of disease.<sup>6</sup>

There are two different kinds of ventilation systems, the passive ventilation system and the powered ventilation system. The passive ventilation system works by convection without powered fans. The hot air in the greenhouse rises and is released at the top of the greenhouse while fresh air enters through intake vents in the lower walls.<sup>7</sup> The powered ventilation system works with powered fans and intake vents. The goal is to change the air of the greenhouse once every 1–2 minutes.

Ventilation systems are connected with thermostats and hydrostats, which are programmed to regulate the ventilation system at specific temperatures and humidities by opening and closing the vents and switching the fans on and off.<sup>8</sup>

**HEATING**  
To create different kind of environments it is sometimes necessary to heat the greenhouse to a specific temperature. There are many different kinds of heating systems. The main difference to heating in a normal house is that it cools down pretty fast because of the low isolation of glass. One possibility for a heating system in greenhouses is to pump hot water through the soil to heat the room in the same way as under floor heating system would work.

**IRRIGATION**  
To avoid watering the plants every day by hand an irrigation System is installed. A drip irrigation system works with narrow hoses with small holes where the water leaks slowly into the ground to water the plants.<sup>9</sup>

<sup>1</sup><http://www.indiana.edu/~geol105b/1425chap7.htm> 31.07.2015\_08:35  
<sup>2</sup>[http://garden.lovetoknow.com/wiki/How\\_Does\\_a\\_Greenhouse\\_Work](http://garden.lovetoknow.com/wiki/How_Does_a_Greenhouse_Work) 31.07.2015\_08:23  
<sup>3</sup>Schrader, Dietrich, 2011, Page 15  
<sup>4</sup>Schrader, Dietrich, 2011, Page 18  
<sup>5</sup><http://www.gardenandgreenhouse.net/> 31.07.2015\_8:59  
<sup>6</sup>Schrader, Dietrich, 2011, Page 39  
<sup>7</sup><http://gardenandgreenhouse.net/index.php/past-issues-mainmenu-18/360-2015-garden-greenhouse/july-august-2015/2035-the-importance-of-ventilation-in-a-greenhouse> 01.08.2015  
<sup>8</sup>Schrader, Dietrich, 2011, Page 40

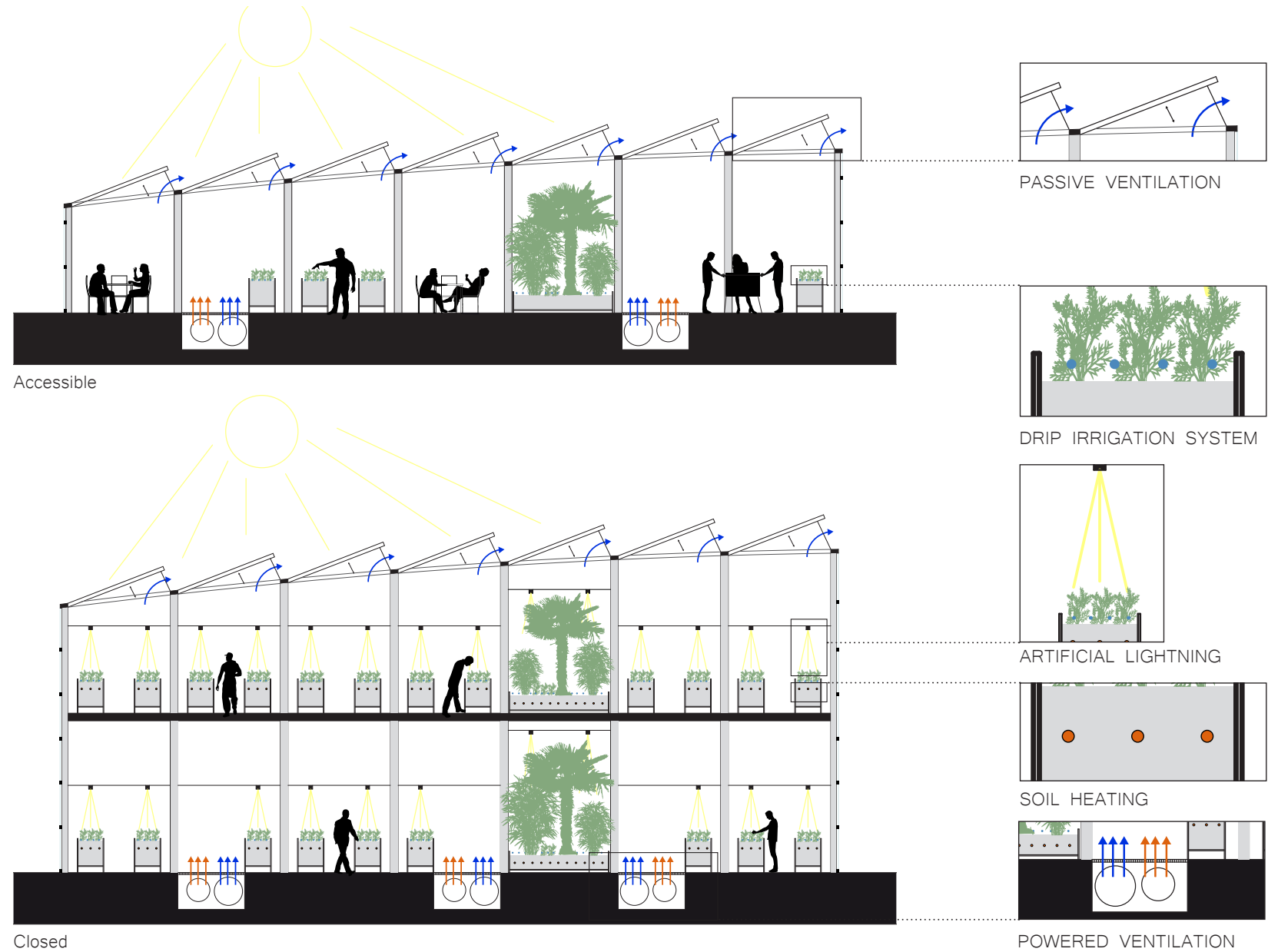


Illustration  
Closed and Accessible Greenhouses

# GREENHOUSES

IN KOSMOPOLIS

The same way the people in this building come from different countries with different climates, there should be the possibility to grow plants from all over the world in greenhouses. These are used for the gardening projects the students of the language class.

There are two types of greenhouses. The accessible greenhouses are public and are used by all visitors of the building. They just work with a passive ventilation system and do not have extra heating.

The closed greenhouses are only accessible by gardening class students and the staff. To ensure that the climate stays accurate in these greenhouses, they have temperature regulations, the ventilation is precisely regulated and the soil is heated by hot water pipes.

To water the plants in both types of greenhouses a drip irrigation system is installed.



Floor Plan  
Closed and Accessible Greenhouses

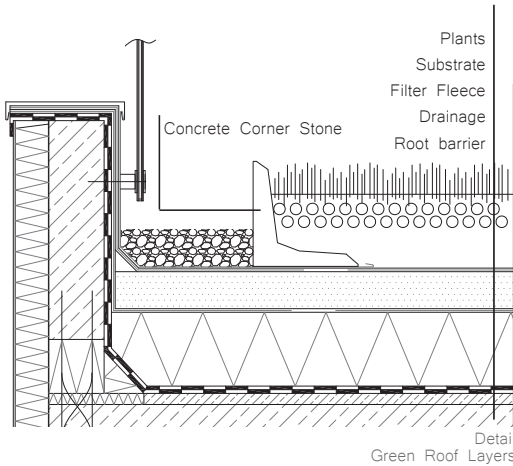
# GREEN ROOFS

A green roof has many advantages, it improves the thermal and the sound insulation, it supports the temporary storage of rainfall-water, it offers new habitat for animals and the roof is protected from UV-exposure, heat and cold. But the main reason in this project is to create additional outdoor space.<sup>1</sup>

For the roof, to be attractive to a lot of different people, it offers different kind of spaces.

There are vegetable gardens for the gardening classes, a playground for kids, wooden platforms to for events, just lawn to hang out, BBQ places for everyone, and flower meadows to enjoy nature and the view.

Depending on the use the roof needs different kind of planting and according to the planting the height of the soil needs to be adapted.<sup>2</sup>



# REQUIREMENTS

To ensure that a green roof works properly and that the structure of the building is not damaged a few requirements have to be met.

**STURDY ROOF STRUCTURE**

In addition to the safety measurements, which are calculated for an accessible roof, the weight of the plants and soil must be added into the static calculation. The water which is absorbed in the substrate is another big load which has to be carried by the structure.

**RELIABLE WATERPROOFING MEMBRANE**

Since leaks in a green roof are very hard to identify and repair it is very important that a high quality waterproofing membrane is installed. It should be sufficiently elastic to withstand building movement, must withstand ponded water, must be non-biodegradable and must be resistant to root penetration.

**ROOT BARRIER**

If the primary waterproofing system is not resistant to root penetration, a second root-barrier layer can be installed in the roof system to ensure no leaks are caused by roots.

**TOUGH PROTECTION MAT**

A soft mat protects the waterproofing membrane and the root barrier from mechanical damage.

**WATER STORING DRAINAGE LAYER**

To ensure that the plants survive though periods of dry weather it is recommended to store water in green roofs. Still it is essential, that excess water is quickly drained from the plant root zone. Water storing drainage systems meet both of these requirements.

**NON-CLOGGING SEPARATION LAYER**

To keep the soil from clogging the drainage, a synthetic soil separation layer is placed on top of the drainage layer.

**ENGINEERED SOIL**

The soil which is used on green roofs must be lightweight, have good water storage characteristics, have a low organic content, suitable chemical parameters and a good distribution of particle sizes.

**APPROPRIATE PLANTS**

Naturally, only plants who fit the given circumstances can be planted on a green roof. Usually native plants which survive in a dry and hot climate are a good choice.<sup>3</sup>

There are different types of green roofs depending on the plants which will be planted from extensive greening to semi intensive greening to intensive greening.

# GREEN ROOFS

## TYPES OF GREEN ROOFS

**EXTENSIVE GREEN ROOF**

The vegetation on an extensive green roof is ranging from sedums to small grasses, herbs and flowering herbaceous plants. These are all plants which need little maintenance and no irrigation system, they have a very low growing depth and only need 5 to 20 cm of soil.

Extensive green roofs are very cost efficient are ideal for roofs with integrated solar systems. For roofs with a high roof inclination it is usually recommended to install extensive instead of intensive green roofs.<sup>4</sup>

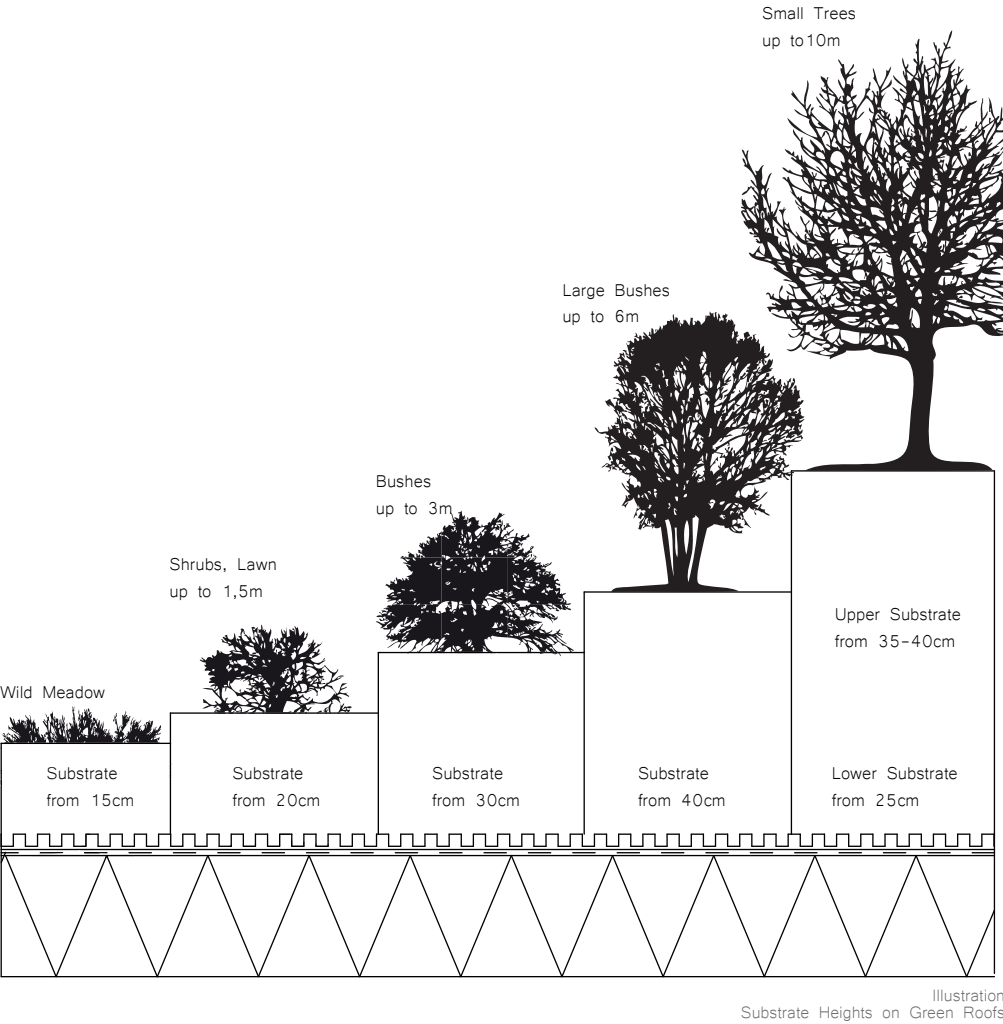
**SEMI INTENSIVE GREEN ROOF**

On a semi-intensive green roof the variety of plants goes from small herbaceous plants and ground covers to grasses and small shrubs. They require moderate maintenance and occasional irrigation. 15 to 40 cm of substrate are needed for this system. It provides the potential for a formal garden effect and hosts a richer ecology than extensive green roof.<sup>5</sup>

**INTENSIVE GREEN ROOF**

The vegetation on an intensive roof system is ranging from herbaceous plants to small trees. They require professional maintenance and irrigation systems. A much higher substrate is needed than for extensive green roofs. Usually about 20 to 60 cm of soil will be applied on the roof. Intensive green roofs offer a great variety of designs from small gardens to huge public parks. The possible biodiversity is great for the nature and the environment.<sup>6</sup>

<sup>1</sup>Dunnet,Kingsbury, 2008  
<sup>2</sup>Köhler, 2012,  
<sup>3</sup><http://www.conservationtechnology.com/documents/GreenRoofHandbook1008.pdf>  
<sup>4,5,6</sup>Kolb,Schwarz, 1999







Fotos  
Plants on the roof

## GREEN ROOFS IN KOSMOPOLIS



### HIGH RISE BEDS

To be able to grow vegetables and herbs high rise beds are installed to ensure sufficient soil for a good harvest.



### LAVENDER FIELD

Lavender is very undemanding, here it is planted next to the pathway to the restaurant. It is aesthetic and practical at the same time.



### PLAYGROUND

A playground is the perfect place for children to get to know each other and for parents to relax.



### LAWN

Space for people to meet and hang out. Perfect spot for a picnic under the tree.

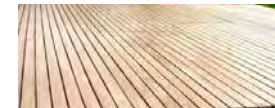


### FLOWER MEADOW

Nothing is more relaxing than an idyllic flower meadow with a view over the city.

### WOODEN DECK

This space can be used for events or just to spend time and enjoy the view.



### BBQ-AREA

In this area BBQ stations are installed. This is another way for people to cook and eat together.



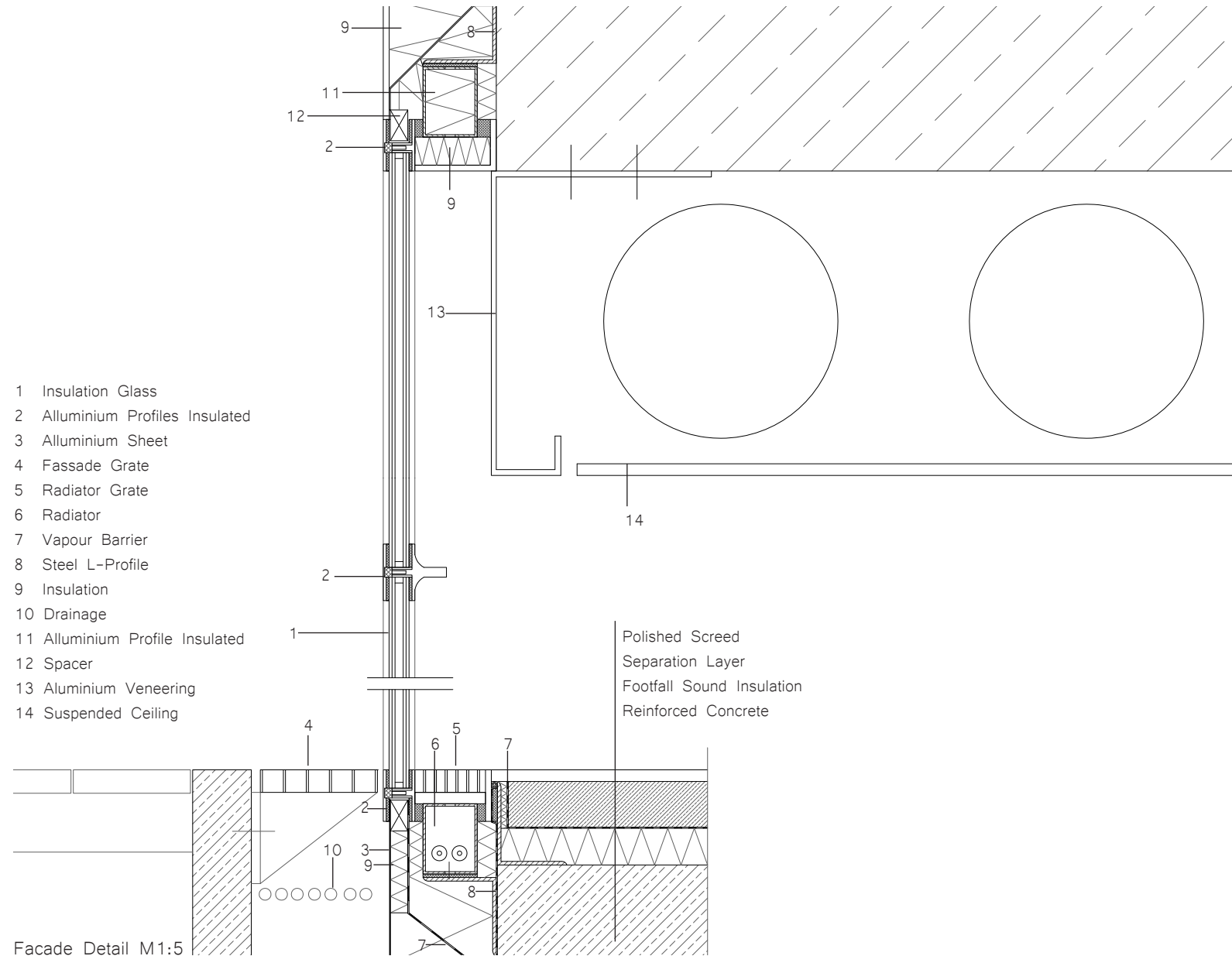
### EXTENSIVE GREEN ROOF

This part of the roof is very steep and not accessible so it is constructed as an extensive green roof with sedums, small grasses, herbs and flowering herbaceous plants.

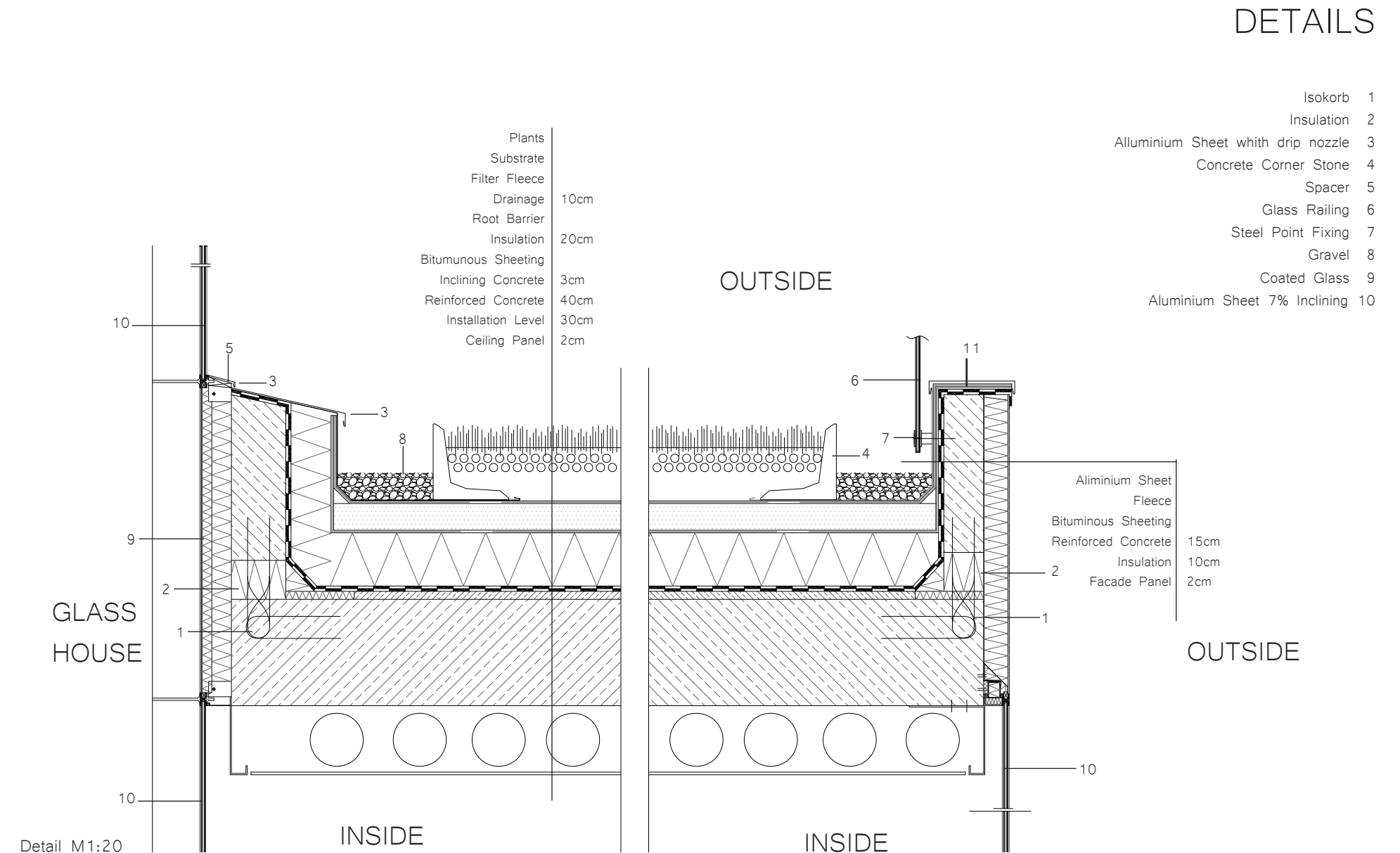


Illustration  
Kosmopolis Rooftop Landscape





Detail  
M 1:5



Detail  
M 1:20



Rendering  
View from Gebhard-Müller Platz

## CONCLUSIO

There are many possibilities to promote integration of immigrants in our society. This diploma project gives just one option of how to improve the ways integration is working at the moment.

Food as common ground is one solution. Music, theatre or art could be other ways for people to get closer.

The important message is that in this changing world, where different cultures and people from different origins are mixed up more and more every day, people have to find ways to overcome their fear of the unknown, communicate with each other and learn from each other. This diploma project shows that architecture can offer the structures to encourage integration and can work as a platform for society to develop.

IMAGE CREDITS

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REFERENCES

Allman, Markus:  
Kosmopolis Zentrum für Migration in Stuttgart,  
Xella Deutschland GmbH, Stuttgart, 2014.

Amt für Stadtplanung und Stadterneuerung:  
StadtKernZiele,Innenstadtkonzepte Entwurf 2006,  
Landeshauptstadt Stuttgart, Stuttgart, 2006.

Bevölkerung mit Migrationshintergund in Baden-Württemberg,  
Statistisches Landesamt Baden-Württemberg, Stuttgart, 2012.

Dunnett, Nigel; Kingsbury, Noel:  
Planting green roofs and living walls,  
Timber Press, Portland, 2008.

Köhler, Manfred:  
Handbuch Bauwerksbegrünung,  
Verlagsgesellschaft Rudolf Müller GmbH&Co.KG, Köln, 2012.

Kolb, Walter; Schwarz, Tassilo:  
Dachbegrünung, intensiv und extensiv  
Ulmer, Stuttgart, 1999.

Markelin, Antero; Müller, Rainer:  
Stadtbaugeschichte Stuttgart, 2. Auflage,  
Karl Krämer Verlag, Stuttgart, 1991.

Neufert, Ernst; Kister, Johannes:  
Neufert Bauentwurfslehre,  
Vieweg+Teubner, Wiesbaden, 2009.

Oltmer, Jochen:  
Globale Migration in der Zukunft,  
Bundeszentrale für Politische Bildung, Stuttgart, 2013.

Pavkovic, Gary:  
Städtische Wirtschaftspotentiale von Migration und Integration am Beispiel  
der Stadt Stuttgarts,  
Migrationspolitsiches Portal der Heinrich Böll Stiftung, Stuttgart, 2008.

Pinske, Jörg:  
Gewächshäuser-Planen.Bauen.Nutzen,  
Falken, Niederhausen, 1995.

Priebernig, Heinz:  
Hochbau Ausbau,  
Graphisches Zentrum HTU GmbH, Wien, 2009.

Schittich, Christian; Staib, Gerald; Balkow, Dieter; Schuler, Matthias;  
Sobek, Werner:  
Glasbau Atlas,  
Birkhäuser Verlag, Basel, 2006.

Schrader, Karl; Dietrich, Rainer:  
Gewächshäuser und Heizungsanlagen im Gartenbau,  
Eugen Ulmer KG, Stuttgart 2011.

Schunck, Eberhard; Oster, Hans Jochen; Barthel, Rainer; Kießl, Kurt:  
Dach Atlas – Geneigte Dächer,  
Birkhäuser Verlag, Basel, 2002.

Schuster, Wolfgang:  
Fortschreibung des „Stuttgarter Bündnis für Integration“,  
Landeshauptstadt Stuttgart(Hg.), Stuttgart, 2009.

URL: <http://gardenandgreenhouse.net/index.php/past-issues-mainmenu-18/360-2015-garden-greenhouse/july-august-2015/2035-the-importance-of-ventilation-in-a-greenhouse>  
(01.08.2015, 15:00)

URL: <http://www.gardenandgreenhouse.net/index.php/past-issues-mainmenu-18/36-2009-gg/january-february-2009/359-artificial-light-for-the-greenhouse>,  
(31.07.2015, 8:59)

URL: [http://garden.lovetoknow.com/wiki/How\\_Does\\_a\\_Greenhouse\\_Work](http://garden.lovetoknow.com/wiki/How_Does_a_Greenhouse_Work),  
(31.07.2015, 08:23)

URL: <http://www.indiana.edu/~geol105b/1425chap7.htm>,  
(31.07.2015, 08:35)

URL: <http://www.greenrooftechnology.com>  
(16.10.2015 14:55)

URL: [http://www.stadmuseum-stuttgart.de/assets/files/museum-unterwegs/sms\\_stuttgart-im-mittelalter.pdf](http://www.stadmuseum-stuttgart.de/assets/files/museum-unterwegs/sms_stuttgart-im-mittelalter.pdf)  
(15.04.2015 13:34)

URL: <http://www.conservationtechnology.com/documents/GreenRoofHandbook1008.pdf> (17.04.2015 17:36)