



BIKE PARKING PROJECT 2013

Ilirõ RISTOLA . Laura SCHWARTZBERG . Anni KUNNAS . Iris DEVAIS



# THE SUMMARY



## THE BRIEF

Introduction.

## THE CHALLENGE

The project aim.

## OUR DESIGN SOLUTION

A bike for a better life.

## THE CONCEPT

Context & urban connections.

## PROJECT DEVELOPMENT

Sketches, mock-ups, 3D, logo.

## FUTURE DEVELOPMENT

Signage, routes, budget.

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# THE BRIEF



As we all know it is very hard to find a nice and **safe bike parking** place when needed.

The same problem exists in communal bike storage.

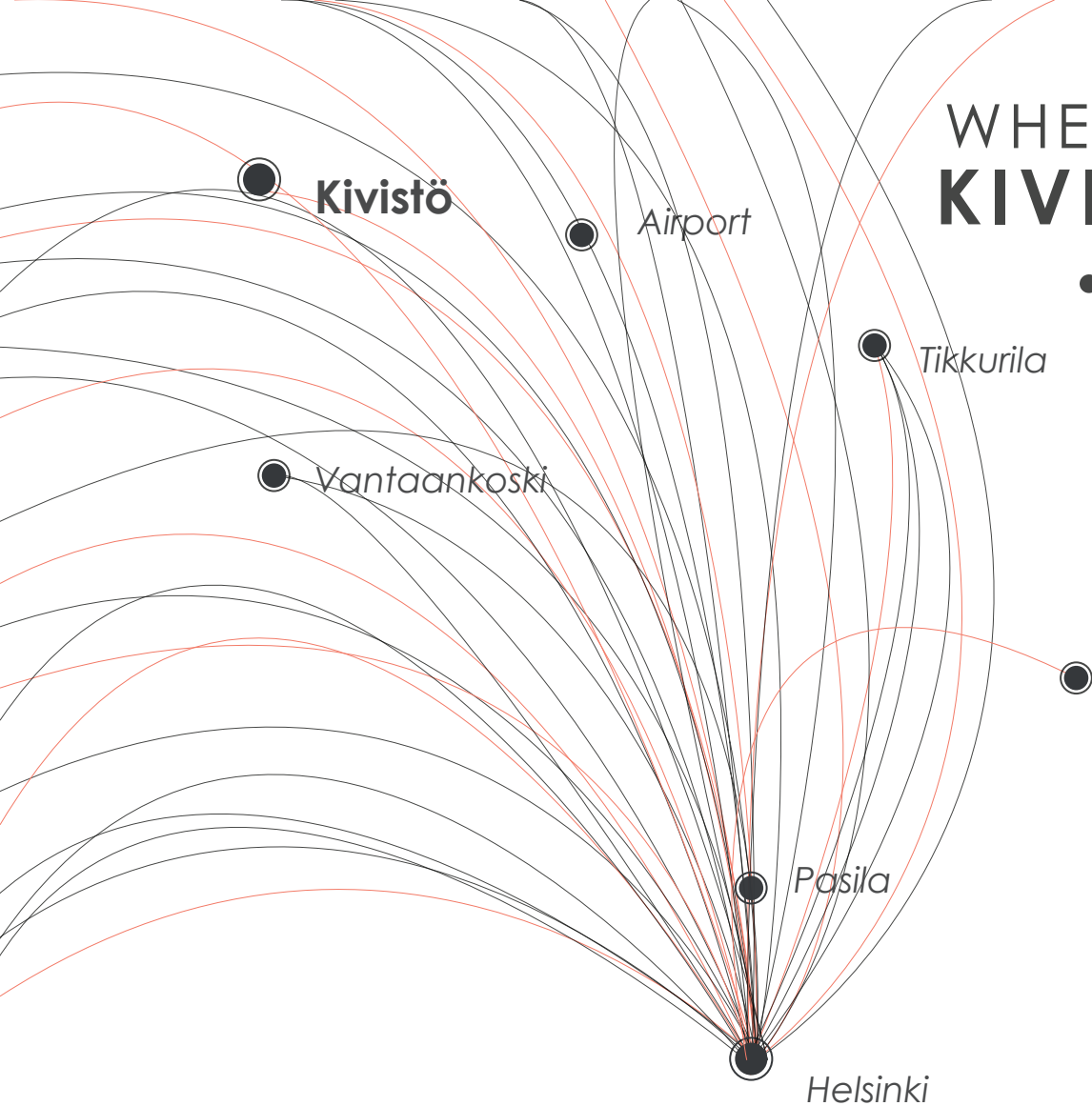
That is why more than **50%** of bike owners do not feel it is safe and practical to ride bikes in their **everyday lives**.

What are cyclists needs for a parking area and are they willing to pay for a safer bike parking ?

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# WHERE IS KIVISTÖ



## ● **CYCLING AT KIVISTÖ**

Kivistö is planned and will be executed as a cycling neighbourhood. The aim is to make the cycling conditions so attractive and safe that it becomes the most convenient option for the best part of the journeys.

# CONTEXT & CITY SCALE



YOU ARE HERE

KIVISTÖ is the most significant new residential and **working area** in the capital region. The area will be home to approximately **30,000 residents** and nearly as many new jobs will be created there as well.

The strength of the area lies in its convenient **location & transport connections.**

HELSINKI

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# KIVISTÖ - VANTAA HOUSING FAIR 2015



THE THEME OF THE FAIR IS A SAFE & SMOOTH  
EVERYDAY LIFE



## **COLORS**

Every building is intended to represent its form and singularity through its individual colour.

## **ART**

Art must be a part of all the architectural and environmental design.

## **NATURE**

Kivistö-housing fair area is surrounded by nature due to its location in the middle of four parks.

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# PARKING BIKE

## Art & exhibition

Innovative design  
Sculptures & artistic events  
Routes around the area.



## Security

People everyday life  
Safe locker  
Simplicity



Materials too strong to break  
Safe & smooth everyday life.

## Architectural structure

2 level-possibility  
The users



Short & long term parking

Capacity:  
20 bikes =  
1 car

## Nature & environment

Day time  
Seasons  
Green thinking  
Organic shapes



## Services

Coffee (drinking)  
Possibility to repair  
Tools, lockers, seats...



Guarded deposit area more safe than single boxes.

## Lighting

Cold white light prevents crime.  
Pastel colors  
Signage/ bike repairs  
Guideposts



# THE DESIGN CHALLENGE



How to make bicycle parking more **convenient**,  
**safe**, **intelligent** and **attractive** for people to use  
in a cycling neighbourhood?

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# ANALYSIS OF THE CHALLENGE

In Finland, 9% of all trips are made by bike.

Everyone use the bike without reference to the age or Social Status (children, grown-ups, tourists, housewives, students).

Love their bike like they love their dogs.

*A bicycle is stolen every minute and less than 5% are returned to their owners.*

5,380,300  
POEPL E IN FINLAND

3,250,000  
BICYCLES IN FINLAND

300,500  
BICYCLES STOLEN

60%  
OF CYCLIST



20% RECREATION



18% HEALTH REASONS



14% PERSONAL ERRANDS



15% COMMUTING TO SCHOOL/WORK



7% BICYCLE RIDE



5% VISIT A FRIEND/RELATIVES

\* In Finland

\* The 2002 National Survey of Pedestrian and Bicyclist Attitude and Behaviors.



# UNDERSTANDING THE USERS IN THE STREET



The jogger



The cyclist



The skateboarder



The dogwalker



The shoppers



The tourists



The mother & kids



The food  
breakers



The students



The workers



The disabled  
people



The picnic  
people

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# BIKE PARKS & RACKS OBSERVATION



# EXISTING STREET ENVIRONMENT

9 QUALITY CRITERIA FOR THE  
CYCLIST LANDSCAPE.

## PROTECTION

## COMFORT OPPORTUNITIES

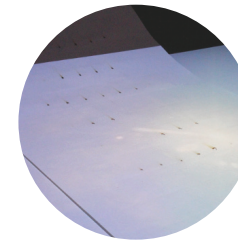
## DELIGHT



**Protection from traffic + accidents.**  
Wide sidewalks.  
Vegetation delimitation



**Opportunities to walk.**  
Wide sidewalks  
No corners for accessibility:  
« design for all »



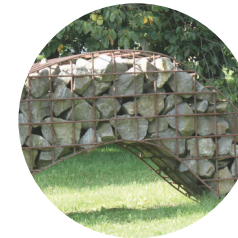
**Lighting**  
See everything even  
it's dark.  
LED lights



**Protection from crime + violence.**  
Camera / guards  
Strong locker system



**Opportunities to stand & stay.**  
« Living space »



**Art & exhibition**  
Artistic sculpture  
Develop the design  
innovation.



**Protection from unpleasant sensory experience.**  
Shelter / roof.  
Lockers



**Opportunities to sit & talk.**  
Seats / chairs  
Table



**Colours**  
Love of life  
Dynamism  
Easy to see & locate

# BIKE PARKS & RACKS

## CONCLUSION



During this cycling tour, we have noticed that there was **no organization** in the city.

Indeed, the bikes are **dropped off** anywhere onto the **sign-posts** or in **improvised** parkings.

There is a need to have **reserved parks bikes** for cyclists in **strategic spots** and to create colourful **landmarks** near the parking bike, easy to find for people.



# OUR DESIGN SOLUTION



Create an **architectural structure** and concept that respects the values of Kivistö area neighborhood.

The bike parking spots are **green areas** with functional bike racks and they will be situated in strategic spots nearby public **transportation**.

Our goal is that people use their **bike** for a better **life!**

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# BIKE PARKING NOW

•  
Observations & possibilities

## PROBLEMS

**LACK OF SPACE** NEXT TO THE STOPS.

BIKES **ARE NOT ALLOWED TO TRANSPORT IN BUS** AND TRAMS.

BIKES ARE ONLY **ALLOWED TO TRANSPORT IN SUBWAY AND TRAIN**, BUT ONLY A FEW RACKS PER VEHICLE.

THERE IS USUALLY AN **INSIDE BICYCLE GARAGE** IN THE APARTMENT BUILDINGS, BUT THERE MIGHT BE **LACK OF OUTSIDE PARKING SPACE** DURING THE MOST POPULAR CYCLING SEASON.

## POSSIBILITIES

NEAR BY THE **PUBLIC TRANSPORTATIONS**  
(PEOPLE LIKE TO COMBINE PUBLIC TRANSPORTATION AND CYCLING)

NEED OF EASILY **MOVABLE** PARKING SYSTEM

NEAR BY THE **EVENT AREAS**  
(SUCH AS FESTIVALS, CITY EVENTS, EXHIBITIONS ETC.)

YARDS OF THE **RESIDENTIAL AREAS** AND SERVICES

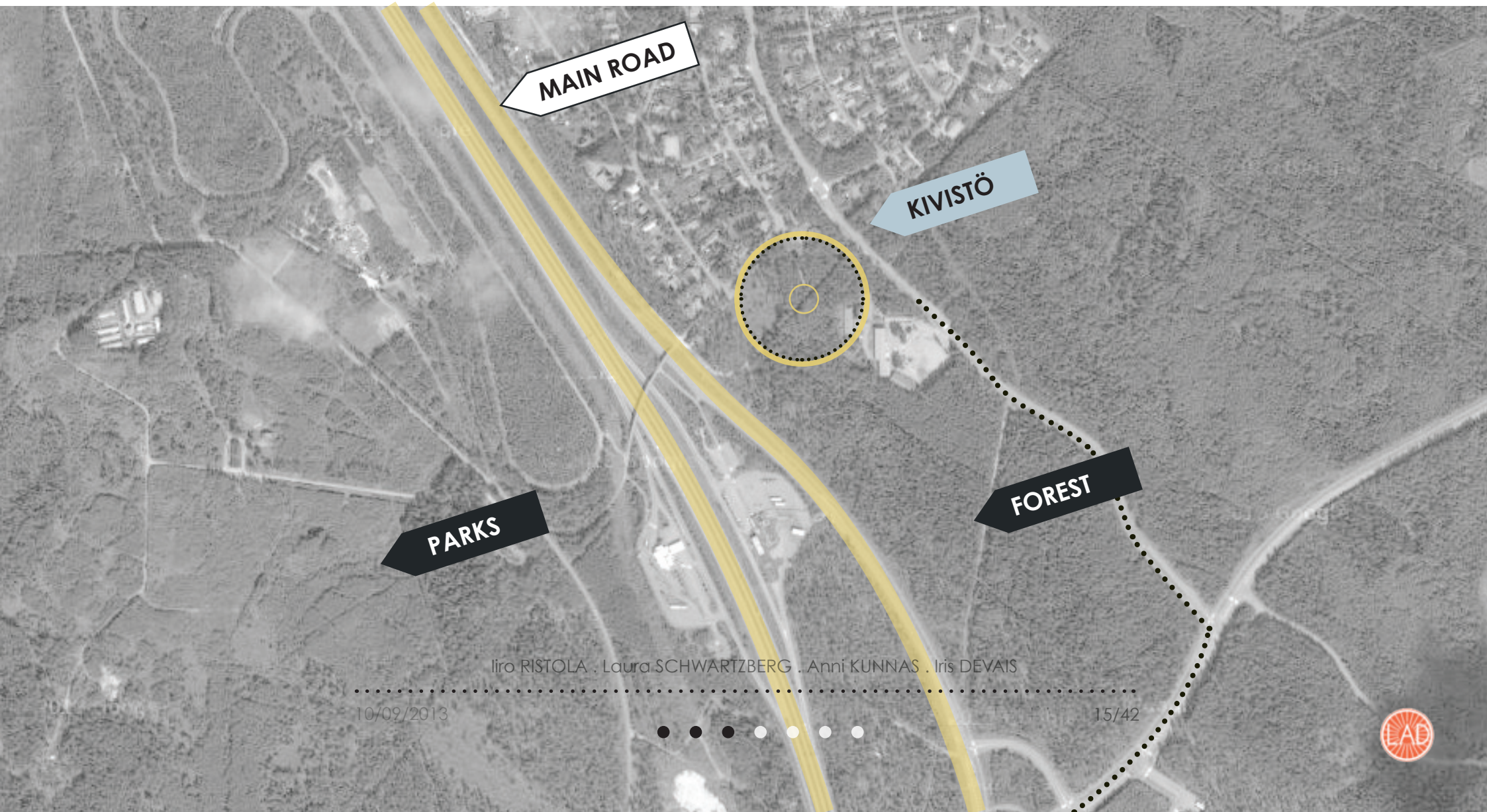
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# CONTEXT & ENVIRONMENT



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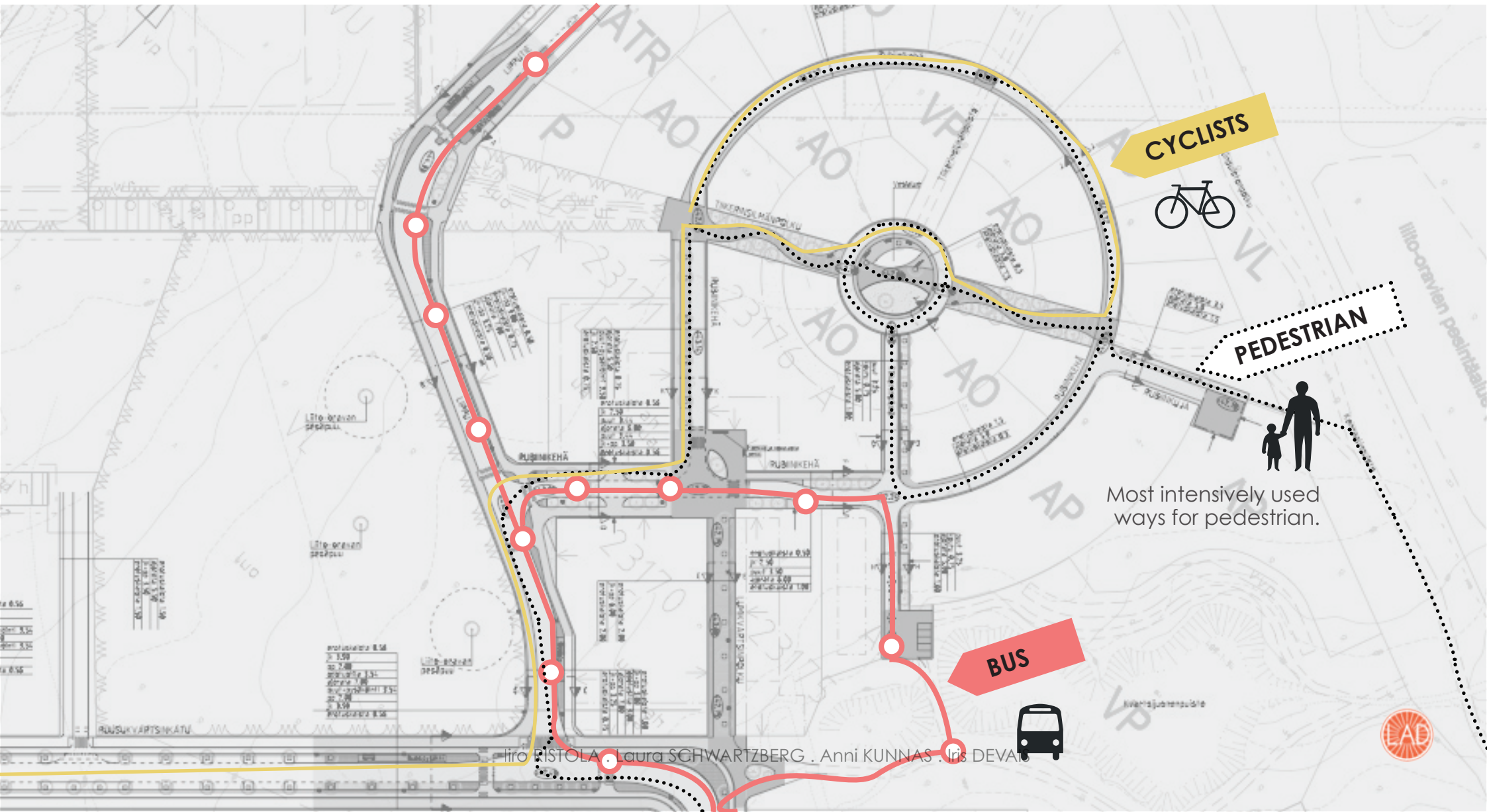
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# PUBLIC TRANSPORT SYSTEM



# THE CONCEPT INSPIRATIONS



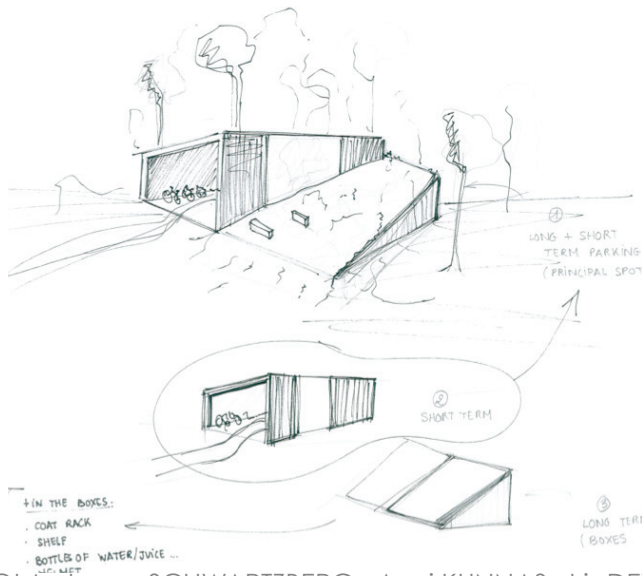
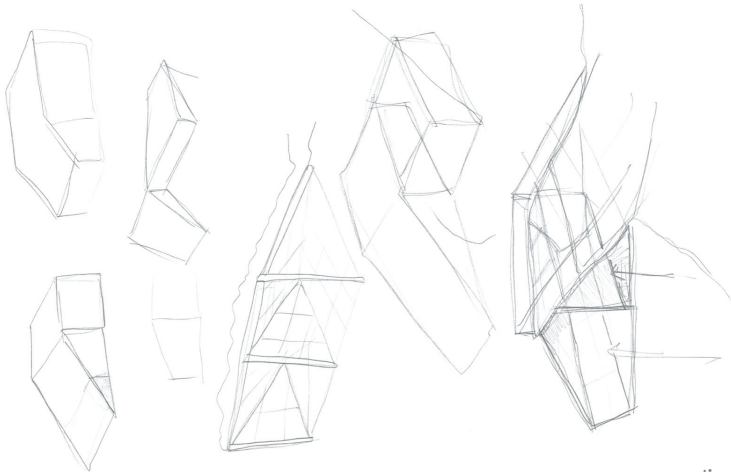
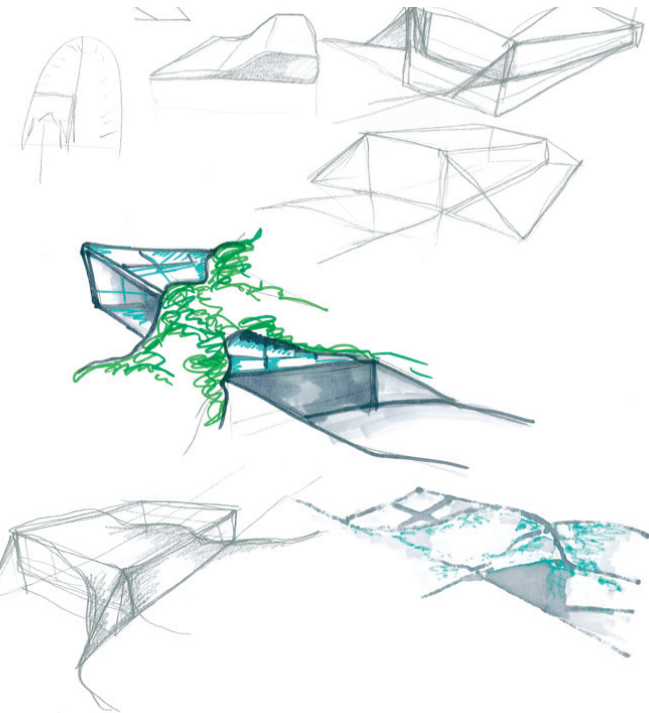
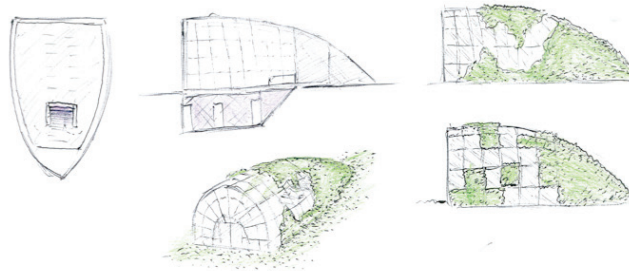
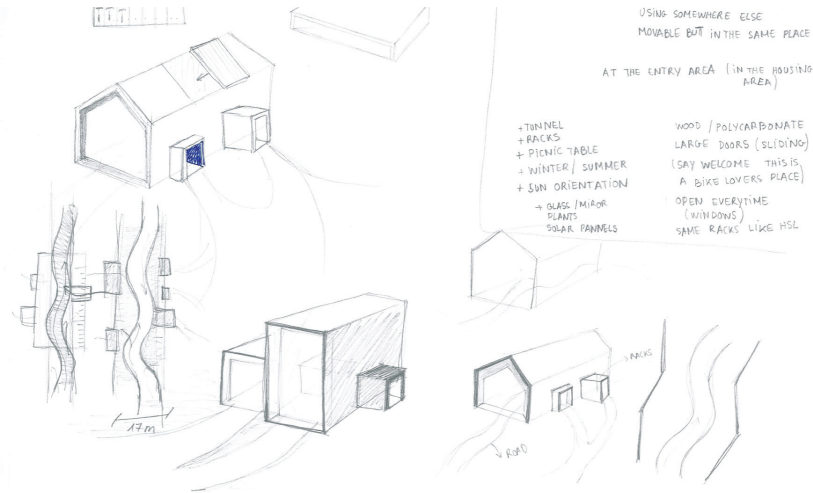
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# THE CONCEPT DRAWINGS & IDEAS



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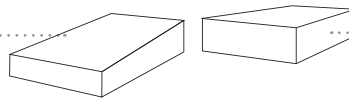


# AN AREA FOR A BETTER LIFE



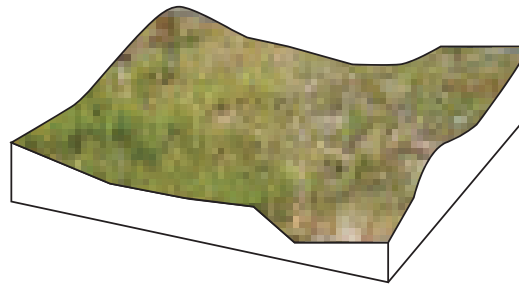
## LONG TERM BOX

The deposit boxes can be operated with the travel card.



## SHORT TERM BOX

Main door can be operated with travel card.



## \*FEW OPTIONS

The structure can be scaled. Only long-term parking, short-term parking or both options.

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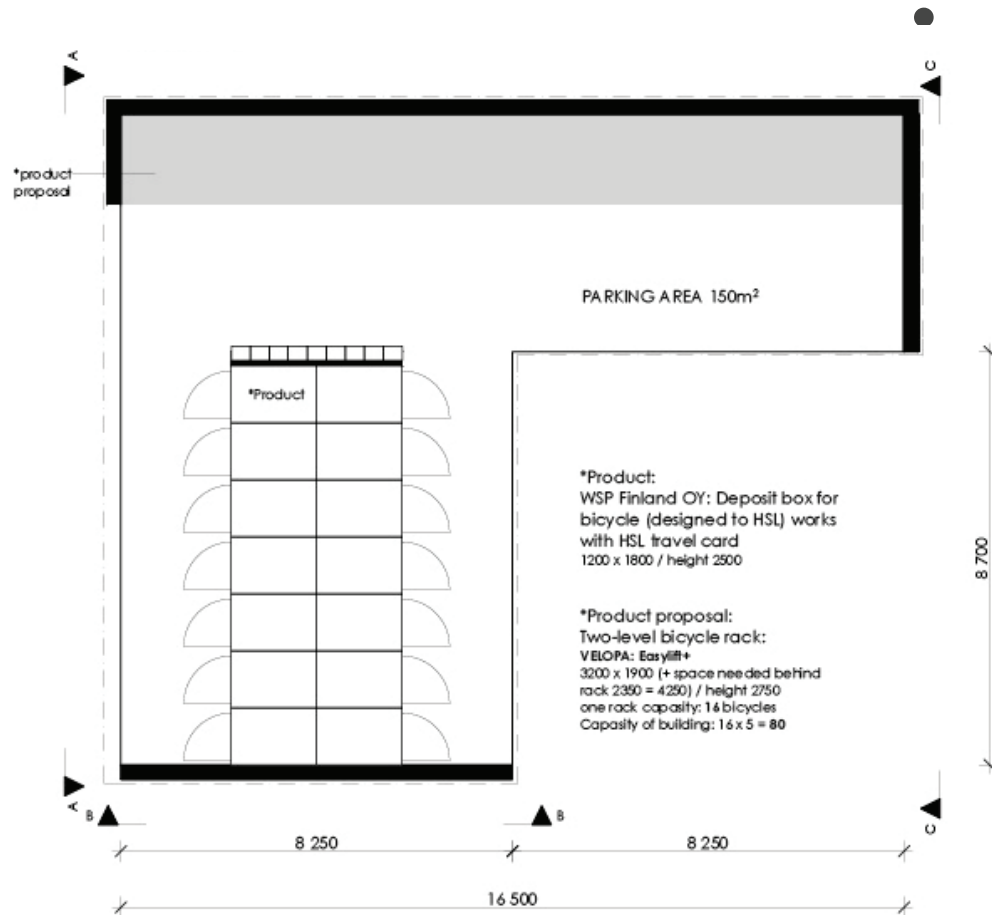
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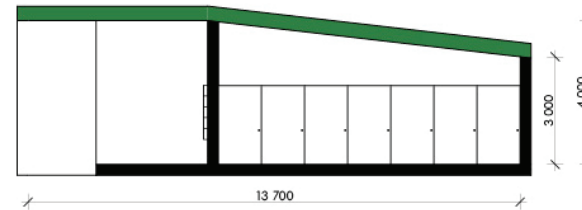
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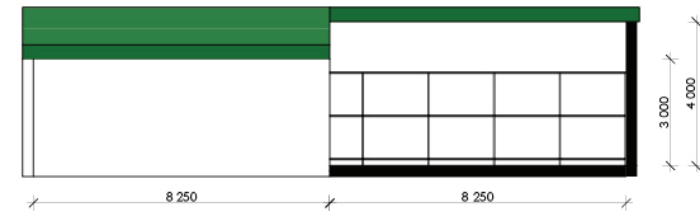
# THE PRINCIPAL STRUCTURE



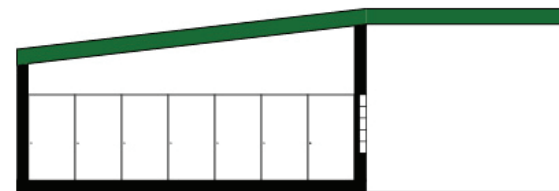
PROJECTION A-A



PROJECTION B-B



PROJECTION C-C



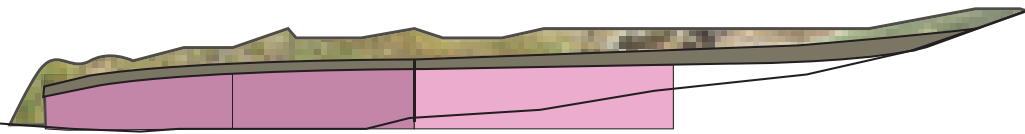
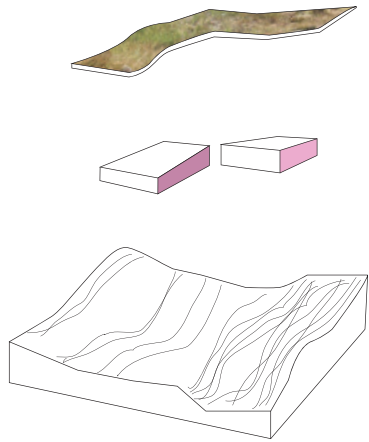
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# THE IMPLEMENTATION OF THE PROJECT

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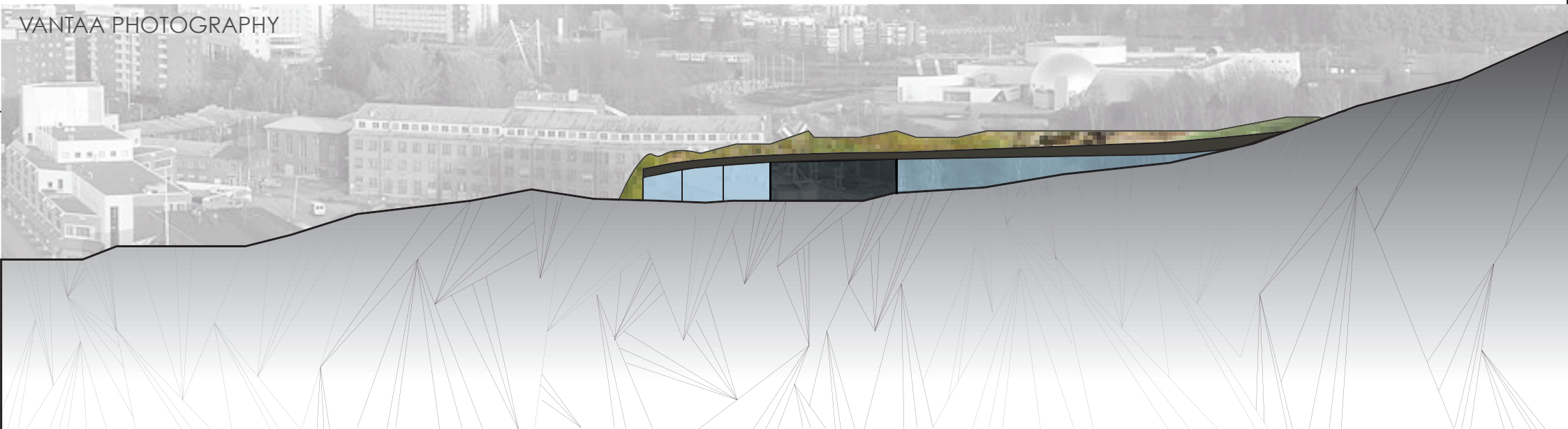


# AN AREA FOR A BETTER LIFE



THE BOXES SYSTEM

VANTAA PHOTOGRAPHY

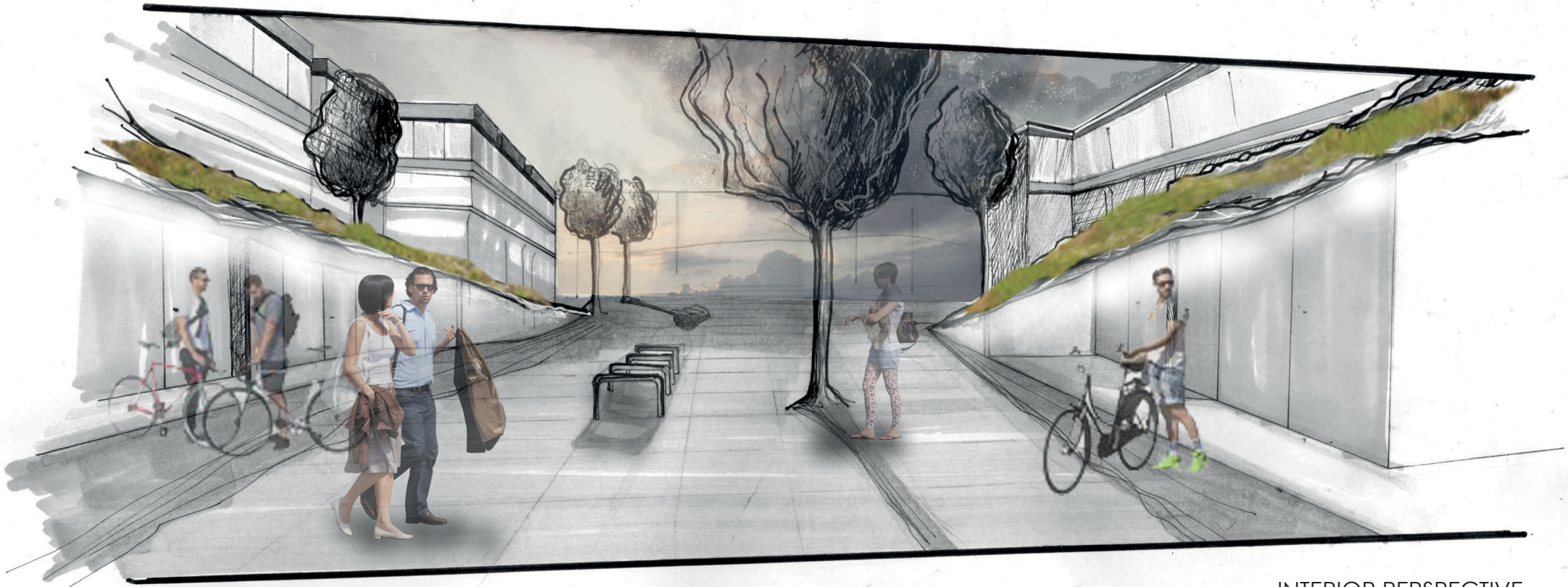


LONGITUDINAL SECTION





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INTERIOR PERSPECTIVE

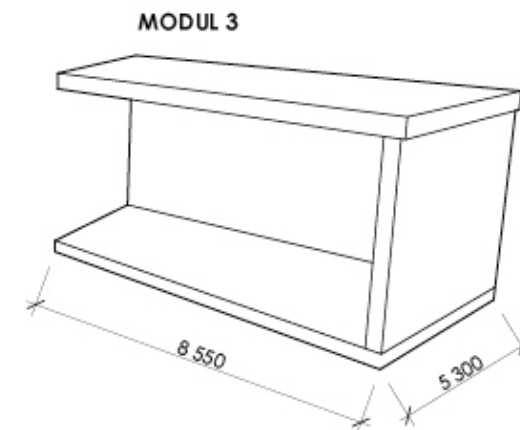
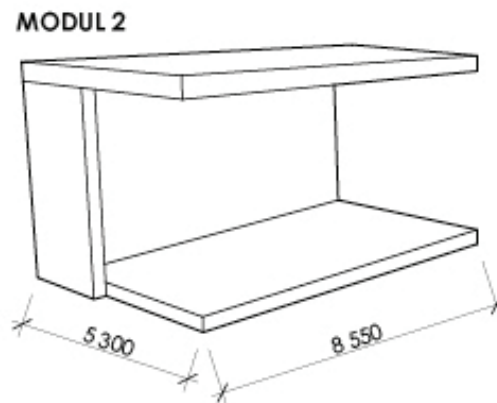
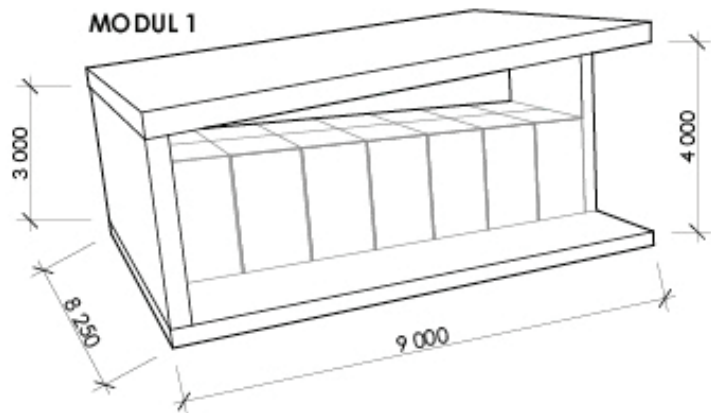
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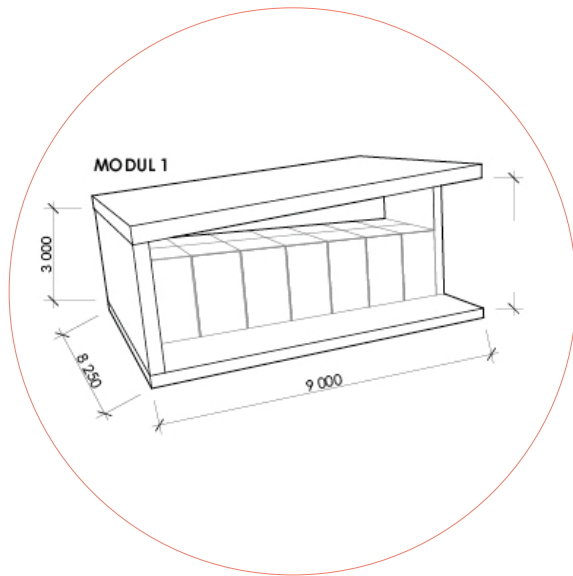
# DIFFERENT POSSIBILITIES



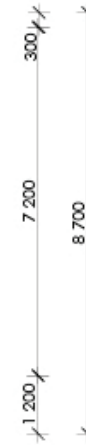
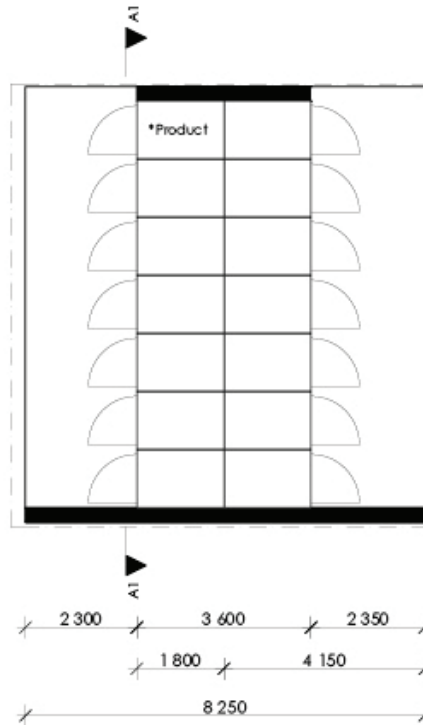
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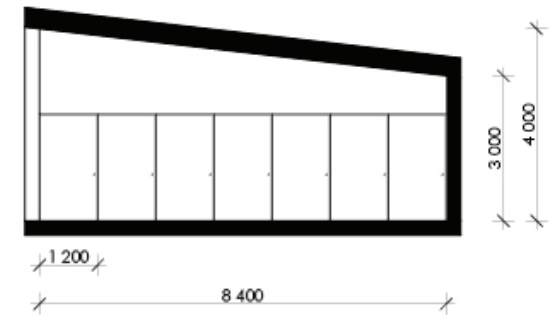
# DIFFERENT POSSIBILITIES



MODULE 1  
Long-term bicycle parking



CROSS-SECTION A 1  
module 1

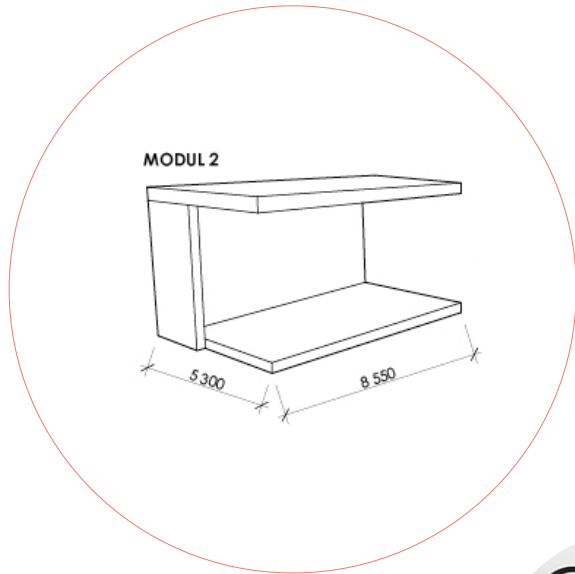


\*Product  
WSP Finland OY: Deposit box for bicycle (designed to HSL)  
works with HSL travel card  
1200x 1800 / height 2500

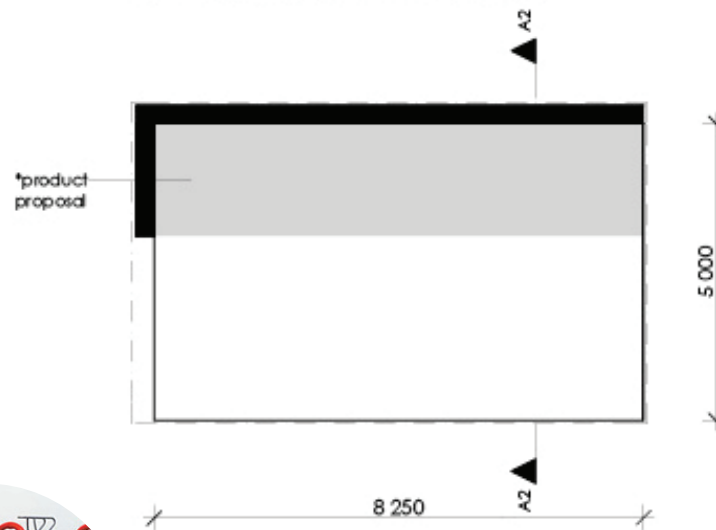
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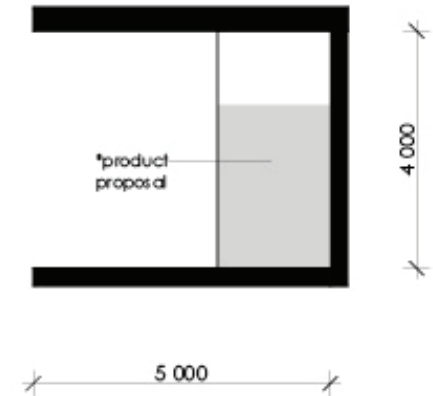
# DIFFERENT POSSIBILITIES



MODULE 2  
Short- / long-term bicycle parking



CROSS-SECTION A2  
module 2

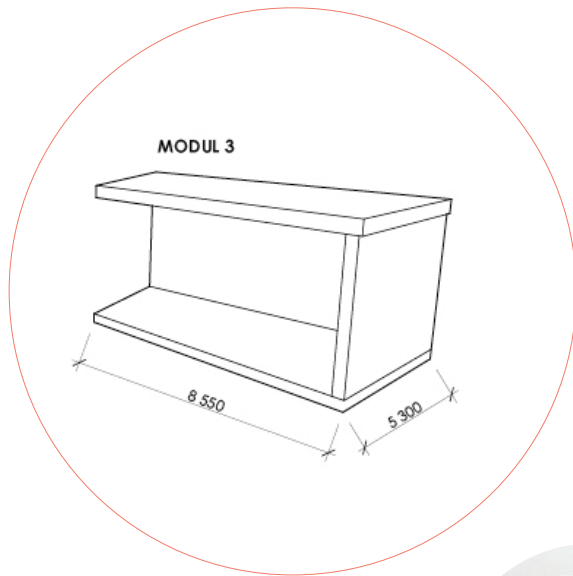


\*Product proposal  
Two-level bicycle rack:  
VELOPA: Easylift+  
3200 x 1900 (+ space needed behind rack 2350 = 4250) / height 2750  
one rack capacity: 16 bicycles  
  
(racks can be placed with deposit boxes)

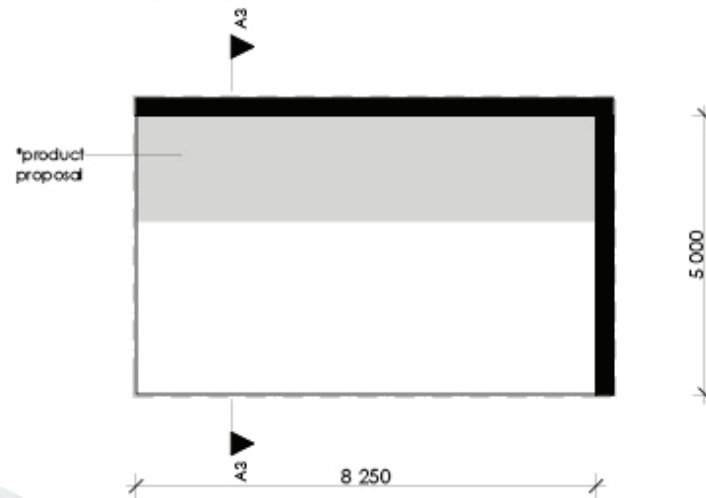
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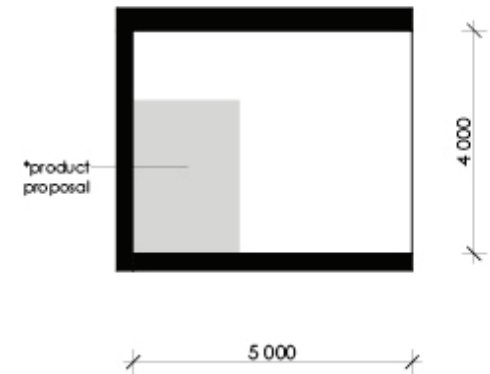
# DIFFERENT POSSIBILITIES



MODULE 3  
Short- / long-term bicycle parking



CROSS-SECTION A3  
module 3



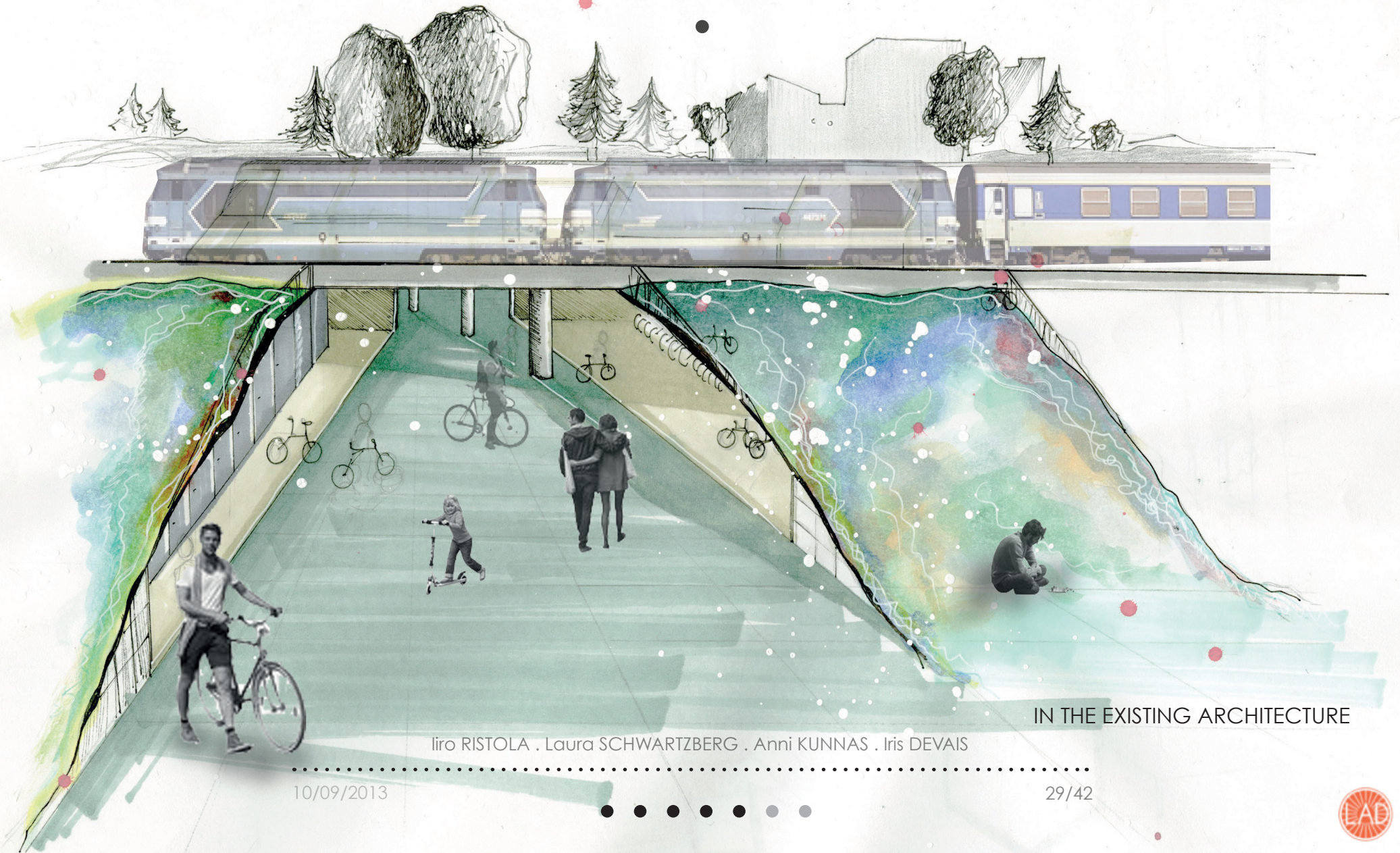
\*Product proposal  
Two-level bicycle rack:  
VELOPA: EasyMH+  
3200 x 1900 (+ space needed behind  
rack 2350 = 4250) / height 2750  
one rack capacity: 16 bicycles

Capacity of building: 16 x 5 = 80

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# DIFFERENT POSSIBILITIES



IN THE EXISTING ARCHITECTURE

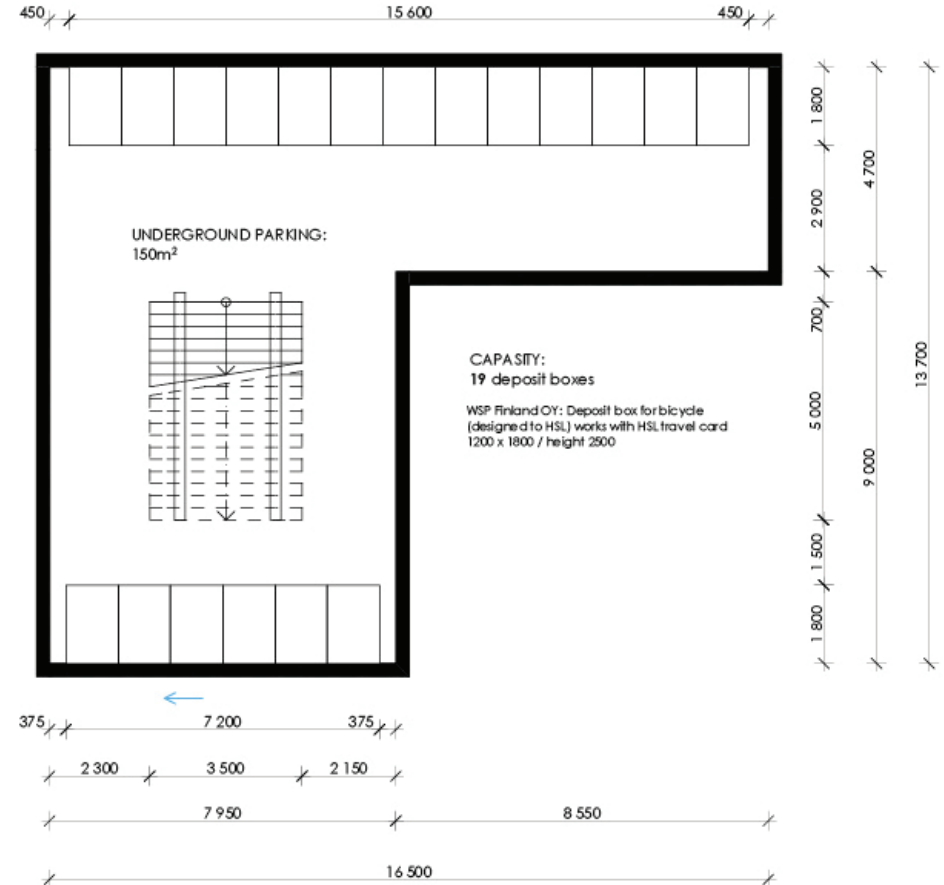
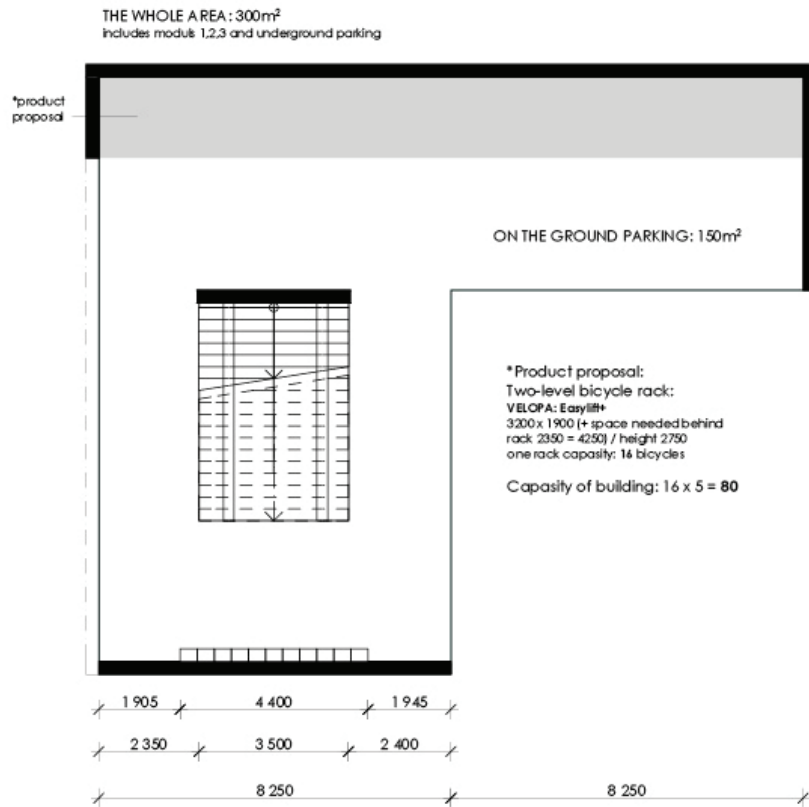
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# UNDERGROUND & ON THE GROUND POSSIBILITIES



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# BIKE PARKING AREA



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# POSSIBILITIES OF THE CONCEPT



**INCREASE SAFETY:  
APPROPRIATE LIGHTING,  
FUNCTIONAL LOCKING SYSTEM,  
CENTRAL LOCATION**

**LOGO SO IT'S EASY TO  
RECOGNIZE.**

**SITUATED WHERE EVER YOU  
WANT - CAN BE SCALED**

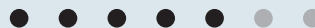
**A CONVERTIBLE OPTION TO THE  
PLACES WHERE MOSTLY NEEDED:**

**NEAR TRAIN STATIONS,  
SERVICES,  
EVENT AREAS,  
RESIDENTIAL AREAS  
ETC.**

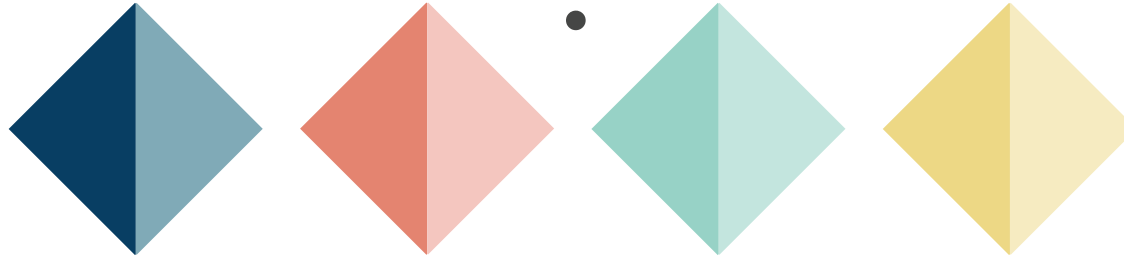
**EASY TO USE IN WINTER TIME AS  
IT PROTECTS BICYCLES FROM  
SNOW AND RAIN.**

**POSSIBLE TO EQUIP WITH A  
REGULAR BIKE RACKS OR  
SINGLE BIKE DEPOSIT BOXES  
OR BOTH OF THEM.**

**MAP AND PUBLIC  
TRANSPORTATION  
SCHEDULE SCREENS AS A  
EXTRA SERVICE.**



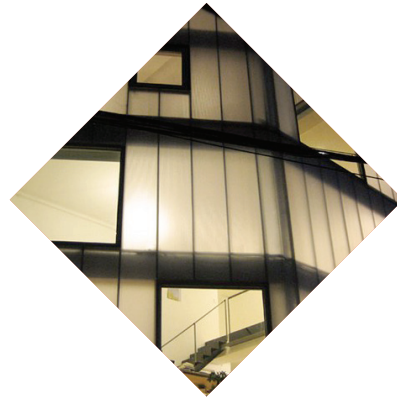
# COLORS & MATERIALS



pastel with dominant ochre  
chromatic evolution  
luminous



Wood  
Resistant with a long  
contact with water.



Autoluminescent  
polycarbonate  
(solar pannels)



Mirror glass with  
vegetation



Concrete with natural  
texture

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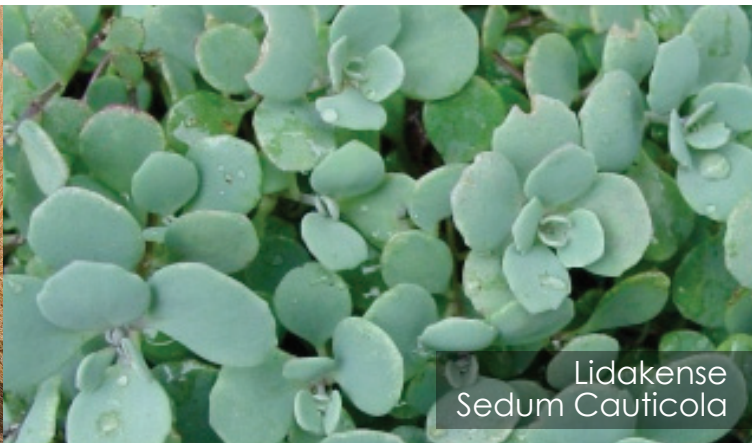
# PLANTS & SEASONS



Coral Carpet  
Sedum album



Prairie Drops



Lidakense  
Sedum Cauticola



« Fleurs des champs »  
Wildflower



Prairie Drops



Lidakense  
Sedum Cauticola

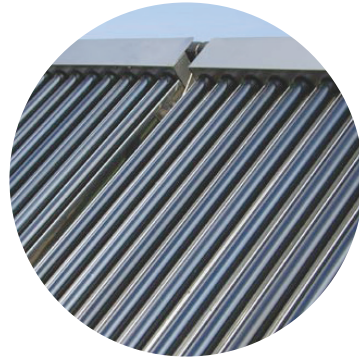
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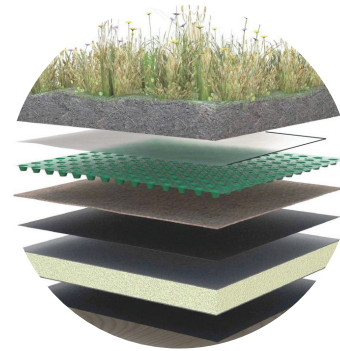
# TECHNICAL DETAILS



Solar panels & heating system



Green roof layouts



Security balustrade



LED light system



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# POTENTIAL ACTIVITIES



## BIKING/JOGGING

Sportsmen  
Young people



## STREET MARKET/EVENTS

Tourists  
Inhabitants



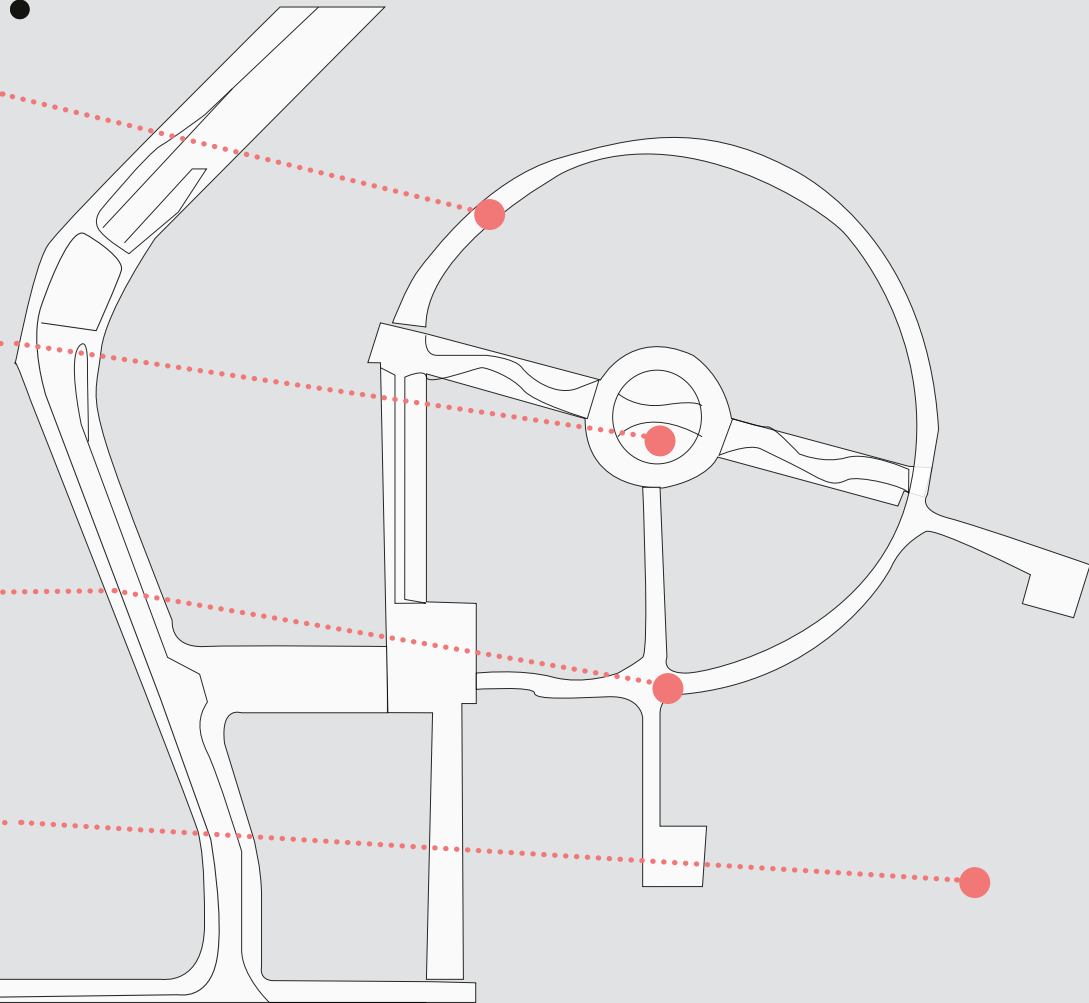
## DESIGN & ART

Tourists  
Designers & artists



## CROSS-COUNTRY SKIING

Sportsmen  
Young people



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# THE GRAPHIC LOGO DESIGN



+

BIKE

=



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# THE GRAPHIC LOGO DESIGN



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# THE BUDGET ESTIMATION



RUSKEA WOOD



6,55 € per square meter

GREEN ROOF



200 € per square meter

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# THANK YOU FOR YOUR ATTENTION!



# FINAL TIME TABLE



## WEEK 38

Draw the shape of the structure.  
Decision of the materials and colors.  
Make sketches & perspectives of our parking bike.

## WEEK 39

Determine precisely the shape of the parking  
Understand the green roof use and systems.  
Photomontages of the structure and 3D mock-up.

## WEEK 40

3D mock-up and layouts.  
Photomontages & illustration of the daytime (winter, spring...)

## WEEK 41

Finalization of the project & lay-out of the presentation.  
Creation of a A0 poster.

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# BIBLIOGRAPHY & REFERENCES



## IMAGES

<http://www.pinterest.com/pin/82824080619788101/>

[http://25.media.tumblr.com/tumblr\\_md0k41q6pW1r89buwo1\\_1280.jpg](http://25.media.tumblr.com/tumblr_md0k41q6pW1r89buwo1_1280.jpg)

<http://boomerreviews.com/10-great-solopreneur-jobs-for-baby-boomers/solopreneur-dog-walker/>

<http://www.emcdda.europa.eu/topics/young-people>

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## RESEARCH

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