

Development and validation of a real-time model for the simulation of the heat release rate, in-cylinder pressure and pollutant emissions in diesel engines

Original

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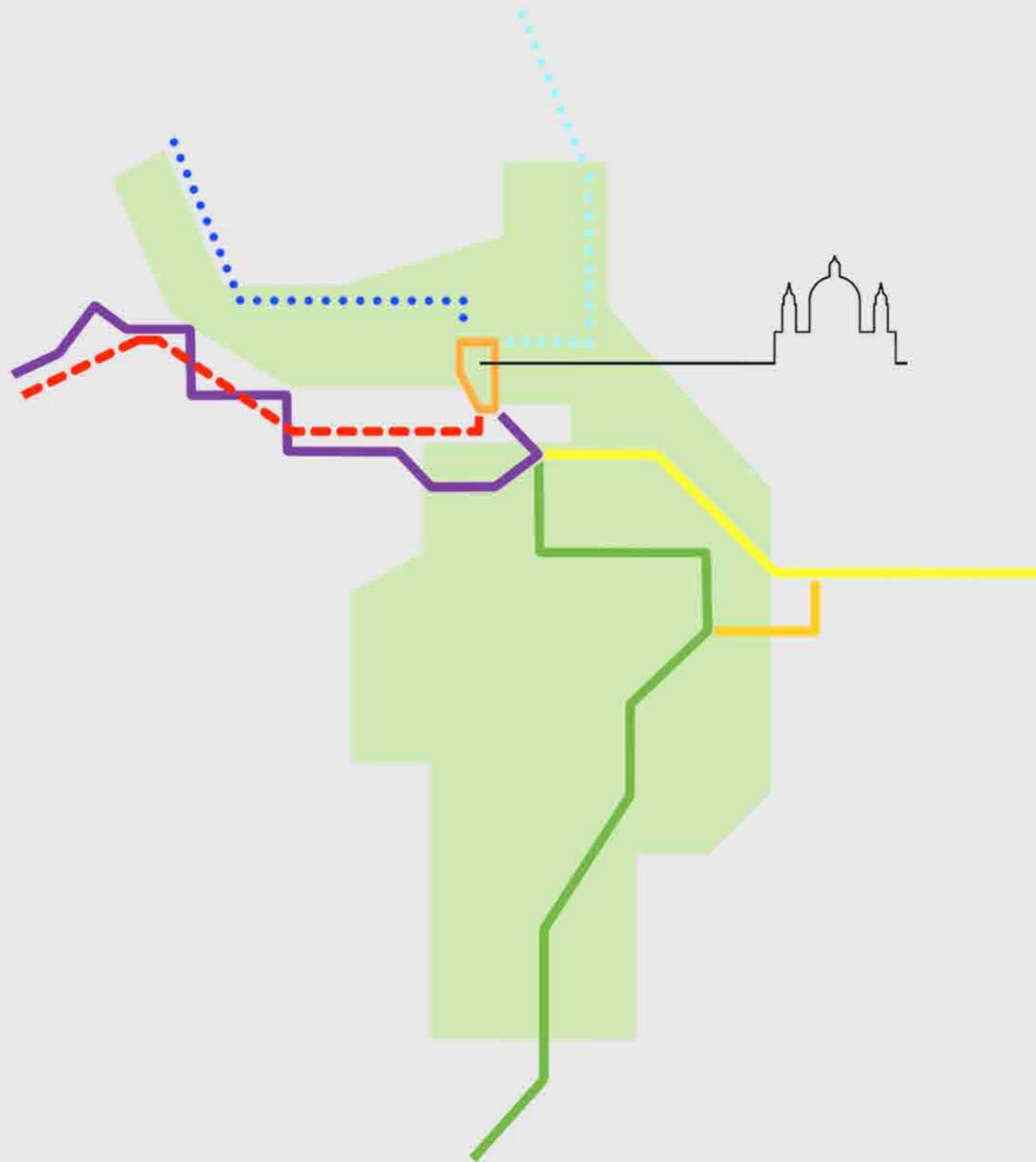
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(Article begins on next page)



luca barello | chiara devoti

THE WAYS TO SUPERGA

2012-13 | history and design studio projects



POLITECNICO
DI TORINO

This e-book presents the results of the *History and Design Studio* for year 2012-13, at the first semester of the second year of the course in “Architecture” of the Politecnico di Torino. Teachers Luca Barello and Chiara Devoti, with the assistance of Maria Vittoria Cattaneo, Luca Malvicino and Rachele Vicario.

Iconographic references

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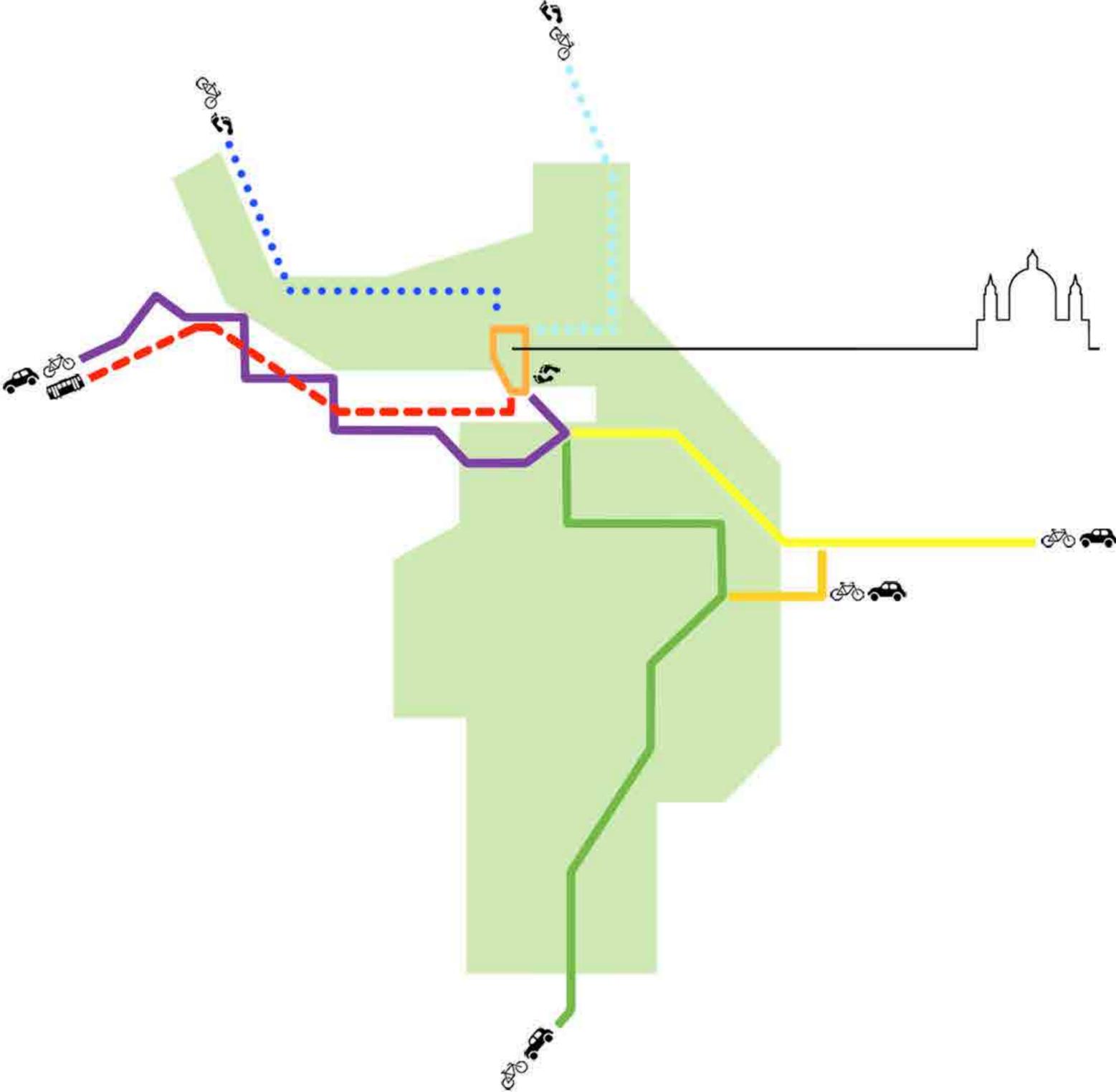
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project synthesis

models

Authors Profiles

THE WAYS TO SUPERGA



The historical analysis shows the connection between the different elements recognized on the territory and the solution

adopted in the project. In particular the group underlined the visual components findable from the trail such as the different position of them (front view, backstage, etc.): the railway road, with its historical brick pillars, the old residences on the hills, the panorama and skyline of the city are all particulars used to harmonize the interventions with the natural and historical context.

(C.D., with M.V.C.)

The trail is marked by few dramatic installations, large objects following the topography or interconnected with the wood. The gates are organic tunnels, the info point a raised nest of crossed branches, the view point a platform of trunks in axe with the historical road towards France. The gate tunnels lay softly on the ground, the variety of natural and artificial coverings can create different environmental perceptions according to the viewer distance. The hikers can climb on the info nest to look around from a lifted location and experience a close meeting with the trees guided by the short footbridges. The viewpoint is a cantilevered platform aligned to Rivoli Castle and to France, as a conceptual synthesis of the Savoy Family history and of the Superga settlement.

(L.B., with R.V., L.M.)

Trail 28-29 from Meisino

Wu Wei • Yanxi Li • Muge Yuruten • Zeynep Tulumen • Michal Zilberberg • Nilhat Mert Ogut

VIEWPOINT TOWARDS VILLA SANTA CROCE
 - First viewpoint on the trail
 - Semi-opaque view
 - View with acute angle
 - Usable only in the winter time



THE EARLIEST DWELLINGS
 Before 19th century, there were an earliest group of dwellings at the beginning of our trail



MIXED FOREST
 Present frequently along our trail



INTERSECTION OF 29-60a
 - Separation of 60a from 29th trail by taking left path
 - Poor indications
 - One reaches to Basilica di Superga (29), one to vineyards



BEAUTIFUL TRAIL
 lying on flat area



VIEWPOINT TOWARDS SMALL FARMHOUSES AND VINEYARDS
 - Second viewpoint on the trail (in climbing situation)
 - View with obtuse angle
 - Usable in summer and winter



VEDUTA DELLA FUNICOLARE DI SUPERGA
 Torino 1884 Private collection



MIXED FOREST STILL PRESENT



1816-1830
 The earliest residences along our trail



STEEPING UP



Sketch of Villa Santa Croce



VIEWPOINT TOWARDS SMALL HOUSES AND HILLS
 - Third viewpoint, where the houses and small vineyards can be seen in a difficult way
 - Opaque view



SECOND INTERSECTION 29-28
 - Separation of 29 and 28
 - Poor and confusing indications
 - Both can reach to Basilica di Superga



FUNICOLARE DI SUPERGA
 Torino 1884-1890 Postcard



FUNICOLARE STORICA
 Torino 1905 Postcard



STRADA E FERROVIA FUNICOLARE DI SUPERGA
 Torino 1909 Postcard



RIVO DI COSTA PARIGI
 Flows near our trail. Time to time we can find creeks which are falling of in to the river so also bridges



VIEWPOINT TOWARDS THE HILLS OF SUPERGA AND SAN MAURO
 - Flat and open area with a panoramic view to the hills
 - Semi opaque view to S. Mauro
 - Usable in summer and winter
 - Very close to railway



NATURAL ENGINEERING
 Pipe and netting system for erosion



FUNICOLARE DI SUPERGA
 Torino 1920-1934 Postcard



COLLINA DI SUPERGA
 Torino 2011



VIEWPOINT TOWARDS TORINO AND MOLE ANTONELLIANA
 - View with obtuse angle
 - Clear view of Torino and Mole
 - Quite Flat area with fences
 - Usable in summer and winter time
 - Position of the streets and the buildings can be seen apparently from this viewpoint



BEACH-FAGUS SYLVATICA
 Is present mostly. Also: Coniferous Populus angustifolia Castanea sativa Miller



WISTERIA SINENSIS
 Various botanical examples



CORNEL-VACCINIUM MACROCARPON



THE RUINS OF AN OLD HOUSE
 Another old dwelling near Basilica di Superga, there used to be a settlement, possibly



STAGNONE 1772
 Corso Francia can be seen clearly. The boulevard indicates the way to France and connects Basilica di Superga and Castello di Rivoli



OLD RESIDENCE
 An outdated residence near the Funicolare, built in 20th century



VIEWPOINT TOWARDS TURIN
 - last viewpoint on the trail
 - clear view of the city in a panoramic way
 - usable in summer and winter
 - possible to see Corso Francia (map Stagnone 1772)

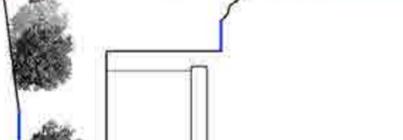
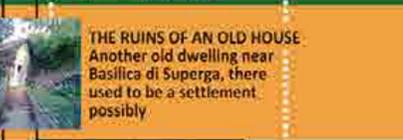
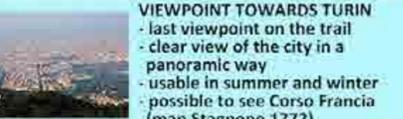
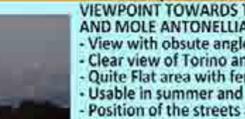
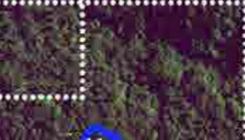
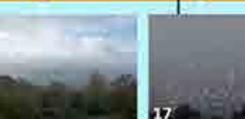
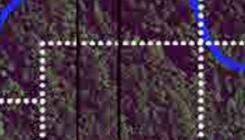
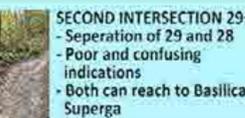
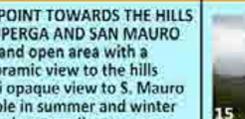
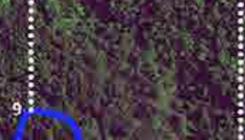
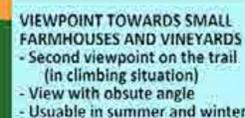
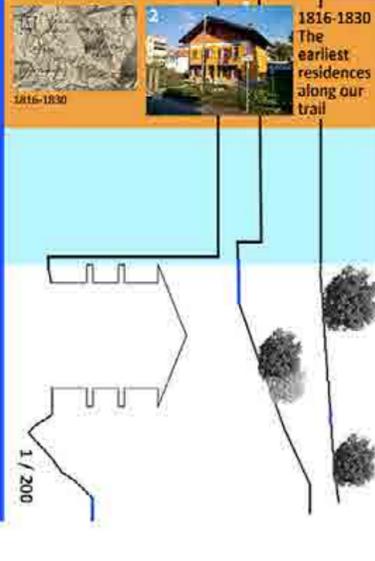


First view of Superga



1 / 2000

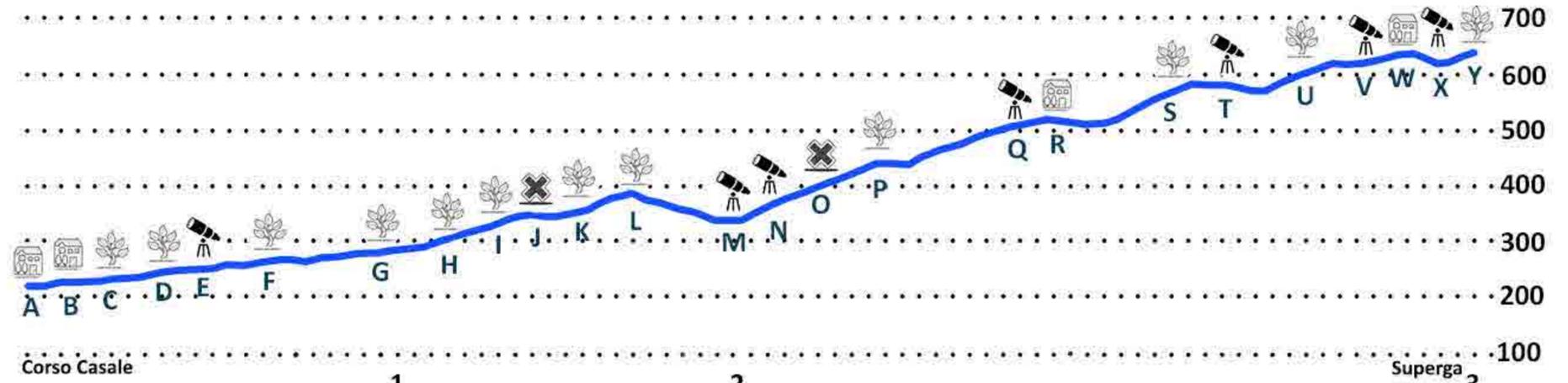
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Corso Casale



ANALYSIS SYNTHESIS SECTION 1:5000

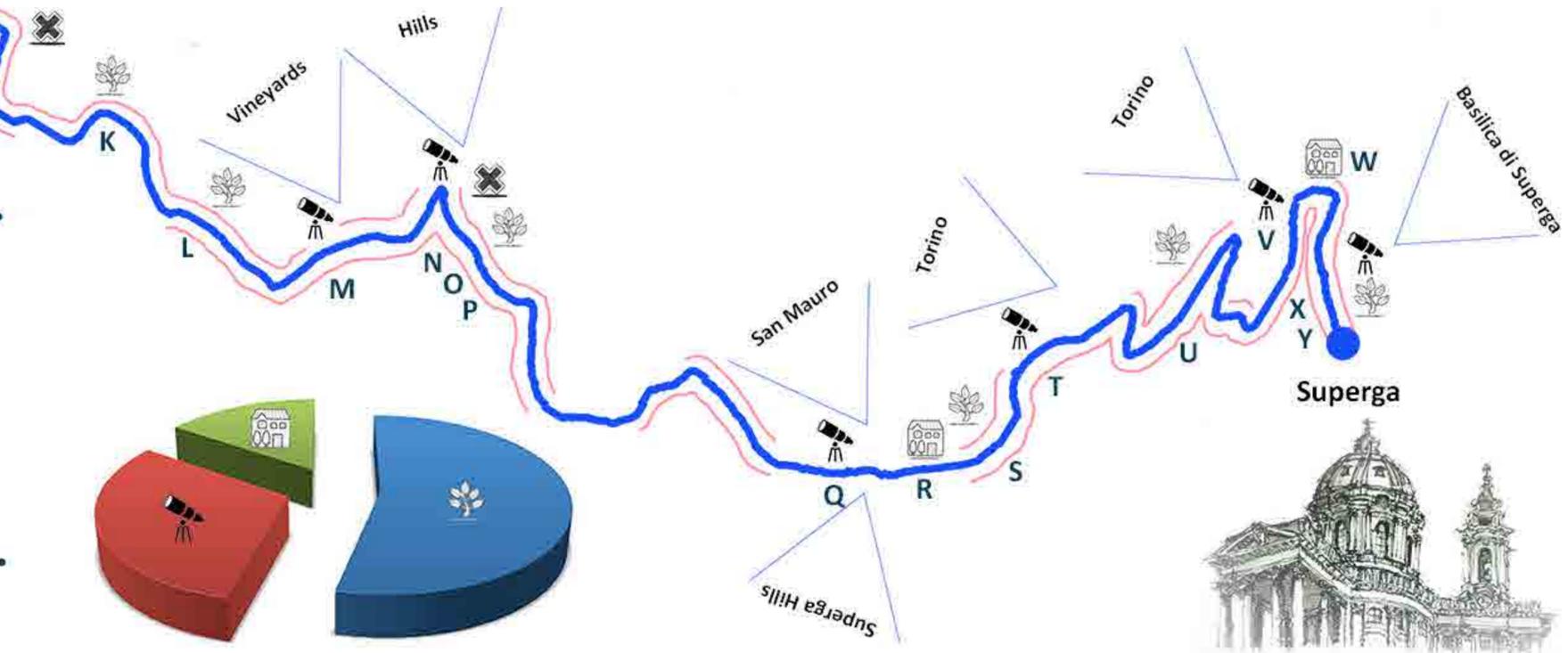
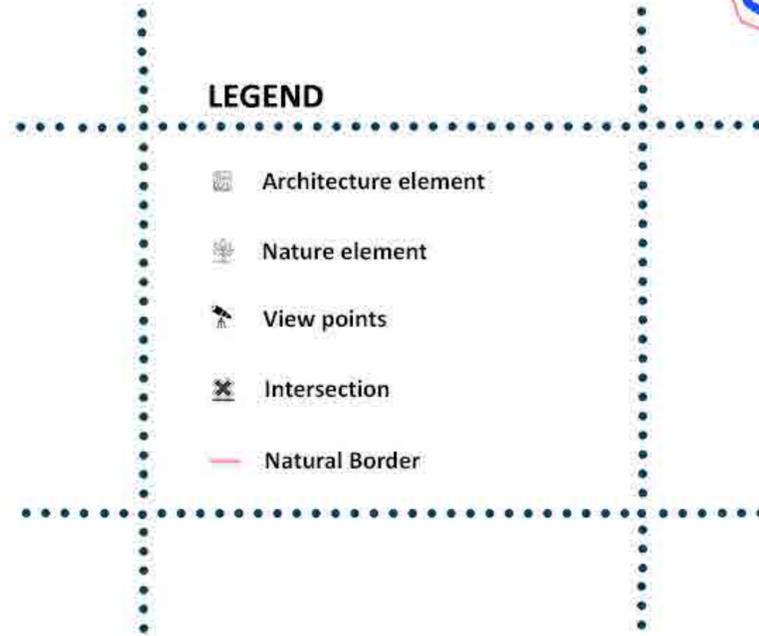


The first part of the trail is plain and more relaxing. It is good for taking fresh air and having a nice walk!

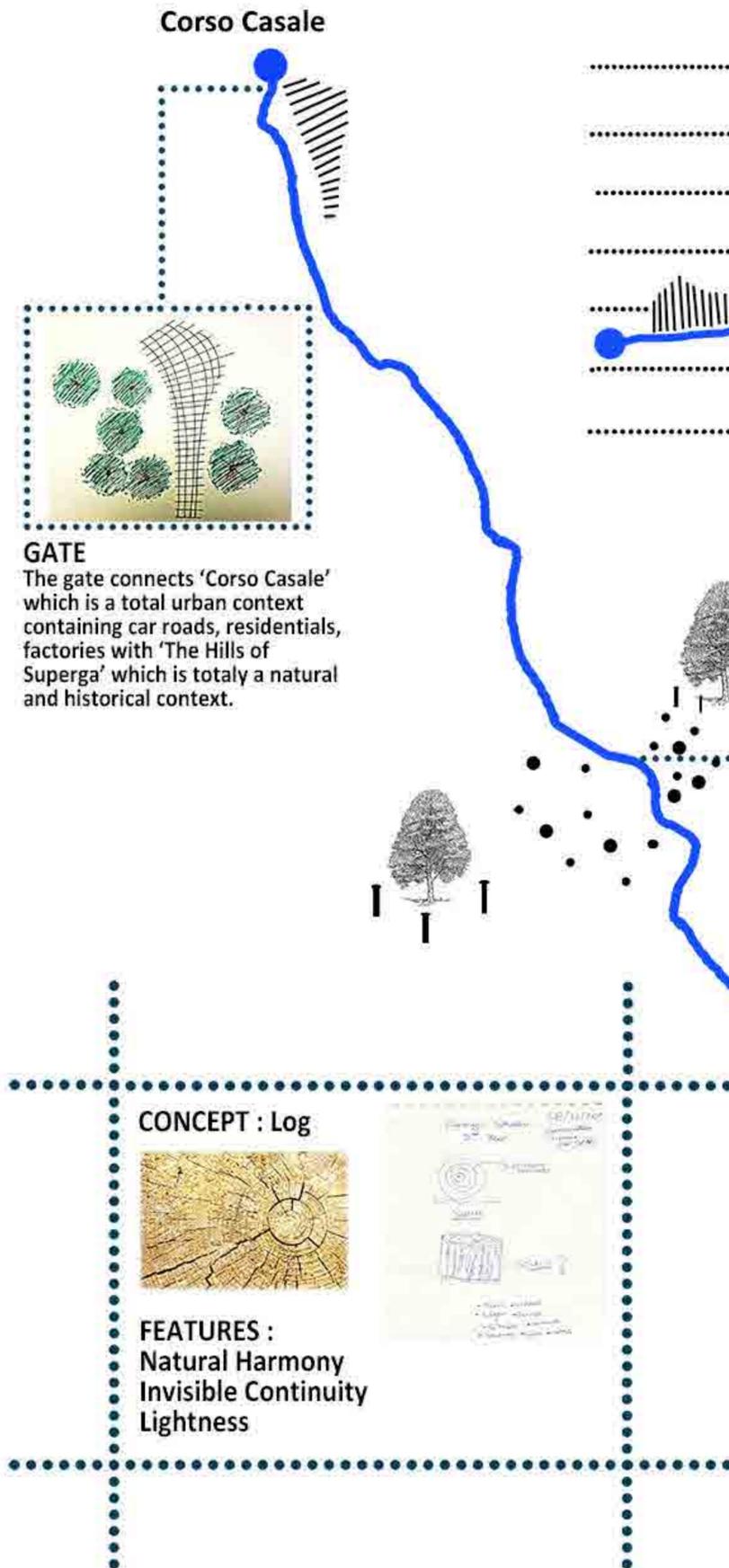
The second part of the trail is becoming steep. It is the most wild part of the forest. It is good to get in touch with the nature and to have mountain biking!

The third part of the trail is even steeper however this time it brings us beautiful views of Turin and the nature. Also the intersection of the path and Dentiera is situated here. It is good to run, walk and bike with views that appears within nature.

ANALYSIS SYNTHESIS PLAN 1:2000



PROJECT MAP 1:2000



GATE

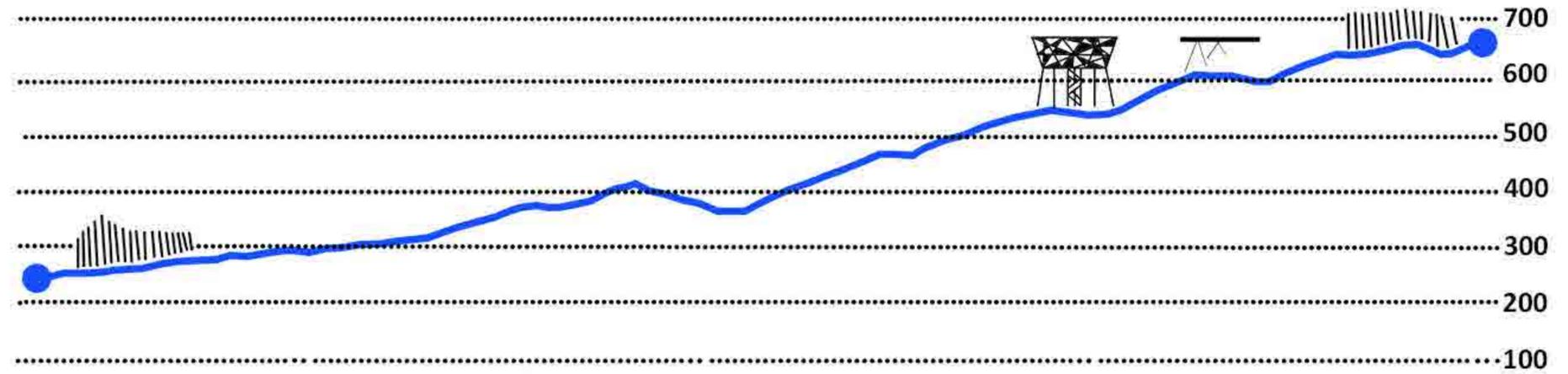
The gate connects 'Corso Casale' which is a total urban context containing car roads, residentials, factories with 'The Hills of Superga' which is totally a natural and historical context.

CONCEPT : Log



FEATURES :
Natural Harmony
Invisible Continuity
Lightness

PROJECT GENERAL SECTION 1:5000



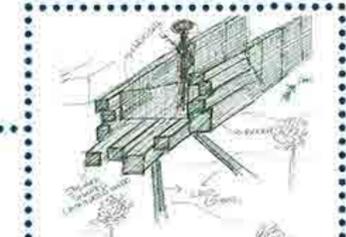
WAY AND SIGN SYSTEM

The way and sign system consist of a combination of random natural elements that appears suddenly in assorted places especially at the intersections with other trails. It comprises stones, sticks and trees orienting people to the right way. It shaped by the differences of topography and natural elements.



INFO POINT

The info point is located at the platform near the Funicular Station of Superga. From here, one can easily arrive both the station and the nearest viewpoint. It also serves as a small gallery to show the photos and info of the hills of Superga, the funicular, the trail and the architecture itself for riders and climbers.



VIEWPOINT

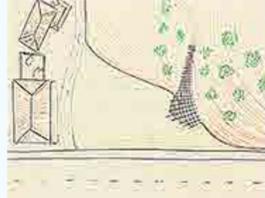
The viewpoint takes place in a high spot on the mountain which provides us a view with an absolute angle. It sees Torino and the Alps. Construction is made up of steel orsogrill and beech wood panels. It has an aligned position with Corso Francia and Rivoli Castle.



Superga



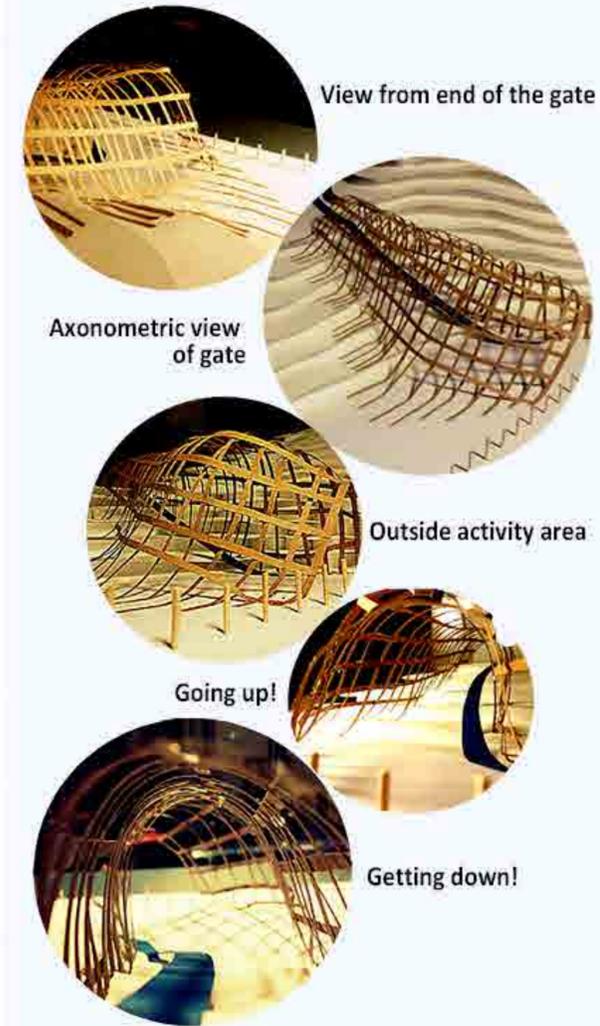
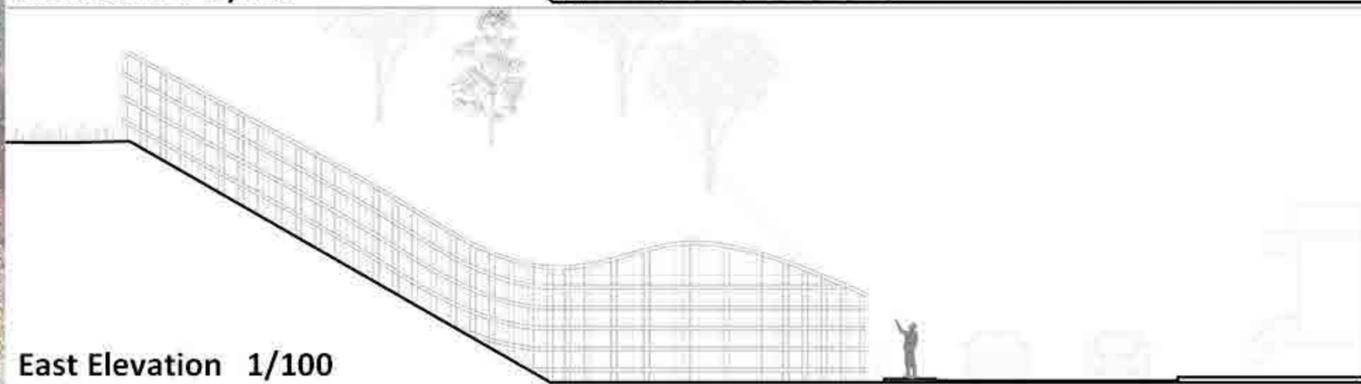
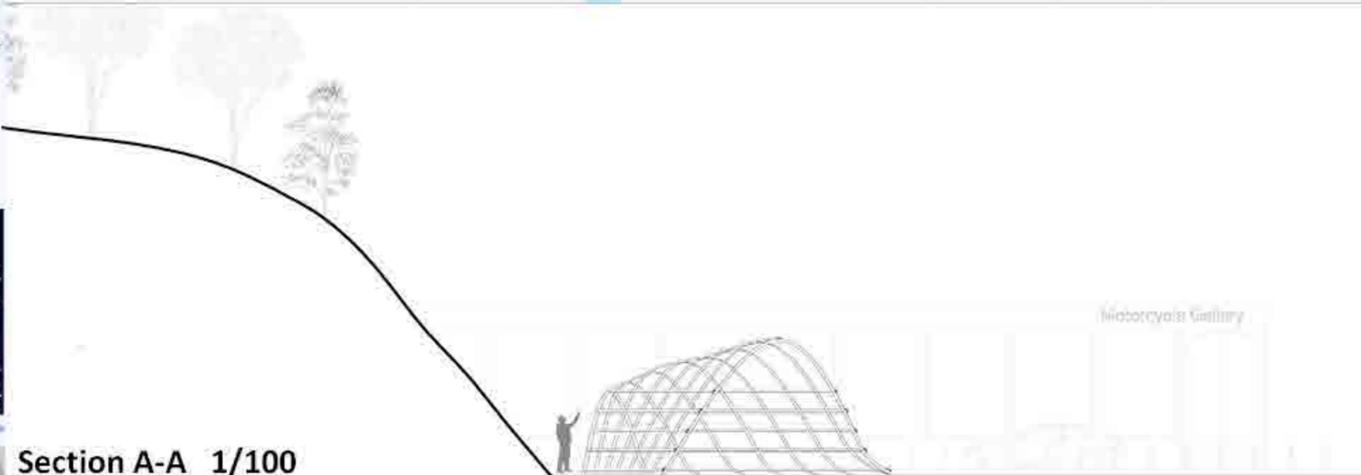
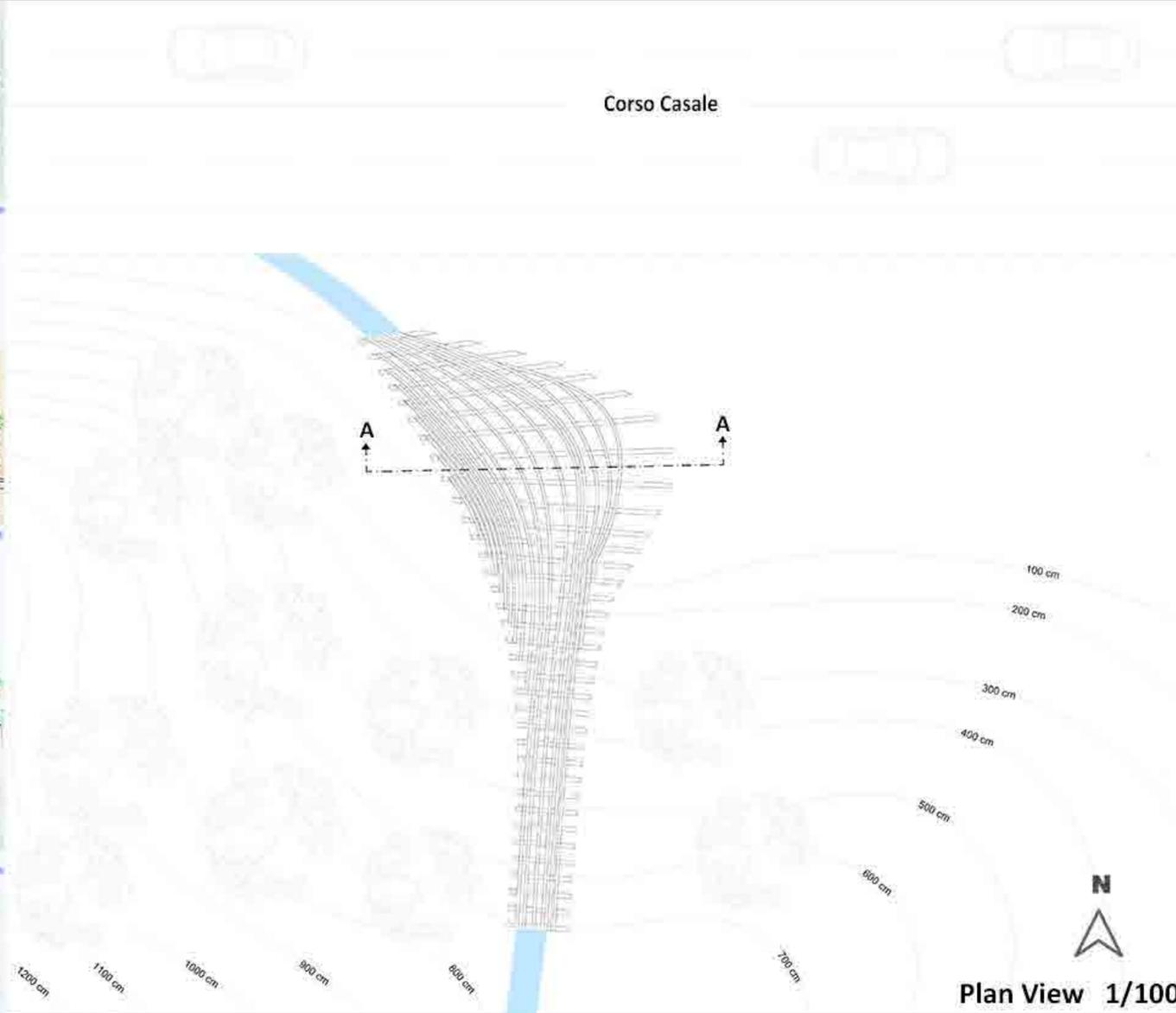
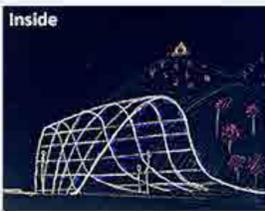
The starting point of the trail is situated in corso Casale between residential and factory complexes which is a dominantly urban zone. The trail heads towards a natural and historical complex. The aim of the gate is to connect these two different contexts with an arial closure that creates a discovery feeling and prepares people to a new atmosphere



Gate shaped by topography to catch the harmony with the landscape which is more steep in the one side and less in the other. This affect gives a feeling that it is the continuity of 'The Hills of Superga'



Gate is multi-funcional due to its shape from inside and outside. It creates a functional space in the vast area at the departure. It has a clear view of 'Basilica di Superga'. The bigger openings in part of the gate concentrate people to this beautiful view by erasing the affects of surroundings



MATERIAL
 Main girder Curtain steel beams
 Secondary girder Curtain steel beams
 The strucure of the gate is to be covered with seasonal and natural skin.

- SKIN**
- Ivy
 - Flower
 - Autumn leaves
 - Knit
 - Snow
 - Grass
 - Lighting

1.LOCATION



2.TERRITORY



The territory of the intervention is a platform located near the funicular station and from where you can see the Santa Croce as well. It is also a pretty important place for bike riders to relax

3.CASE STUDY



Natural Reference: The Bird's Nest On Tree



Structural Reference: The Bird's Nest In Beijing

4.SKETCHES



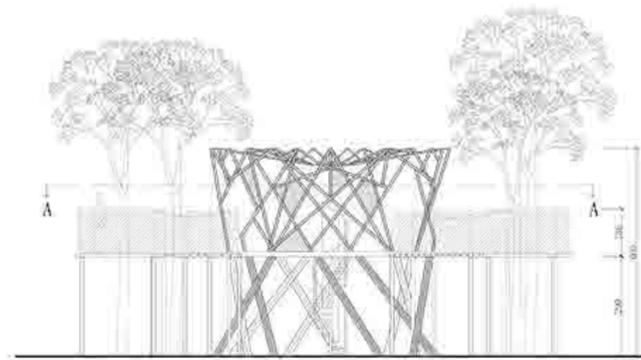
Sketch of the elevation



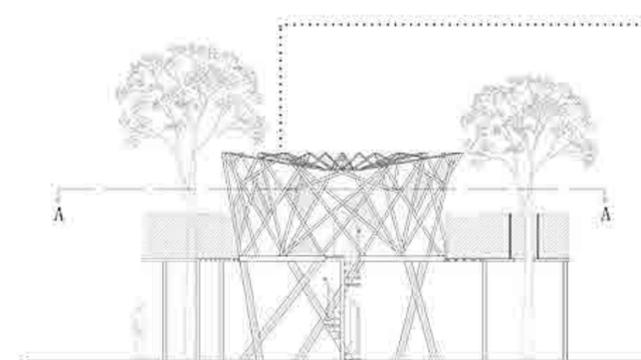
Sketch of the plan



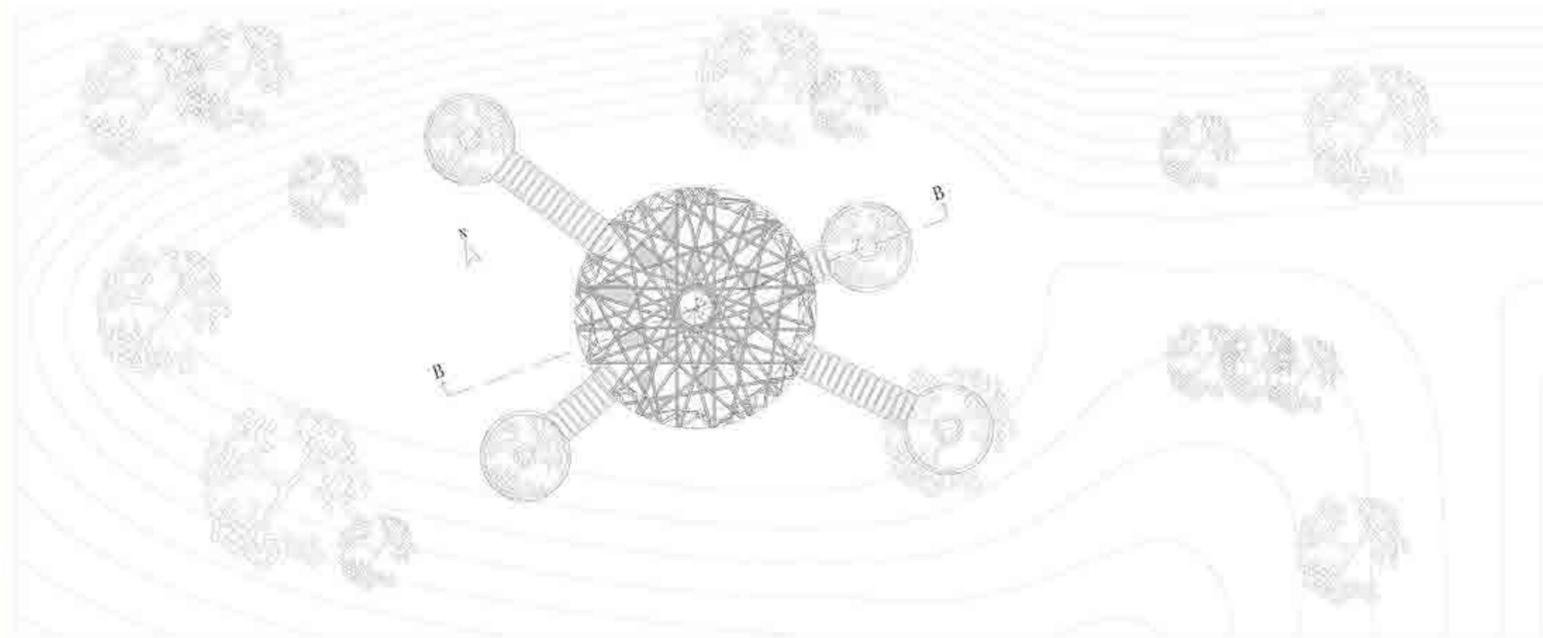
EXPLANATION TEXT
Primary sketches come from the concept nest. It is a more natural structure made by branches being united with the main concept "log"



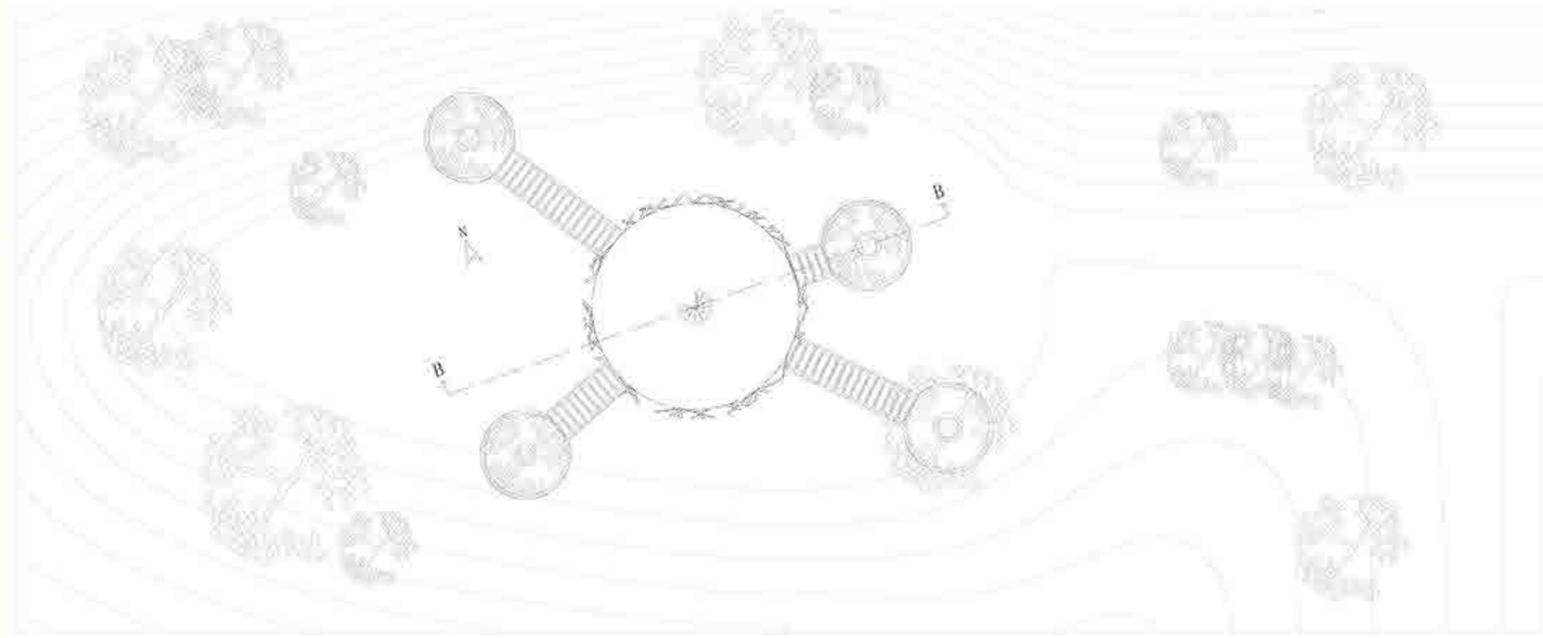
Elevation 1:100



Section 1:100

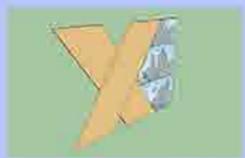
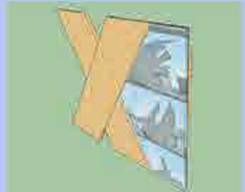


Roof View 1:100



Plan View 1:100

DETAIL



The info point will be combined with the activity point being shown as a small gallery providing photos and information of the trail, Superga and funicular

PHYSICAL



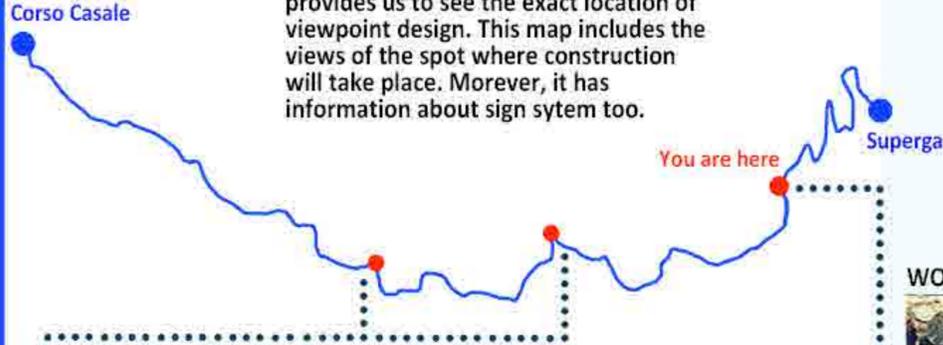
TURIN AND SURROUNDINGS



A map showing the relationship between Superga and the area

TRAIL 28-29

Zooming in the map of trail 28-29, provides us to see the exact location of viewpoint design. This map includes the views of the spot where construction will take place. Moreover, it has information about sign system too.



VIEW OF THE SPOT



View of corso Francia and Rivoli



View of San Mauro

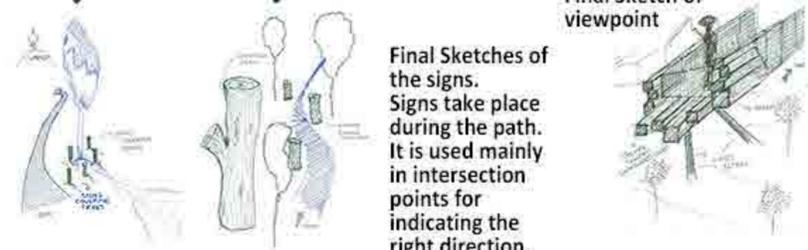


View of Turin

PLACE OF INTERVENTION

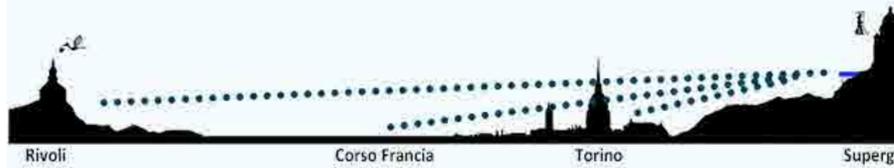


Final Sketch of viewpoint



Final Sketches of the signs. Signs take place during the path. It is used mainly in intersection points for indicating the right direction.

EVOLUTION OF DESIGN



The viewpoint is constructed on the "so called" pathway which starts from Rivoli (place of birth for Savoy family) and finishes at Basilica di Superga (place of death for the Court). Corso Francia connects these two essential places.

View of design oversees corso Francia with an aligned placement. The path idea composes two main characters of the area which is birth and death; corso Francia is a metaphore of life.

From the topview, construction begins with vivid materials. It then gets aged, deformed, since we are on the path of life.

MATERIALS

WOOD (BEECH)



Using beech wood in the deck provides budget efficiency because there is no need for transportation of any wooden material. It matches with traditional context. Keeping it vivid, saves the idea of youthness.

BURNED WOOD



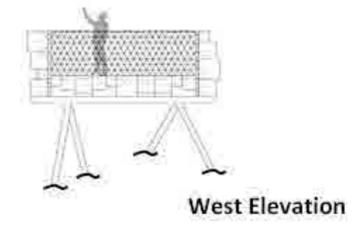
While moving to the path it's so easy to see transformation of the deck. This transformation is mainly based on burned wood which gives the idea of "getting aged".

STEEL (ORSOGRIL)

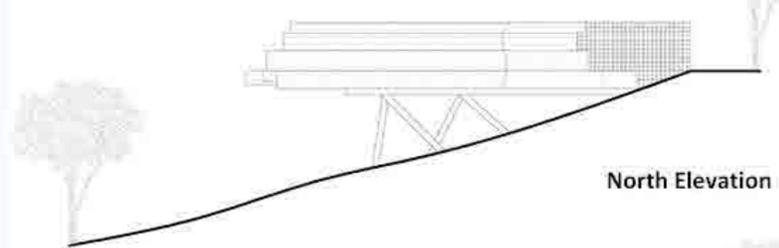


Orsogril is another material which made from steel. It is the "so called" skeleton of the deck which intended death feeling.

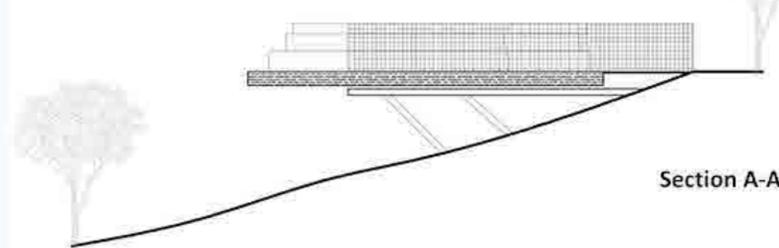
3D MODEL



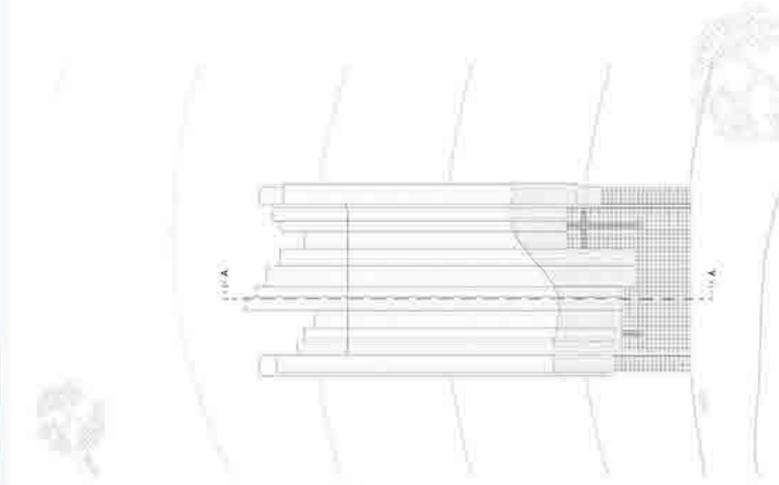
West Elevation



North Elevation

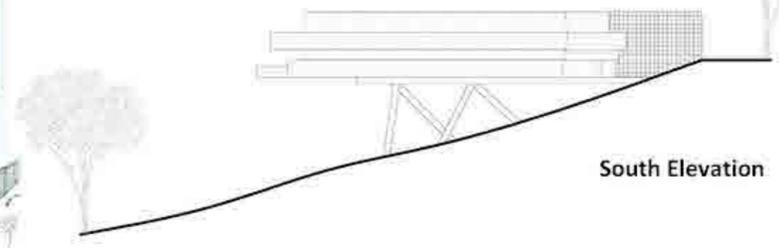


Section A-A'



Planview

Scale 1:100



South Elevation



Viewpoint



Corso Casale Gate



Info Point



Corso Casale Gate

Starting from
an important
settlement
in the hills
around Turin,
Baldissero,
again organized
around a small
mountain,

dominated by the impressive Baroque church (still looking for a famous sign and sometimes attributed to some of the most relevant Savoy Court Architects), the road reach the basilica of Superga passing through a relevant series of historical elements. First of all, votive chapels signing the trail, less monumental, obviously, than the range characterizing the main road to Superga, but of great interest.

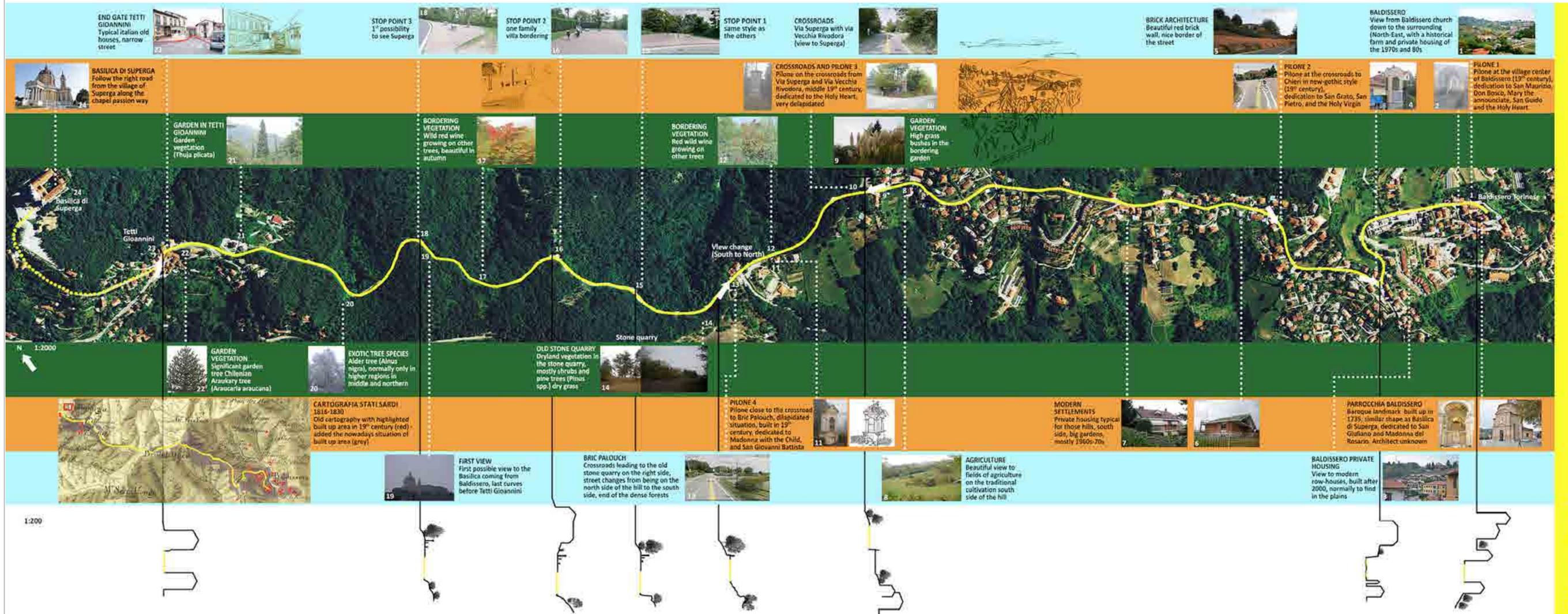
The project aims to recognize and reconnect these elements imposing a coordinated solution to improve the visibility of the starting and arriving point but also re-drawing the complete road.

(C.D., with M.V.C.)

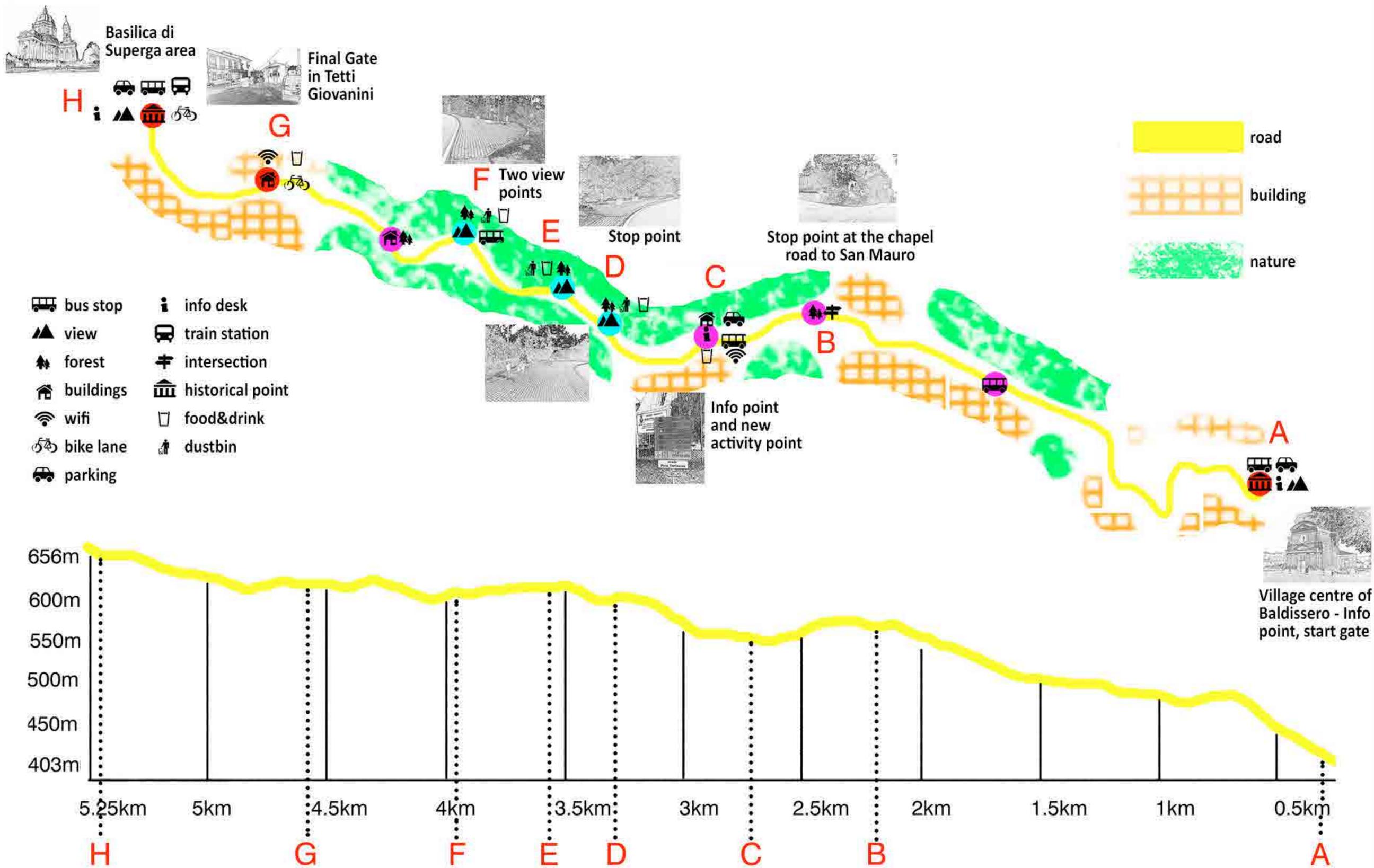
A single element declined in a set of different objects compose the organizing structure of a crest road that crosses a variety of built and natural landscapes.

Thin and graphical at the starting gates, it merges in open volumes at the resting points and folds to the horizontal plane to create a intermediate viewpoint platform where the wood opens. This simple corten steel curve establishes a continuity of orientation signs appropriate to guide the visitor to Superga along a long and sometimes confused road.

(L.B, with R.V., L.M.)



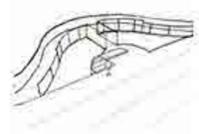
Meng Lingyan • Tomoki Aiba • Robert Kuchernik • He Wang • Xu Xiaohui • Zheng Naichao



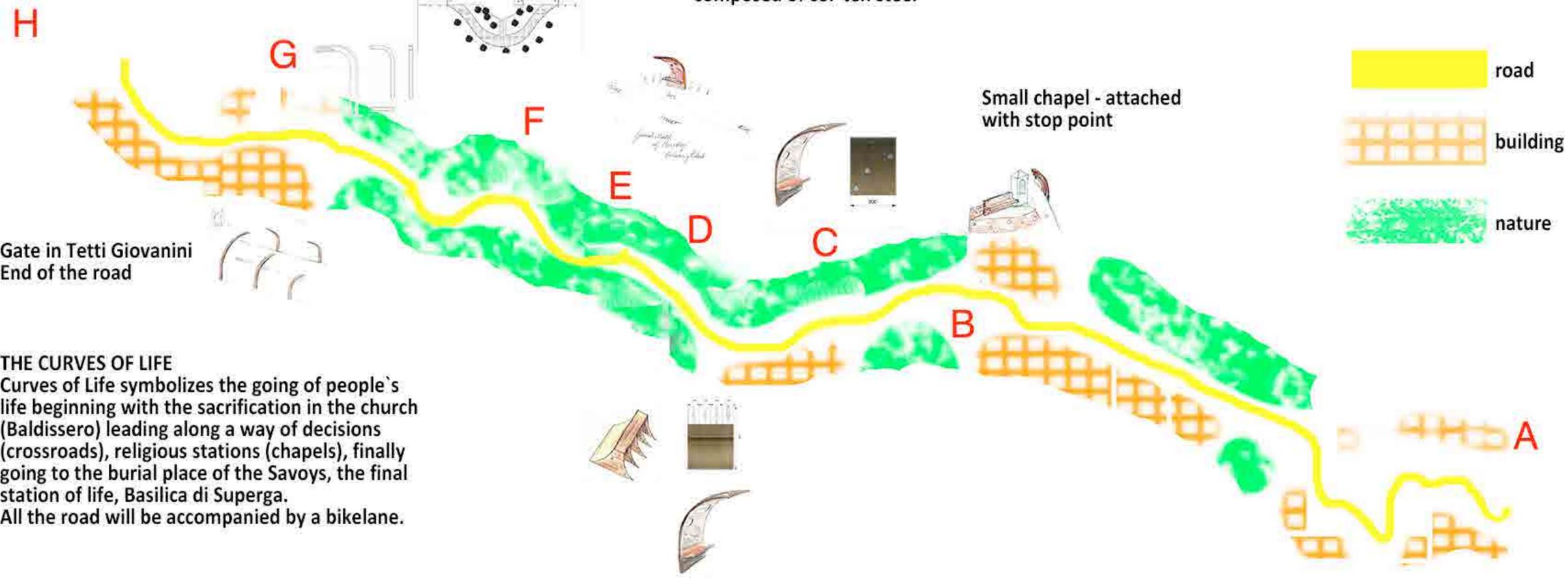
PROJECT SYNTHESIS



View points allow to get "deeper" into nature and to enjoy the view



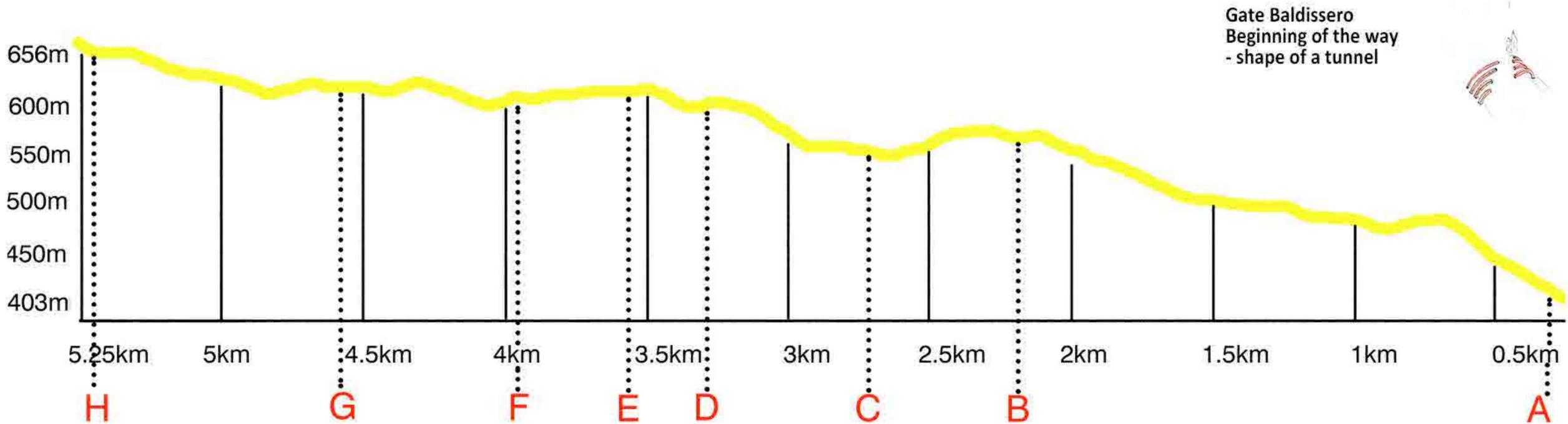
Bus stops and infopoints are always combined and composed of cor-ten steel



Gate in Tetti Giovanini
End of the road

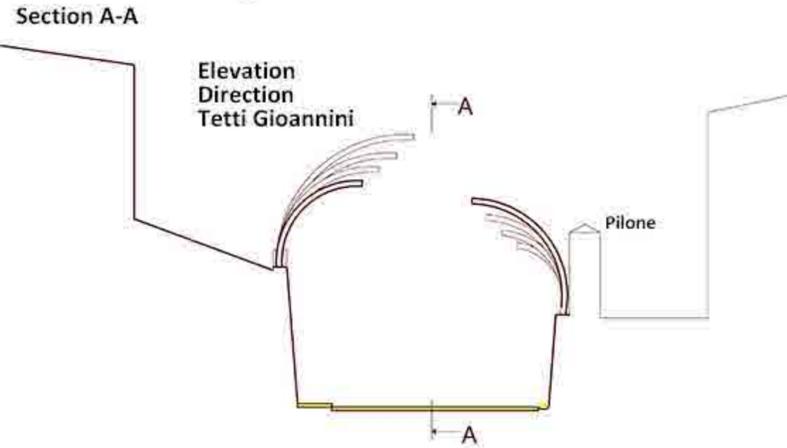
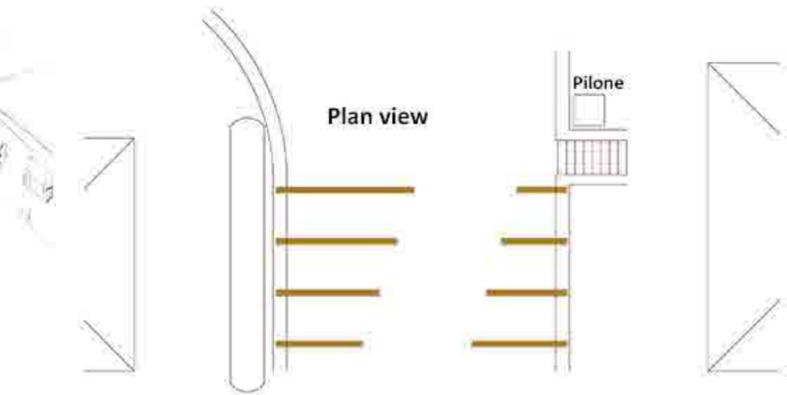
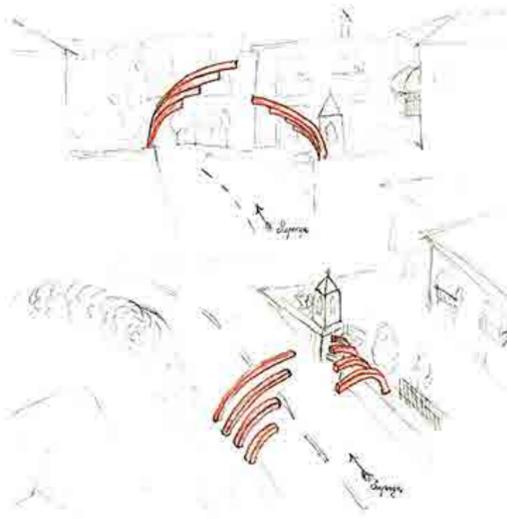
THE CURVES OF LIFE

Curves of Life symbolizes the going of people's life beginning with the sacrifice in the church (Baldissero) leading along a way of decisions (crossroads), religious stations (chapels), finally going to the burial place of the Savoys, the final station of life, Basilica di Superga. All the road will be accompanied by a bikelane.

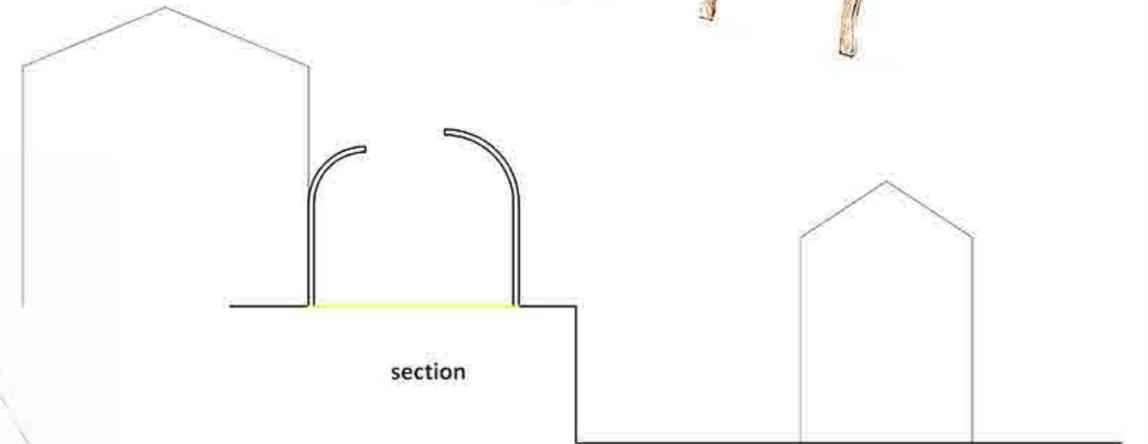
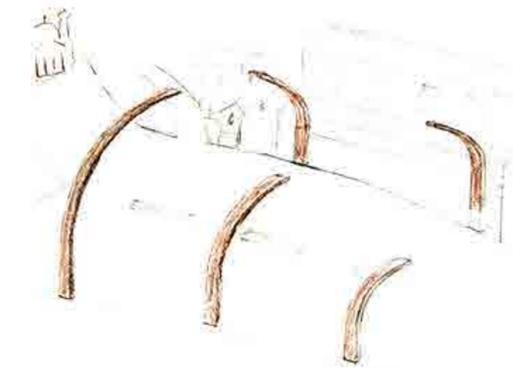


Gate Baldissero
Beginning of the way
- shape of a tunnel

GATE BALDISSERO
1:100

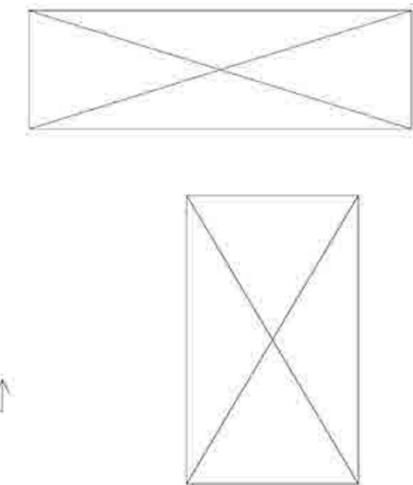
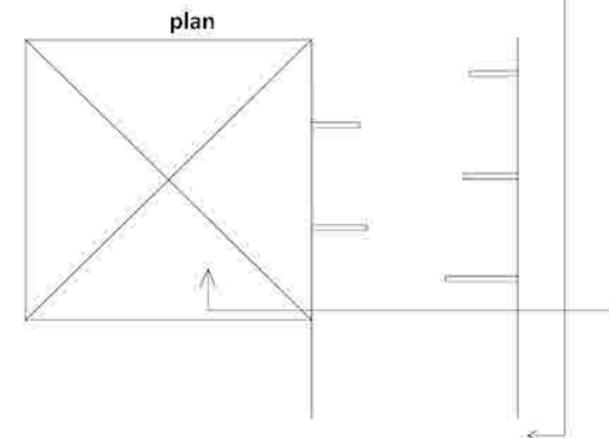
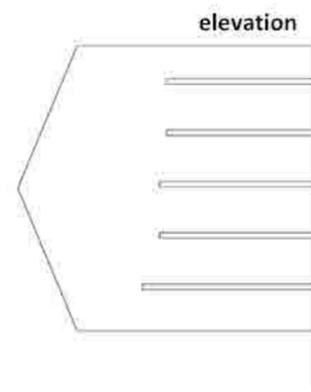
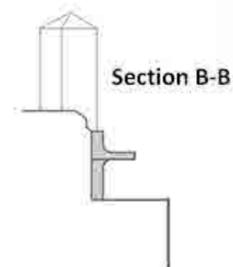
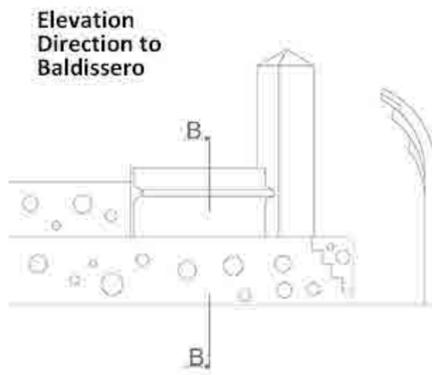
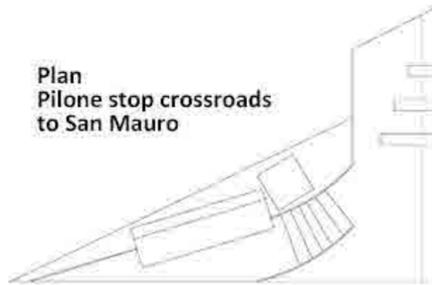


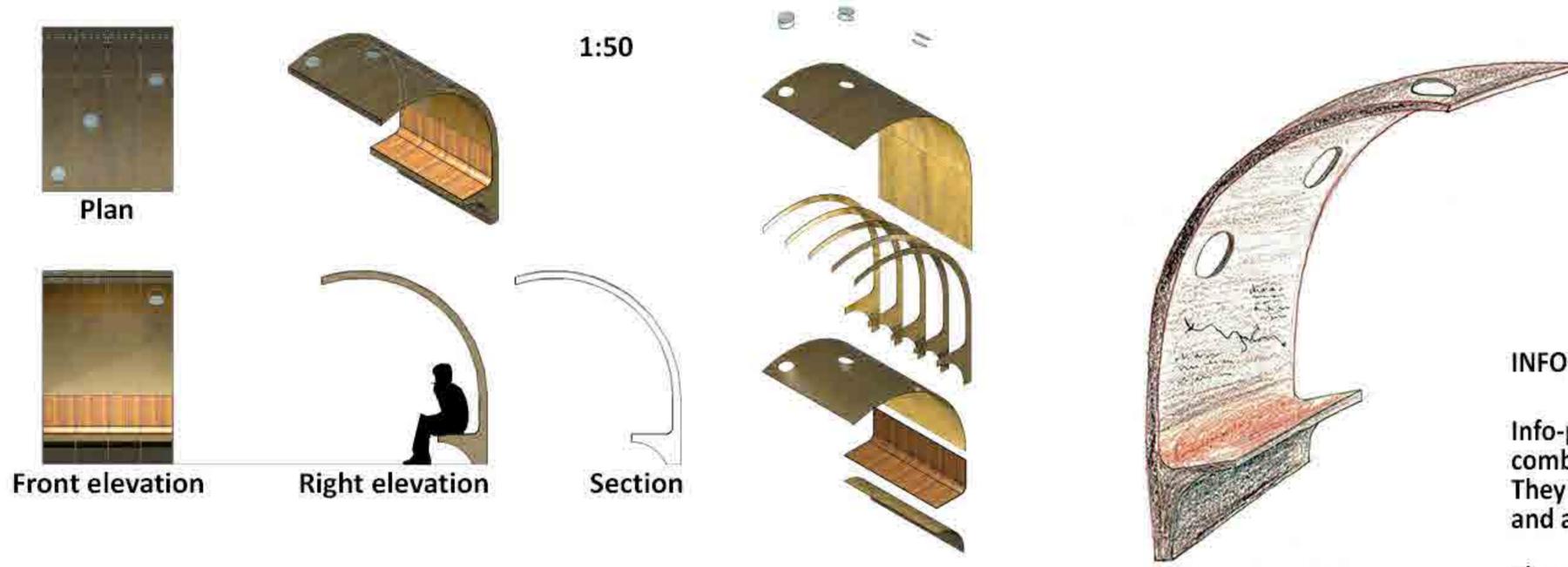
GATE TETTI GIOANNINI
1:100



PILONE STOP
1:50

Intervention on the very narrow area of the pilone on the crossroads going to San Mauro, containing a bench and a new stair leading up to it

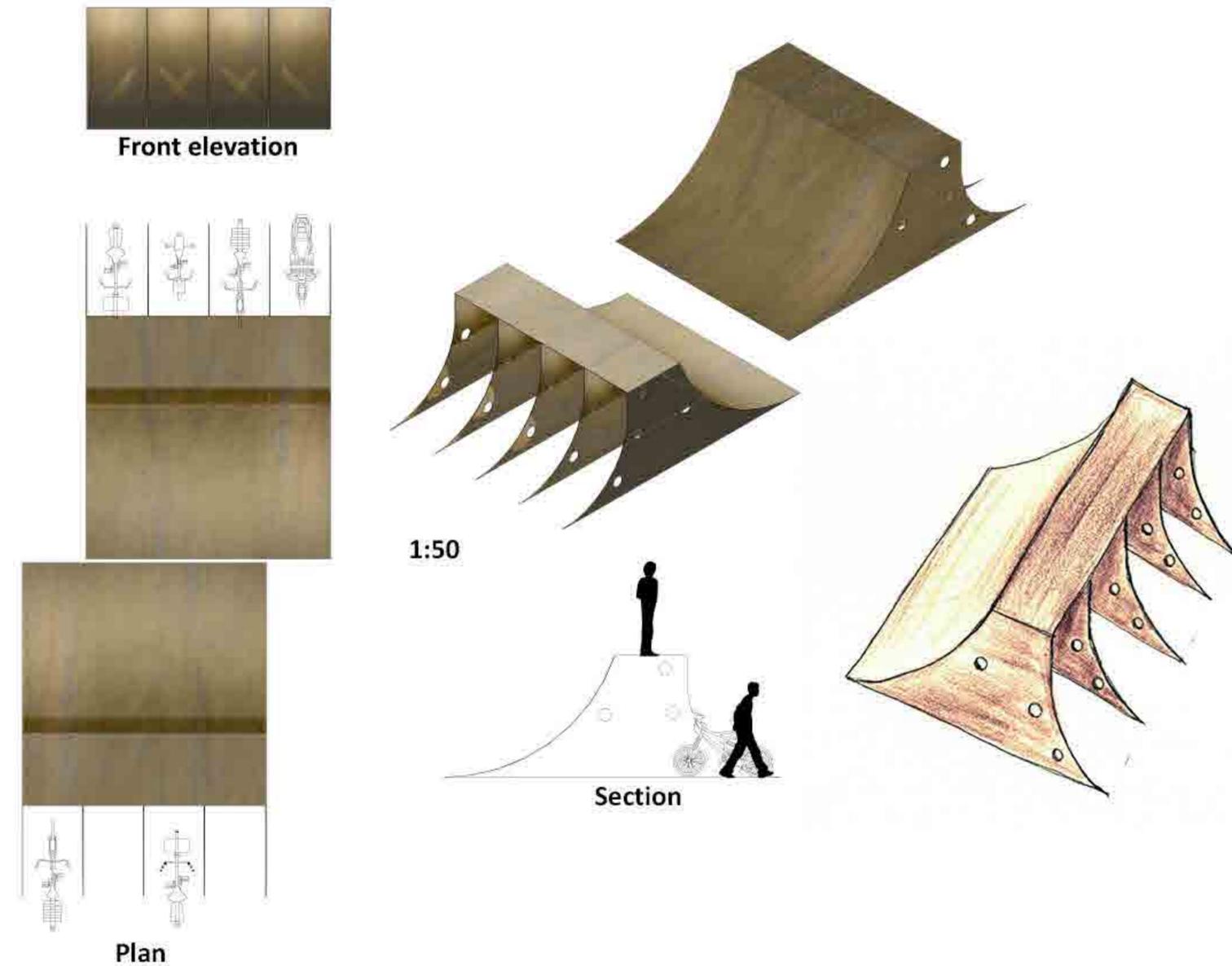




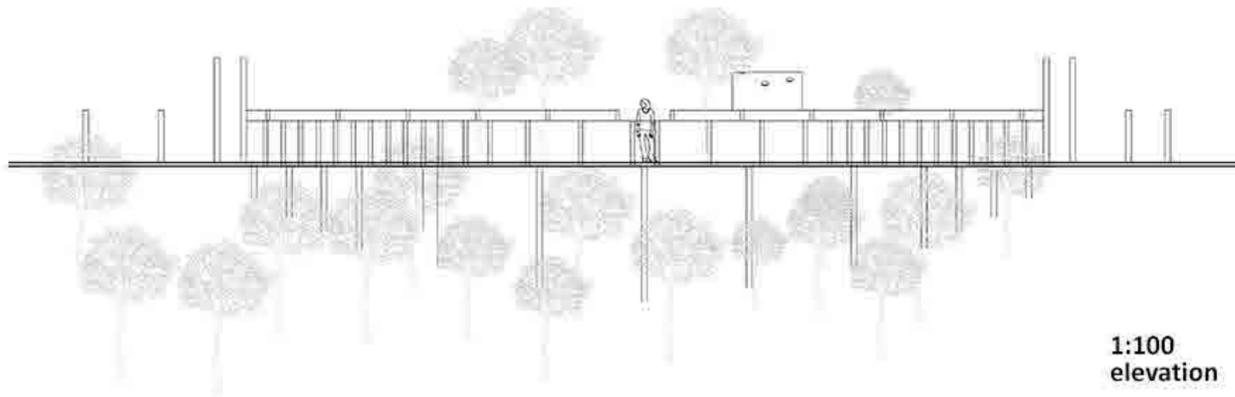
INFO-POINT AND NEW ACTIVITY-POINT

Info-points are settled all along our road also in combination with bus-stops. They should inform people about where they are and about the historical links of the road.

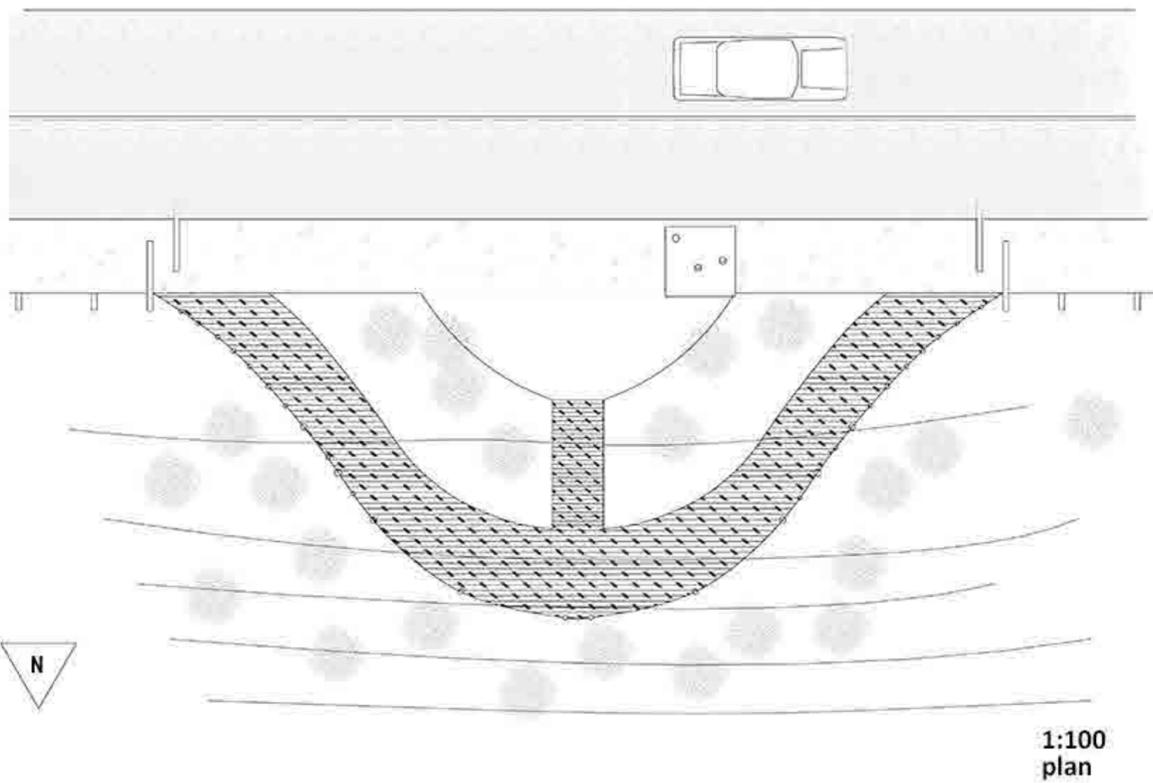
The new activity point contains a halfpipe to encourage people for new activities in this place. It can be found on the crossroads to Bric Paluch.



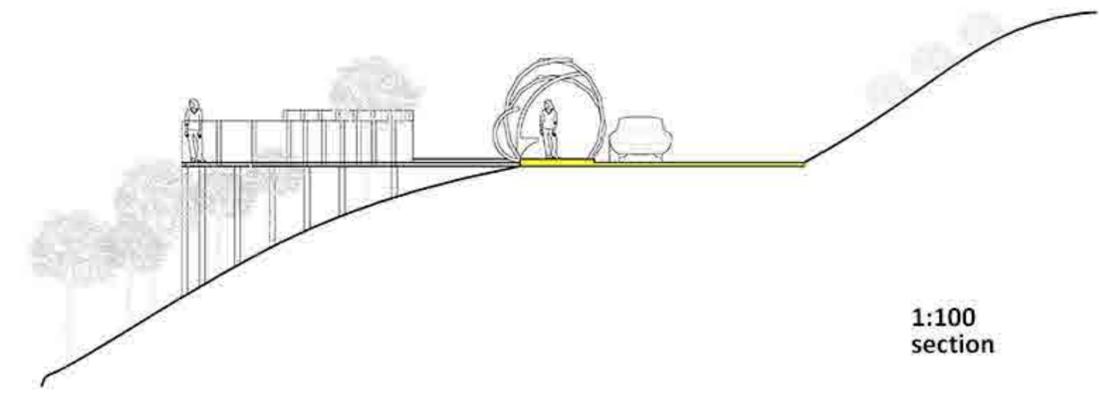
VIEW POINT



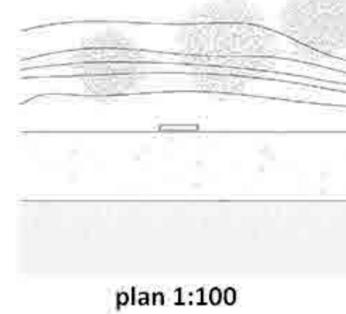
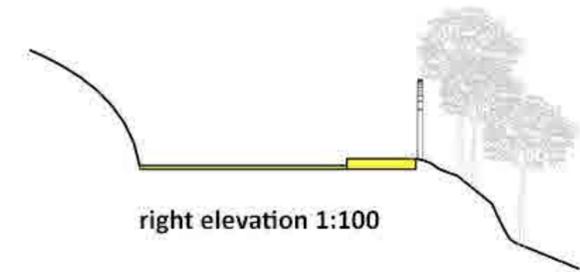
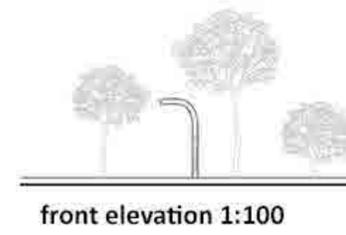
VIEW POINT



VIEW POINT

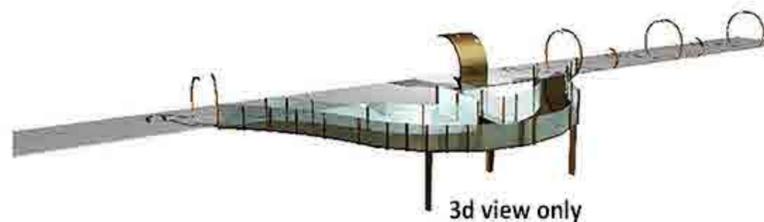


SIGNS



1.5km to SUPERGA

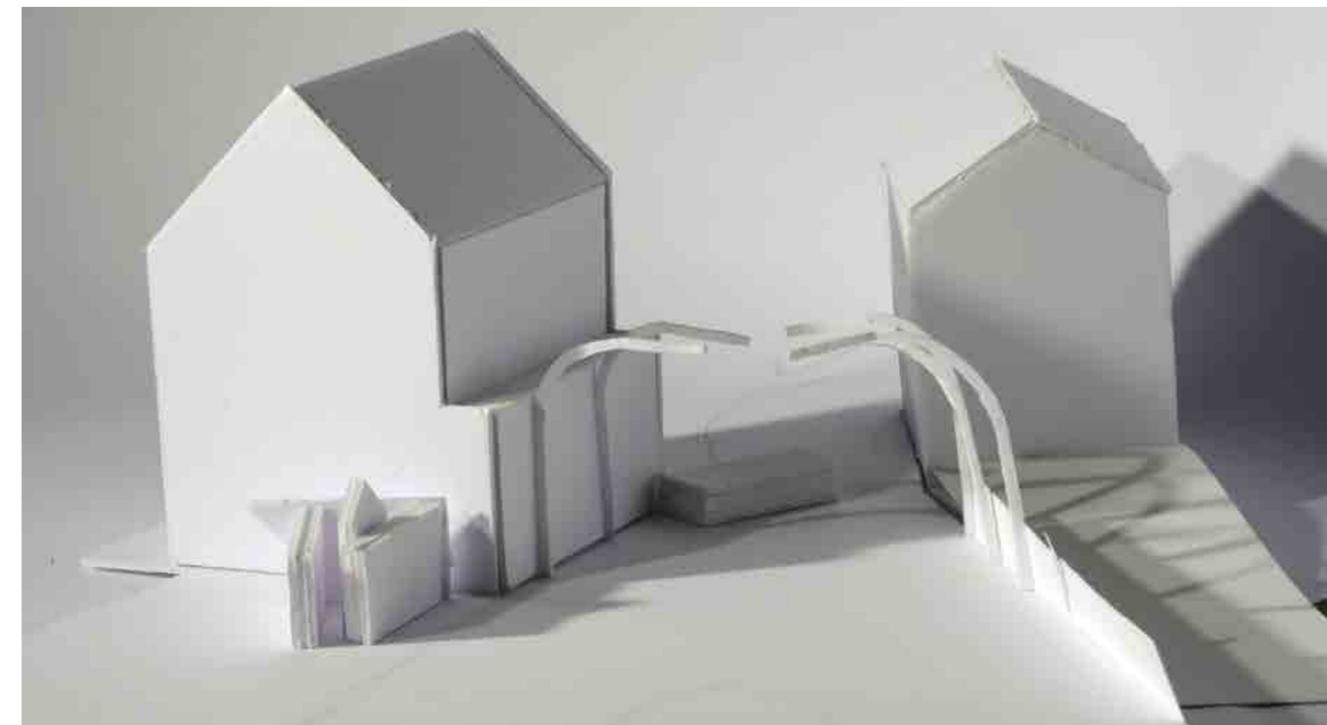
Details of Pierced Texts 1:10



1:100 section



Viewpoint



Tetti Gioanin Gate



Bus Stops + Playground

The conservative approach to the historical remaining of this group is absolutely appreciable, especially because of the relevance of such elements, like the railway original departing and arrival stations, but also the evidences of the ancient

infrastructural organization (brick pillars, intermediate stations, etc.). The analysis conducted allowed the components of the group to recognize the importance of the re-functionalisation of such elements and the possibility to reconnect them where the original relation has been lost by following transformations. The proposed solutions, with underground trail and exhibition of historical pictures of the ancient railway road (old photos and sketches) is combining modern architecture with old images in a well balanced mixture and cultivated analysis. Even the re-organisation of the ticket office, rediscovering the original spaces (unlikely abandoned for “modern” solutions some years ago) demonstrates a well understood connection with the origins of the infrastructure serving the hills and connecting the city with its more emerging monument, the basilica of Superga.

(C.D., with M.V.C.)

Three additions to the main tramway stations open new ways to orientate the visitors and their views to the surroundings with simple forms composed in articulated spaces. The Sassi gate defines a clear entrance to the lower station with transparent shelters around the new ticket office. An underground passage connects the intermediate station to a restored abandoned building, spaces hosting a linear exhibition hall where you can perceive the woods landscape. On the path from the Superga station to the Basilica a zigzagging bridge between the trees creates an alternative path that opens several visual angles up to the Po valley and the Alps.

(L.B, with R.V., L.M.)

1 XIX century building style with pattern of paving stone

2 STAZIONE SASSI The station and the gate. The railway first opened on 27.04.1884

3 Trees are used to create a border around an open field

4 STAZIONE SASSI DELLA FUNICOLARE 10.10.1900 Seen from the main road of Strada Superga. Up to 1999 passengers have entered under the arch. The lower photo was taken from the other side nowadays.

5 Private Garden

6 Residential Building

7 AGRICULTURAL GARDEN Fence covered

8 Grassy Lawn

9 WIDE VIEW Lawn on the gentle slope. Wall covered with greening.

10 Grassy Lawn

11 Burning Bush

12 Residential Building

13 Cypress

14 Residential Building

15 Grassy Lawn

16 Burning Bush

17 Grassy Lawn

18 Meadow

19 Meadow

20 VILLA RACCHIS A main feature is the sinuosity XVIII century

21 GREENING Vegetations forms the natural border of the tram way, providing a feeling of nature

22 FOREST Greens in the mountain along the tram way, making the journey more pleasing

23 PANORAMA of the historic part of Turin, including Mole Antonelliana

24 BORDER Natural border of the forest creates a tranquil environment

25 CITTÀ DEI RAGAZZI Already vine yard Bertone and Dubois vineyard. Three villas

26 GREENING Vegetations forms the natural border of the tram way, providing a feeling of nature

27 STATION Terminal building of tramway track. The funicular line was opened in 1884

28 TREE Some big trees along the tram way blocks the view to the city. However, they are still beautiful trees

29 MIDDLE STATION

30 PANORAMA Large panoramic view of the Northern half of Turin and its surrounds

31 VILLA MELINA CAPRIGLIO Closely linked with Villa Capriglio

32 FOREST Greens in the mountain along the tram way, making the journey more pleasing

33 BLOCKED VIEW Inevitable slope border blocks the views because of the differences of altitude

34 VILLA CAPRIGLIO Seen initially on the Napoleonic map

35 Forests

36 MIDDLE STATION Plan Gambino

37 BLOCKED VIEW Inevitable slope border blocks the views because of the differences of altitude

38 PANORAMA View including urban residences and agricultural facility terraces evoking a comparison

39 SUPERGA STATION

40 PANORAMA View including urban residences and agricultural facility terraces evoking a comparison

41 PILAR Historical Element Railway Pillar

42 Forests

43 CONFLUENCE BETWEEN RIVER PO AND RIVER STURA DI LANZO Border becomes undefined because of the changing height of landscape

44 CONFLUENCE BETWEEN RIVER PO AND RIVER STURA DI LANZO Border becomes undefined because of the changing height of landscape

45 Forests

46 Oak Tree

47 PANORAMA View including urban residences and agricultural facility terraces evoking a comparison

48 SCREEN A line of trees forms the border of the square around the Basilica. Vegetations on the cliff makes the path more comfortable

49 TRATTORIA BALDISSERO-SUPERGA 1905-1965 Here's a shot of the town of Superga coming from Baldissero. In the foreground you can see the eponymous restaurant on the corner with street Morcamino, while the pergola in the background belongs to the cooperative

50 BORDER Concrete wall and green station fence implied the ending of the journey

51 PANORAMA View including urban residences and agricultural facility terraces evoking a comparison

52 STAZIONE SUPERGA DELLA FUNICOLARE 06.02.1911 To the left of the restaurant "Pippo", centered on the roof that protected the pulley rope and to the right the waiting room and ticket office. On the track and parked locomotive Agudio with closed bodywork

53 PANORAMA Broad open space provides chances for passengers overlooking the city

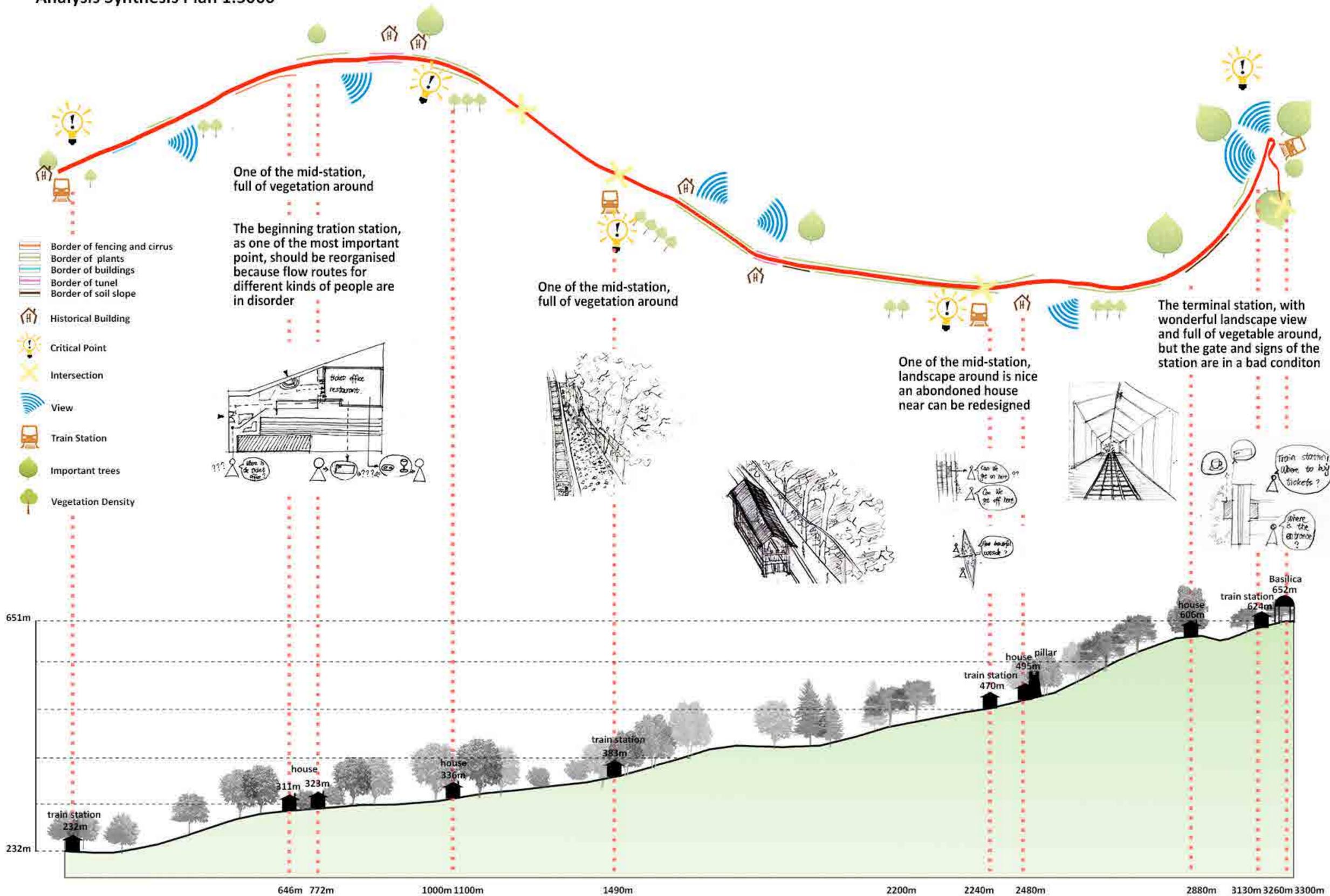
54 FENCE An artificial fence blocked the people from the forest

55 BEACH TREE

56 PANORAMA Broad open space provides chances for passengers overlooking the city

57 CONNECTION This road is a connection between the station and Strada Superga. It is also a good place to go while waiting for the train

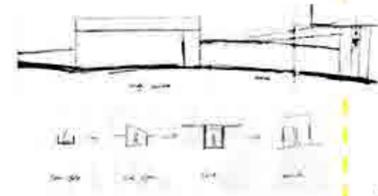
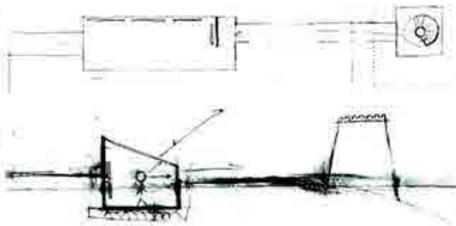
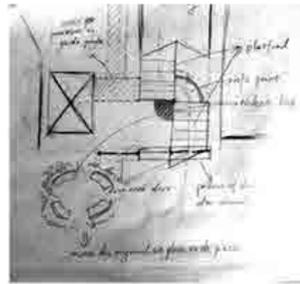
Analysis Synthesis Plan 1:5000



Analysis Synthesis section 1:5000



analysis map 2_1:5000

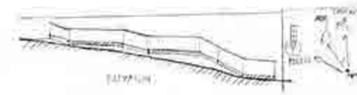


analysis section_1:5000

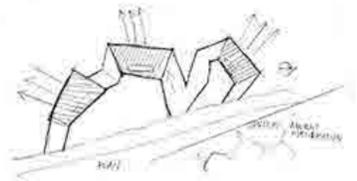
Considering the Pian Gambino station and its surrounding situation including the historic pillar, an intervention in order to increase the utilization ratio of the station is necessary. The project also focus on creating a place for tourists to gain more information about the history and transformation of the Superga railway.



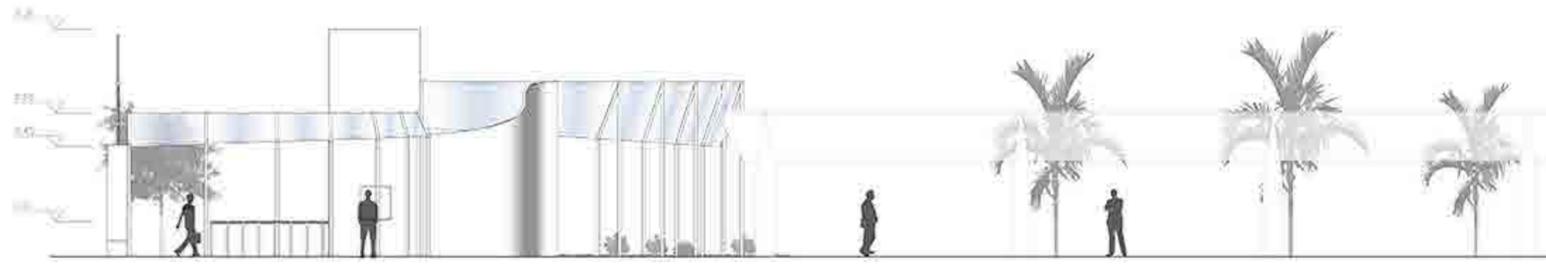
In the Station Sassi, the layout of controlling flow is confusing and inconvenient since the inappropriate position of ticket office. Given this situation, the intervention, which aims at making the layout of flow more clear and convenient, is quite necessary. The project also tries to enhance the directional function towards the church and provides the implication of the Basilica of Superga.



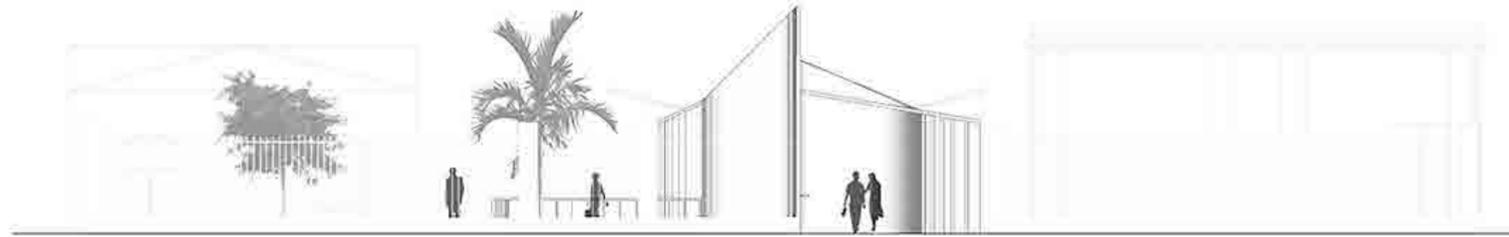
Inspired by the medieval bastion view design, we shape our project's plan by imitating the bastion's layout so as to create some view direction with specific aim, for instance, the Mole Antonelliana and the confluence of two rivers.



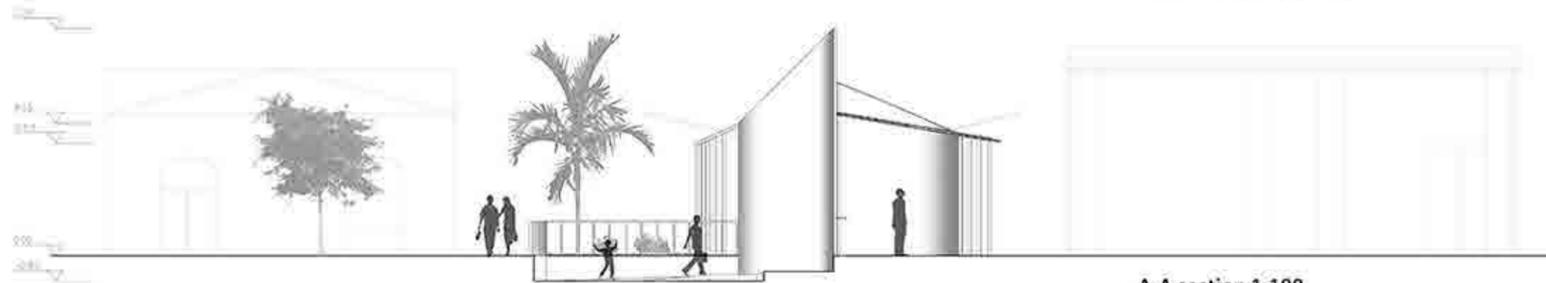
In the final path to the Basilica di Superga we found it a good position to have a view platform, which provides comfortable place for tourist to rest and enjoy the great panoramic view of Torino while receiving some information in the same time.



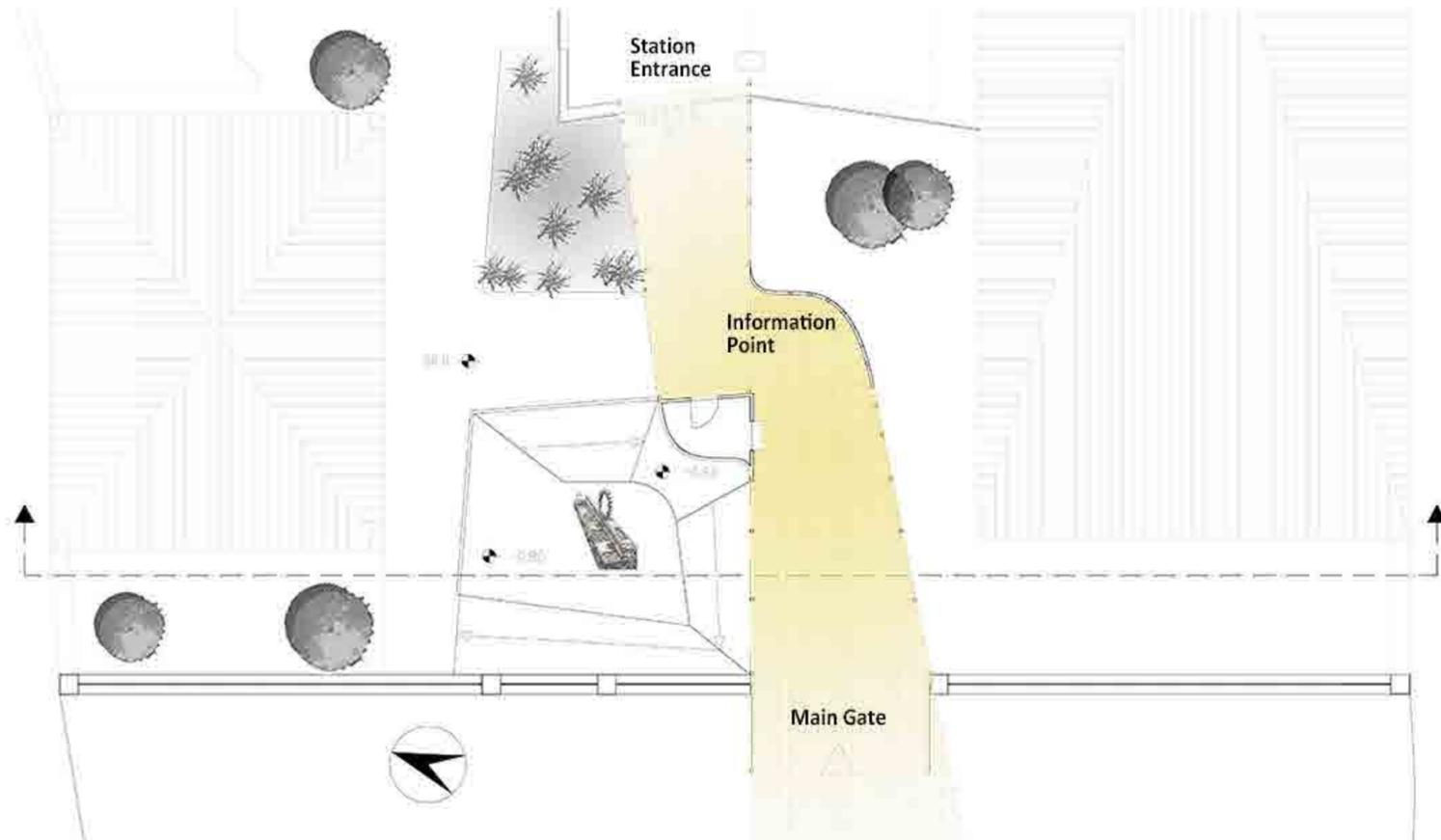
West elevation 1:100



South elevation 1:100



A-A section 1:100



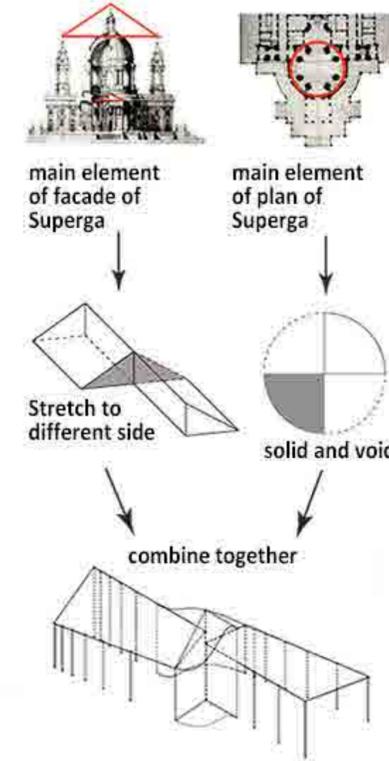
plan 1:100

SASSI STATION

The station in its current state is confusing for first-time visitors as the ticket booth is at the rear of the site, we aim to simplify the process of buying tickets by incorporating the ticket booth and information point into the entrance of the station.

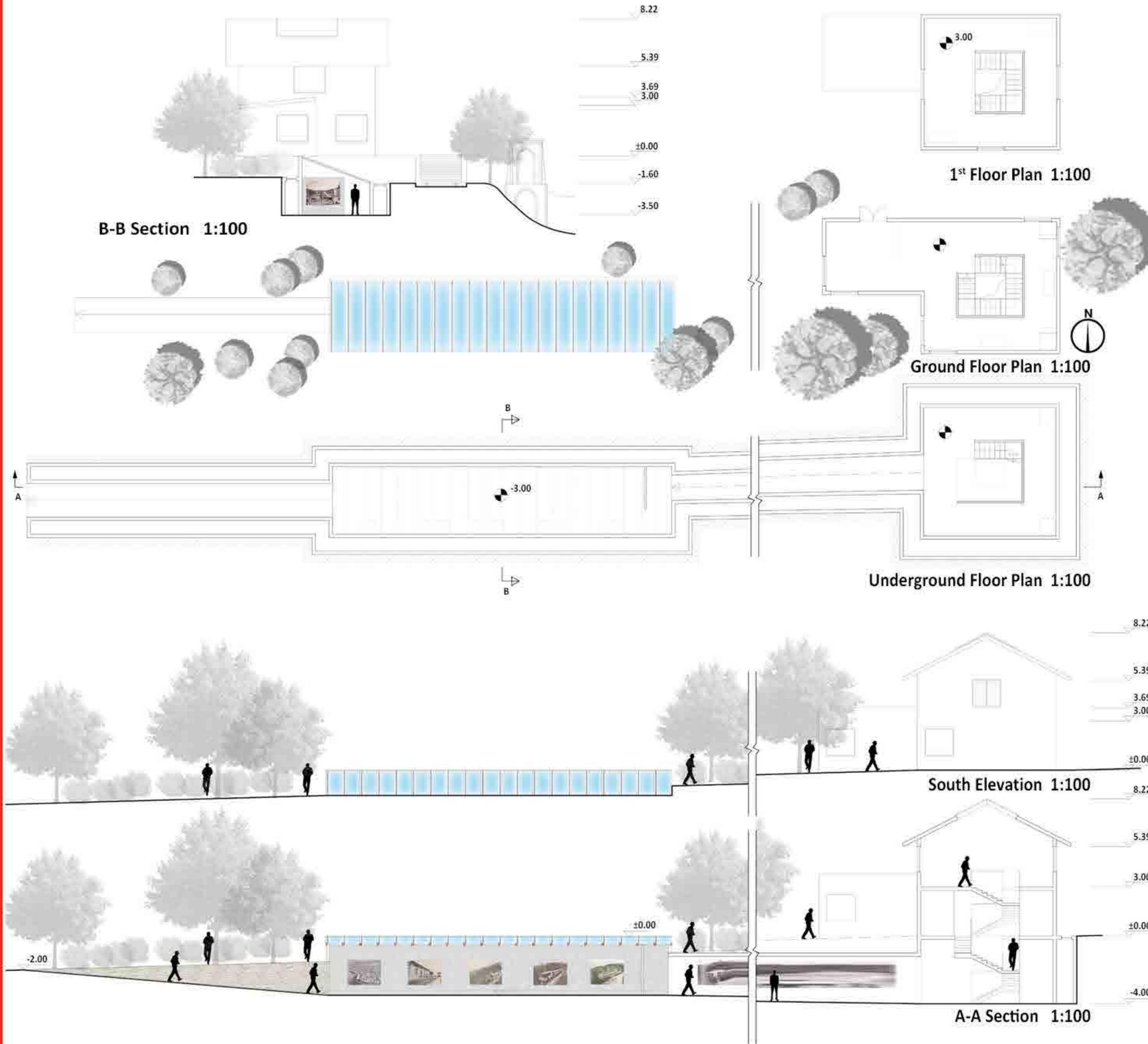
The entrance will be modified by increasing the height of several structures as a subtle signal that this is the entrance to the station. The inner courtyard will be adapted to fit the new aesthetic of the site, including full handicap access. These interventions will act primarily to make boarding of the train simpler, making the experience of the Superga more enjoyable and stress-free.

GENERATION PROCESS



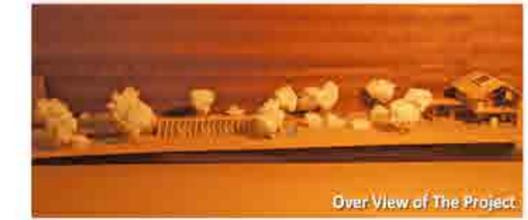
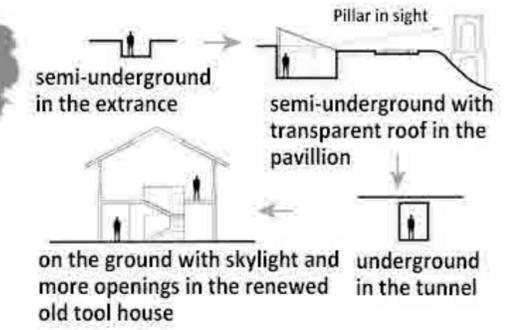
FLOW OF STATION

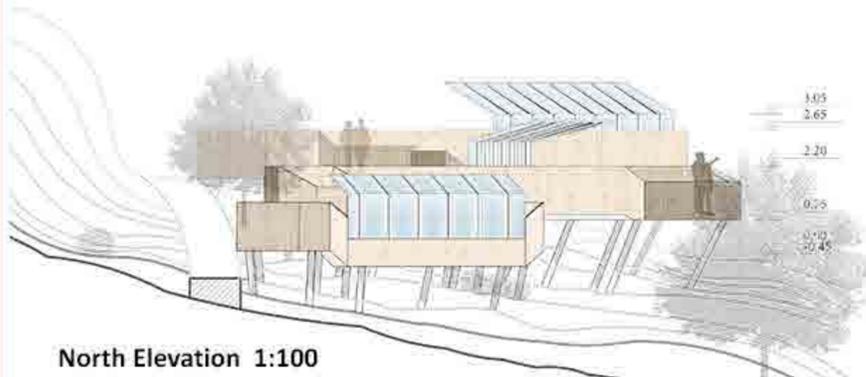




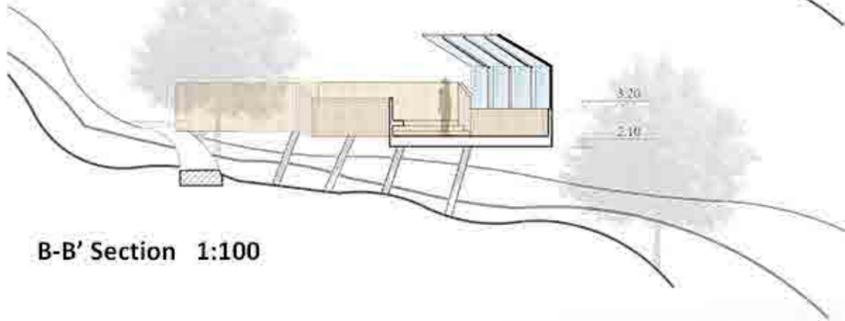
NEW ACTIVITY POINT+INFO POINT

The idea of this project derives from the location of the middle station and the position of the historical element of the tramvia – the Pillar. In order to show the Pillar and the history of this tram way, the pavilion is put in a semi-underground position. Instead of demolishing it, the old tool house is transformed into an exhibition hall. A tunnel is designed to connect the new pavilion and the exhibition hall, where movie of the history about Superga is played. To regenerate the almost abandoned middle station, a green path is designed to link the station and the new site of exhibition in the beautiful woods.

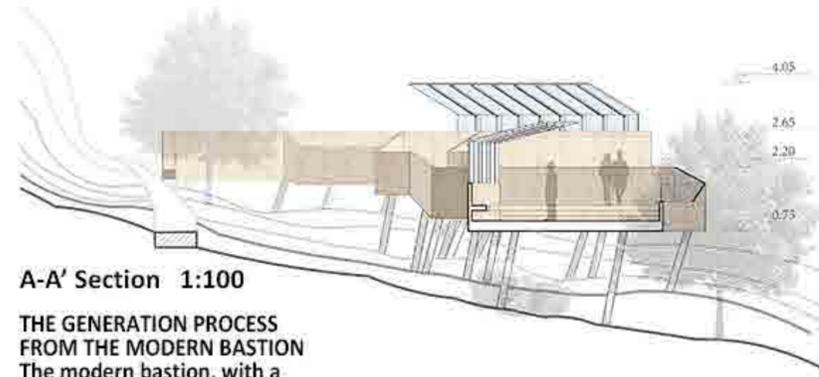




North Elevation 1:100

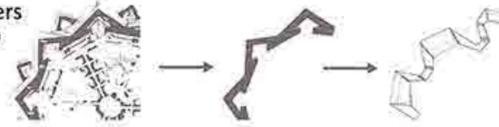


B-B' Section 1:100

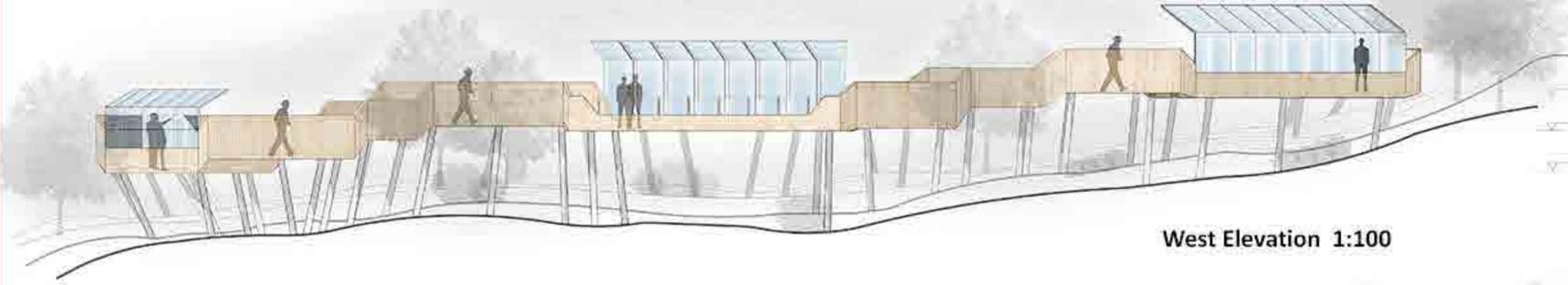
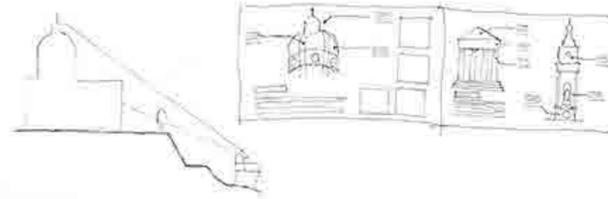


A-A' Section 1:100

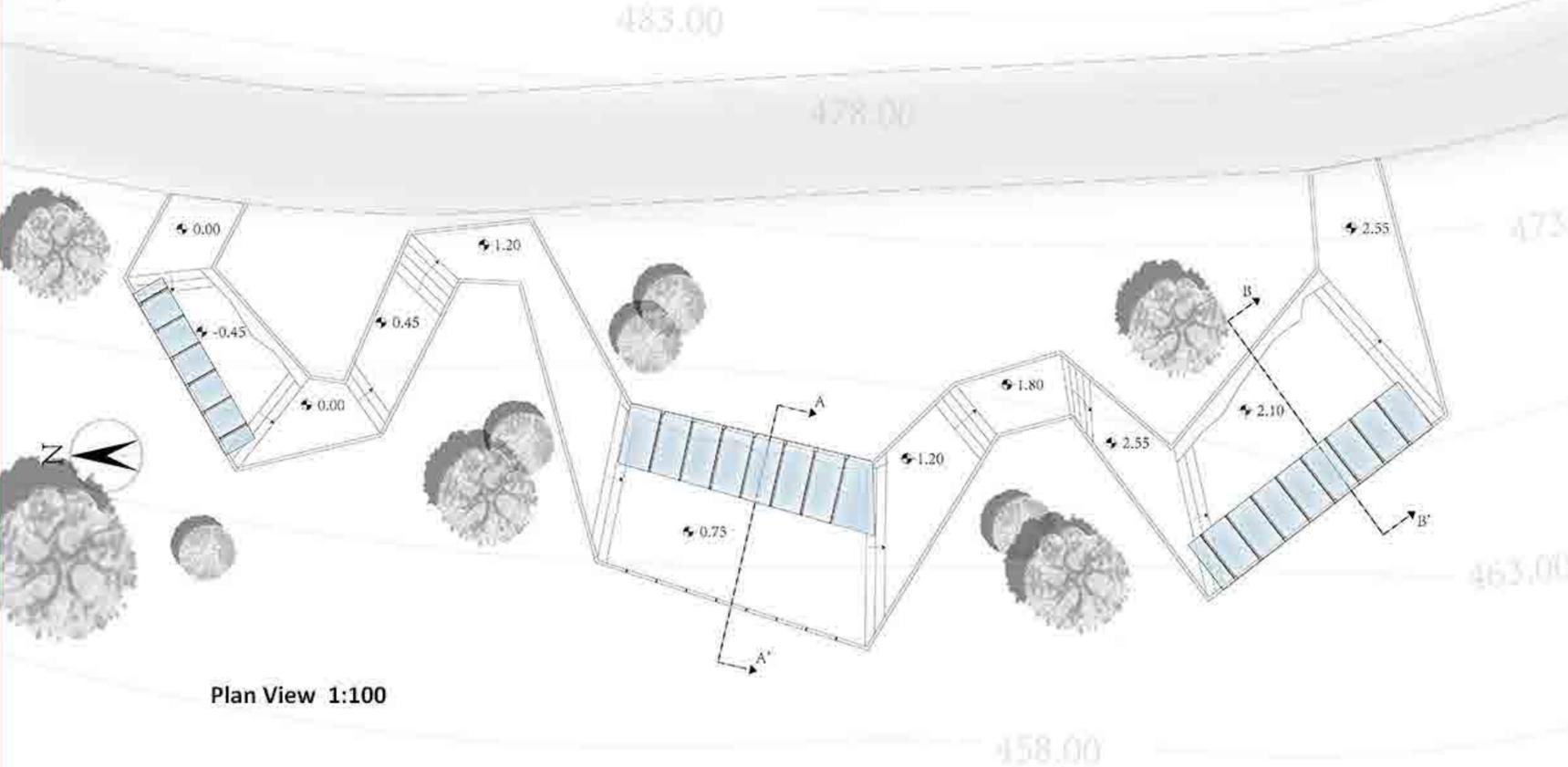
THE GENERATION PROCESS FROM THE MODERN BASTION
The modern bastion, with a variety of angles, helps soldiers put the maximum damage to invaders. The shape of the bastion inspires us and we decide to apply it to our platform for view point



GET INFORMATION FROM THE GLASS
Tourists can easily get detail introduction of Basilica of Superga when they read the information board which integrated with the glass shelter



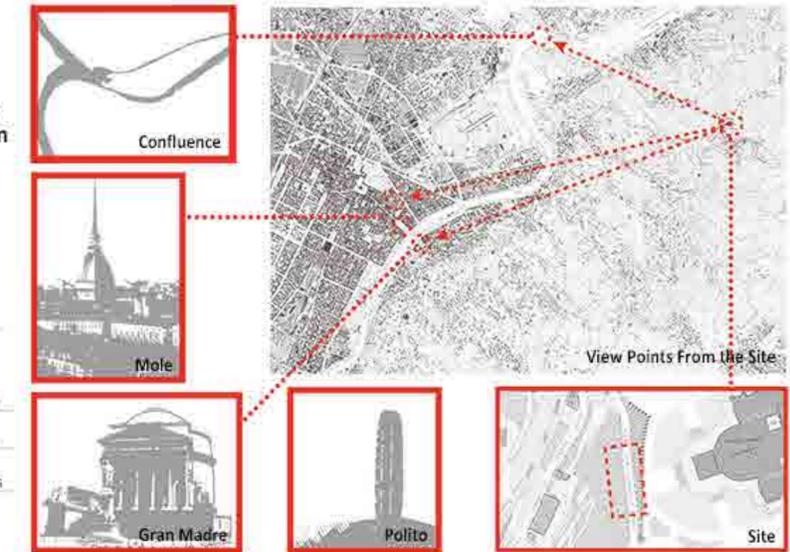
West Elevation 1:100



Plan View 1:100

VIEW POINT+INFO POINT

The idea of this project derives from the location of the final ending path where the view for panoramic scene of Torino is extraordinary clear but lacks a place for tourists to sit and enjoy this excellent view. Besides, as a number of iconic points of Torino (the Mole; the Gran Madre; the Confluence...) can be seen from this site, the information for these critical points is badly needed and unfortunately, there is few information at this spot. Considering the situation above, we came up with the idea of a platform whose shape inspired by the modern bastion which has a variety of directions so that tourists can obtain the maximum view of Torino. And at the same time it will provide a sufficient information for both panoramic views of Torino in terms of view direction of monumental element and explanation of Basilica of Superga. By this mean, tourists will surely have a more enjoyable and meaningful Superga journey.



MODELS



Exhibition Hall



Sassi Station Gate



Superga Viewpoint + Info Point

Despite the impressiveness of the enormous Juvarra's basilica, the project underlines the immediate contest of the historical monument without

involving directly the church, just considered as the hub of the composition, but not the object. The area surrounding the great religious emergence has always been quite neglected even if its relevance is absolutely evident.

The project try so to reconnect this impressive architectural composition with the trail arriving from the head station of the railway, the car parking on the right side and the wood and grass area on the back.

The proposed solutions don't try to simulate themselves or to imitate the historical architectural models of the basilica, but they emerge for their modern style, more connected with the natural contest and the reaching of the area problem.

(C.D., with M.V.C.)

A mix of massive and light signs organizes the existing complex and irregular system of open areas around the Superga Basilica. The entrance info point, the view platforms and the lower bar are delimited by curved wooden walls that create more or less open protected areas: places to stay, to get information and to look at the hills around the Basilica from a wide range of viewpoints.

At the southern edge, the parking area flooring has a texture that comes out from the existing geometries and incorporates curved elements, leading to the open round pavilion at its end.

(L.B, with R.V., L.M.)

Ivanna S. Moretti • Andreea Popa • Jing Liu • Qi Liu • Ying Bao • Mahshid Roodeshihi

Around the Basilica

WALLS
are present all around the back side of the Basilica. Were built for defensive purposes having a height of 3.5 m. Are made of bricks and rough irregular stones




OPEN SPACE
On the left side of the Basilica in the back part there is an open space where the brick pedestrian steps and the road continues with earth and small pebbles



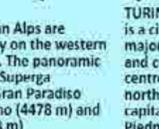

ROBINIA
was imported from North America in 1601, and in 1750 Luigi Amedeo III of Savoy used it for the hydrogeological diffusion, because of its fast multiplication capabilities




RESTROOMS
One of the only buildings in Superga, is placed on a lower level than the Basilica's because it's on the side of the hill. Its entrance is accessible by a ladder



ALPS
Known as the Graian Alps are surrounding the city on the western and northern front. The panoramic sector visible from Superga comprises the M. Gran Paradiso (4061 m), M. Cervino (4478 m) and Punta Dufour (4638 m)



TURIN
is a city and major business and cultural centre in northern Italy, capital of Piedmont region



CORSO FRANCIA
We see corso Francia clearly, 13 km long that takes you to the town Rivoli. The construction of making it a straight line was commissioned by Vittorio Amedeo II of Savoy



MOLE ANTONELLIANA
designed by Alessandro Antonelli, it was the tallest brick structure building in the world (167 m high) before the storm of 1954



BEFORE
The use of the parking area was different. It was a green area, having the monument statue in the center and sidewalks around it



SUPERGA
was built from 1717-1731 for Victor Amadeus II by Filippo Juvarra. The basilica is a typical baroque style church



GARDENS
separate the Basilica from the parking area. They look like some green islands. Through out the year, they are decorated with different types of flowers



ARBOR TREES
are located in the front of Basilica and all around the parking area, all aligned. There are 2 types of dimensions, 3 and 5 m high



PINE TREES
(pinus strobus) Founded in temperate regions, grown for timber and cultivated as ornamental plants in parks. Are evergreen, coniferous resinous trees, growing 15-45 m tall, long-lived, reaching ages of 100-1000 years



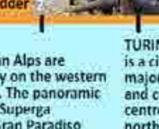
HILLS
starts on the side of the river Po and it continues all around the Basilica of Superga. The forests are in the north steep side, while the south one is the proper place for settlements (villas) and agriculture, being softer steep



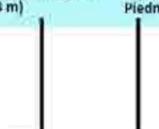
PARKING
is on the lateral side of the basilica, the area having a triangular shape and an asphalt pavement



WOODS
In the area, typical trees of Piedmont are found such as *Fraxinus Excelsior*, *Acer Platanoides*



SHRUBBERY
and smaller plants are a kind of vegetation which are separated by the road from the forest



BACKSIDE WALLS
A tragic plane crash took place on May 4, 1949 due to poor visibility, in the back walls of the Basilica, killing all the passengers, members of the football team Torino A.C. In their memory, a monument was built in the nearby of the walls



HILLS
are in the back side of the Basilica, which consists of small towns. The small town of Chieri is located about 11 km southeast of Turin with an area of 54.3 sqm. It has an elevation of 305 m high with a population of 35,931 inhabitants



FENCE
It starts on the side of the Basilica and ends in the back of it. Were built to delimitate the woods from the Basilica and for security reasons. It is made of steel bars and brick columns



DOWN HILL
From the level of Basilica, the hill goes down into a big open space with picnic tables which is a good idea for spending the spare time in the amazing environment. On the way down hill, there is a mixture of different types of trees



IVY
grown during the time, is covering the back wall and in the same time is creating a nice visual effect



DECORATIONS
located in the small islands to give the place more appeal, because there is such a huge amount of open, empty space. The use of natural elements makes it seem as the building converge into the natural environment



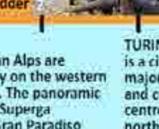
CHAPEL
Located at the end of the parking space, not facing the road. Dedicated to our Lady Natività and Saint Boniface inaugurated in 1940



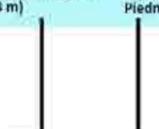
CHIERI
has a hill top church called San Giorgio which offers views of the entire city just like the Basilica of Superga. Small townlike Chieri continue all around the back side of the Basilica. There are even smaller towns with just 17 inhabitants like the town of Ietti Ronchi



FURNITURE
There are 3 types of pedestrian marks, all different by shapes and sizes. They are separating the pedestrian path from the car lane. The benches are placed all around area

STATUE
built in 1903 by Tancredi Pozzi, dedicated to king Umberto I of Savoy, is formed by a corinthian granite column with a bronze sculpture of a celtic warrior on the base, symbolising the city of Turin and an eagle sculpture on top

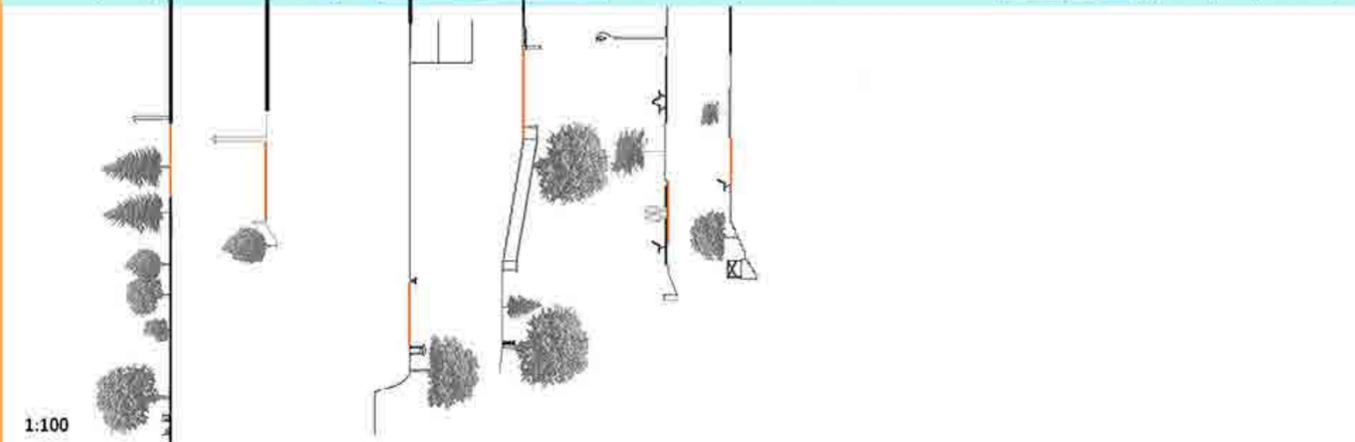




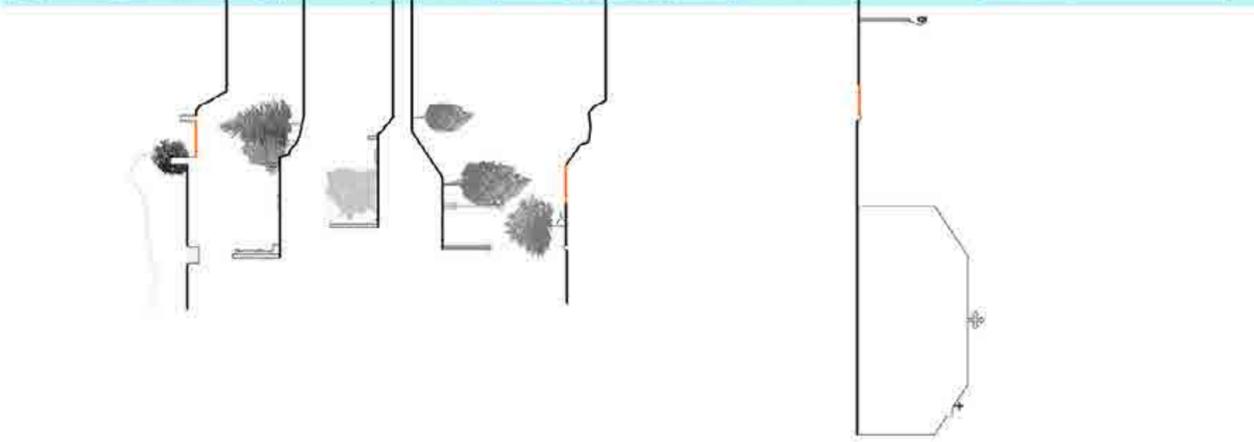
1:1000



1:1000



1:100



- Views
- ▬ Architectural elements
- ▬ Architectural Border
- Natural elements
- ▬ Natural Border
- ✕ Intersection
- Model
- Proposals
- A Pavements



marble slabs



cobblestone



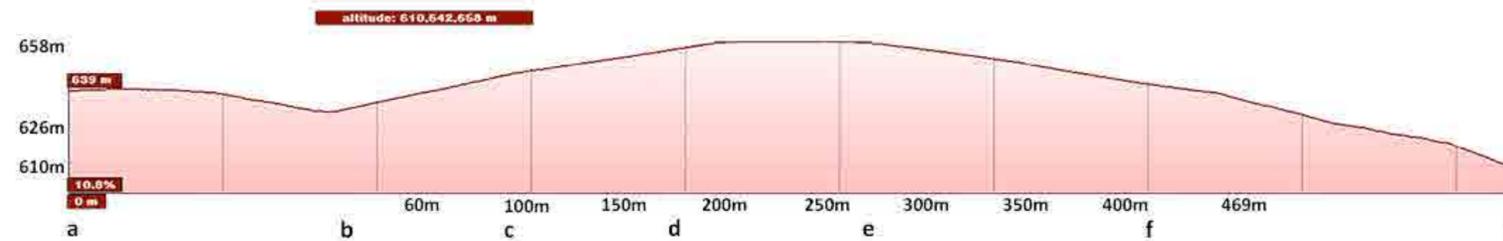
small pebbles



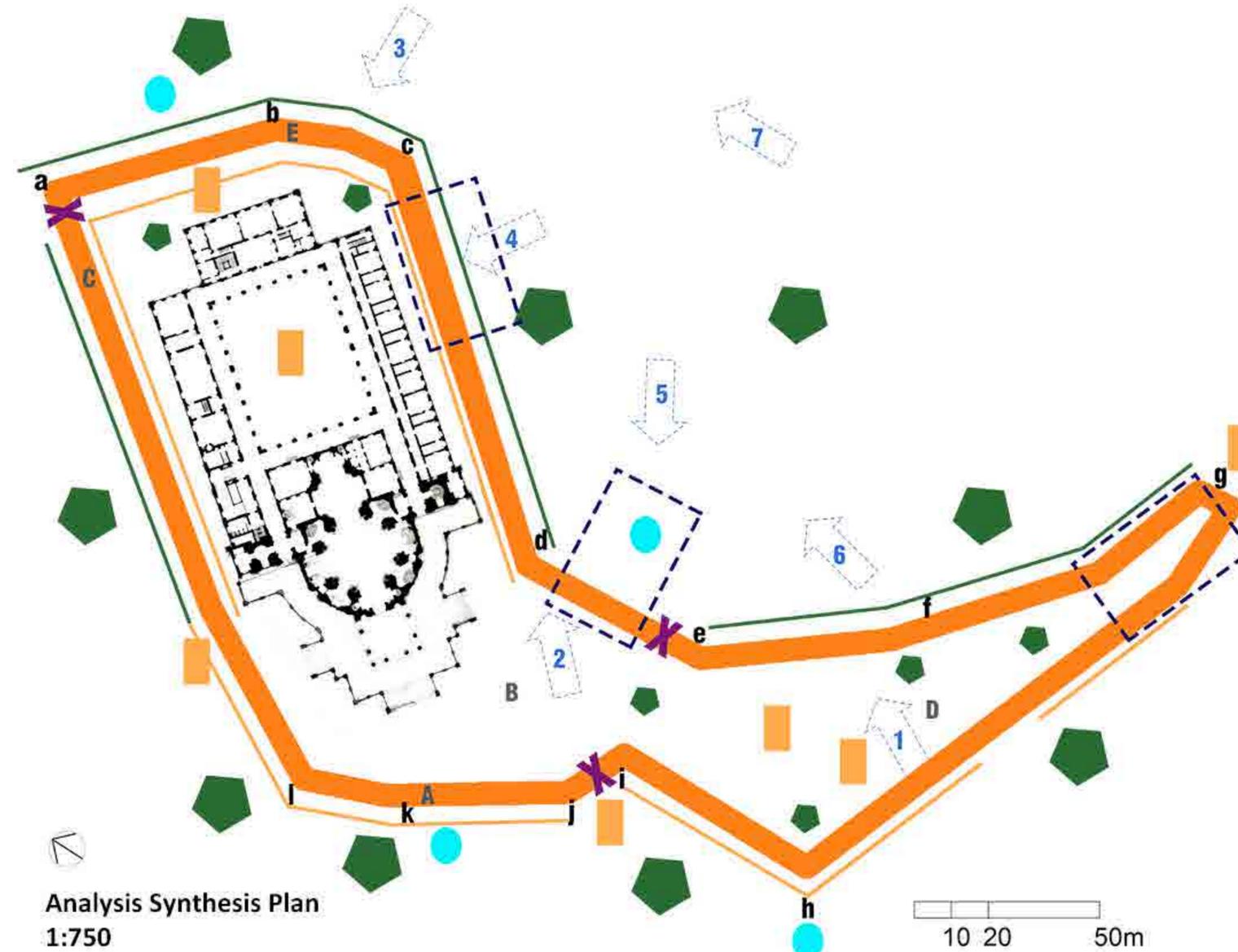
asphalt



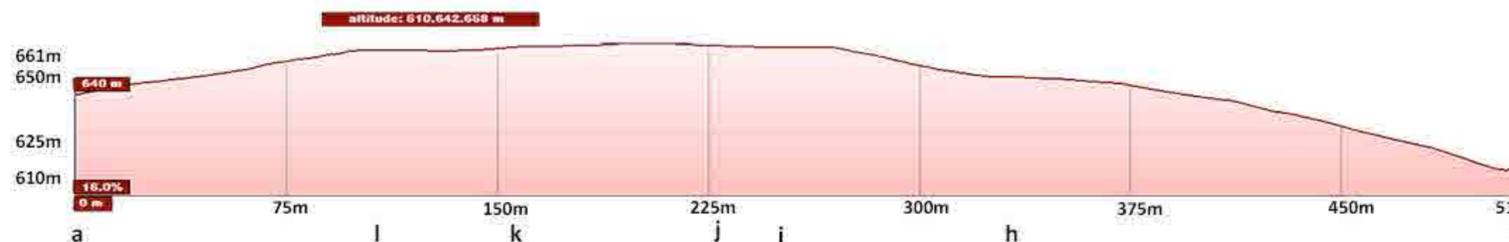
cubic stones



Analysis Synthesis Section 1



Analysis Synthesis Plan
1:750



Analysis Synthesis Section 2

CRITICAL POINTS AND PROPOSALS

PARKING

1. Redevelop the parking area
=> Remove asphalt
=> Design square with fragments of gardens and the area between Basilica and parking

GROUND

2. Redevelop pavement
=> further distance, the more separation inbetween cobblestones
=> mix of cobblestone and green
Inside fence: long benches
Outside fence stays the same: brick columns and metal bars

VISIBILITY

3. Cut out the trees all around the Basilica
=> create a more open view
=> enhance the visibility of Basilica

VIEWPOINTS

4. Create panoramic platforms
=> insert telescopes (an interesting way to explore the city)
=> place information boards

REST AREAS

5. Addition of pedestrian sidewalks
=> Dugged into ground with metal fence
=> Theater benches down the slope
=> Built fades away once reached the forest

NEW ACTIVITIES

6. Reorganize the open park area
=> adding a small bar integrating it with the slope, and benches around it
=> multiactivities circles

FOREST

7. Place indicators all along the road
=> to indicate the way clearly with signs
=> ribbon (forest) exploring where desire

REFERENCES



1831



1846



The Geological Observatory (Switzerland)



The Gardens of Imagination, Kathryn Gustafson (France)

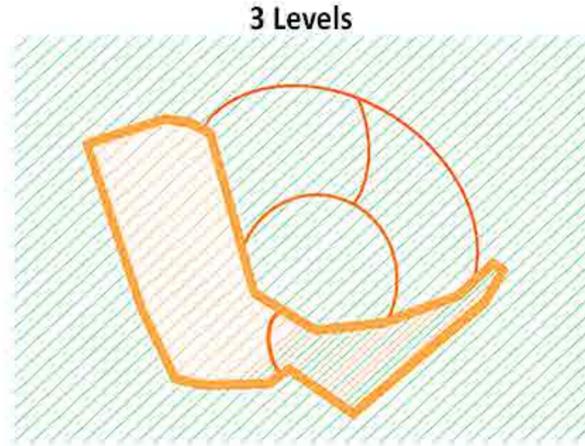


EVOA - Environmental Interpretation Center, Mair Arquitectos (Portugal)

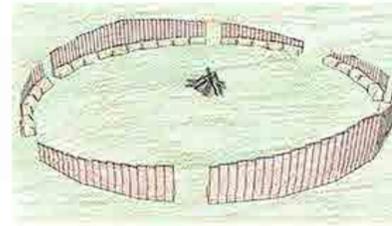


The Gardens of Imagination, Kathryn Gustafson (France)

-  Indicators
-  Additional road
-  Sketches



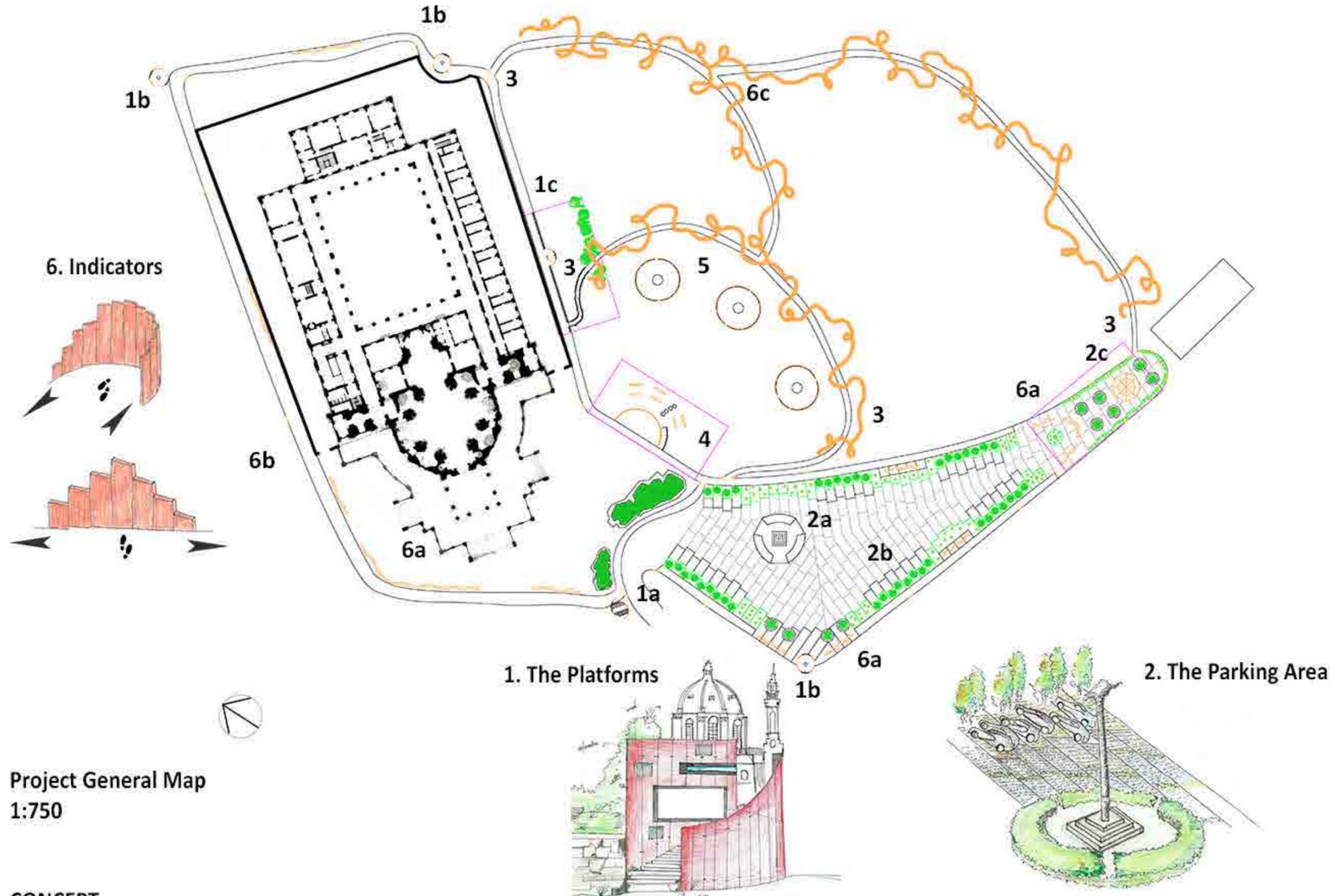
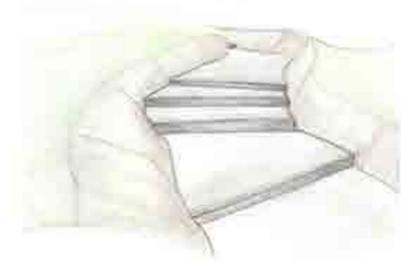
5. Multiactivity Area



4. The Bar and The Theater



3. Road Downhill



Project General Map
1:750

CONCEPT

Exploration Circuit - invitation to discover a new place, to surround it. Through the proposed design, the people are invited to visit Superga and its surroundings, by a 360° degree point of view, on different levels. New pedestrian paths were added for this necessity. After analyzing the topography and the historical background of the place, 3 main areas were identified (the Basilica, the parking area, the open space) and so 3 Ground levels were taken into consideration to design accordingly: Built, Built & Green, Green. They are indicated by the presence of 3 different pavements: cobblestones, a mix of cobblestones and grass, and earth, creating a continuous transition of the levels. Therefore people can visit and discover the place in their own, personal way.

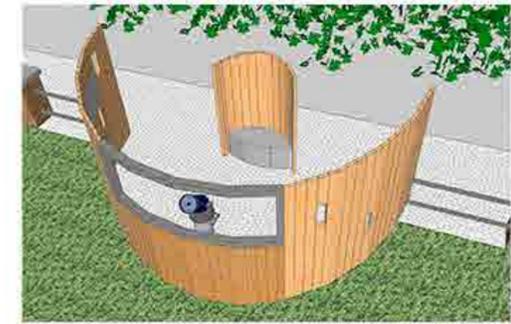
THE PLATFORMS

Made of orange wooden planks that measures 15 cm length and 5 cm width. The height is between 2 and 2.5 m. They are attached to the edge of the road and at the tip of the hill. The trees at the hill all around the Basilica will be cut in order to have a clear 360° view of what the Basilica is surrounded by. The platforms are multifunctional being both, a view point and an information point, where it has a telescope looking out of an open non-glass framed window and with information boards.

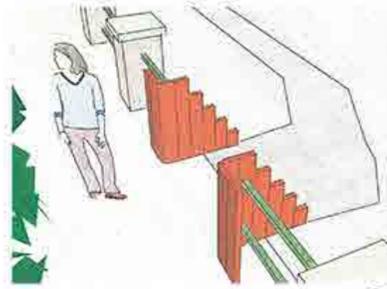
INFORMATION BOARDS

Made out of steel. They are attached to the walls of the platforms, providing the readers informations both in Italian and English about the surroundings and what they can see from using the telescope. In this way, they are tools with which the historical facts along the site are highlighted. Other historical information will also be present in the information boards. For example: the Savoy Family, The Basilica of Superga and its Architect Filippo Juvarra, the City of Turin and its major landmarks.

The boards are around 70 cm x 50 cm placed on eye level 160 cm x 180 cm.



INDICATORS

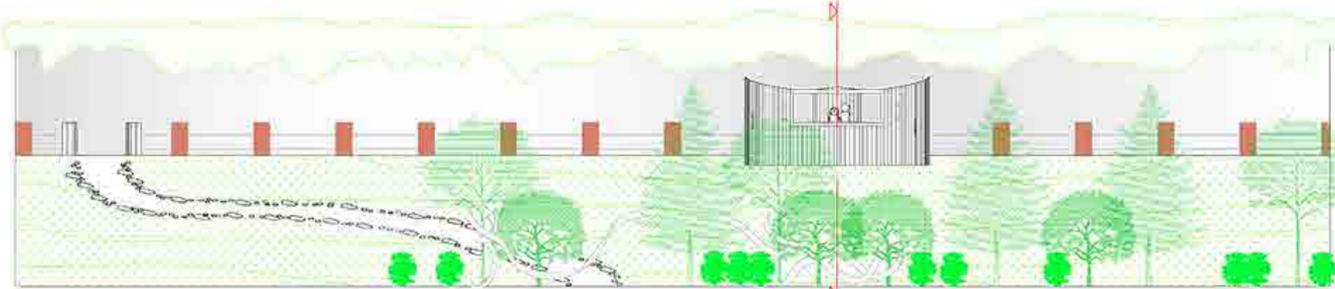


At the second level, the indicators will be made out of planks of wood with a length of 15 cm each plank and a width of 5 cm, similar to the platforms. They will be placed all along the road. Some of them are in a straight line, indicating to go straight and some are curved, indicating where you can turn. They are about 1 m high with a 2 m of length.

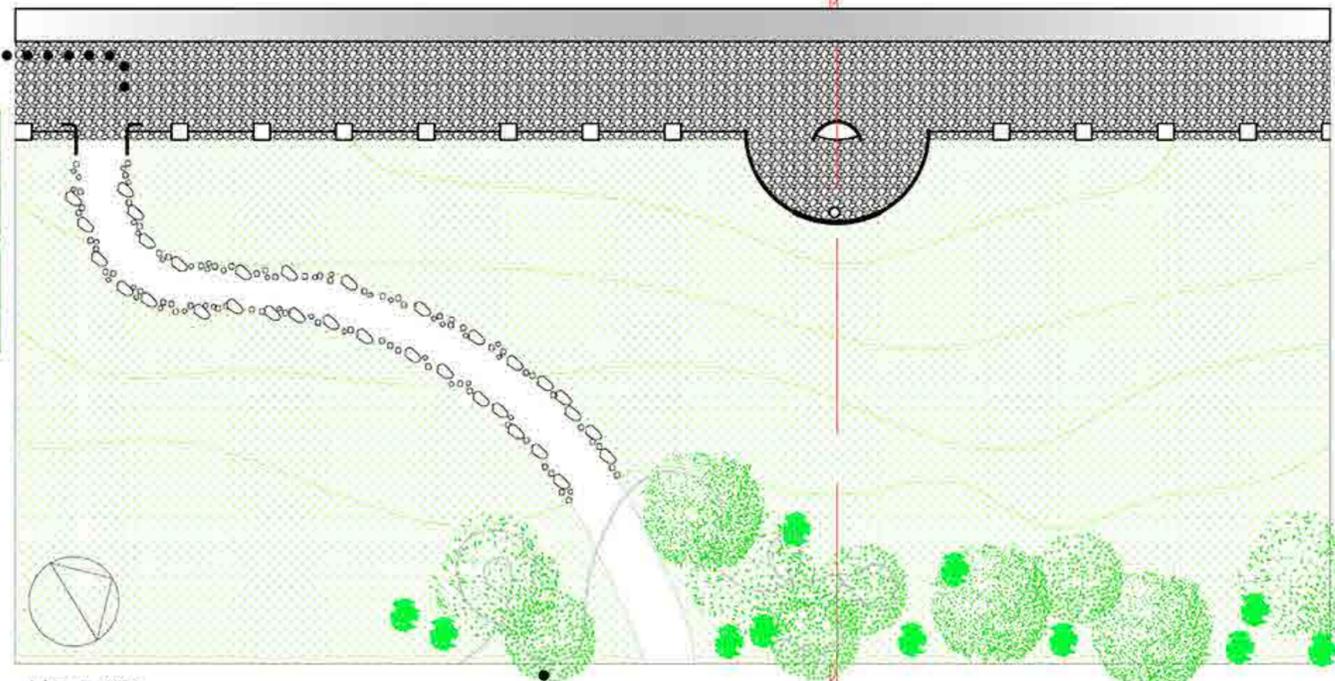
At the third level, the indicators are represented as a ribbon that seems as it is floating in the air in between the trees. This idea was taken from the Study Case: The Gardens of Imagination in The Town of Terrasson (France). This is a nice way to invite people for a little adventure through the woods. The Ribbon will be made out of an orange plastic material which allows the woods to be reflected on the ribbon. This gives the sensation that the ribbon is part of the woods. It will be located at eye level with a height adverage of 2 m and the Ribbon measure 20 cm of width with 5mm thickness.



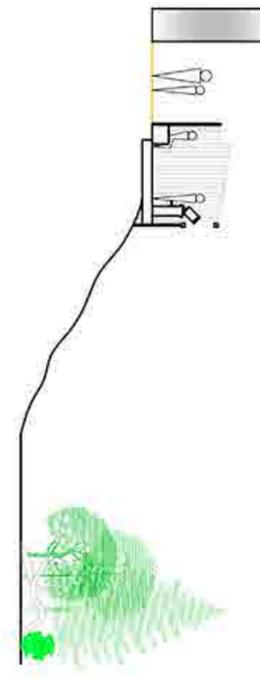
Les Jardins de L'imaginaire
Terrasson-Le Villeieu



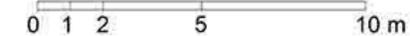
Elevation 1:100



Plan 1:100



Cross Section 1:100



THE BAR AND THE THEATER

It is integrated in the slope, made of wood planks 2.5 cm x 40 cm. The benches are placed and arranged around it, in a theater style, in this way making the view of the woods as a screen of a movie theater.

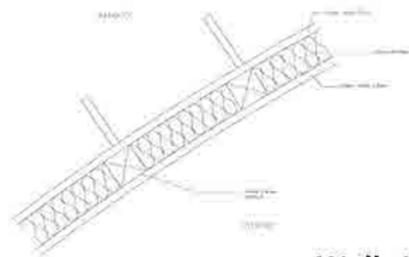
The roof is flat and in the same time it is a platform where people can sit and have a complete view on the surrounding space. The access to the bar is realised through a ramp (which is a really interesting way in terms of perception of the place, by changing constantly the angle of view, while going along the way).



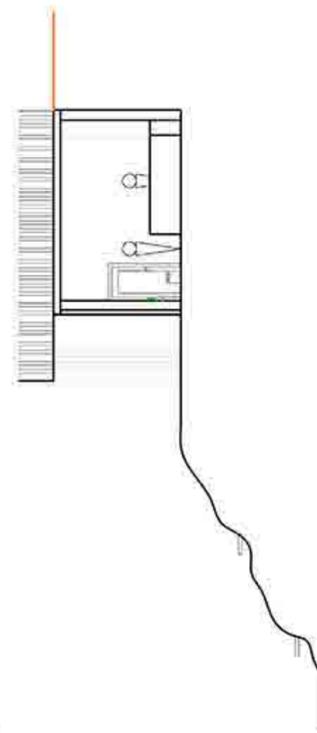
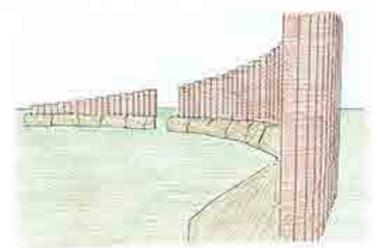
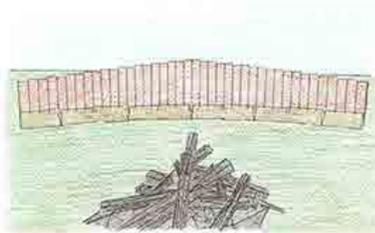
EVOA, Maisr Arquitectos, Portugal



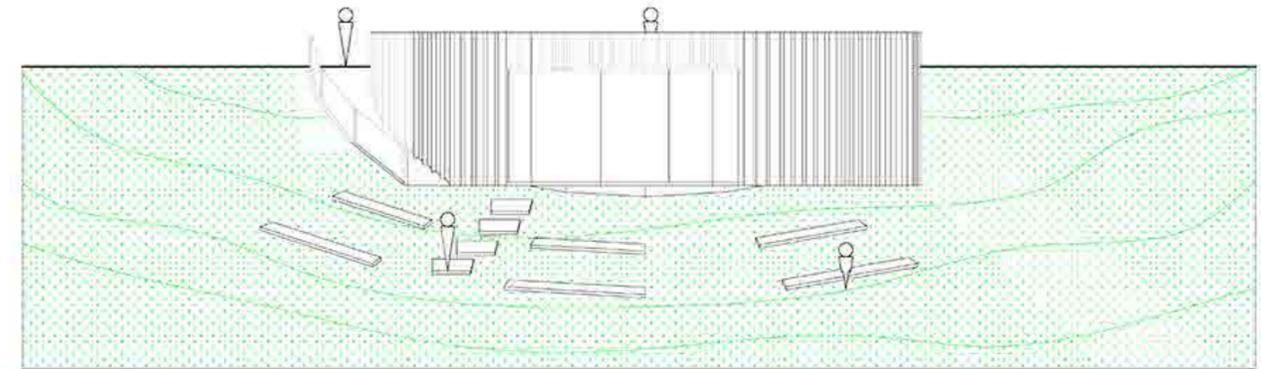
The Gardens of Imagination, Kathryn Gustafson, France



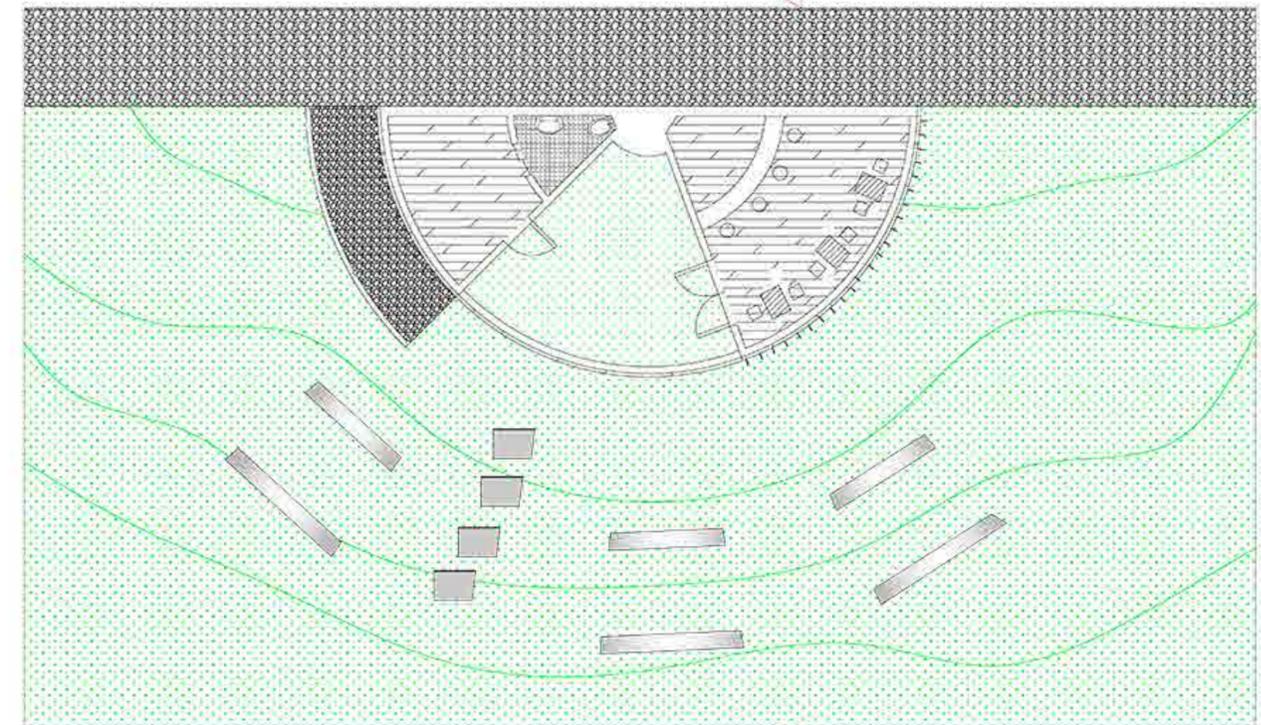
Wall 1:10



section 1:100



elevation 1:100



plan 1:100



MULTIACTIVITIES CIRCLES

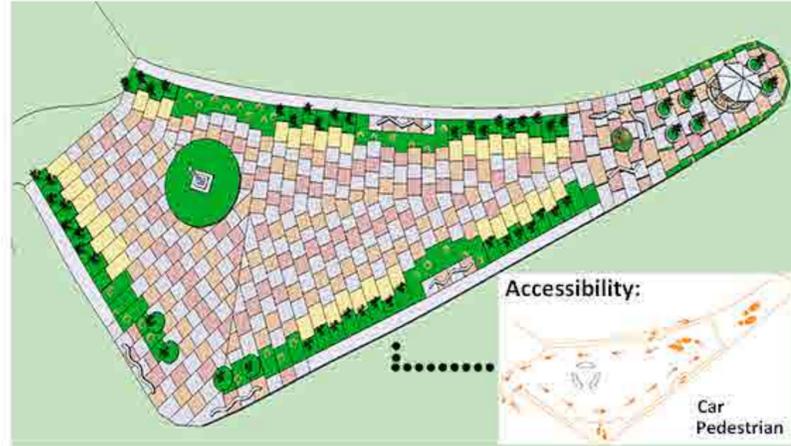
By only placing a thin wall made of wood planks, an internal and also an external space was defined for hosting multiple activities for people who can use it according their own wishes (for example, as a playground for the little children, resting or for making the bonfire).



REORGANIZED PARKING

At the second level (Built and green) the parking area was reorganised accordingly:

- the dimension of it were reduced and more natural elements were added
- the area around the statue is redesigned with adding little gardens around it
- a new space for hosting new activities was created, now this part is animated and encourages people to follow the path and spend time there
- the asphalt was replced with cobblestones in the cars area and with a mix of cobblestones and grass in the pedestrians area



Inspiring from design of red ribbon for Tanghe park in China, in new design, in order to give oriatation (leading people from the parking to the new space) different groups of cobble stones with different colours are presented



Qing Huang Dao Red Ribbon Park

BENCHES

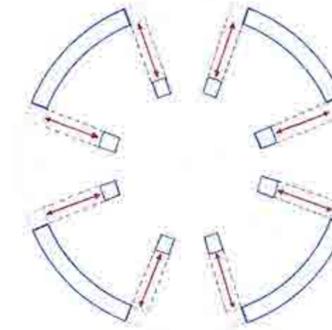
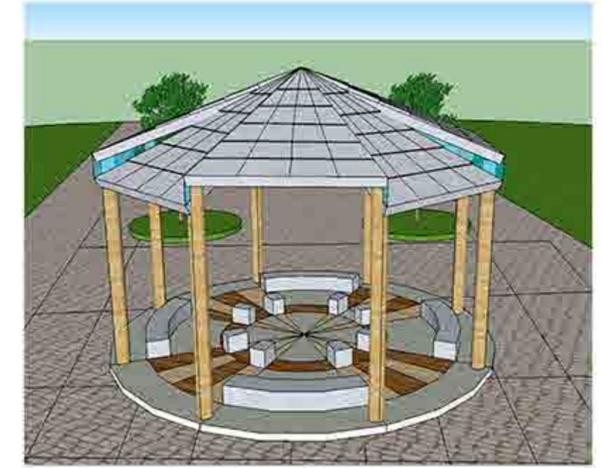


Diagram of the benches

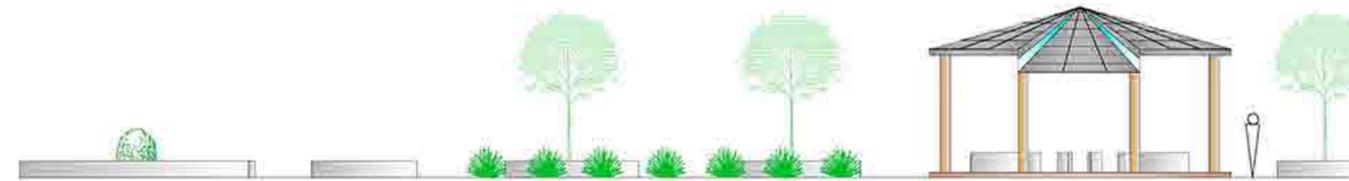
PAVILLION

Provides protection from weather, meeting opportunities and it is visual focal point. Movable benches are provided inside for using in different cases.

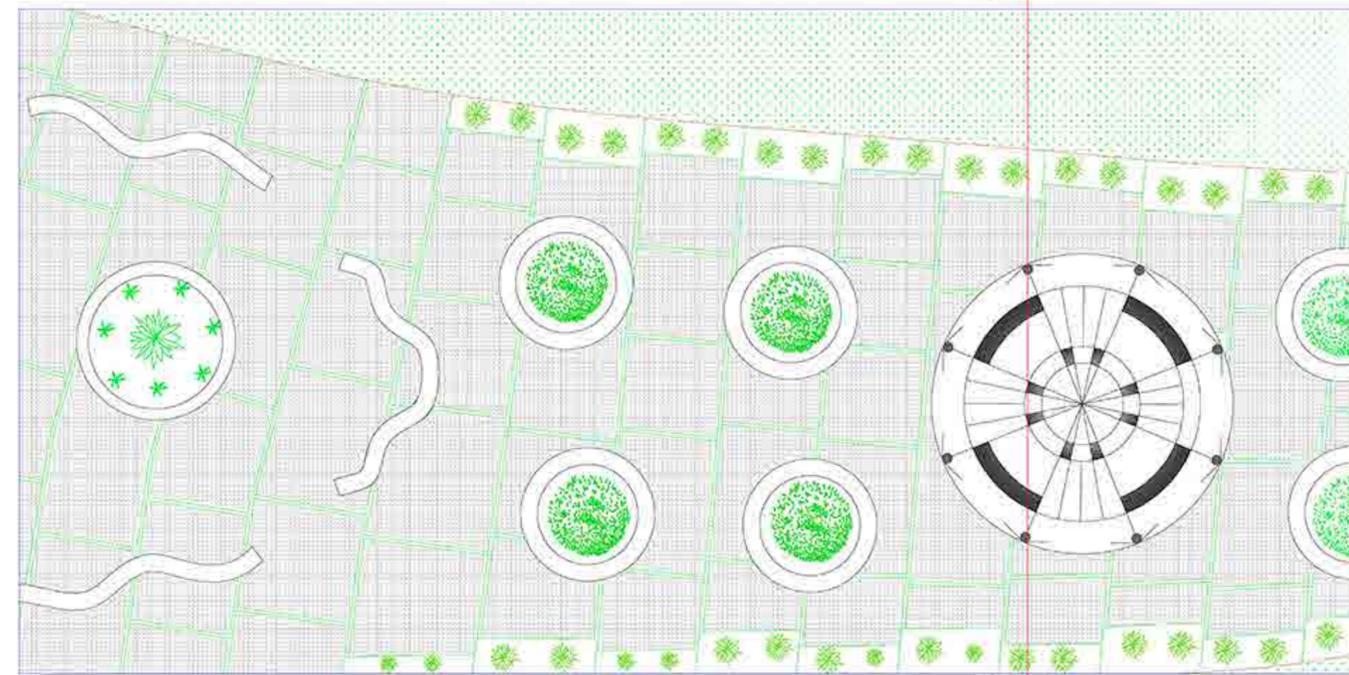


NEW SPACE, BETTER FUNCTION

Compared to the previous condition of the area, a new space with a small square was created, hosting new activities, which now is more interesting and attracts people to spend time there. The pattern of the pavement follows the pattern of the parking, but in this area which is accessible for pedestrias only, a mix of cobblestones and grass is present.

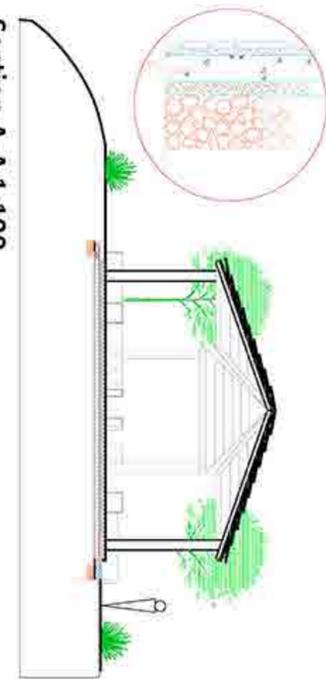


Elevation 1:100



Plan 1:100

Section A-A 1:100





Viewpoint + Path Signs



Info Point

The road
connecting
the town of
Turin with the
very emerging
Basilica of
Superga at
the top of the
hill has an

historical origin and a well defined track,
then modified to allow mechanical engines
to reach the monumental area. Despite the
intensive use of the road and its importance,
the system is not so well known and has
not visible accesses or panel indications
able to allow the visitors to understand its
historical relevance. The project tried to
avoid these lack of communicative improving
the visibility of the road and the perspective
points framing the great basilica. The
solutions are interesting but they don't really
reconnect the monument with its historical
connection to the State capital, Turin.

(C.D., with M.V.C.)

A double system of milestones composed of
vertical and horizontal road signs underline
all the key points along the street: gates
as light wooden frames, small information
boxes, coloured lines that give a rhythm to
the way and call for the visitor attention
changing their mutual distance. The
viewpoint and the pavilion are wooden
structures that project the visitor towards
the landscape. The first is a large deck
divided in four open platforms at different
levels while the pavilion is a transparent
partly open and slightly cantilevered box
flexible to host various activities.

(L.B, with R.V., L.M.)

Bartłomiej Krawczykowski • Li Jialiang • Peng Shuxian • Peng Di • Liu Changhe

Strada Superga

1 SASSI Start point of the road near the Sassi Stazione

2 WIDE ROAD at the beginning with sides of pine and poplar.

3 MAPLE which tilt to the road from wayside

4 RAILWAY along the road and a small building for maintenance purposes

5 VILLA Pleasant villa locate at the wayside

6 VILLA a brick facade villa with private garden and green area

7 OPENING AREA where allows to look down above Torino

8 View that allows us to see Basilica di Superga for the first time

9 PERSPECTIVE view along the road and also the second place from where Basilica di Superga can be seen

10 GATE Sketch of small gate near the road

11 LANDSCAPE where you can easily look over whole Torino city

12 STAIRS that are not in use anymore. They used to connect tram and bus stops together

13 TRAM STOP along the street. Photos show historical, and present situation

14 ROAD with sides of plants

15 TRAIN BRIDGE which is the intersection of the road and railway

16 Temporary view of tram passing by the Strada Comunale di Superga

17 MAPLE Same tree in two different seasons

18 GARDEN A beautiful garden which contain a little path connecting the villa and main road

19 MUNICIPAL WATER SUPPLY which can date back to the beginning of 20th century

20 BASILICA DI SUPERGA At the top of the road we finally reach our destination. Our reward, for such a long way uphill, is a wonderful view of Basilica di Superga, a baroque church that was built in first half of XVIIIth century

21 BARREL ROOF COVERED HOUSE Example of natural light usage in order to decrease negative influence on environment

22 FRONT AREA OF BASILICA The plants around the front area of the Basilica and the view from there

23 WIDE VIEWING AREA you can see some buildings on the opposite hill

24 The residential area is located at a sharp turning which is not well-organized. Nevertheless it can provide basic tourists needs

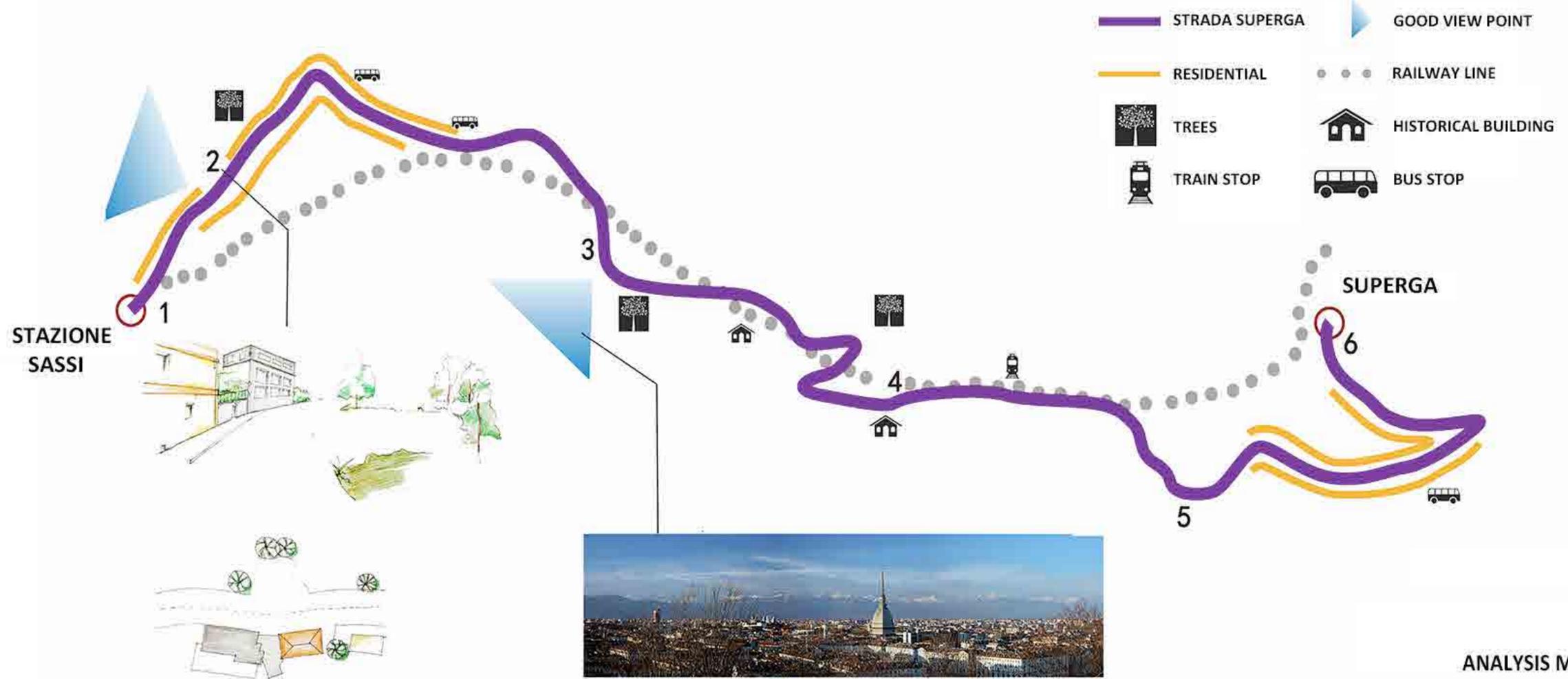
25 HOUSE takes a good advantage of the change of terrain and can enjoy the fantastic open view from the wide balcony

26 CASA FIRMINO The country house dates back to the 17th century and it has been totally renovated into a hotel in recent years

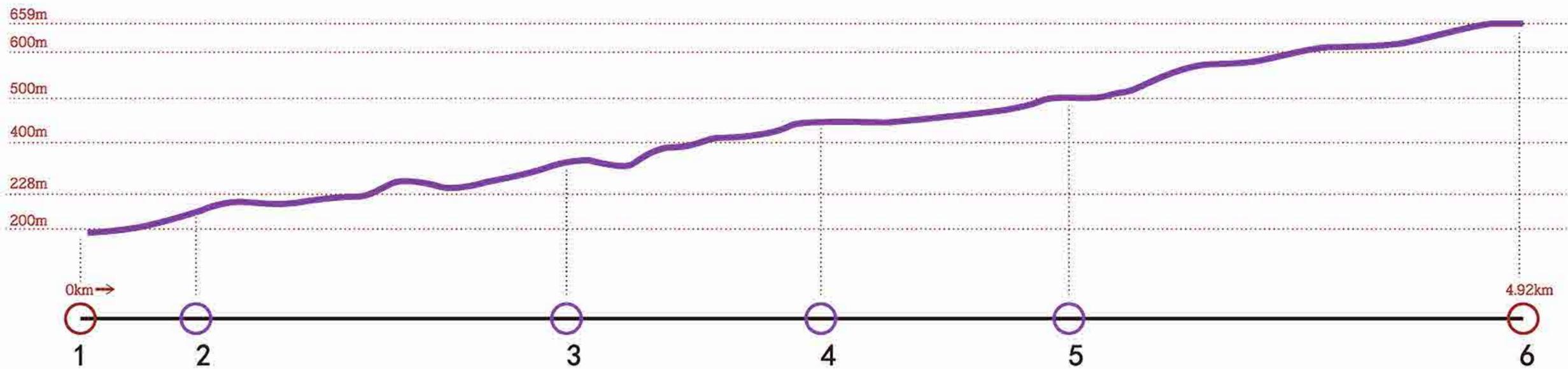
27 MONASTERY which is located in the back of Basilica di Superga

28 View opening on hills and nature

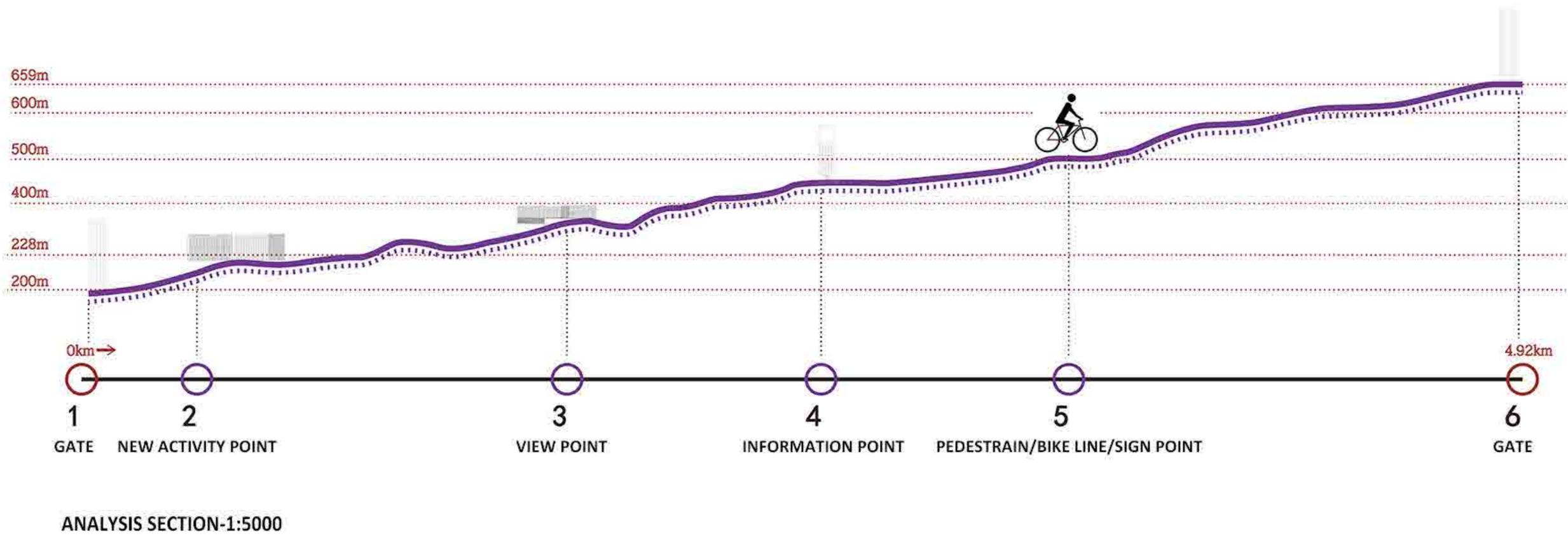
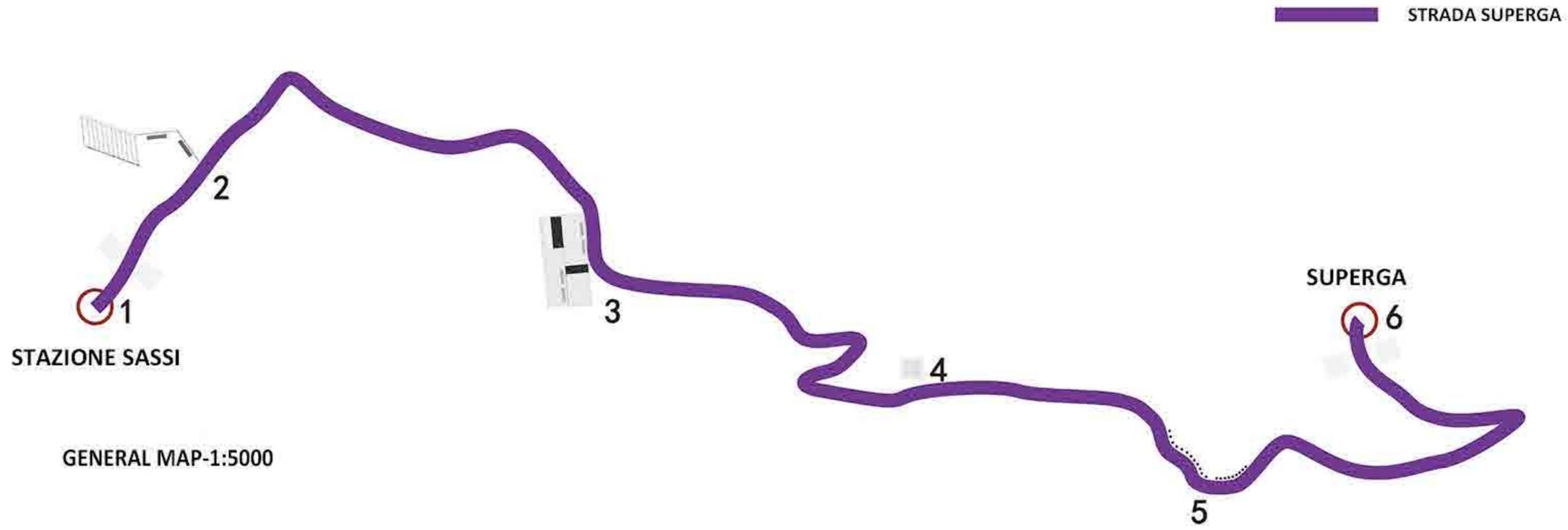
1:200



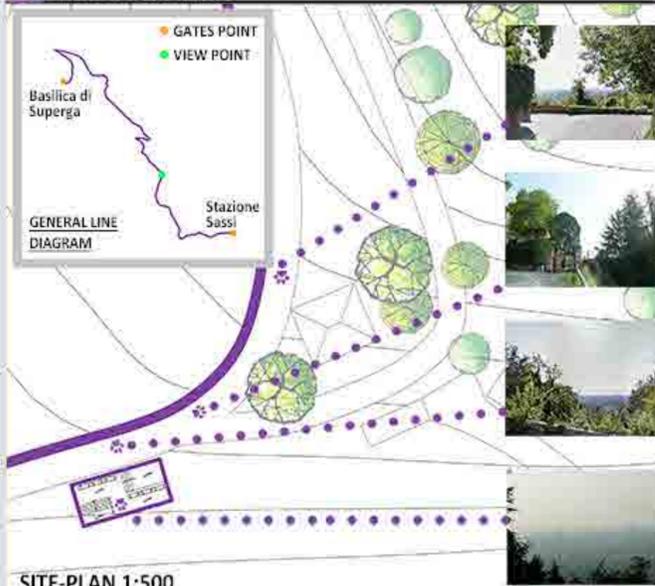
ANALYSIS MAP 2-1:5000



ANALYSIS SECTION-1:5000



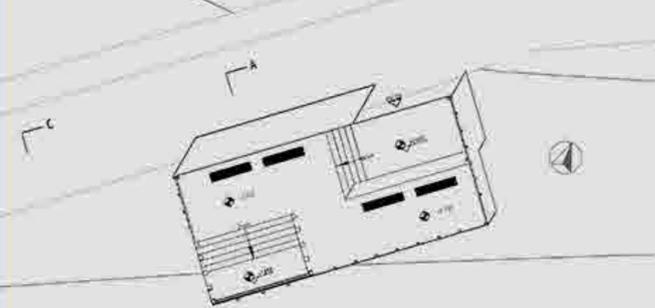
1 SITE ANALYSIS



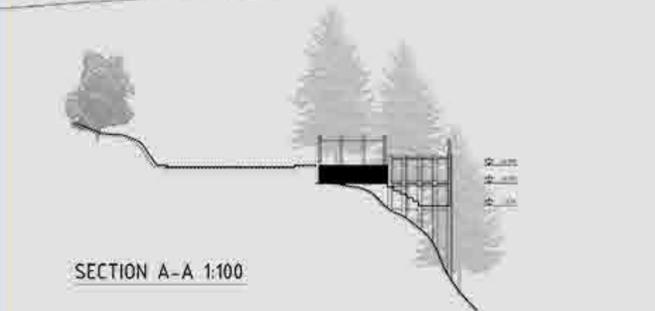
SITE-PLAN 1:500



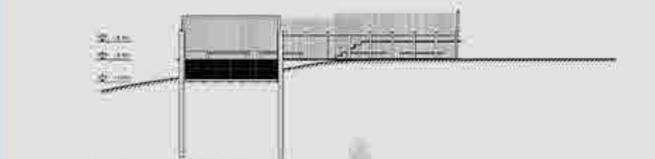
+ SITE → + TREES →



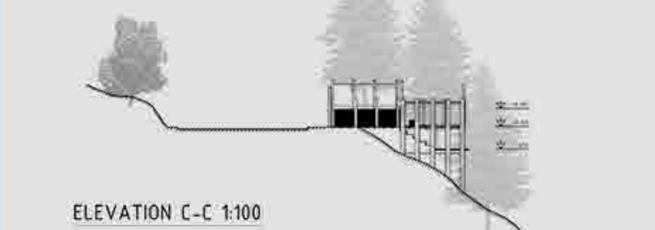
PLAN 1:100



SECTION A-A 1:100



ELEVATION B-B 1:100



ELEVATION C-C 1:100

2 DESIGN CONCEPT

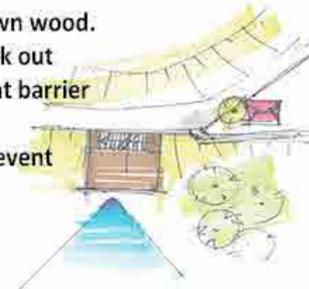
BREATH OF NATURE

Main idea of the project is mixing of different spaces, a connection between spaces that people feel good in and natural open areas. That is achieved by using natural elements in simplest possible forms, and by settling every design in green space. Semitransparent elements built with vertical poles are the main component of all our designs. They mark very clear spaces without separating them from surrounding. That creates areas where people feel safe and comfortable while admiring overwhelming views.

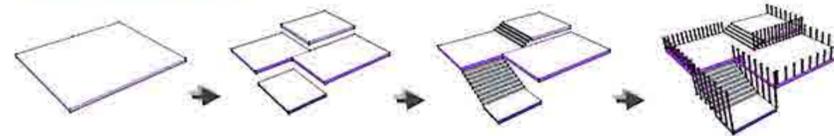
3 PROJECTS ANALYSIS

A VIEW POINT

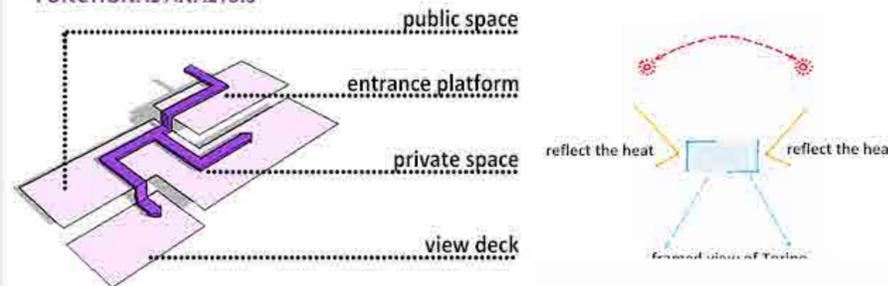
We want to create a cosy, friendly and interesting place which separate from the noisy road. (From cold, black asphalt we enter warm, brown wood. By introducing stairs and levels we clearly mark out areas of different privacy. And semitransparent barrier clear separation from road. Nevertheless this kind of obstacle does not prevent spaces from mixing. It just reduces their impact on each other.



STRUCTURAL ANALYSIS



FUNCTIONAL ANALYSIS

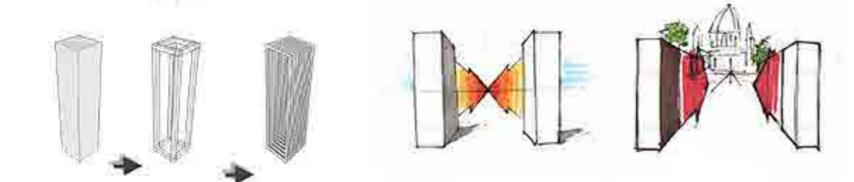
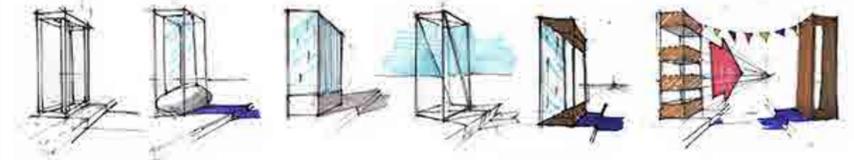


SCALE ANALYSIS

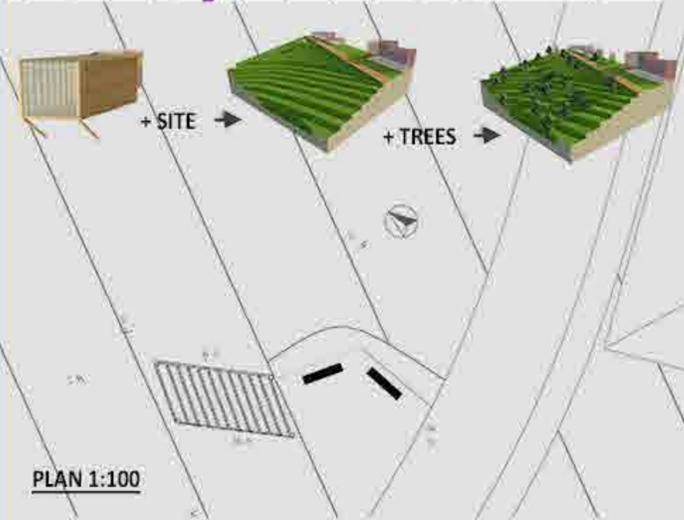
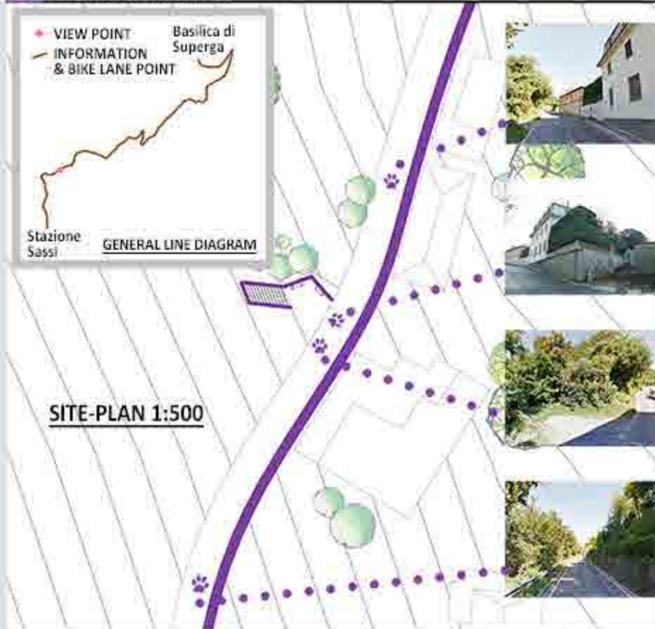


B GATES POINT

Our gate redefines previous gate standards. In order to give impression of space we moved the horizontal bar from the top to the bottom of the gate. Substituting it with purple lines painted on the road. That strengthened the feeling of entering some special place and also allowed to free the space above. Main pillars were designed to focus visitors view on a certain target. It's lightness was achieved by constructing them with several thin, wooden skeleton.



1 SITE ANALYSIS



SECTION A-A 1:100

ELEVATION B-B 1:100

ELEVATION C-C 1:100

ELEVATION D-D 1:100

2 DESIGN PRINCIPLES

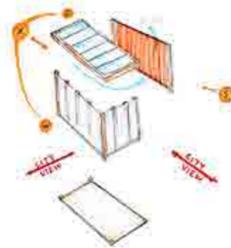
STRADA SUPERGA is a mostly built road. (Also many place is limited by government or residential) So for us we don't have so much space for the intervention. We must "CREATE" some place for the interventions. That's the reason why our view and activity point has parts of "Cantilever Structure"



3 PROJECTS ANALYSIS

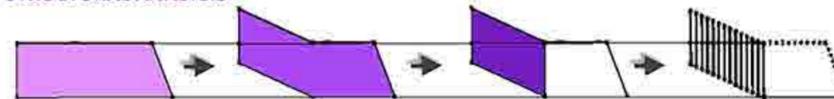
A NEW ACTIVITY POINT

FUNCTIONAL ANALYSIS



Activities are usually not stationary. That is why it is very hard to connect them with a point. The only reasonable way of doing that is to create a place that could serve as starting or ending point of certain activities. That is why we came up with the idea of a safe house. A safe house with special orientation on astonishing view. The design itself is very simple and clear. The usage of semitransparent barriers allowed us to create space for people to rest, meet and take advantage of surrounding area.

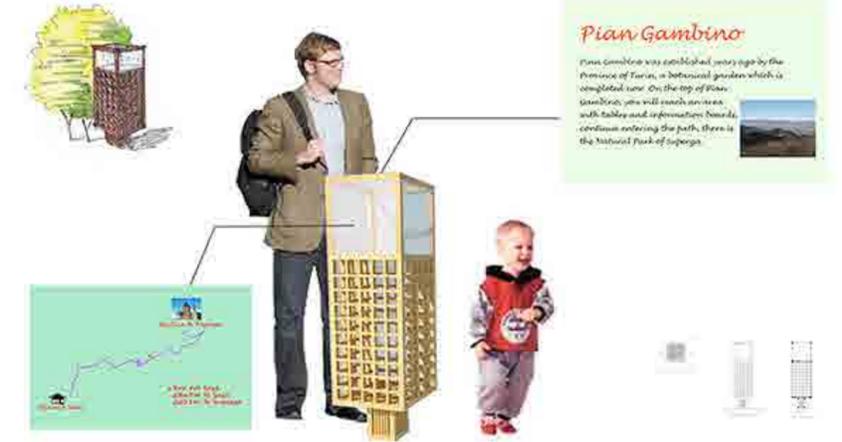
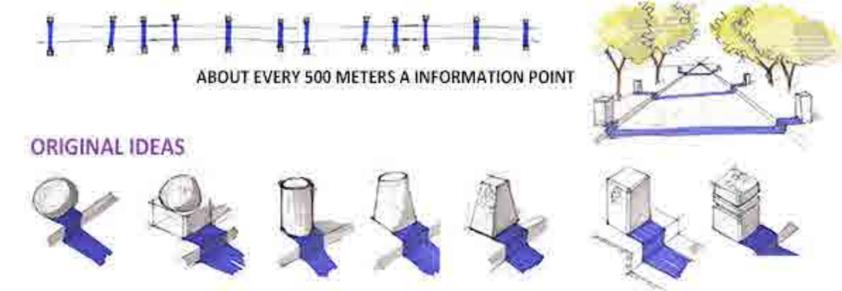
STRUCTURAL ANALYSIS



PROJECT B

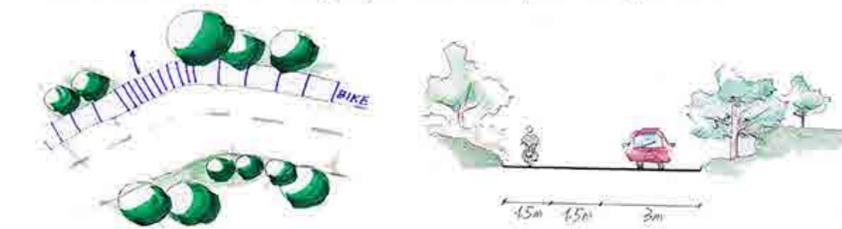
B INFORMATION POINT

Its design and materials were chosen to match other interventions, that we introduced along the road. Lightened upper part of that element provides visitors with information they were looking for.



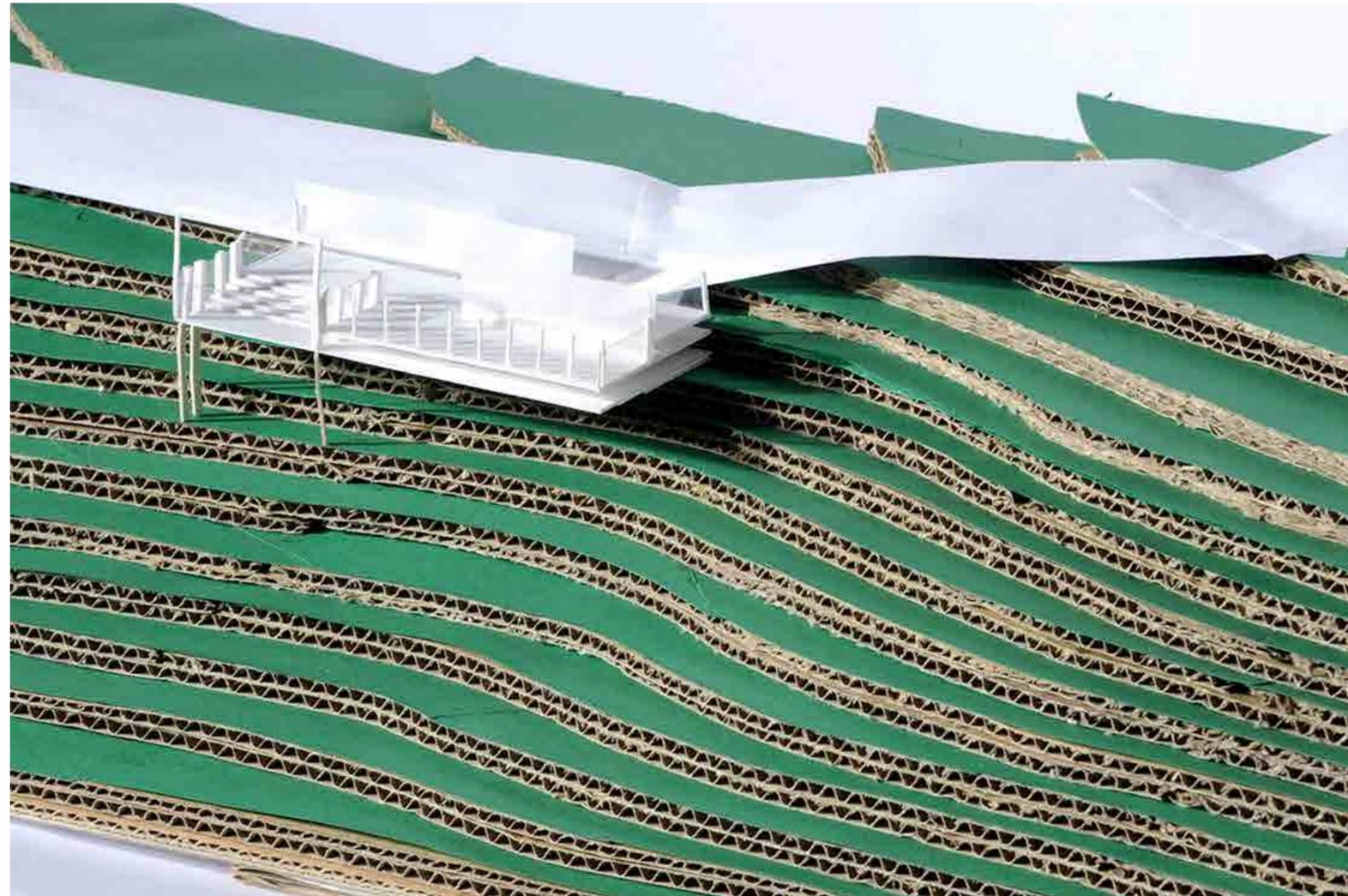
C BIKE LANE

Bikers should remember that they are participating in traffic with much faster cars, while car drivers have to remember about much more delicate and fragile bikers. To achieve that, along the whole road, we introduced lane shared by cars and bikes. The Shared area was marked by purple coloured stripes and bicycle icons.





Pavilion



Viewpoint

The deep analysis on cultural components, architectural monuments and urban organization is surely the main force of this projects in which the few projected solutions

are able to dialogue truly with the contest. Even the fairy solution in the deep of the forest is not in contrast with the natural assessment but underlining the historical trail and proposing new ways to use the area. Starting from the important settlement of San Mauro (of which the group recognize unusual historical values), the trail reach the basilica and shows another way to benefit of the beautiful Turin hills.

(C.D., with M.V.C.)

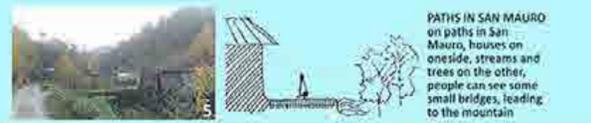
The light interventions directly grow from the site characteristics and elements, each one able to stimulate curiosity without imposing itself upon the existing landscape. The gates are series of thin steel frames orienting the visitor movement, the viewpoints are a platform that extends the trail following the topography and an open tower with moveable panels to direct the views according to the visitors and the seasons. Into the woods, signs and info points are strictly tied to the trees, long bands that create optical illusions with their translucent surface that wraps group of trunks. A dedicated bike lane gives bikers the chance to enjoy the steeper sections of the hill, while pedestrian can safely go on a parallel trail. Both can relax and play in the rest area at the intersection of three small streams, a playground between water and trees with a raised bike track and nets of climbing ropes.

(L.B, with R.V., L.M.)

6. Zhou Yajing • Jiang Rui • Yang Funing • Zhang Hang • Wu Qicheng • Yu Junjia

Trail 65 from San Mauro

PATHS IN SAN MAURO
on paths in San Mauro, houses on one side, streams and trees on the other, people can see some small bridges, leading to the mountain



VIEW ON TWO LEVEL
this part have the view to both the rock and the town. It's smooth after path of stones, good position to enjoy views and take a rest



MARBLE MONUMENT
This is to memory those San Mauro inhabitants who sacrificed their lives for fighting against the fascists.

SANTA MARIA
It's very difficult to go back to the original shape of the building as it has really long history that might date back to 10th century. With restorations of different times, the church we can see today is a mixture of different architecture styles. And the tower of the church is quite recognizable on trail 65

CRITICAL POINT
Passing this point, people will enter the woods. Standing at such an important point, this house really needs some improvement.

PINK HOUSE
The pink house can go back to the 18th century and has been restored. The garden is beautiful

INTERSECTION & STONE ROAD
The trail and another road cross at the end of the dirt road. The section of the trail after the intersection is narrow and full of stones

MOIST
dark damp area in the shade of trees; fern, mushrooms, moss

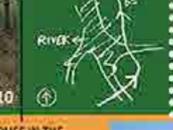
OAK WITH 5 TRUNKS
a living sculpture waiting for you, looks like a relaxing chair, on the summit of Biric Gardin, a surprise after a steep uphill way!





TRE BI
an intersection of 3 streams, moist air, lush vegetation

CHESTNUT TREES
paths melt into dense oak forest




PONTE VITTORIO EMANUELE III
inaugurated on September 8, 1912, the bridge is called "the old bridge" now. Nowadays, it's more like a square than a bridge for transport. But it's still the symbol of San Mauro

SAN ROCCO
Dating from the first half of the eighteenth century, the church was the headquarter of the Brotherhood of the Holy Spirit until 1957. It was once restored in 1978

HOUSE IN THE WOODS
This building is in the woods but the roof is recognizable on the trail. Besides, the path leading to it is interesting

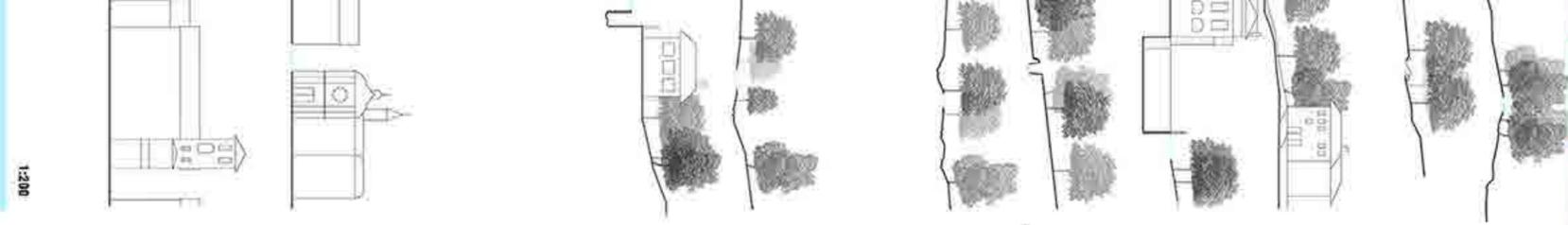
YELLOW HOUSE
This yellow house with hundreds-of-years history is outstanding on trail 65 because of its good location

PEISSOLA
This area used to be strawberry field, and it stands there for hundreds of years. "Peissola" means dirt road which is named after the road leading to the villa

VIEW ON BRIDGE
the start of the road, with the direct view to Superga

VIEW TO FARMS
people can see farms along the road and buildings on the opposite hill





AFTER STONE PATH
this path is smooth, after the tough climbing in the stone path, perfect place to relax and have a view to the town



THE END SUPERGA
the direct view to Superga



MONASTERY
At the end of the trail stands the monastery. The unfinished part on the short side of the monastery was designed as the royal residence according to Juvarra's first sketch about Superga



INVASIVE SPECIES
robinia was imported from America in 1601, now it is well controlled in most area



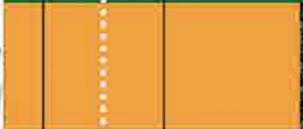
OAK TREES
paths melt into dense oak forest



VIEW TO BRIDGE
from the small trees we can see the bridge directly



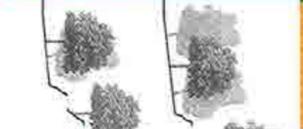
BIG BEECH
isolated tree, 18 meters high, in the open area behind the Basilica di Superga



CRITICAL POINT
This is a good view point to see the monastery with poor facilities

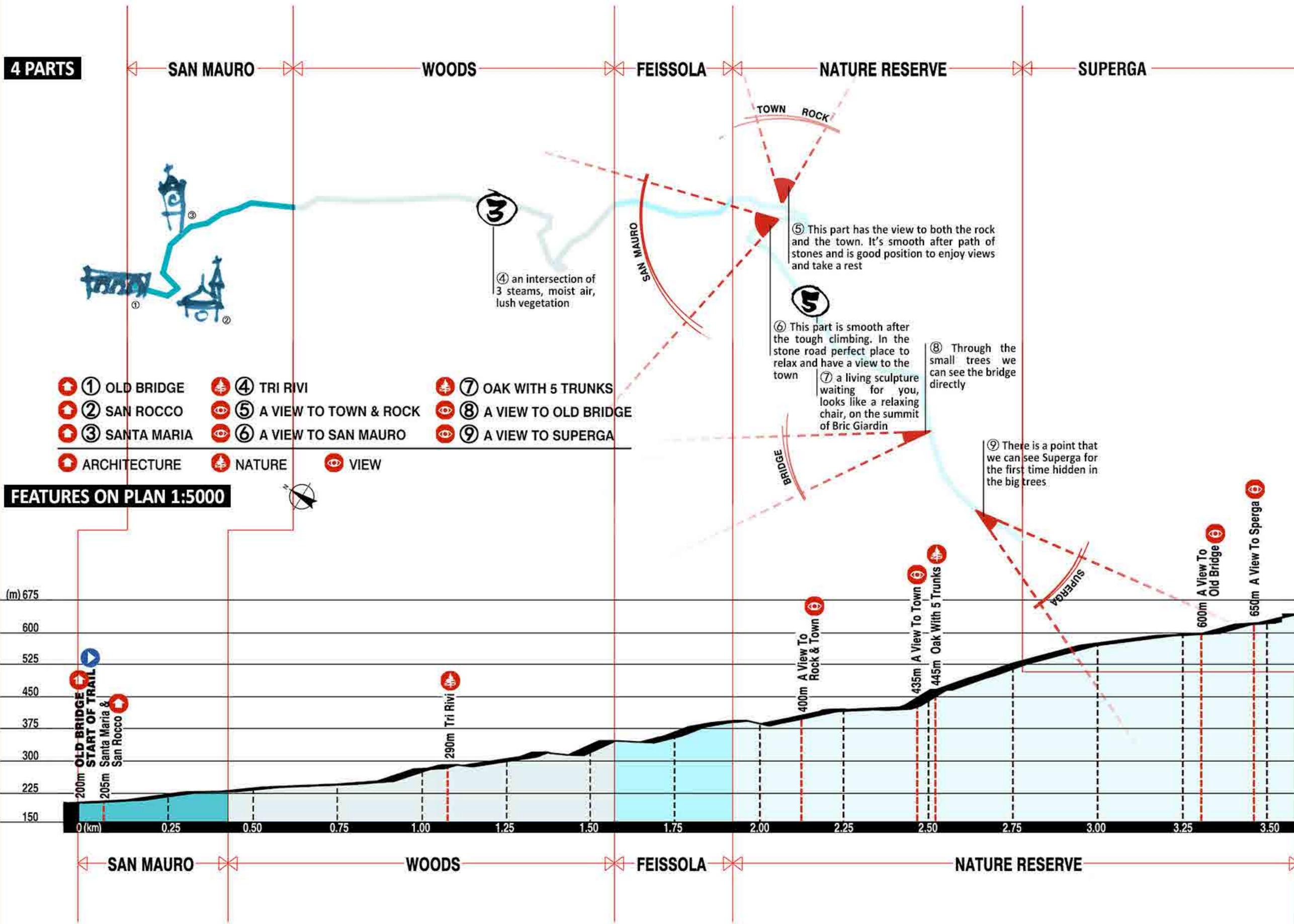


UP AND DOWN
people have totally different view up and down. When up, it's tough and only focus on the road, but down is easy, especially on bike, having wonderful view to the town



FIRST SIGHT TO SUPERGA
there is a point that we can see Superga for the first time, hidden in the big trees

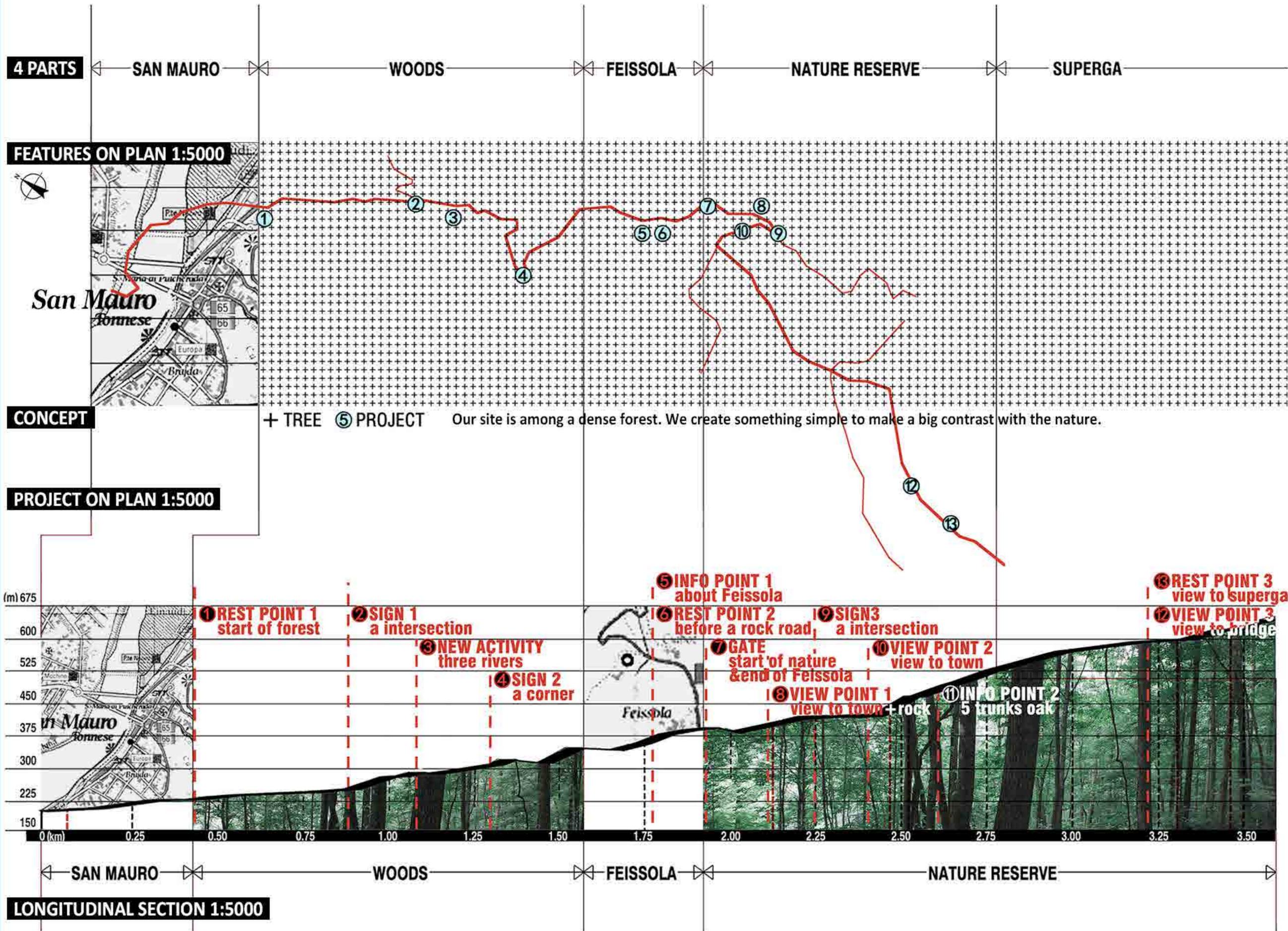




PROJECT SYNTHESIS

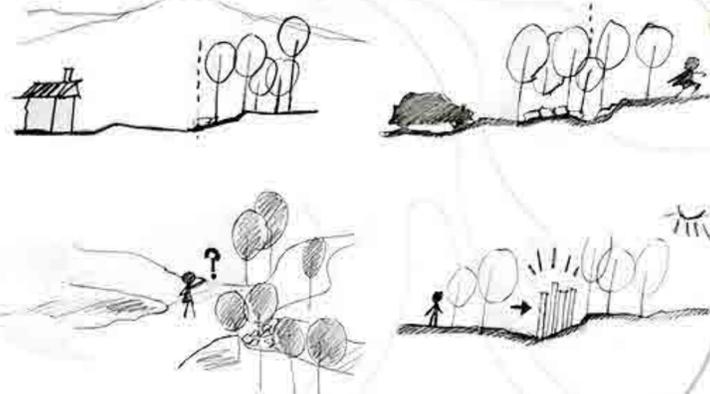
Zhou Yajing • Jiang Rui • Yang Funing • Zhang Hang • Wu Qicheng • Yu Junjia

Trail 65 from San Mauro



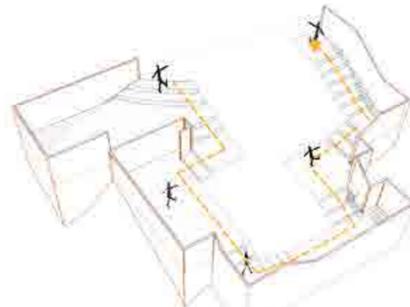
STARTING AND ARRIVAL POINTS GATE

Choosing the beginning of the none-vehicle road as the starting and arrival points gate, we intend to make the most popular use of the 65 trail – hiking and riding more outstanding. What's more, as the road's natural characteristics, this point is really likely to be ignored. To help people follow the right way, a special design for the place is really necessary. Considering the wet climate, the surrounding environment and the structure we design, we choose corten steel as the design material.

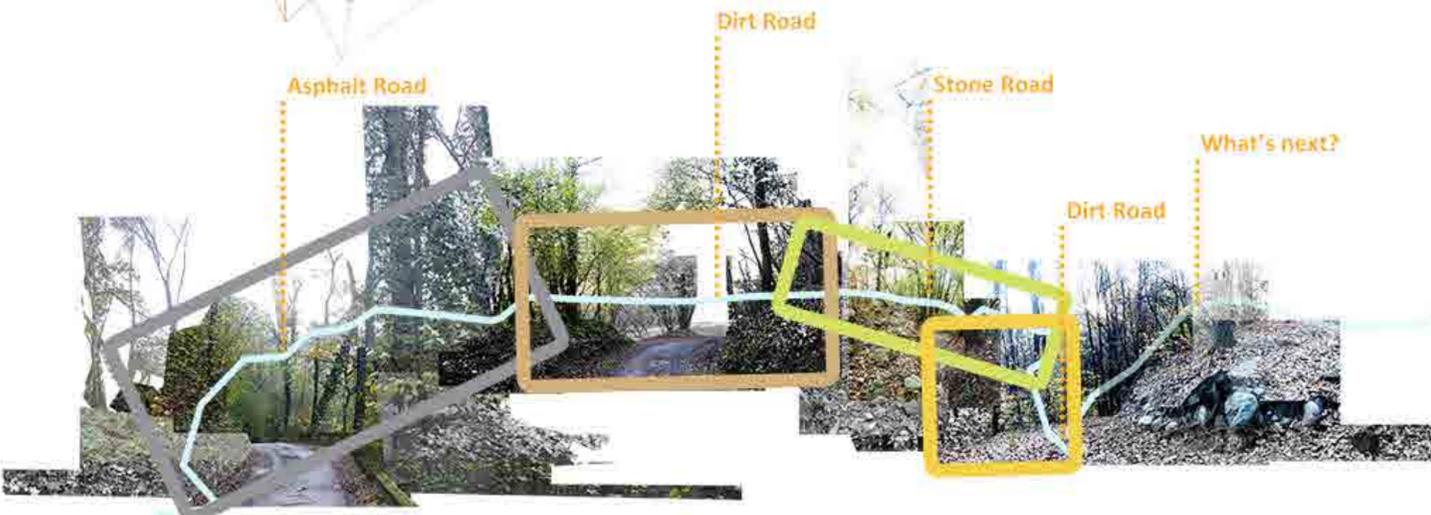


OBSERVATION DECK

Except for the view points, we choose an intersection to design an observation deck for view and rest. Located at the entrance of the nature reserve and the intersection between trail 65 and 63, the deck has a good view of San Mauro and is a appropriate rest place for both up and down people. To make the road characteristics more outstanding, we choose the same road materials as the deck's floor covering and the order is the same as the road. Corten steel is used as the protecting wall material.

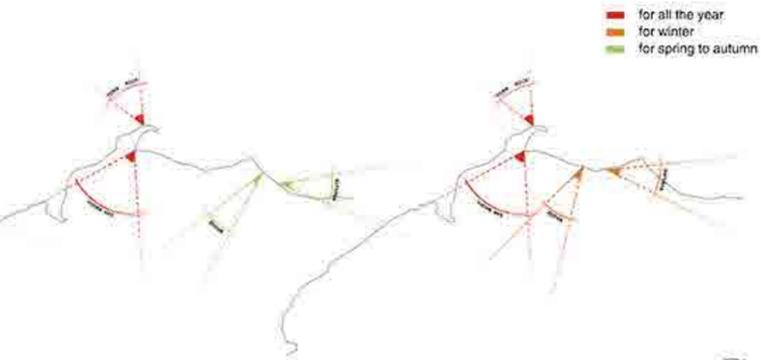


DECK FLOOR MATERIAL



VIEWPOINTS

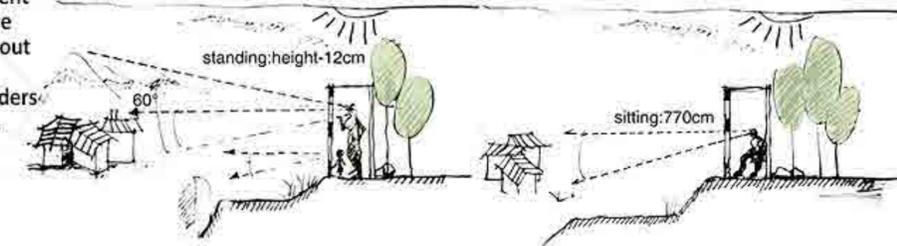
Views may change totally in different seasons, especially in winter with leaves fallen down. What we want to design is something that can suit different time and different places. That means it has to be small and moveable. Moreover, it should be interesting to attract people's attention.



VIEWPOINTS IN DIFFERENT SEASONS

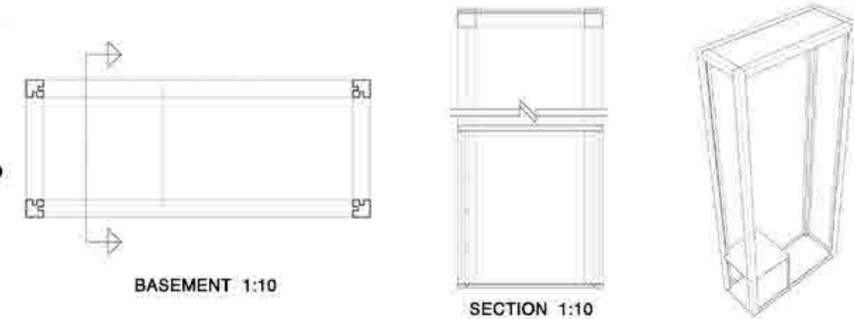
HORIZON

To adapt to different adopter crowd, we made a survey about the horizon. We make viewfinders at every horizons.



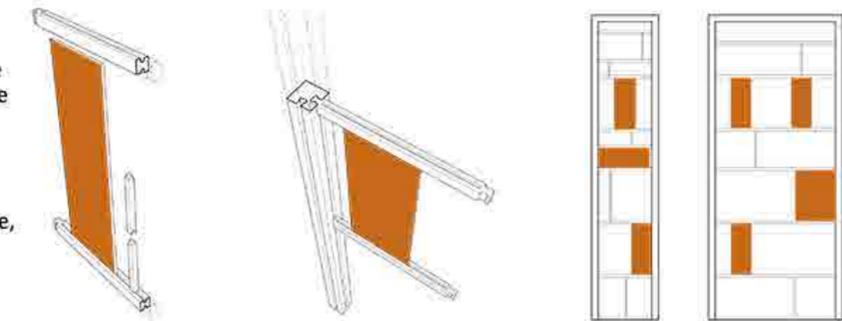
OUTLINE STRUCTURE

With all the sticks moveable and the small size, the view point structure is easy to be set up and dismantle. Also the structure's small size means that it can suit different topography.



VIEWFINDER

Making a different sense of view is quite important. To achieve this aim, we design a system like the left. The shelters can be moved on two directions. In this case, different viewfinders can be brought out.



DIFFERENT POSSIBILITIES

With viewfinders of different hights, one scene can have different possibilities. Move the shelters on the same hight, there will be different pictures, too.



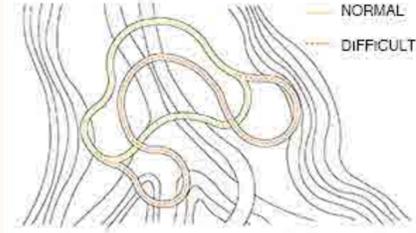
NEW ACTIVITY

PROBLEM: The three river intersection has very good atmosphere, running stream and trees around. But it used to be a critical point, people just used it as a parking area. For those riding bicycle down from Superga, this part is the most boring part, there's no attraction.

SOLVE IT: We plan an overhead bicycle trail, try to leave the environment as original. Do not waste the overhead space.

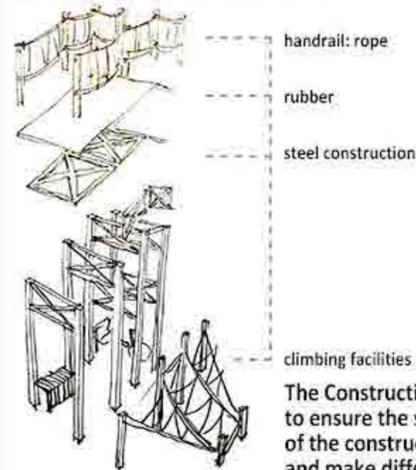


DETAILED INFO



In order to attract more people, the trail is divided into two parts and the entrance is just on the side of Trail 65. It will not influence the original passing.

DIFFERENT LAYER CONSTRUCTION



The Construction both to ensure the security of the construction and make different parts of space to meet different needs.

DIFFERENT LAYER CONSTRUCTION

In order to make damage to the surroundings as less as possible, only a small part along side Trail 65 has planned several facilities for children, where people could have easily access.

parents resting area

bicycle parking area

children playing area



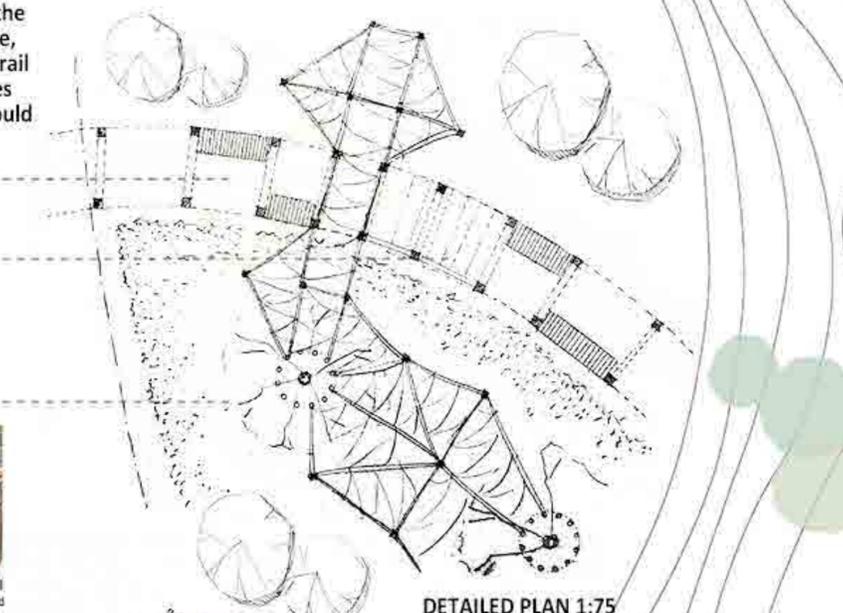
Reference: woodland discovery playground at Shelby Farms Park, TENNESSEE, USA

bicycle path

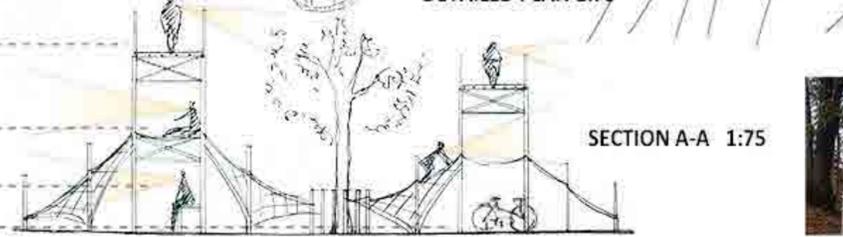
children playing

parents resting

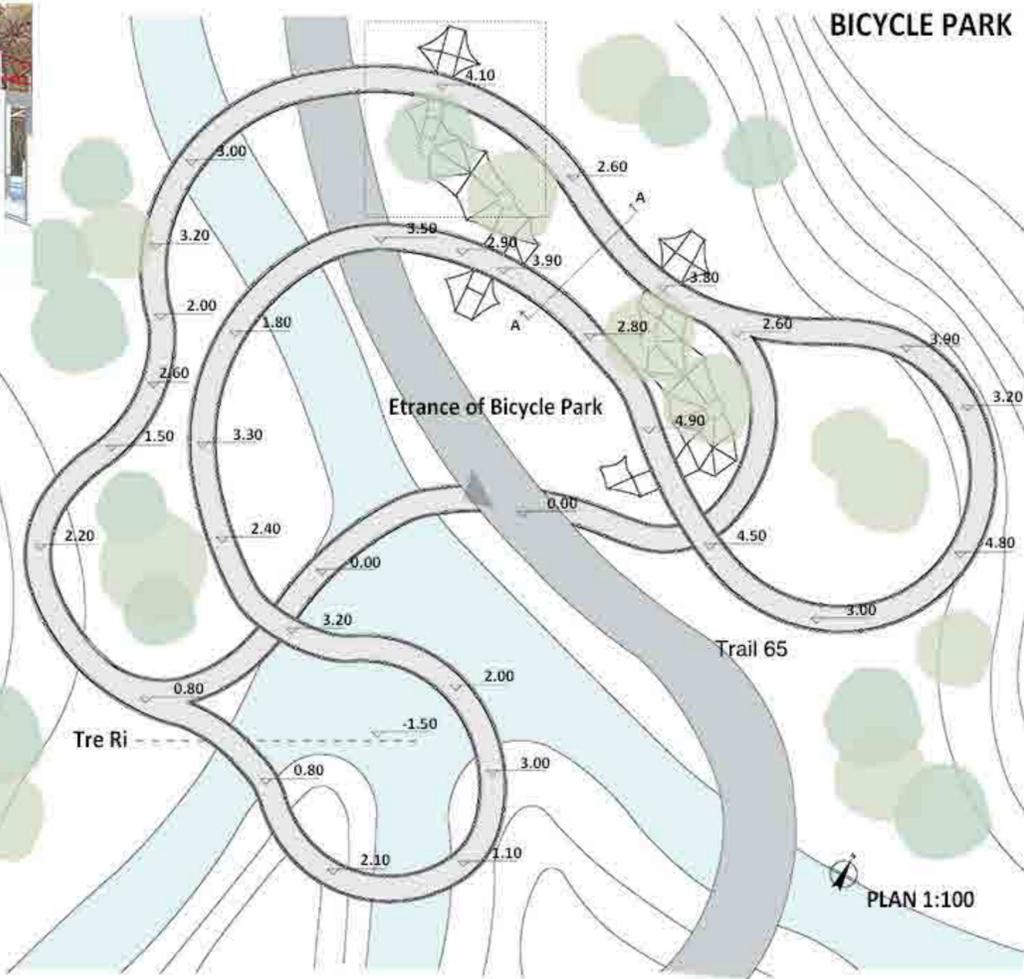
bicycle parking



DETAILED PLAN 1:75



SECTION A-A 1:75



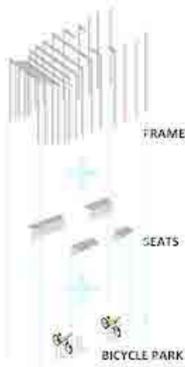
ELEVATION 1:100



PLAN 1:100

BICYCLE AND PEDESTRAIN SYSTEM

A. REST POINTS SYSTEM



INDICATION
Indicating gradient of the way in the front and lead people's sight line to Superga hidden behind trees

SITTING & PARKING BICYCLES
There are seats for people and places for parking bicycles



PLAN 1:100

SIGHT LIGHT GUIDE

GRADIENT INDICATION

steep

gentle

The design for rest point can help people learn more about the situation, add more communication, and take a good rest.

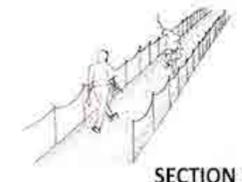


TRAIL 65

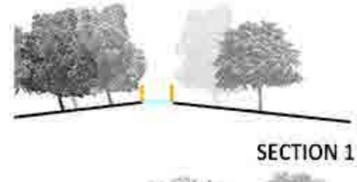
B. SAFE AND SUPPORT SYSTEM



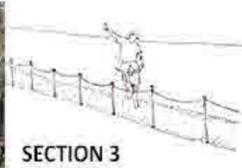
ELEVATION 1:100



SECTION 1



SECTION 1



SECTION 2



SECTION 2



SECTION 3



SECTION 3



SECTION 4



SECTION 4

During the long trail 65, there need to be some stops. Rest points are designed both for pedestrians and bicycles. Function is divided into three parts: INDICATION, SITTING AND PARKING BICYCLES. Rest points are distributed along the trail 65.

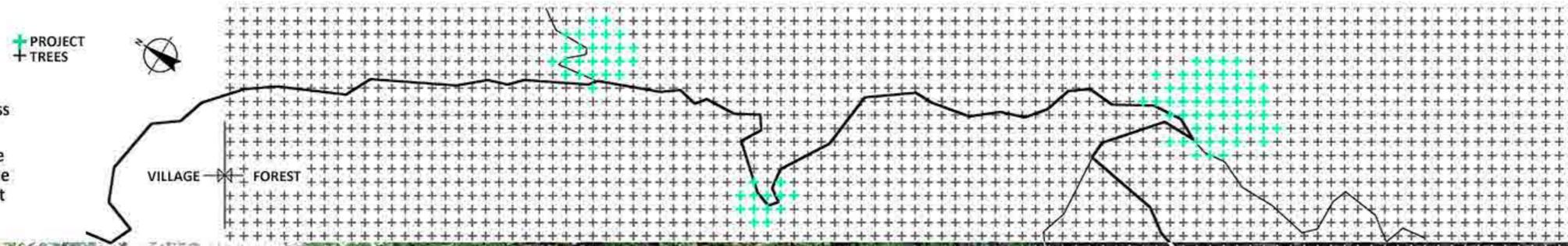
REST POINT

NEW ACTIVITY POINT

SIGN SYSTEM

DISTRIBUTE: A tree is a single cell. We repeat it to catch people's eyes. The number of replications indicates the importance of the sign. In more important place, we have more copies and in less important place, we have less copies.

PARTICIPATE: In a sign group, the bigger and closer one will be a sign. The others are left for people to draw. The sign system is not only an information guide, but also an event that everyone participate in it.



ORIGINAL IDEA

PROBLEM: To design an appropriate guiding system for Trail 65, the biggest problem is that the site is among a dense forest. It means it is easily to be lost.

SOLVE IT: So we need the guiding system to be as obvious as possible. Making the project a big contrast with the nature is a good way to solve the problem.

Considering the nature is complicated and real, the guiding system will be simple and unreal to make the big contrast.

1. To be simple, we choose the white color and the geometric shapes.
2. To be unreal, we imagine a floating plane in the air. There are two ways to create this plane. One is to repeat dots (sign) to imitate it. The other is to use lines (info) to define it. What's more, we choose a mirror coated fabric for the sign which will make the scene more unreal.

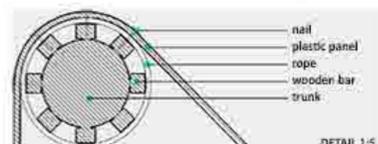
UNIFIED SYSTEM

SPACIAL: The sign and information system have the similar elevation but their plan are totally different. They both create a floating plane in the air which give people similar spacial feeling.

MATERIAL & CONSTRUCTION

FOR SIGN: Use a mirror coated fabric to wrap the trunk. Texts will be printed on it and the fabric should be flexible. We will change it every two years for two reasons. One is that the trunk will become bigger. The other is that the forest is always changing and growing, guiding information should be changed as well.

FOR INFO: Use small wooden bars as the buffer and support. Use ropes to fix the wooden bars. Plastic panel will be fixed on the wooden bars by nails.

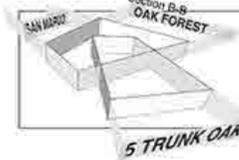


INFO SYSTEM

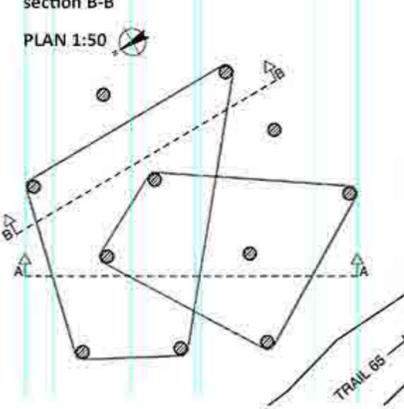
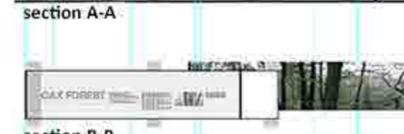
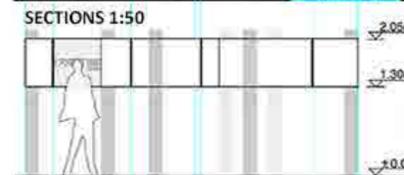
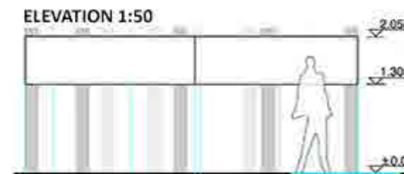
INFORMATION EXAMPLE 1:20



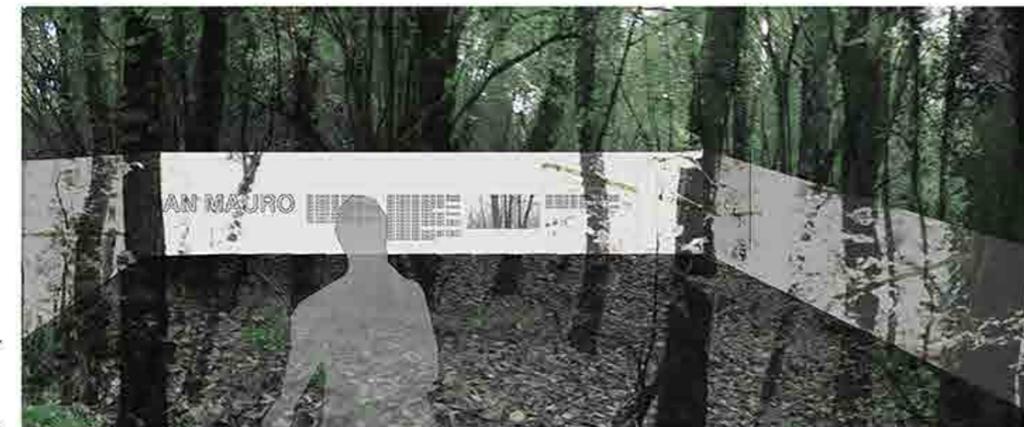
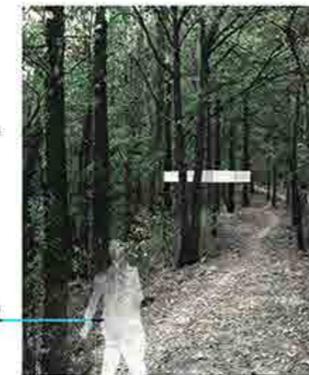
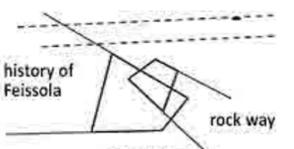
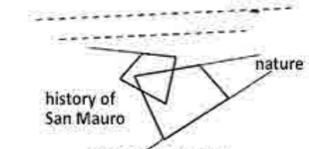
The stripe of polygon is the same high with the eye level and the information is written inside the polygon. We choose an information point near the 5 trunks oak as an example.



Some sides of the polygon is corresponding with some interest elements. We put the explanation about them on the corresponding side. It is very interesting to compare the real scene with the texts written in the stripe. To do the compare, you should go down to go into the polygon or go out of it.



THE OTHER ONES ARE BLANK FOR TRAVELLERS TO DRAW
CHOOSE THE BIGGER AND CLOSER ONE TO BE A SIGN





Forest Playground



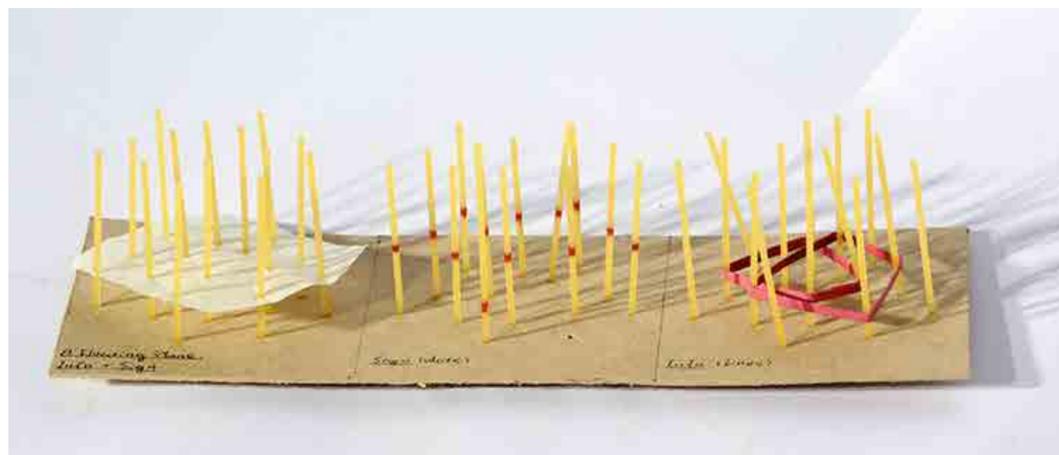
Gate



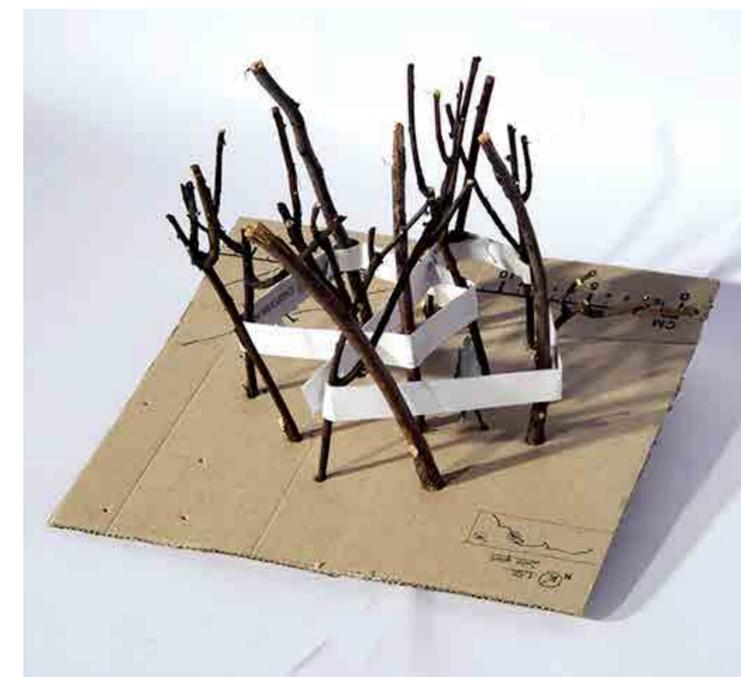
Viewpoint



Bike Track and Playground Detail



Sign and Info System



Sign and Info System

The new road, opened recently to allow a view and panoramic fruition of the hills surrounding Turin is not an exceptional historical remaining, but an important system of connection between

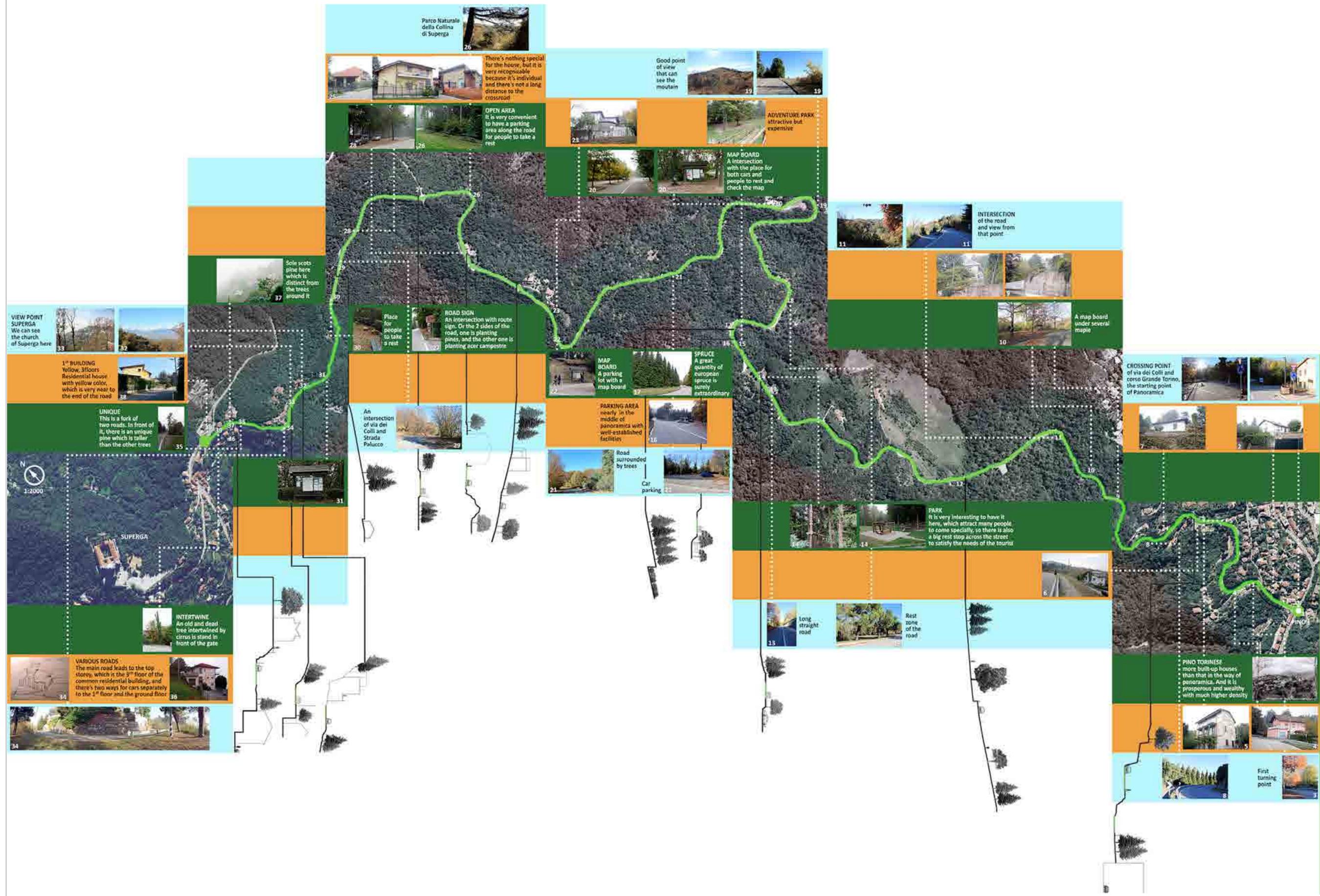
the back of the hill hosting the basilica of Superga and the front facing the city.

The nowadays dressing of the trail is quite alienating if we consider the contest: the choose of the lighters, the organization of the sidewalks, the definition of the parapets are quite in contrast with the natural and architectural contest, with no connection to the spectacular viewpoints the trail offer to the walkers and drivers. More, the lack of maintenance of the natural and planted vegetation is now compromising the appreciation of these panoramas.

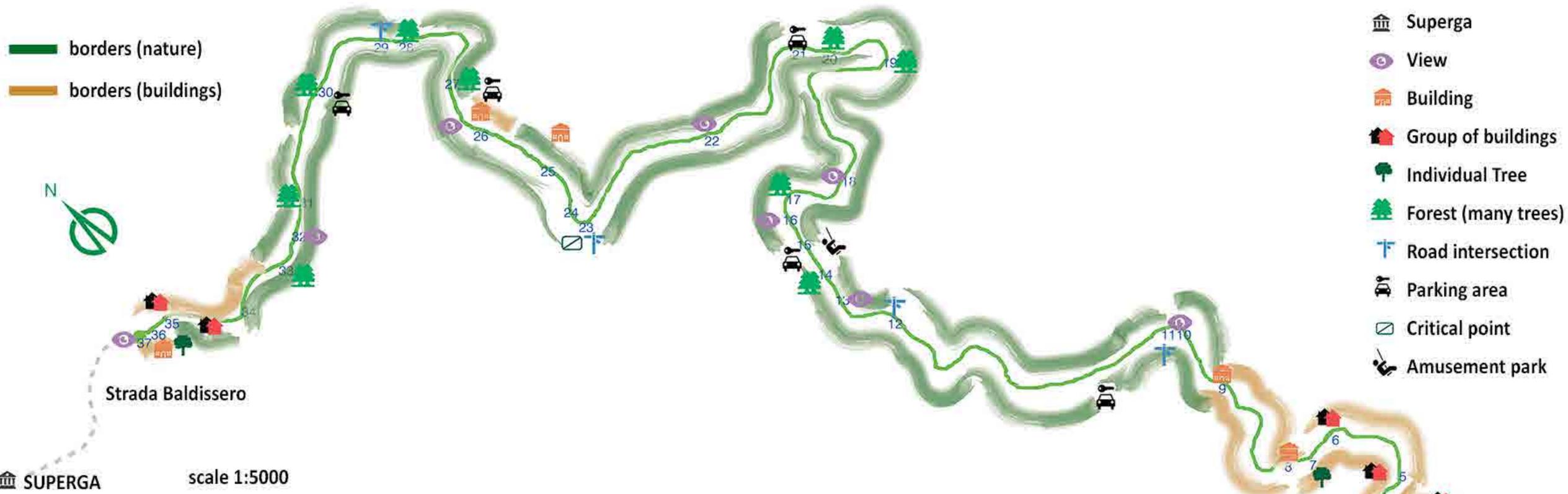
(C.D., with M.V.C.)

Along the long winding road, several stations become the starting points for deeper explorations of the surrounding park at different ground levels. Built with a common system of opaque and gridded timber walls, they point out the main rest areas. The road gates are sequences of frames, rest and info points are open canopies, the info signs are low towers that can host a wide range of panels, the bar is the edge of a long elevated path that deeply enters the woods and lightly skims the tree tops. Two viewpoints play not only with visual perceptions: the first one is a linear theatre box with large openings framing the landscape around, the second one is a double decked platform projected towards the hills. Along the most dangerous turns, separated and protected path and bike lanes create safe ways for the slower travellers.

(L.B, with R.V., L.M.)



Zhang He • Sun Kaifu • Quan Zhen • Li Xiaoban • Ji Xueping • Li Xiangyu



168. Torino - Panorama visto da Superga. Ed. G. Cambursano - Torino Viaggiata, 30 settembre 1958. Nuovi palazzi occupano gli spazi piani a ridosso del Po e lungo corso Belgio, arrivando a minacciare anche la base della Collina Torinese.

View of Torino from Superga



Although Basilica of Superga is not on our way, we can see Superga as a view at the beginning of the road.



Corso Grande Torino



Basic living facilities are not enough. There're several parking lots along our walking process.



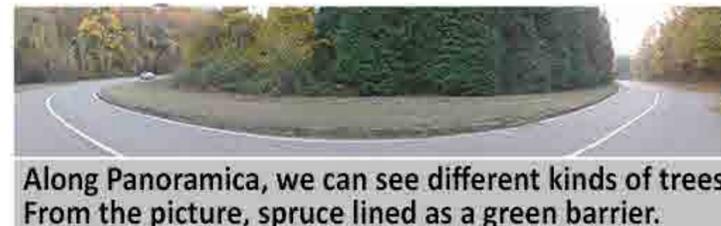
(Strada dei Colli) The we work on is new. There're no historical buildings along the road, and most of the houses are for residential uses. We think the most attractive points on our way are view and nature.



022. Pino Torinese in 699 - Regione Cantoniera e Colle di Superga. Ed. Masera S. S.A.C.A.T. - Torino Viaggiata, 19 agosto 1967. La basilica di Superga fotografata da Pino Torinese. Il paese sorge su uno dei colli "naturali" che mettono in comunicazione la città di Torino con il chiese, da sempre utilizzato per attraversare il rilievo collinare. Da qui parte la strada panoramica che, seguendo in gran parte il crinale della collina, raggiunge Superga.



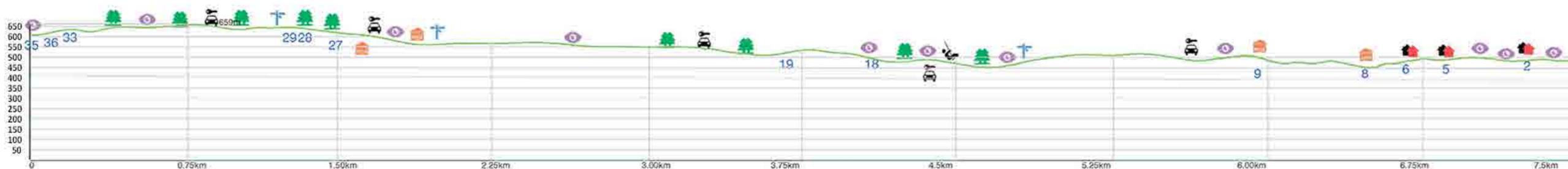
Amusement park among the "green ocean". There is a parking area rih in front of the park. Surely convenient for people to have fun.



Along Panoramica, we can see different kinds of trees. From the picture, spruce lined as a green barrier.

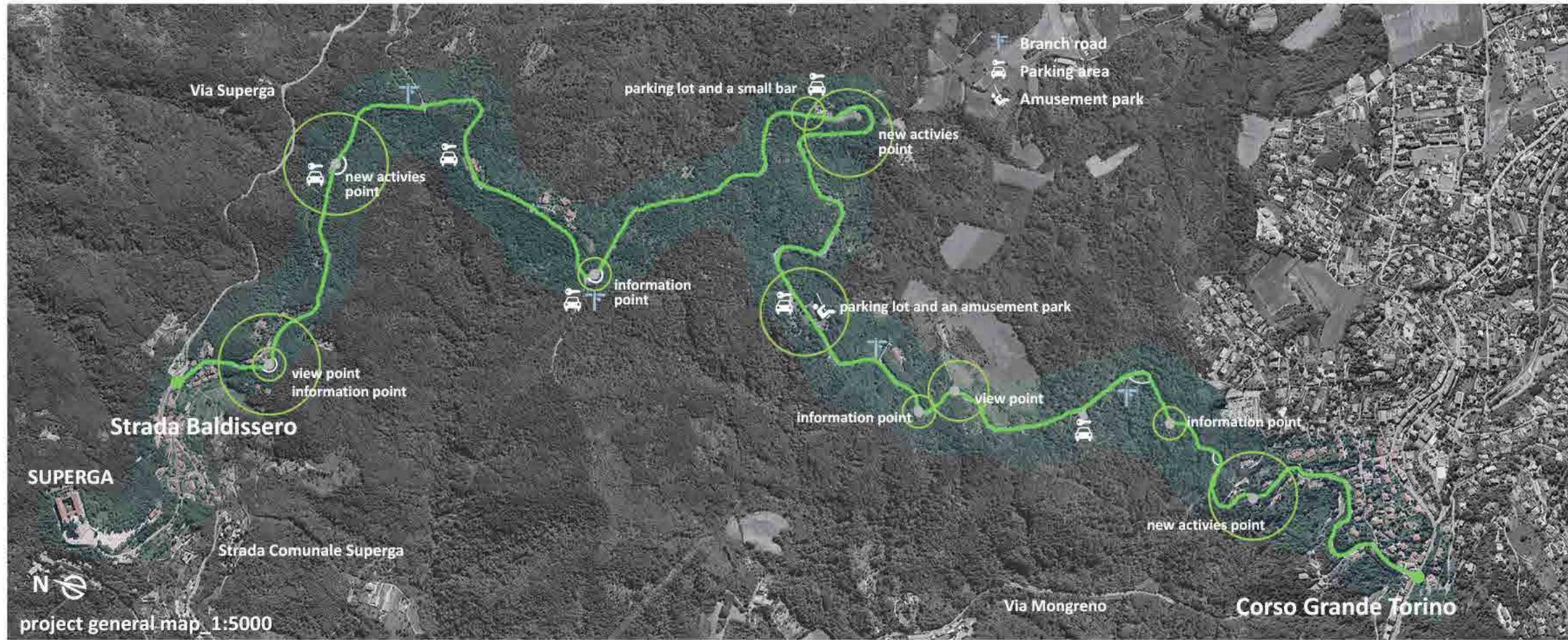


Synthesis Plan 1:10000



PROJECT SYNTHESIS

Zhang He • Sun Kailin • Quan Zhen • Li Xiaohan • Ji Xueqi • Li Xiangyu



CONCEPT : Highway Park
--Touch the nature

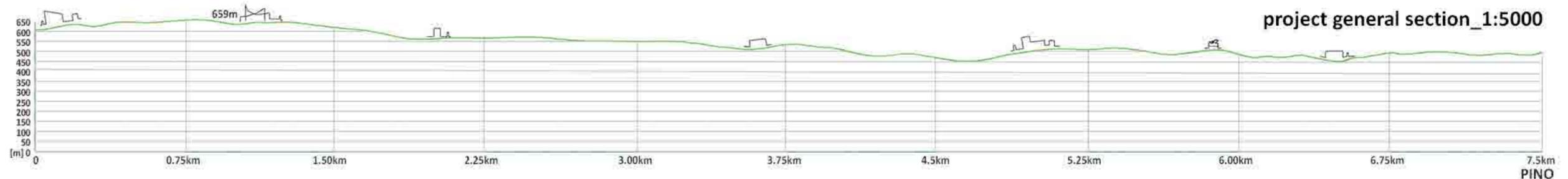
MATERIAL : We use wood structure to make a common concept which linked with the forest. Besides, we decided to use glass as one of our main materials as well.

COLOR : Green

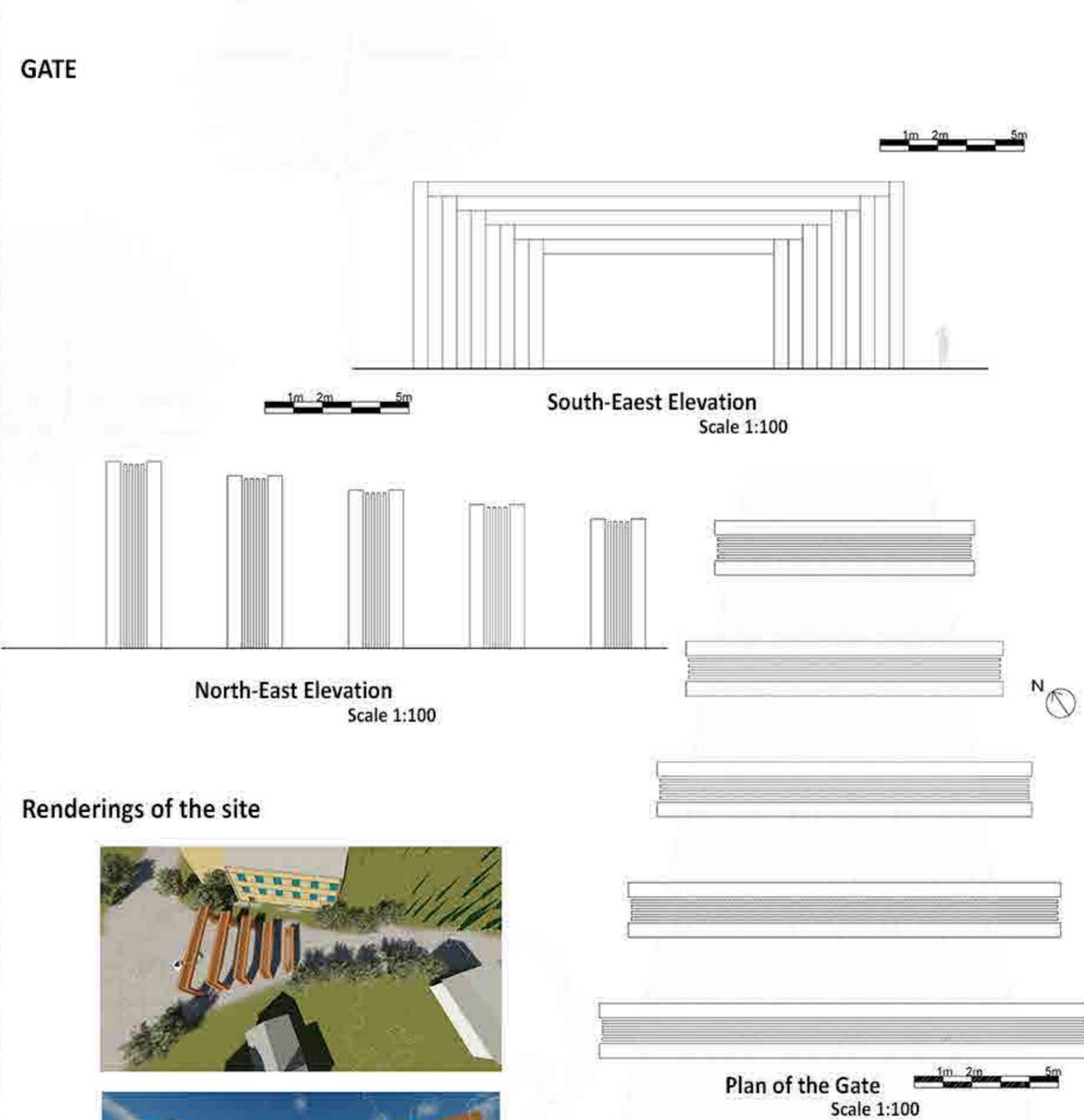
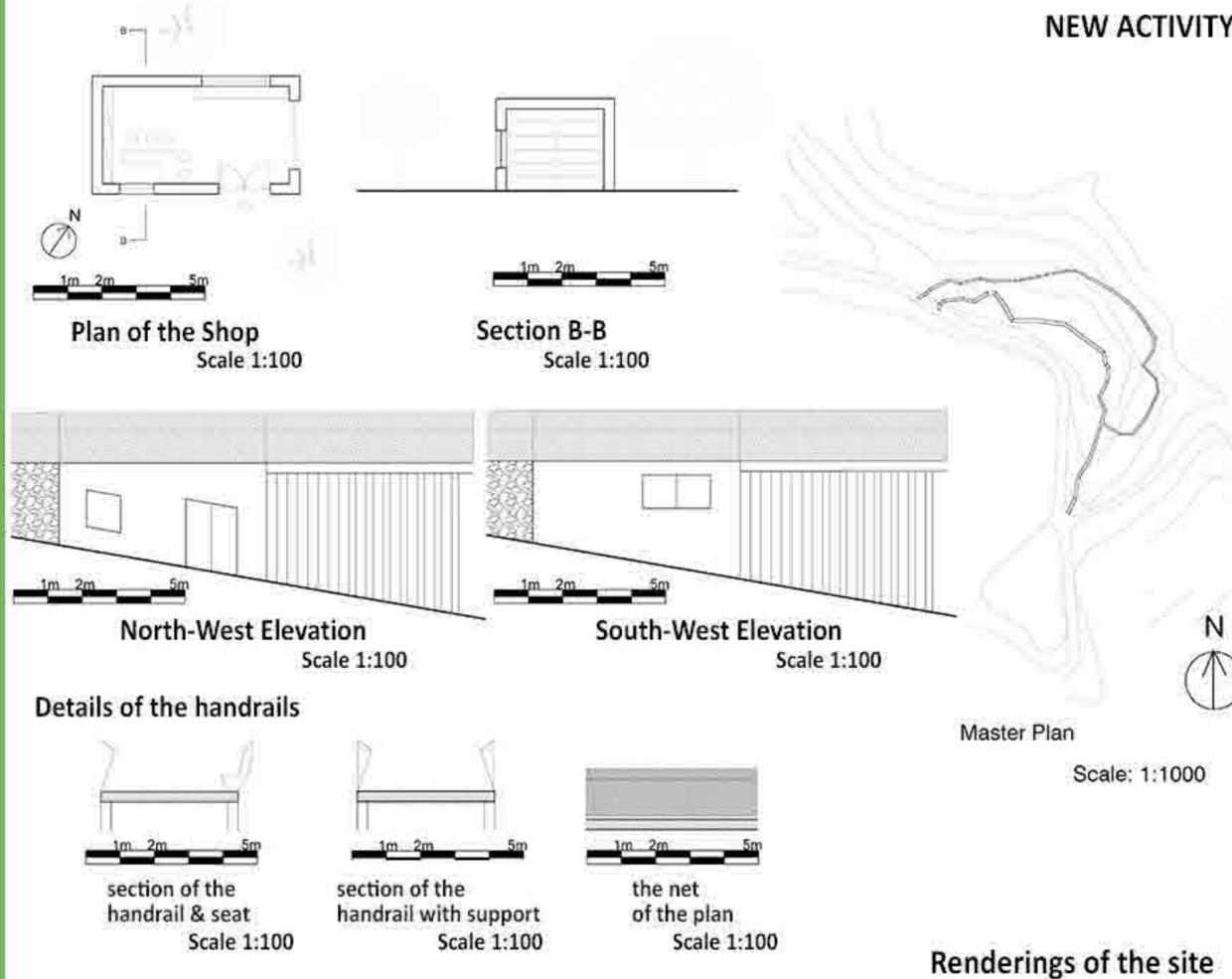
Always, when thinking about nature, the color that we come up with is green. Panoramica is new and natural among the roads in Superga, in our way, green is not only represent peace and calm, but also shows a respect to the environment, we want to try our best to make the smallest damage but the biggest use of the original natural view.

According to our own experience about panoramica, a green ocean but few people would like to walk along the road even though the views are fantastic and the air is fresh.

For our future design of the road, win more attractiveness seems should be focused more. And we could separate the road especially around the turnings for the safety consideration. Illustrate the perfect view points, and create new activities like commercial area (for the fund) near PINO because of the convenient transportation and relatively large density of population. We also design all the things which have a connection with the forest. Like we use wood structure to make a common concept which linked with the Panoramica.



Panoramica



Reference



Australia. Tree Top Walk



Australia. Tree Top Walk



Design Explanation

Using the wood material to wake people's attention, that we are now entering into Panoramica. The whole gate is made up by 5 gates, with the gates height goes down, our distance to the ground is going down also, just like touching the ground.

Designing Explanation

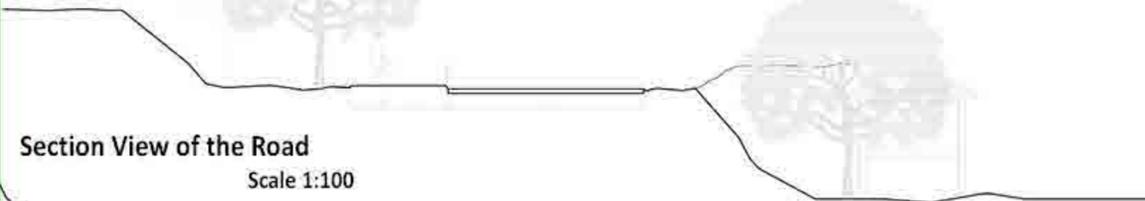
There are many luxuriant forests always keep Panoramica Strada accompany. But people cannot join the fun of the timberland because unaccessible. Then I added a new route that people can gain the pleasure of nature and also gain a new experience from the way.

The route start with a not sharp slope so that people can easily access.

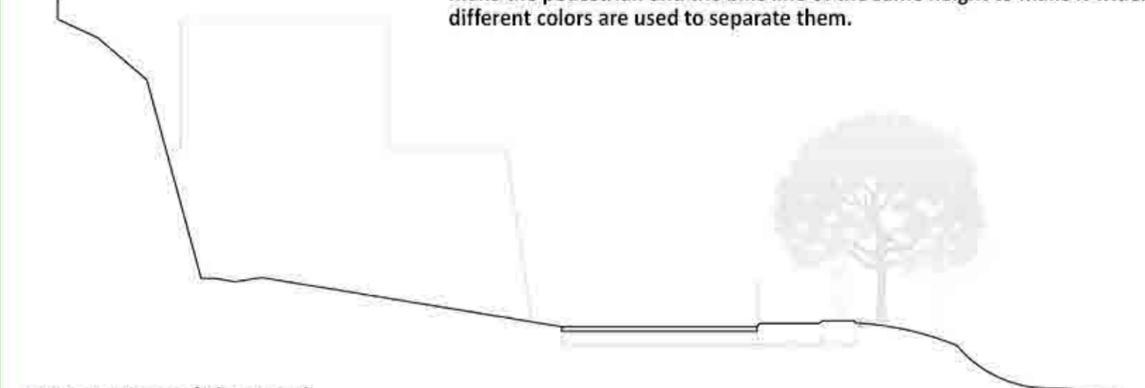
At the beginning of the rape provide a small Coffe and shop for people with an open rest area.

PEDESTRIAN PATH, BIKE LINE AND THE MAIN ROAD

Focusing on the turnings, we use platforms or different height to make the bike line and the pedestrian separately.



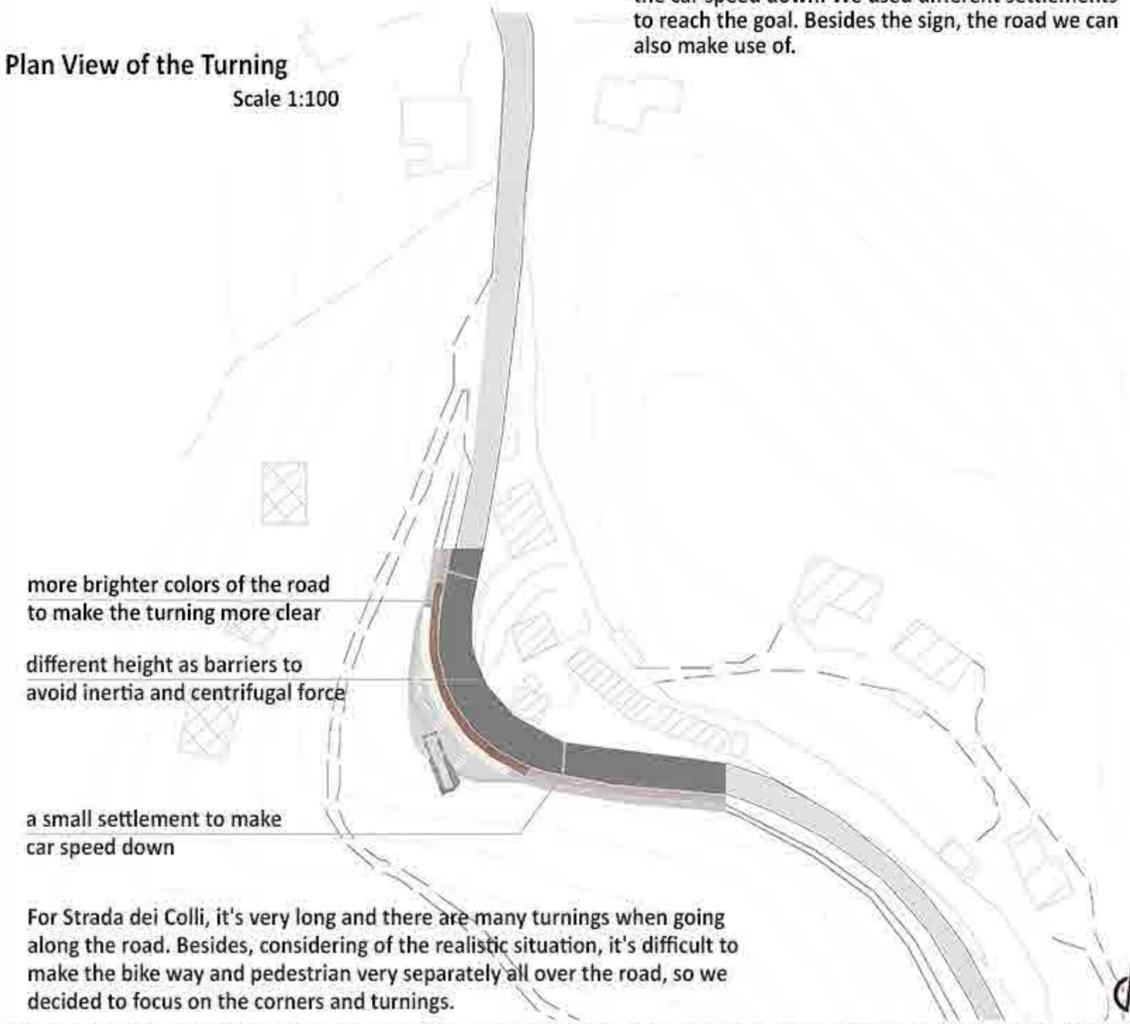
When going straightly, it's much more safer. So comfort going to the first, make the pedestrian and the bike line of the same height to make it wider, different colors are used to separate them.



When meeting with a turning, safety is very important especially in mountain area. The things we need to do are: 1st, caution the people; 2nd, make the car speed down. We used different settlements to reach the goal. Besides the sign, the road we can also make use of.

Section View of the Road Scale 1:100

Plan View of the Turning Scale 1:100



more brighter colors of the road to make the turning more clear

different height as barriers to avoid inertia and centrifugal force

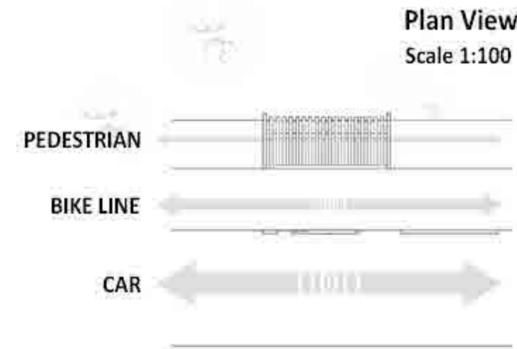
a small settlement to make car speed down

For Strada dei Colli, it's very long and there are many turnings when going along the road. Besides, considering of the realistic situation, it's difficult to make the bike way and pedestrian very separately all over the road, so we decided to focus on the corners and turnings.

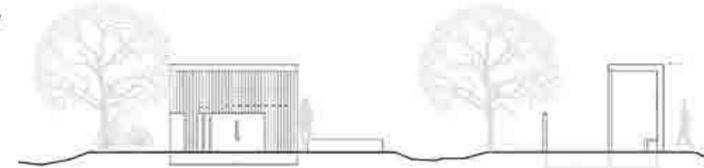
INFORMATION POINT

Create a space for people to have a rest and check the information, specially for the people who walk along the road. And also, illustrate the road line on the map for clearing identification. Connect with the pedestrian to make the space more interesting.

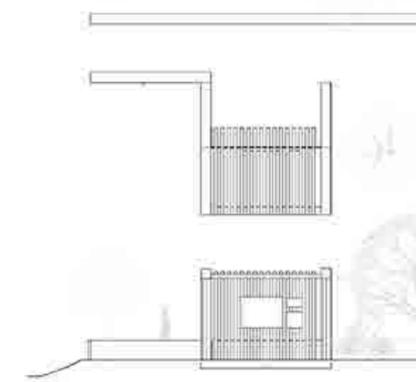
For the different use of the four information points, there's one kind just as a sign to show the map and the location where you stand. The one on the left has a use of connect with the sidewalk and way for bicycles.



Elevation View Scale 1:100



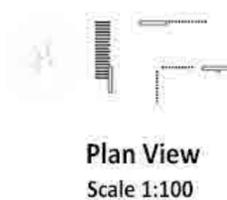
The one can connect with the view point to provide a place for rest



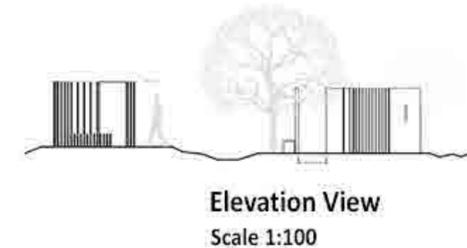
Plan View Scale 1:100

Elevation View Scale 1:100

One can set aside around the turning area which has two entrance



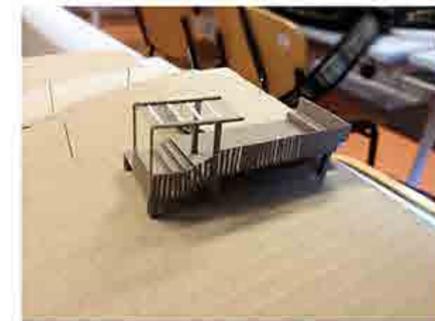
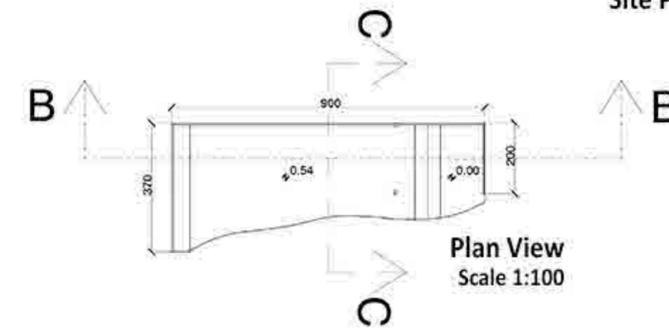
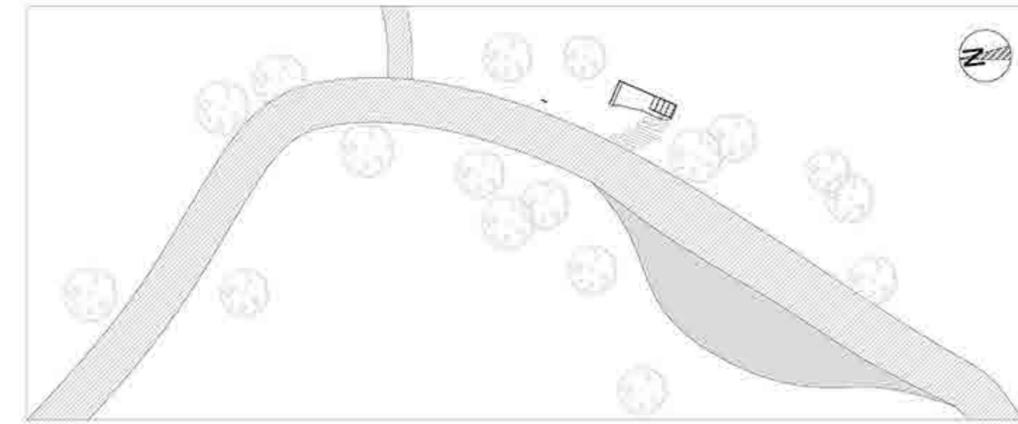
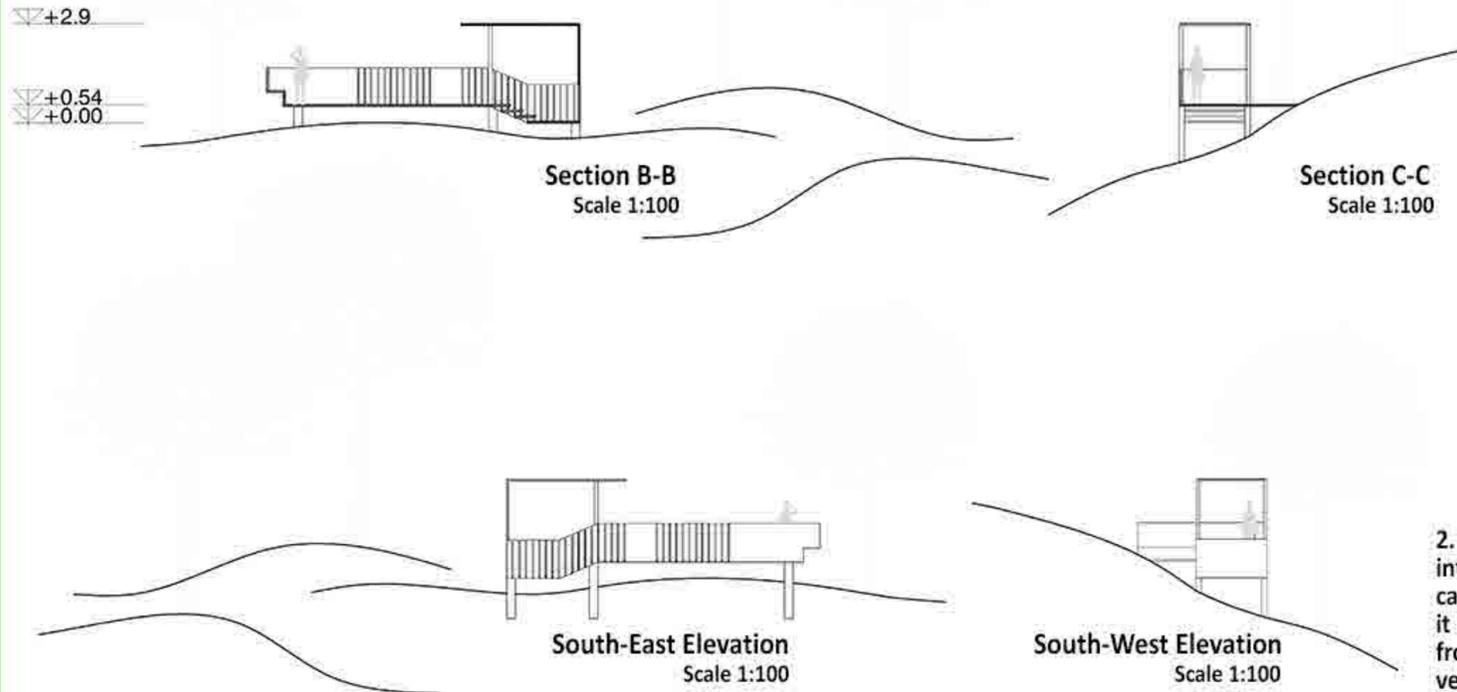
Plan View Scale 1:100



Elevation View Scale 1:100



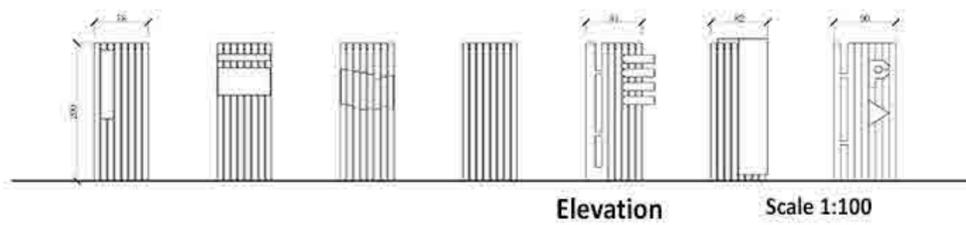
VIEW POINT



Handmade Model

2. This landscape deck is designed near a farm which seems interesting with a part for the beekeeping, people enter there can get a great view of the farmland and the green hill far away, it can attract the visitor to go more deeply into the landscape from from the nearby path. This project also contains some vertical elements which have a good relation with the first one.

SIGN



There are three kinds of signs made with pieces of wood and glass. Firstly, with likenesses, or icons; which serve to convey ideas of the things they represent simply by imitating them. Secondly, with indications, or indices; which show things, on account of their being physically connected with them. Such is a guidepost, which points down the road to be taken, or a relative pronoun, which is placed just after the name of the thing intended to be denoted. People can realize everything simply by it. Thirdly, there are symbols, or general signs, which have become associated with their meanings by usage.

Renderings



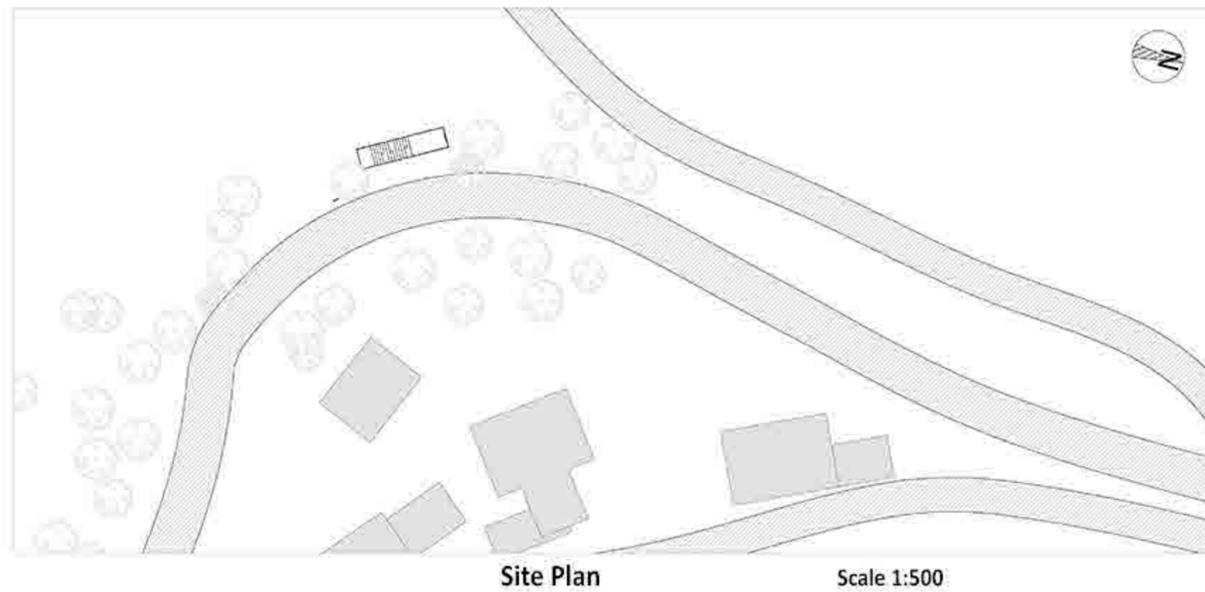
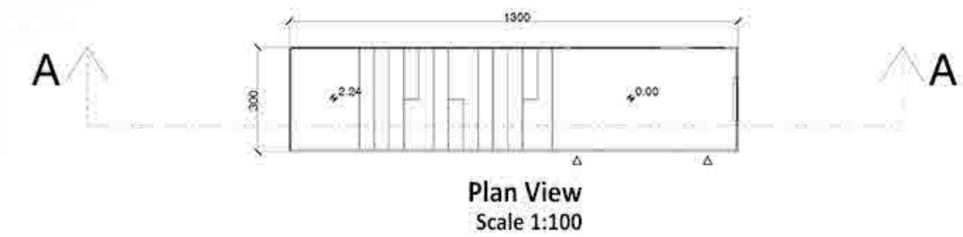
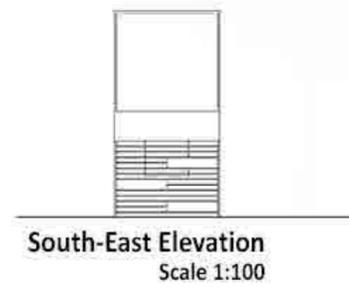
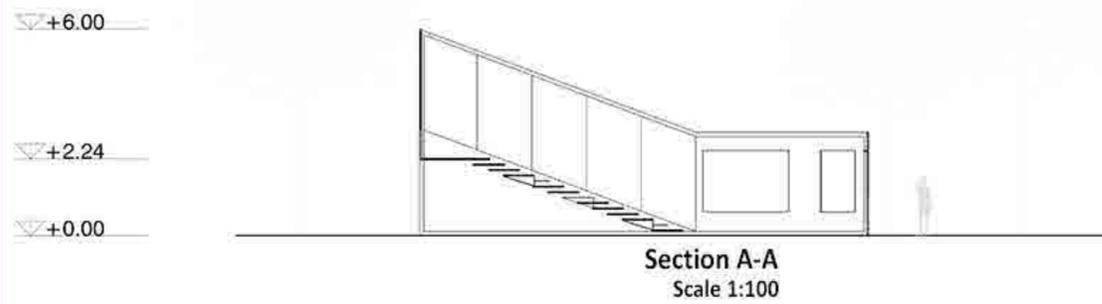
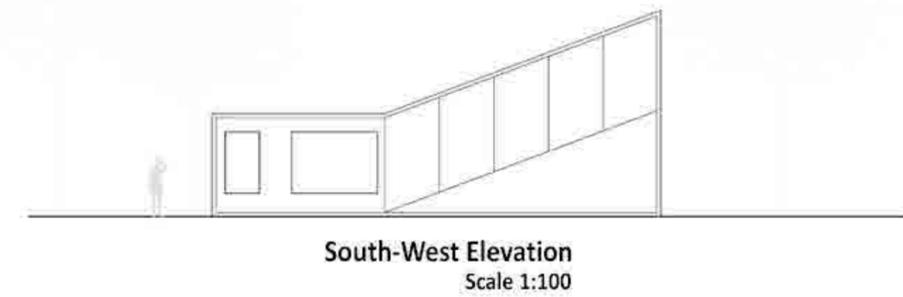
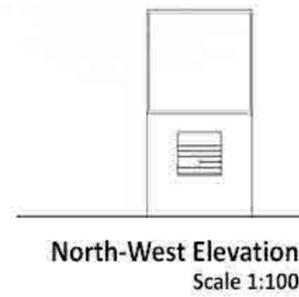
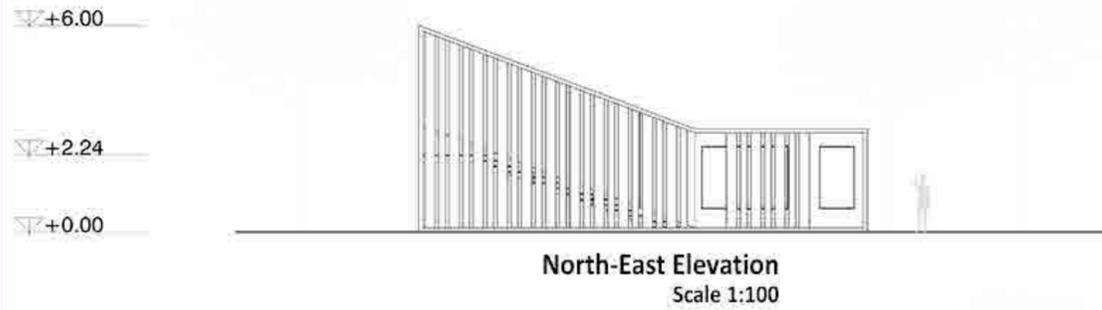
Renderings



Daytime



Night Scene



VIEW POINT

Panoramica is quite a long and scenic way, and basically for car and bikes, but which is not reasonable is that there is few places for people to rest and enjoy the landscapes.

1. This project, placed at the start of Panoramica near a residential neighborhood, it provide visitors a place to get an overlooking about the city and the church of Superga, the semi-enclosed envelop can make people feel more intimate to the nature, and the telescope there and its different layer allow people to capture the view from different angle.

The rhythm of the vertical system gives it an appeal as it associate with the boles of the surrounding trees. It's more like become part of the landscape but not just a view point or a rest point, people may like to stop here and enjoy themselves rather than miss the great view there.



Night Scene

Renderings



Daytime



Night Scene



Handmade Model

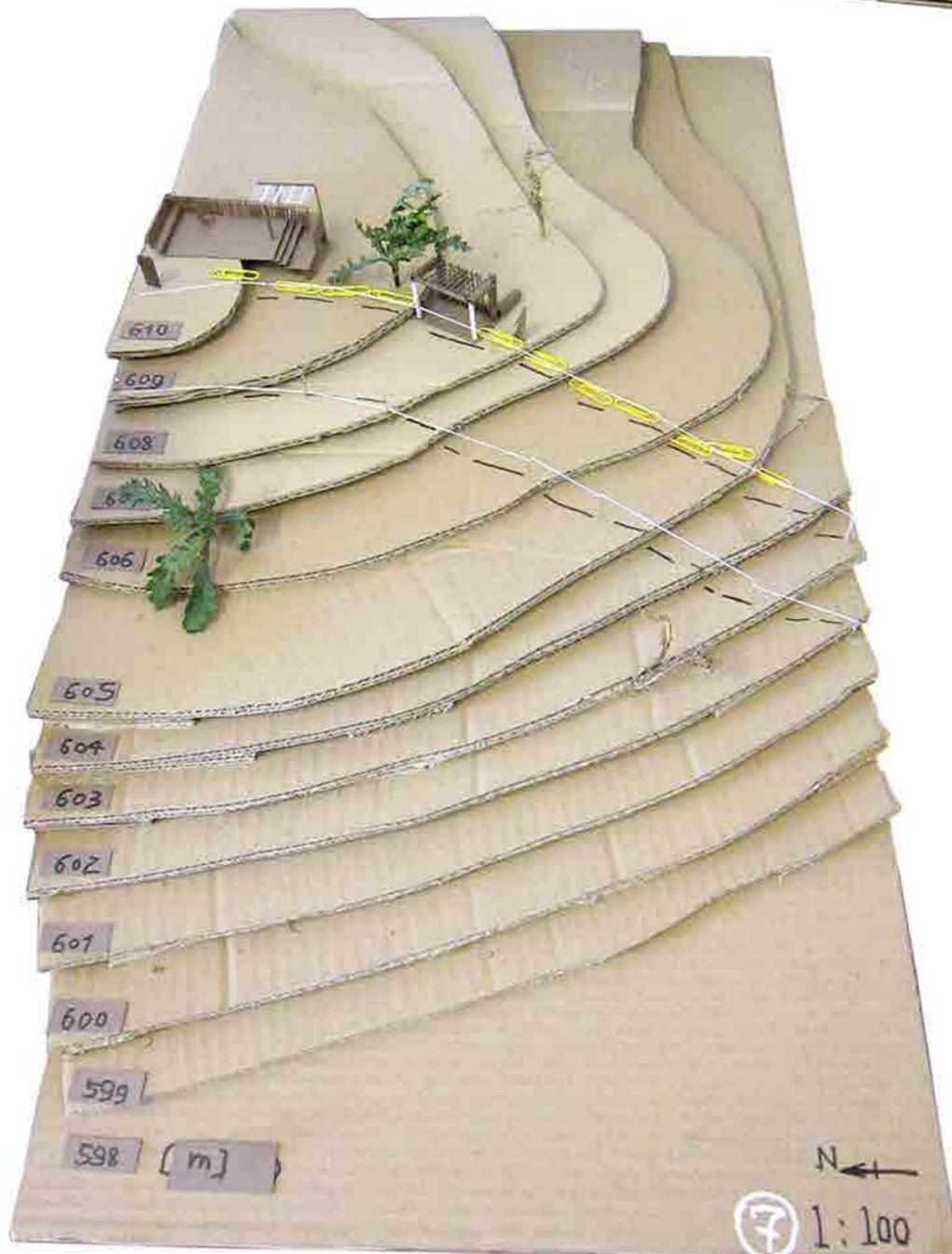
MODELS



Viewpoint + Signs



Viewpoint + Info Point



Viewpoint + Info Point



Elevated Footpath

A specific area,
historically strongly
connected with
the top of the hill,
where the Basilica
of Superga stands,
nowadays nearly
totally isolated
and without a

real, serious, connection. The analysis on the historical cartography demonstrates, on the contrary, the complex net of roads, trails and muletracks originally drawing the area.

The project aims to recognize the misunderstood role of the place and to sew again, mending the splits between this area and the monumental complex of the basilica, through the reorganization of the road and the realization of a rest area in Brich Paluch, with an open, complex, structure.

(C.D., with M.V.C.)

An hexagonal frame generates two and three dimensional transparent elements that mark the short road, underline its main intersections and model the main pavilion.

The linear low walls are an invitation to leave the car to explore the surrounding paths, especially the one leading to a wide open area, main viewpoint towards Torino.

The clearing becomes a secret garden which hosts an open discovery pavilion with organically shaped seats.

(L.B, with R.V., L.M.)

Zhang Zhonghao • Maryam Jalali Kalani

PINO TORINESE
the beautiful view of Pino Torinese with blue sky and many colorful trees

COLORFUL TREES
Rinodora is behind the this beautiful trees like castanea sativa and quercus pubescens roverella downy oak

ALPS
the beautiful view of the Alps and the jungle from this point you can see most beautiful view of this area

HISTORICAL REVIEW
After analyzing the old maps, we know that via Superga has been existing since 1816, at least along via Superga there were many branches, which include the rusiment of strada Palucco, but nowadays most of them have ranished, or become pedestrian path, only strada Palucco remains from 1816 to now. Another main road, via dei Colli, was only a rudiment in 1816 and the 1856, is showed complite shape there where many connection between via Superga and via dei Colli since 1816, but only remain strada Palucco. The roadnet around Superga has become more focus. The settlement in the intersection of via Superga and via dei Colli has been existing since 1816 and now it has expended. And the settlement in the intersection of via Superga and strada Palucco howd up the beginnig of last century

RESIDENTIAL BUILDING

LO SPORTELO DELLA MEDIAZIONE
In this place you can find small Gym and football ground also a private parking lot and a kindergarden

The small public parking in the start point

PARKING
The small parking you can find in the junction of strada Superga and the Strada Palucco

END POINT
Junction of the strada Palucco and the strada dei Colli the cars from strada Palucco can access to left and right side the strada dei Colli

PINE JEFFREY
The beautiful old tree which is name is Pine jeffrey

THE NATURAL PEDESTRIAN
way to the grand land that has beutifull view andmis a ideal place to building a mountain house

WARNING SHARP TURN
there is no specific sign of warning and the fences at here seem unstable



PEDESTRIAN
The natural pedestrian way that you can find only in some part of strada Palucco, and if you want to walk in this street you shoud be careful

WALKING IN STRADA PALUCCO
In the picture number 12 you can see natural pedestrian in the left side of the road, but in number 13 isn't pedestrian way and if you want walk it is a little dangerous

START POINT
In the right side of the picture you can find the beging point of the strada Palucco

PICNIC PLACE
The project is in process! A public picnic place will be buil in this place people can stay and relax in the place without realizing the passing the time

RESTAURANT
The restaurant in the junction of the strada Palucco and the strada Superga. The people can have a short break there

WALL BOUNDARY
The residential house along the road have their own fences on the side of the road but on the another side of the road usually there is no fence at all

CHIERI
from this point Chieri can see

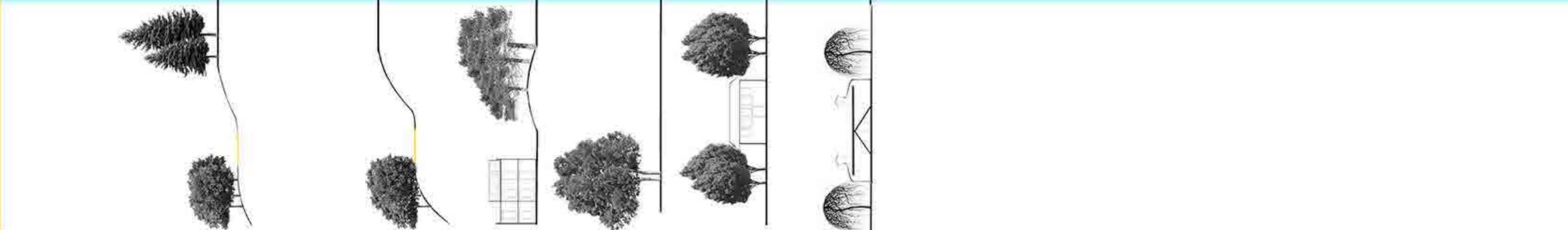
STRADA PALUCCO
This is the view of Palucco. From Palucco you can see Alps, colorful trees, Chieri, Pino Torinese, Torino

MONTE BIANCO
Beatiful view of Monte Bianco inside too many colors of nature

IN THE NIGHT
Strada Palucco has a beautiful view in night

VIEW FROM THE HILL
Another picture taken from the top of the hill, from where we can see roads is defenately not for fast car.

Strada Palucco





This road is the short cut between via Superga and strada dei Colli. it is quiet, simple and crude. Our group have been there 2 times, once at night, once at afternoon, have not seen a car drive across the road. On another side there are a lot of people ride bike on the road, so whe it ones to the security system, we need bike rider as the main target instead of car driver for the design we decided to keep it simple and close to nature to protect the original pureness of nature.

Superga



strada dei Colli

Pino Torinese

644 m

625 m

600 m

575 m

Superga

via Superga

Baldissero



There is a restaurant at the intersection, it mostly serve the people who work on the club of live at the residential house



The residential house along the road have their own fences on the side of the road, but on the another side of the road usually there is no fence at all



The beautiful old tree which is name is Pine jeffrey



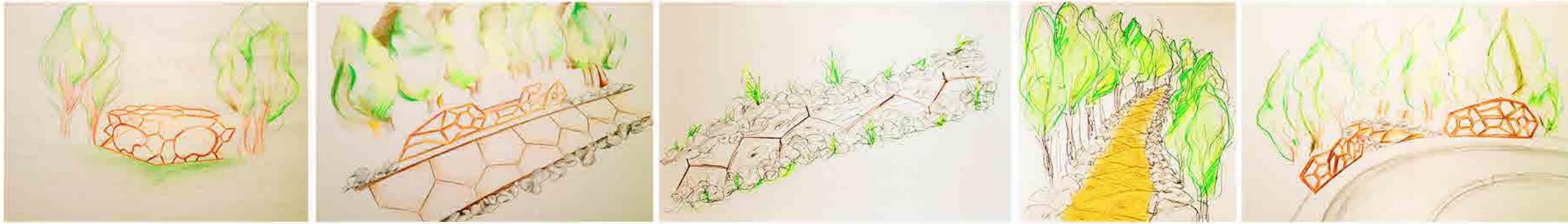
Secret path, which place you can find the varieties of nature

- Guardrail boundary
- Wall boundary
- Natural boundary
- Private ongoing Project
- Public ongoing Project
- Residential building
- Parking
- Restaurant
- Natural element

559 m
12.3 m

PROJECT SYNTHESIS

Zhang Zhonghao • Maryam Jalali Kalani



VARIETIES OF LIFE

according to our analysis this road is quiet, simple and cruel, people barely stay to take a look at the things around them, but just at some ignored places, amazing things happen. just like any small tough lives on the earth, they survive in the environment you ignored, and they are beautiful in the way you never expected

DESIGN

to keep the concept in our mind, we chose wood, stone as our main material, and we use a simple element -hexagon- in our design. Hexagon is very common in nature, like the shape of the cells of plants and beehive, etc, we repeatedly use the same element in different ways and different combinations, so we can get different results, which connects with our concept VARIETIES OF LIFE

Superga



- View point
- View point
- Fence
- Fence
- Bench
- Guardrail boundary
- Wall boundary
- Natural boundary
- Private ongoing Project
- Public ongoing Project
- Residential building
- Parking
- Restaurant
- Natural element

Strada Palucco

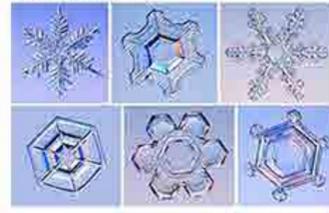
644 m
625 m
600 m
575 m

559 m
12.3 m

The beehive



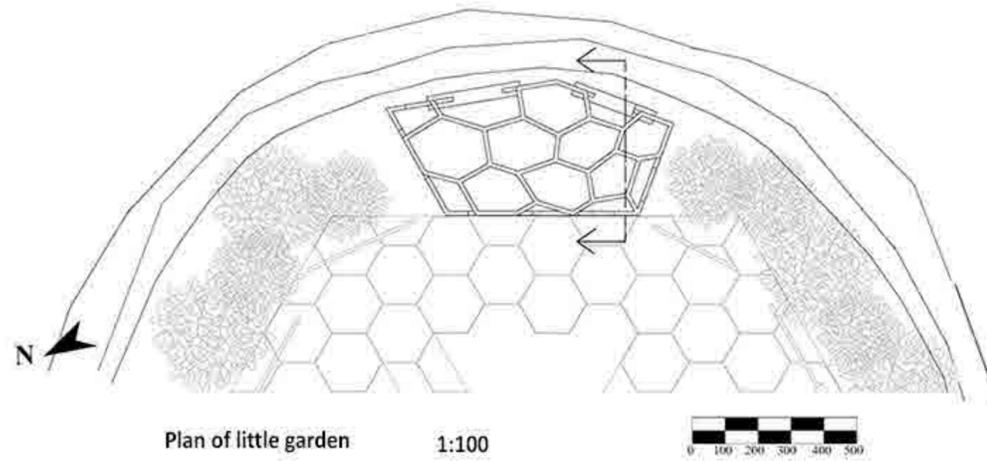
The snowflake



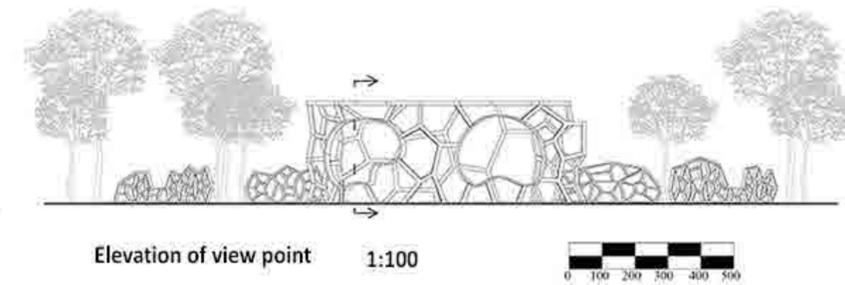
The leaf



The pattern of giraffes



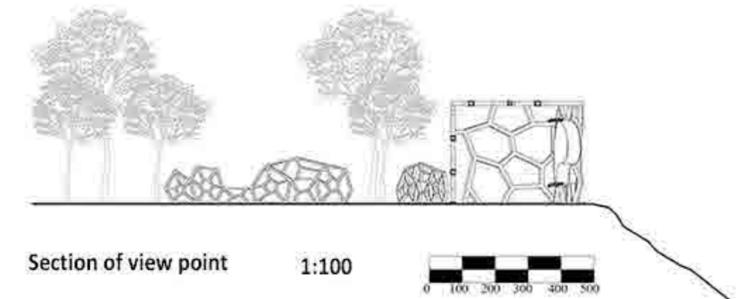
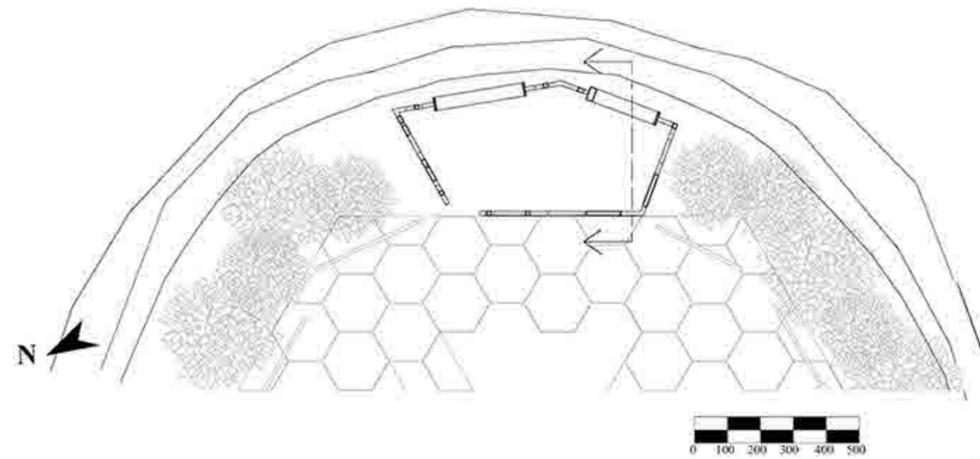
Plan of little garden 1:100



Elevation of view point 1:100

The varieties of life

The original intention of design is create something which can merge with the nature surrounding easily but at the mainwile, we both want to add some little surprises on the quiet, crude road. So, as material, we chosed wood and stone, which can be easily find in the natural world. And for the base design element we chose hexagon, which is the on of the most common shape in the natural world. It is the shape of snowflakes, the shape of beehive, the pattern of leaves. After we designed the whole project by combining the same element in different solutions, we now have a harmonions garden perfectly fit in the natural surroundings. But under the harmony you can see the uniqueness of every simple element, which is exactly our concept The varieties of life.



Section of view point 1:100



3D model of bench and path



3D model of our garden and view point



The 3D model include garden, bench View point and fences



The 3D model of gate in the begining of the path



The 3D model of our view point view from southwest



Picture of our model and path



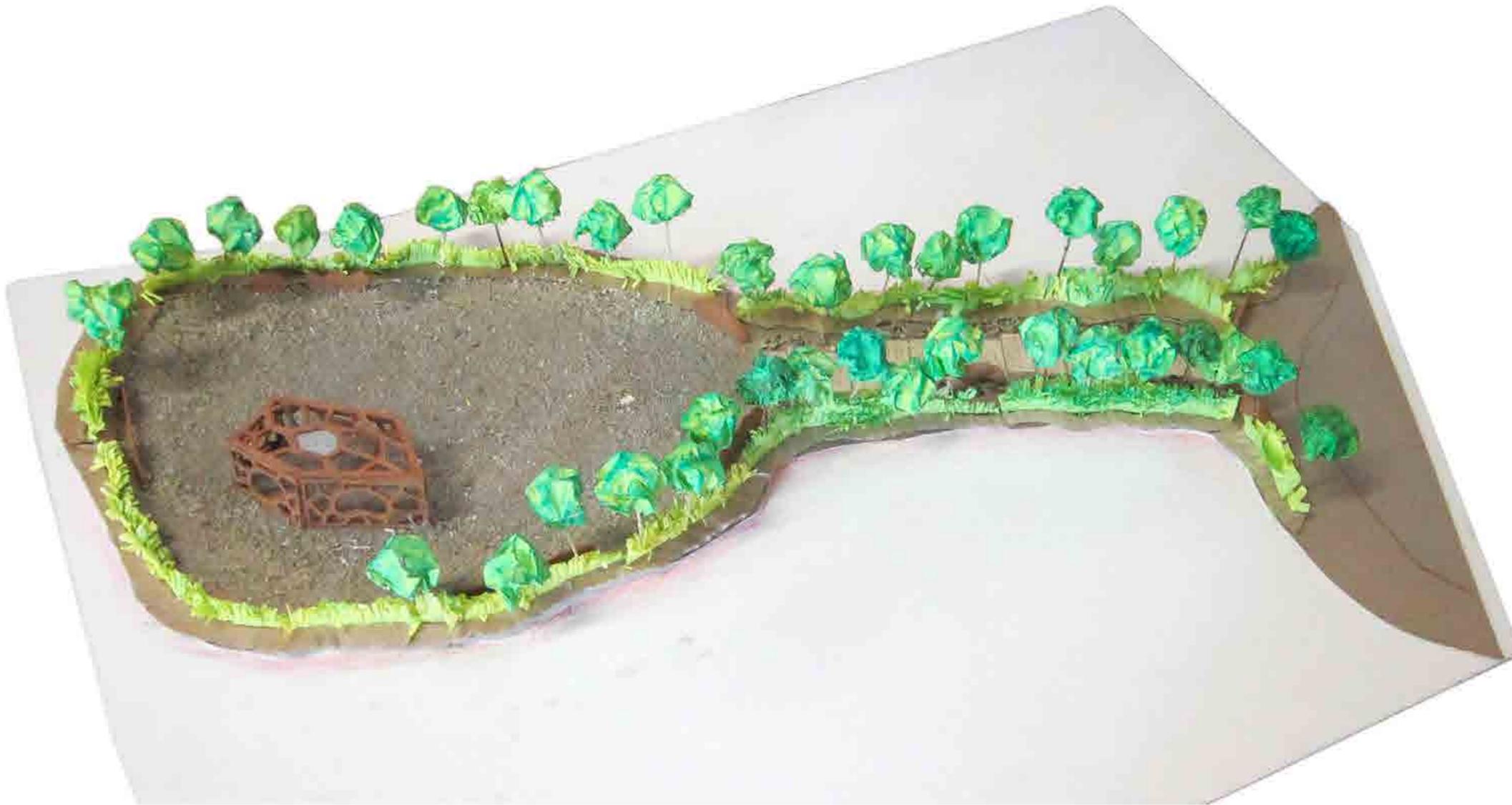
Picture of our model and path



Picture of our model and path



Picture of our model and path



Rest Area. Intermediate model



Rest Area. Final model

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Architect, PhD, is professor in charge at Politecnico di Torino, Architettura/Architecture College, where he teaches *Architectural Design*. He has been visiting professor at Université Laval in Quebec City, Lebanese American University and at NABA Design in Milan. He works on interventions in fragile landscapes and on open public spaces, same themes of his main built architectures. He is founder and president of *atelier mobile* (www.ateliermobile.org).

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