DSD

Delft School of Design

Graduate School

MSc 3/4 - Amsterdam Re'Figured

2010/2011

Factory farmed communities.
Knowledge district in Amsterdam Buitenveldert.

P5 presentation
DSD UA AMSTERDAM
Carati Riccardo sn. 4051211

INTRODUCTION

Summary of presentation

1. Introduction: DSD Re-figuring Amsterdam, research question

2. Urban analysis : Amsterdam South Axes

3. The site: Amsterdam Zuid/Buitenveldert, problem statement

4. Strategy of intervention: Counter-gentrification

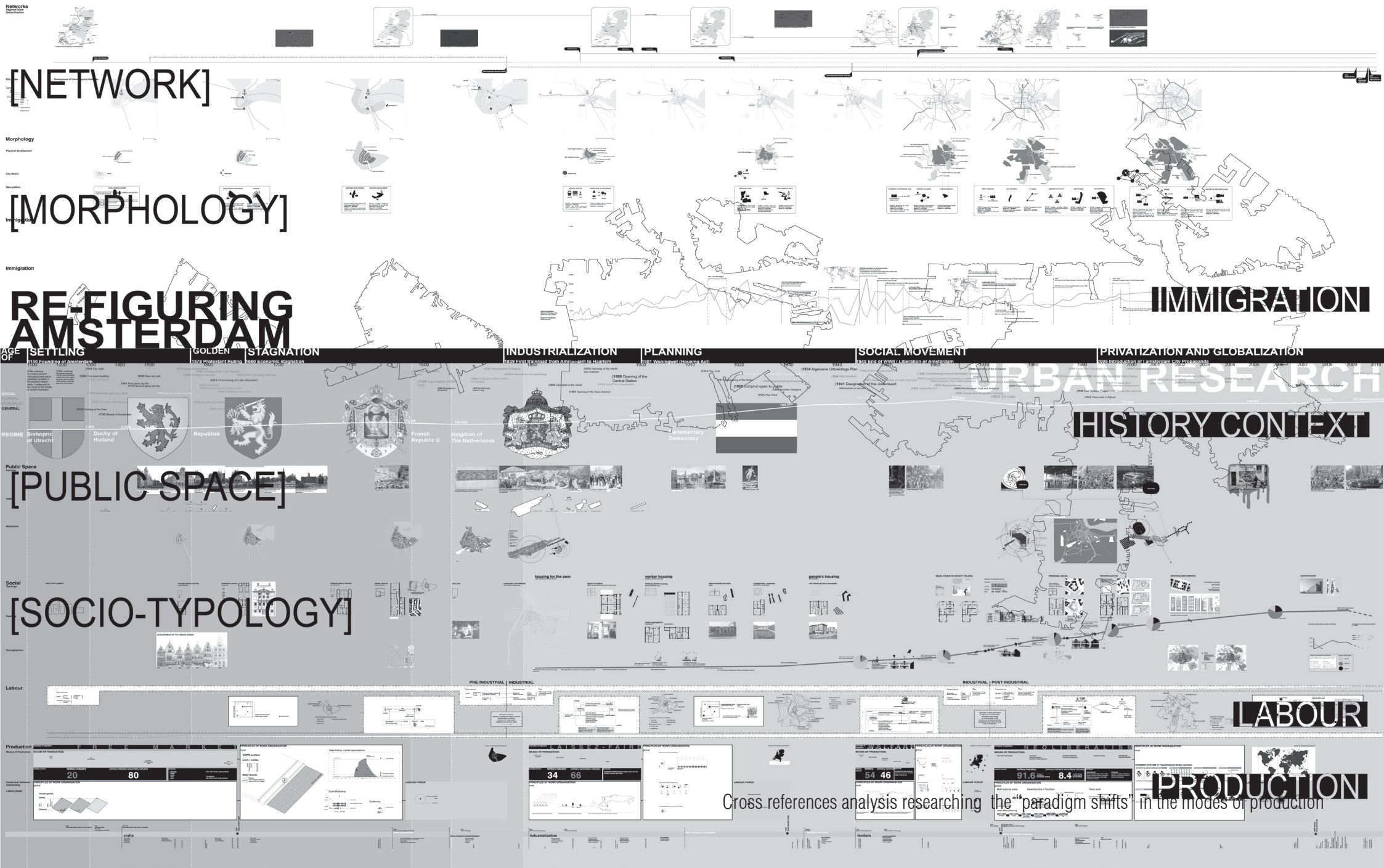
5. Program: The education market

6. Architectonic configuration

7. Materialization

Prologue 1

Timeline of the city in 4 metatopics of investigation

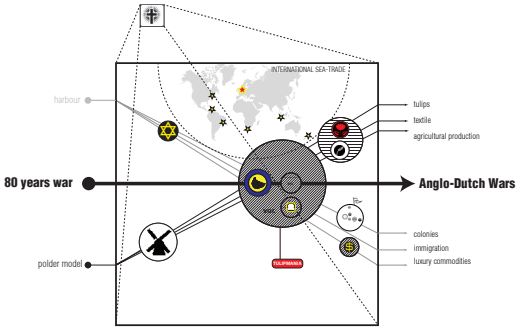


Cross references analysis researching the "paradigm shifts" in the modes of production

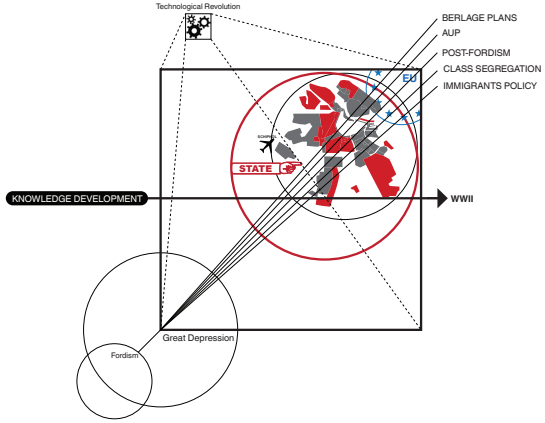
Prologue 2

Models of urban development, models of paradigm shift

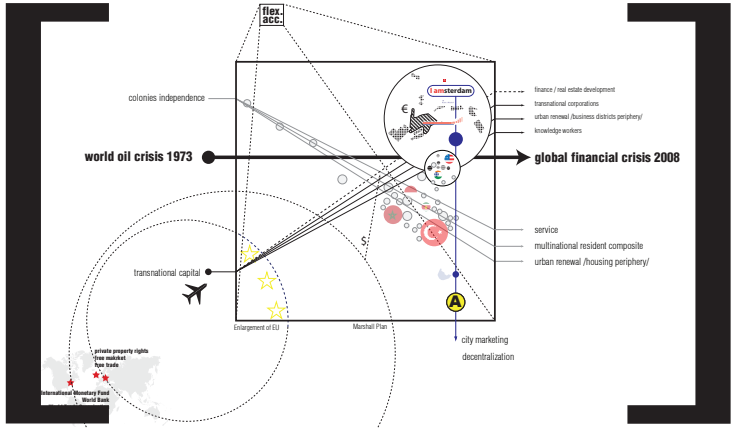
Pre-industrial (Golden Age)



Industrial



Post-Industrial

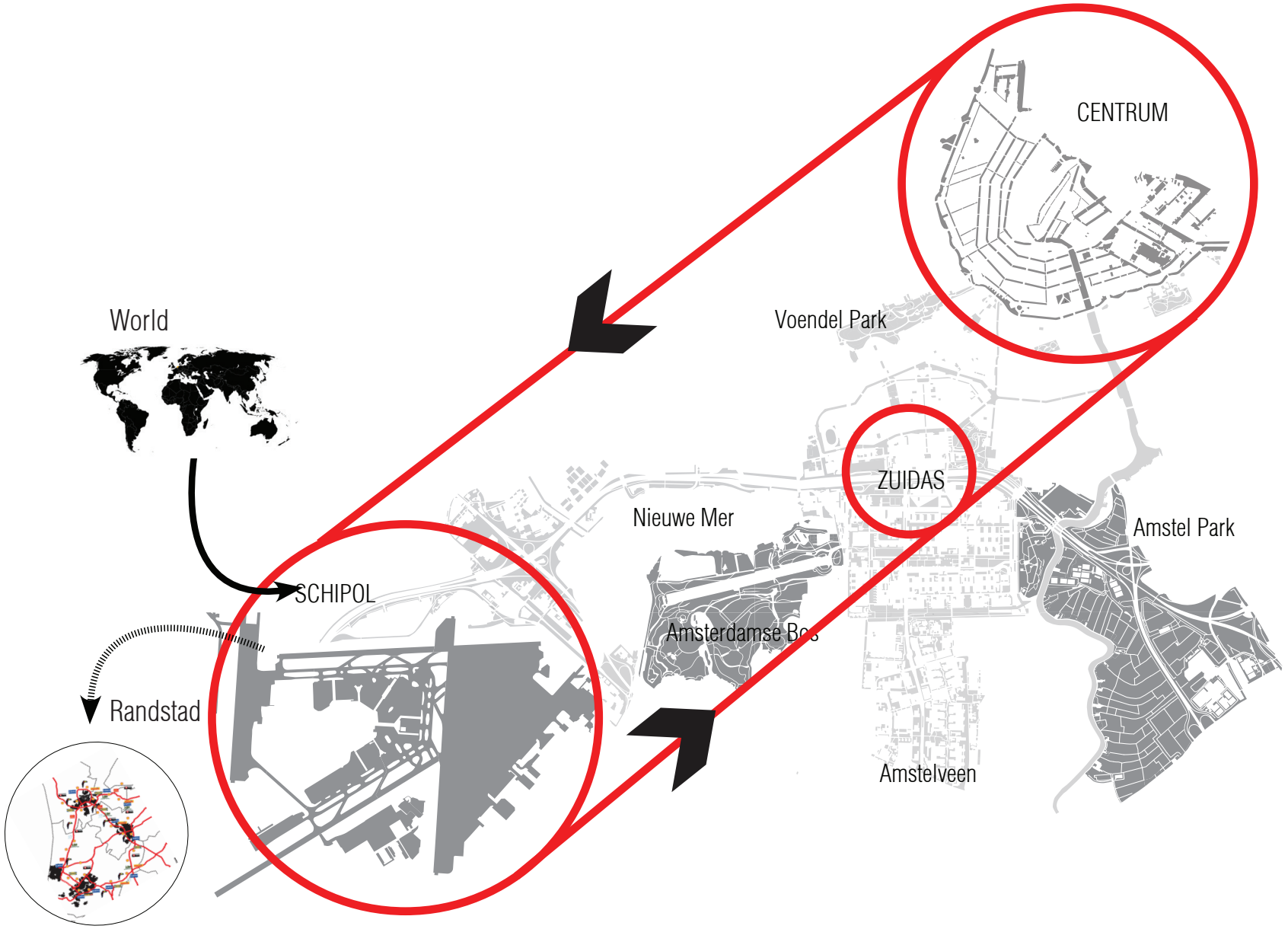


The recent financial crisis is the episode in the evolution of capitalism. The third model of urban developmen (Neoliberalism) is facing the crisis of it`s founding principles.

PROLOGUE

About Amsterdam metropolitan area

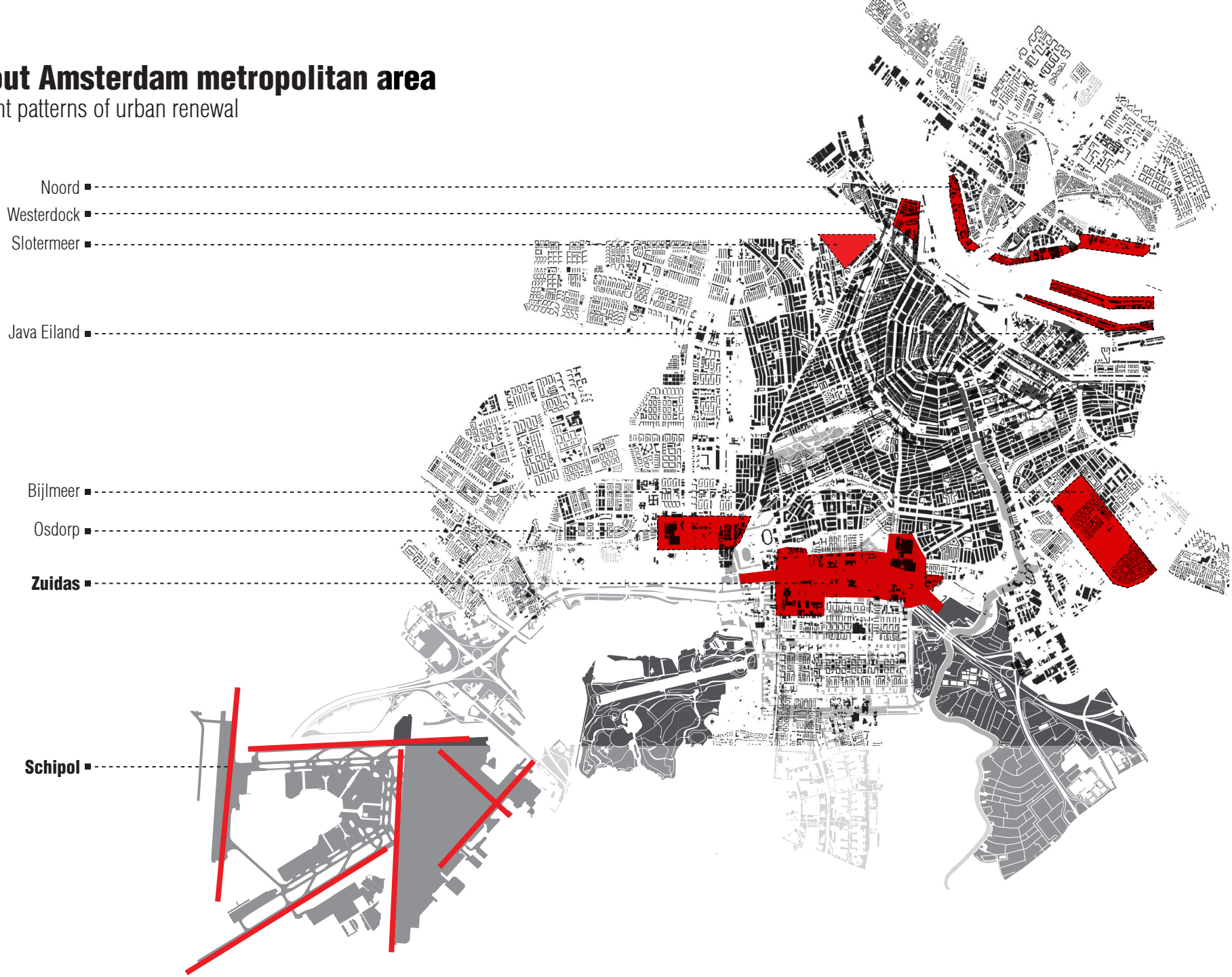
The historic core, the network, the system



South axes: Zuidas as a node of the network connecting Schipol Airport and Amsterdam Old city core

About Amsterdam metropolitan area

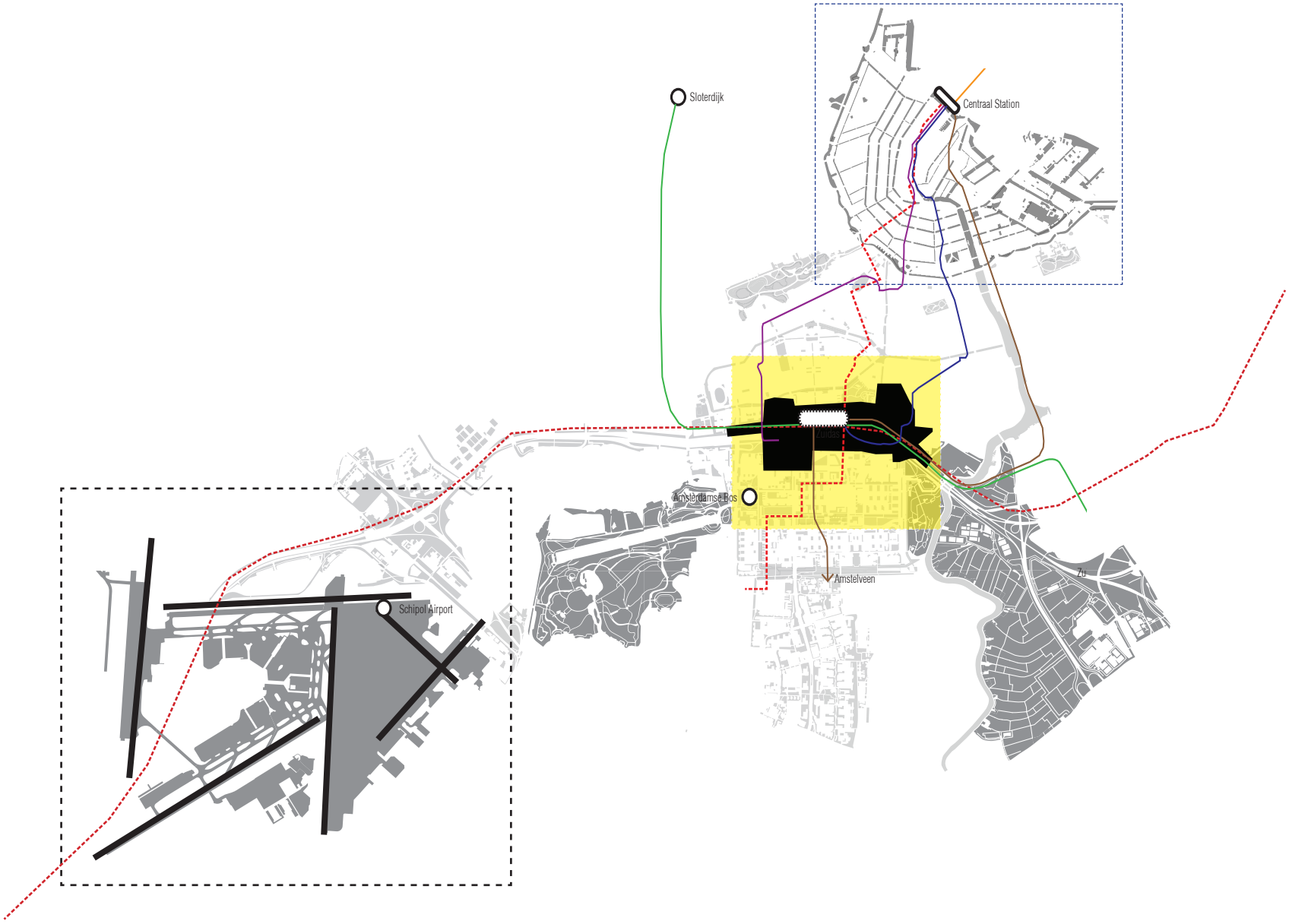
Recent patterns of urban renewal



The shift towards the Neoliberal economy has caused the dismission and redevelopement of various district of the city

About Amsterdam metropolitan area

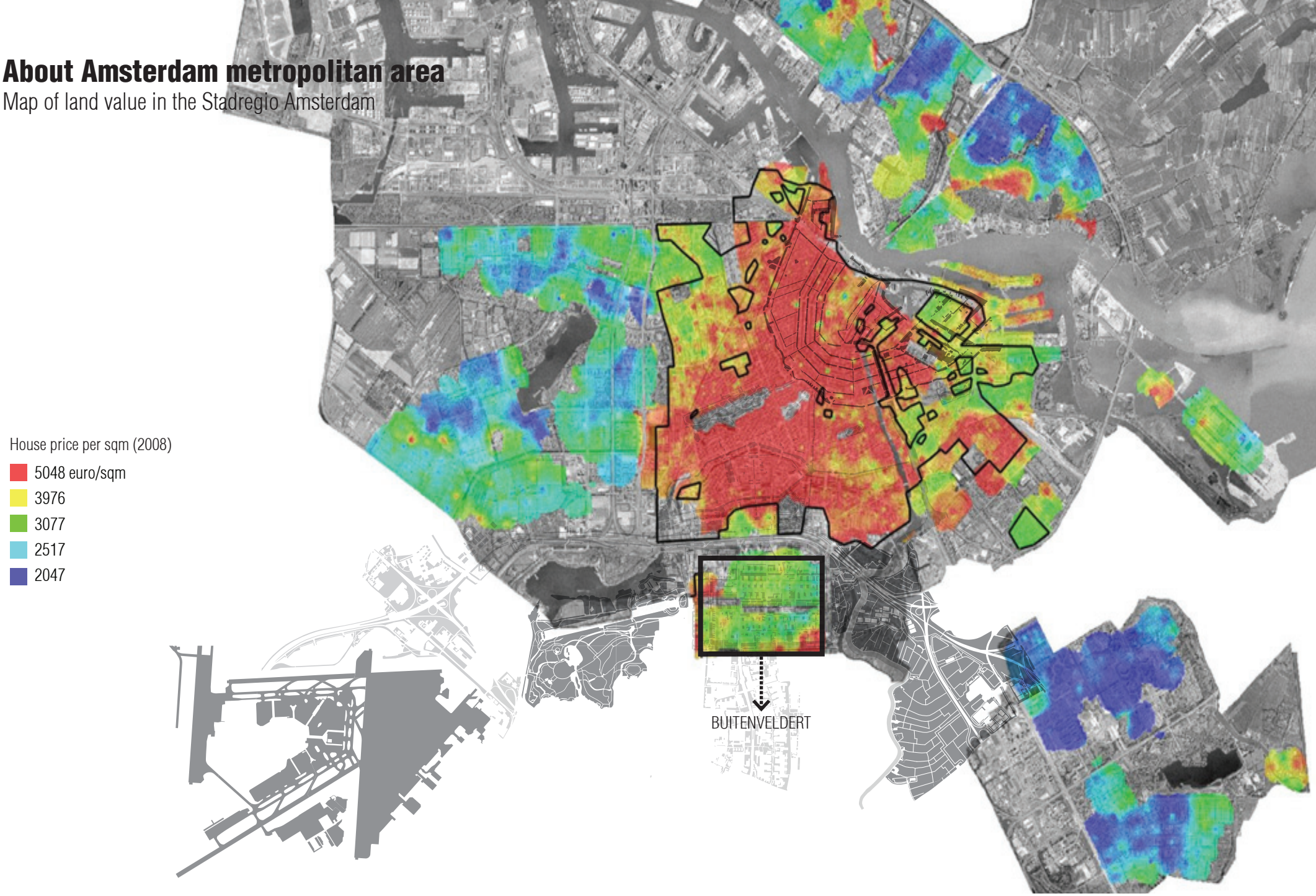
The North-South Axes



The armature upon which the South Axe project is developing is the new metro line Noor-Zuid

About Amsterdam metropolitan area

Map of land value in the Stadregio Amsterdam



The modes of production determines the land value and thus the spatial distibution communities

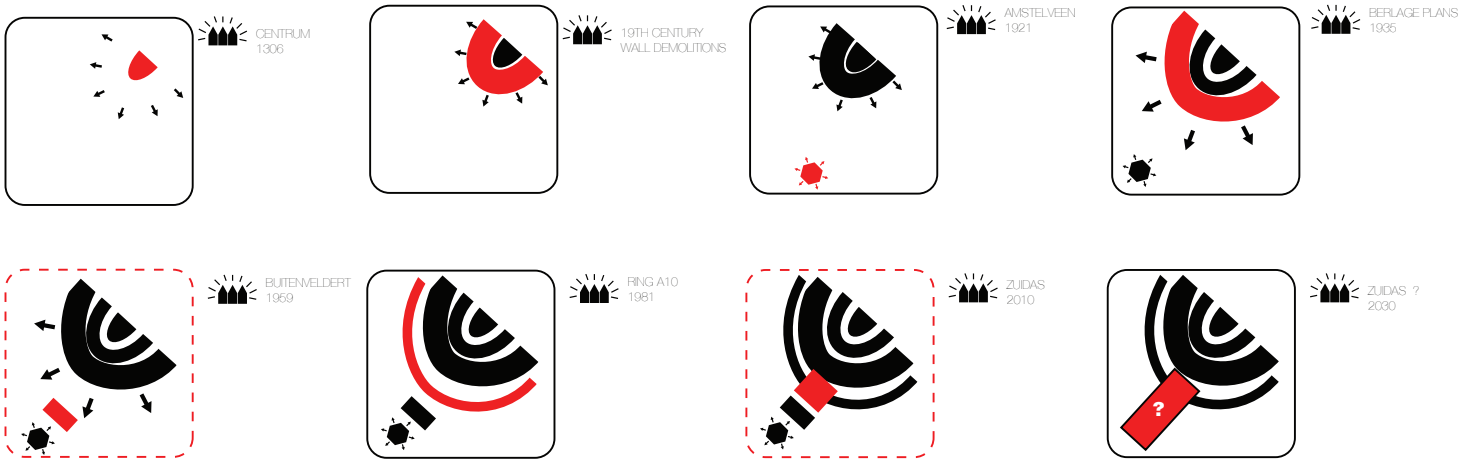
THE SITE: AMSTERDAM ZUID/BUITENVELDERT

About Amsterdam Buitenveldert

Why the Buitenveldert?

About Amsterdam Buitenveldert

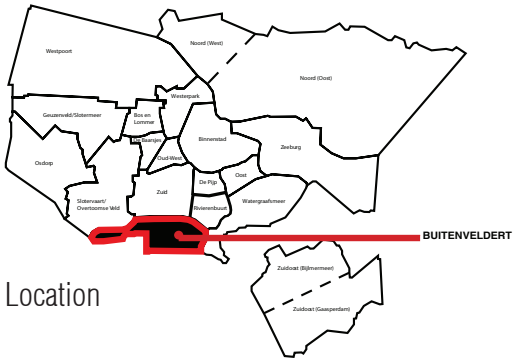
City evolution and the Buitenveldert district 1306-2011



The Buitenveldert has been a detached part of the city since it`s planning

About Amsterdam Buitenveldert

Location of the district according to Amsterdam

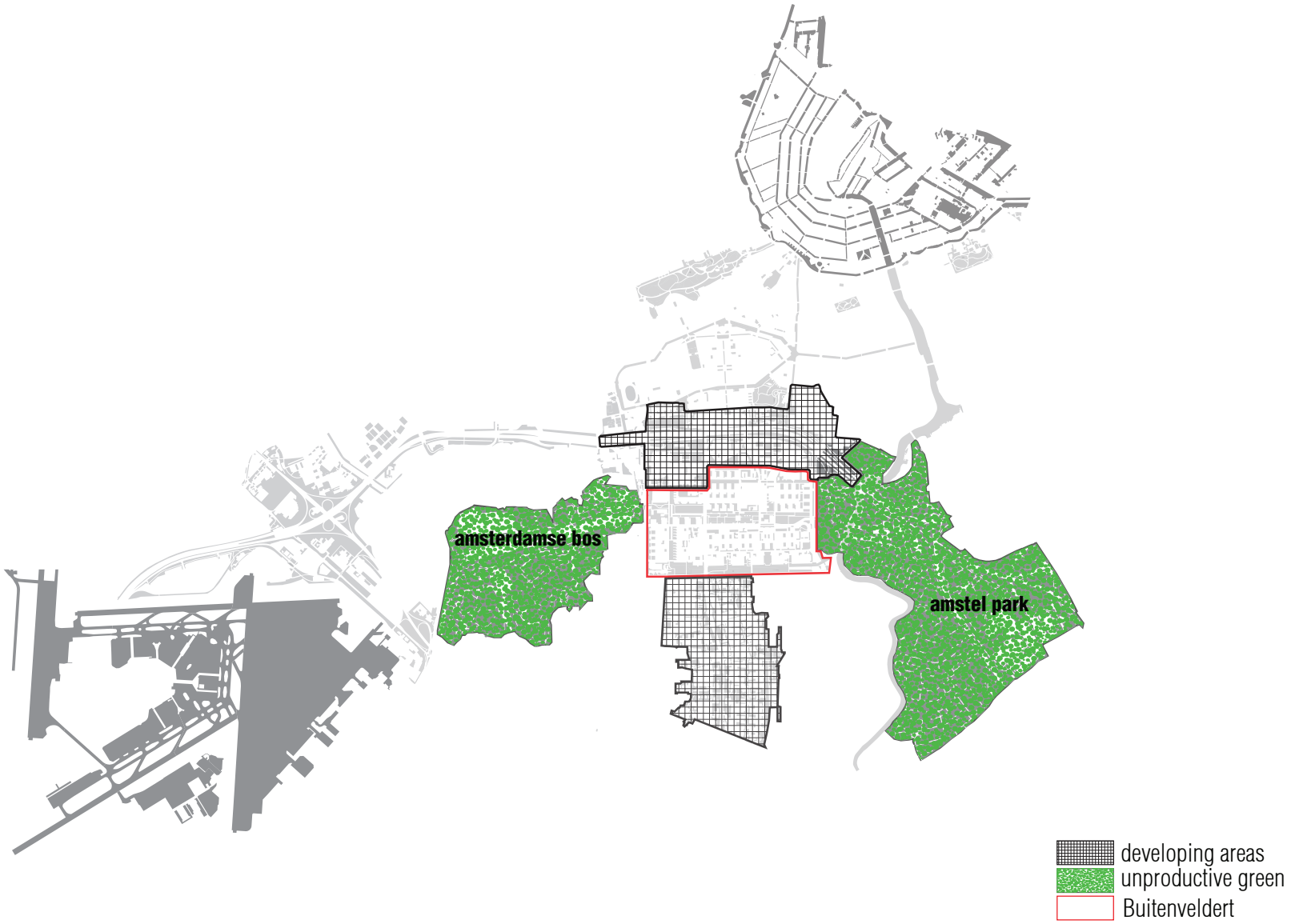


Location

The Buitenveldert is a hot spot in the center of the economic flow of the South axes

About Amsterdam Buitenveldert

The Buitenveldert: Amsterdamse Bos and Amstel park



The Buitenveldert is Squeezed between two unproductive green areas of historical relevance and simbolism

About Amsterdam Buitenveldert

Field investigation of the local conditions

About Amsterdam Buitenveldert

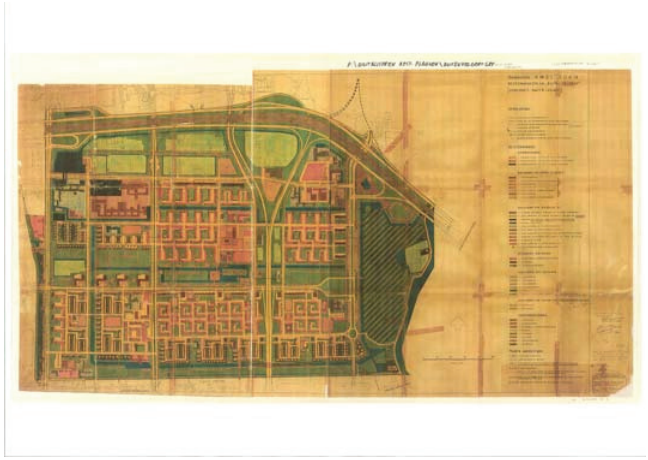
About Amsterdam Buitenveldert

About Amsterdam Buitenveldert

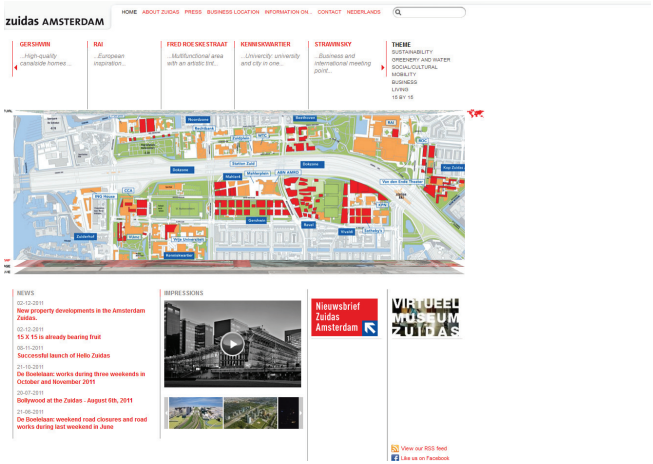
About Amsterdam Buitenveldert

A project for a modern industial city

Ideaalstad Buitenveldert, 1973



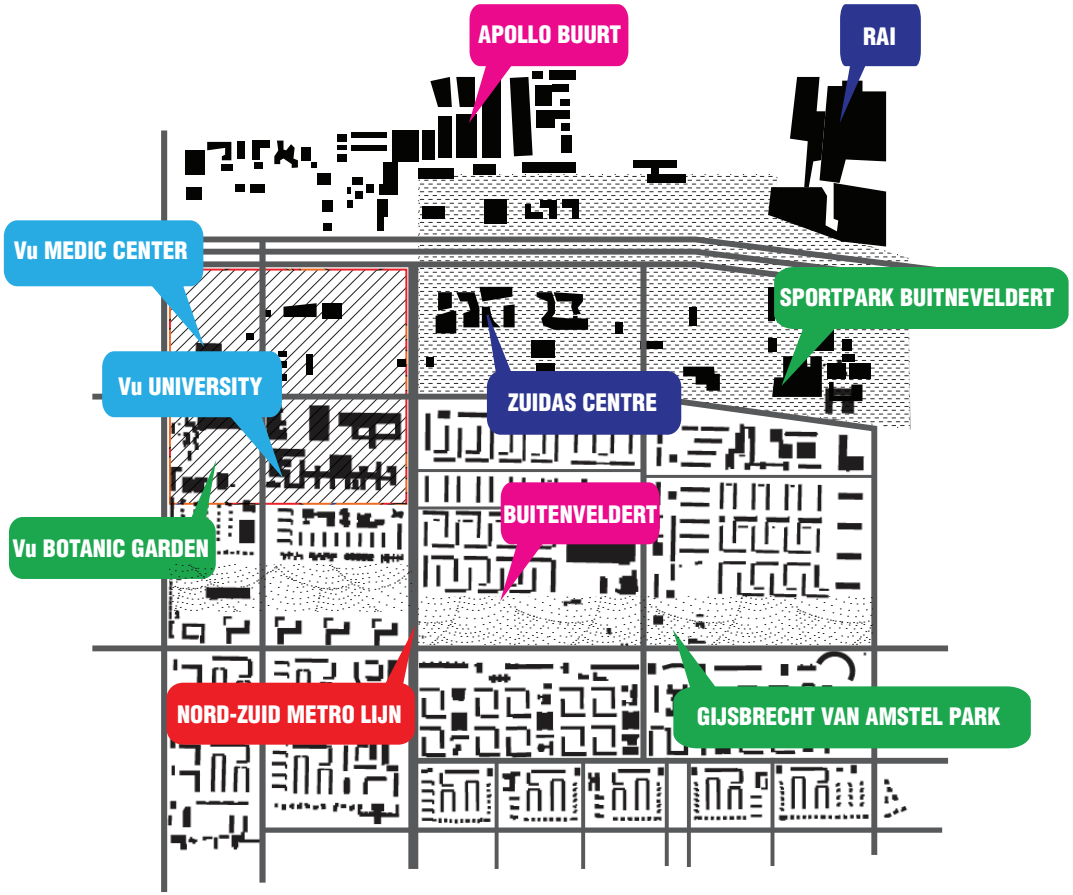
Amsterdam Zuidas, 2000



The Buitenveldert and the Zuidas represent two distinct socioeconomic projects on the city

About Amsterdam Buitenveldert

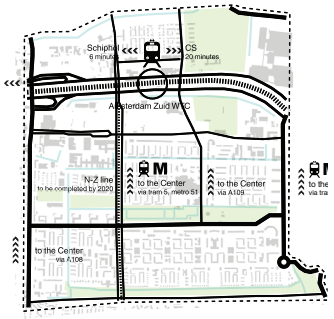
Multifunctional and sub-enclavic district



Retail

Schools

Roads



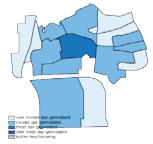
Education district, Economic district, Elders district, Green district

About Amsterdam Buitenveldert

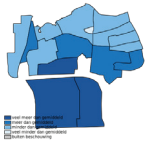
In the recent years the population rate number is growing slowly

Population age:

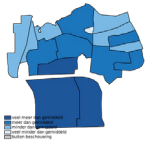
population 12-17y



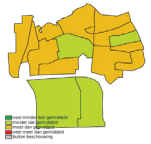
population 75+



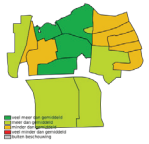
population 65+



mobility

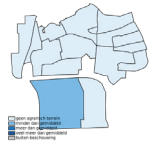


income

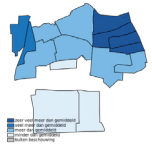


Spatial quality:

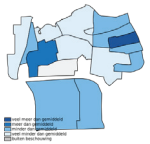
agricultural land



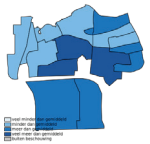
housing density



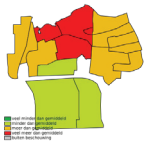
social housing



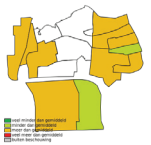
car culture spaces



land value

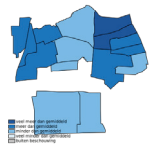


soc. housing waiting

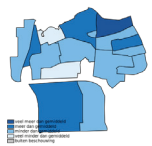


Economic vibrance:

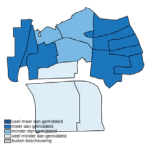
snack bars



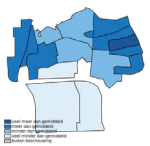
retail



creative sector



ICT companies



Some data about the district community:

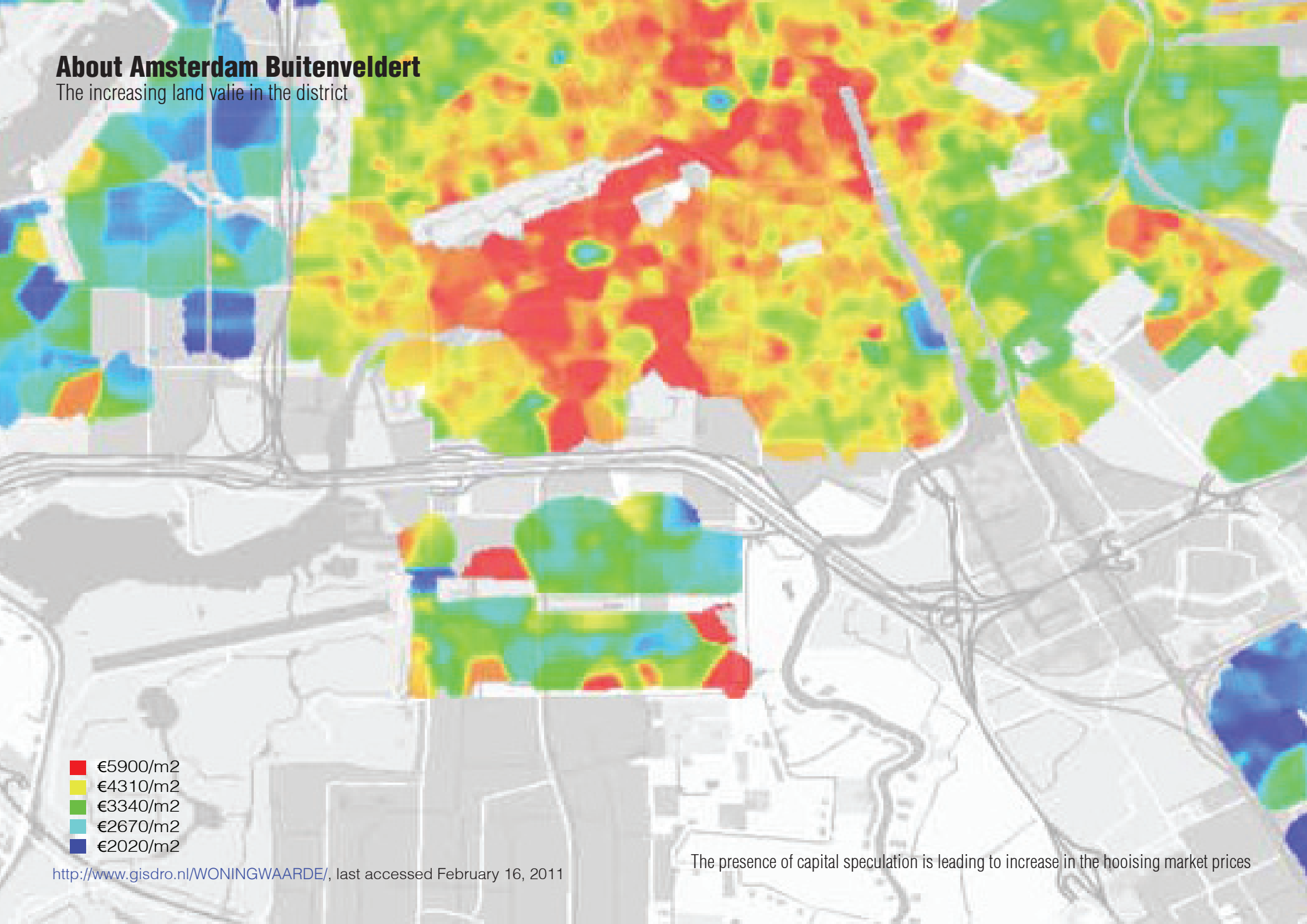
11.250 Houses
19.020 Inhabitants
11.000 Families
60% single person housing
16% families with a children
1.6 person per house

21% is Western alloctones
16% of immingrant

The population in the district is changing rapidly

About Amsterdam Buitenveldert

The increasing land valie in the district



http://www.gisdro.nl/WONINGWAARDE/, last accessed February 16, 2011

The presence of capital speculation is leading to increase in the hooising market prices

About Amsterdam Buitenveldert

Agents of gentrification: The neoliberal city and the neoliberal worker

13,000 highly skilled migrants entered the Netherlands since the introduction of the Highly Skilled Migrants Scheme in 2004.

2008/2010

Amsterdam
Amtelveen
Almere
Harlemermeer

Immigratie- en Naturalisatiedienst
Ministerie van Binnenlandse Zaken en Koninkrijksrelaties

THE PROFILE:

Age: _18-30y : 50% _30-40y : 33%

Sex: 75% male, 25% female

Country of origin: China, USA, India

Education: 80%, Master degree or Phd.
Dutch or Int. renamed university

TARGET SECTOR:

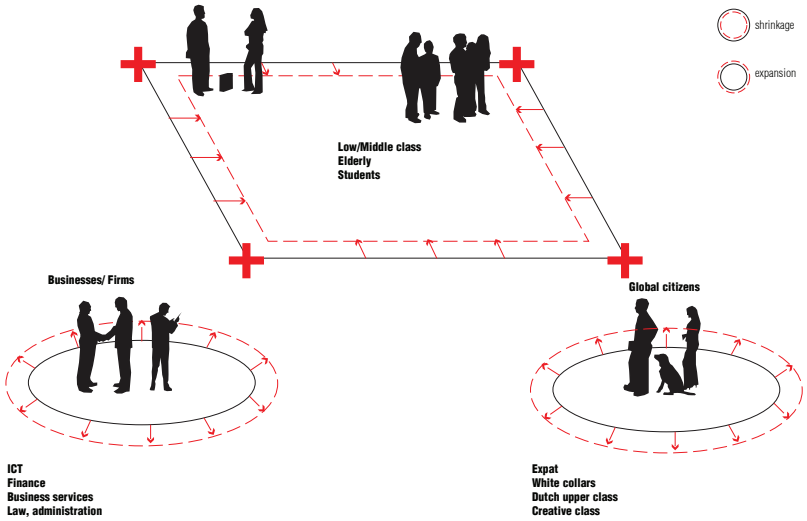
Knowledge industry:

ICT
BUSINESS SERVICES
TRADE
INDUSTRY

THE TOOL:

MODERN MIGRATION POLICY
(SINCE 1/1/2009)

Reduced tax rates
1 year special VISA
Stimulation of entrepreneurship
Social welfare assistence



The expat center is a ‘one stop service’ for high skilled immigrants, the preferred workers of the entrepreneurial and creative city

About Amsterdam Buitenveldert

Problem statement

1970`s BUITENVELDERT
Economic model: Industrial
Spatial pattern: low density + low rise, green area
City users: blue collars, low skill work, low income

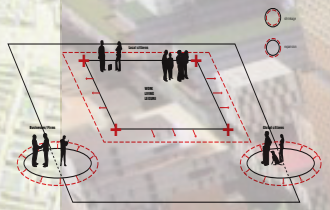
2011 ZUIDAS CBD
Economic model: post Industrial (neoliberalism)
Spatial pattern: high density, high rise, mixed use
City user: White collars,high skill work, high income

North-South Axe

+

Rising land values

+



paradigm shift in social composition

=

segregation according to age and income

1. two different models of socio-economic production
two different and opposed visions on the city development

2. proximity to the Noord-Zuid metro line + Zuidas CBD
reconnection to the compact city fabric

3. increase in land value
increase in speculative practices, low income groups forced to displacement

4. local meets global, no glocal
increasing distance between local community needs and global actors needs

Amsterdam Zuid/Buitenveldert paradigm of how, two distinct economic modes of production come “vis à vis” in a same space and time. It is an intriguing site where the local communities with their consolidated needs,rights and rituals are forced to confront with new, “global actors” planning their agenda for the construction/use of new spaces of speculation.

URBAN STRATEGY

Urban strategy: counter-gentrification

The Vu knowledge district is made center of the Buitenvedeldert district

Hogeschool INHOLLAND

students: +/- 36000
staff: +5000

1 De Boelelaan 1105 (main building)

Arts
Auditorium
Aula
Centre for Educational Training, Assessment and Research (CETAR)
Economics and Business Administration
Executive Board
Higher Education for the Elderly (HOVO)
Interdisciplinary Centre for the Study of Science, Society and Religion
Law
Library
Reception
Theology
University Administrative and Support Services (Office for Management Affairs and Service Departments)
VU Association

2 De Boelelaan 1091 (BelleVUe)

Department of Communications

3 De Boelelaan 1091a

'De TenT', examination hall

4 De Boelelaan 1081 (W&N)

Physics and Astronomy
Mathematics and Computer Science
Chemistry

5 De Boelelaan 1085 (W&N)

Earth and Life Sciences
Radionuclide Centre
Institute for Environmental Studies

6 Van der Boechorststraat 7-9 (MF)

Audiovisual Centre
Human Movement Sciences
Medicine

7 Van der Boechorststraat 13

't Olifantje creche

8 Van der Boechorststraat 3-5

Energy Centre

9 Van der Boechorststraat 1 (Transitorium)

Occupational Health, Safety and Environment
Psychology and Education

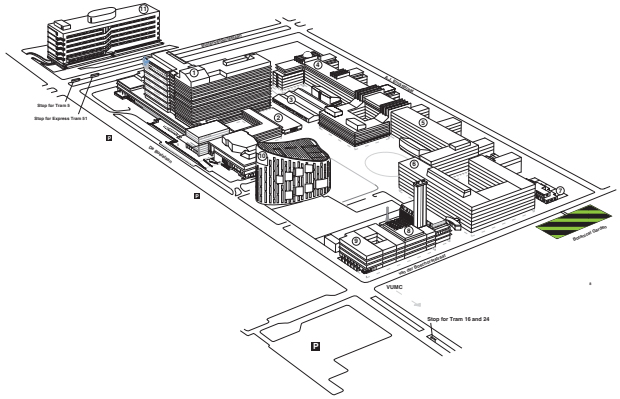
10 De Boelelaan 1109 (OZW)

Educational Institute for Care and Welfare

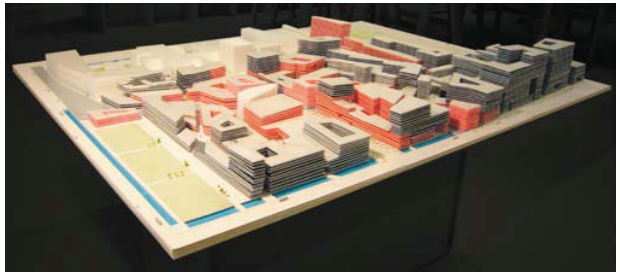
11 Buitenveldertselaan 3 (Metropolitan)

Social Sciences
Centre for International Cooperation

OLD CAMPUS
1967>2011



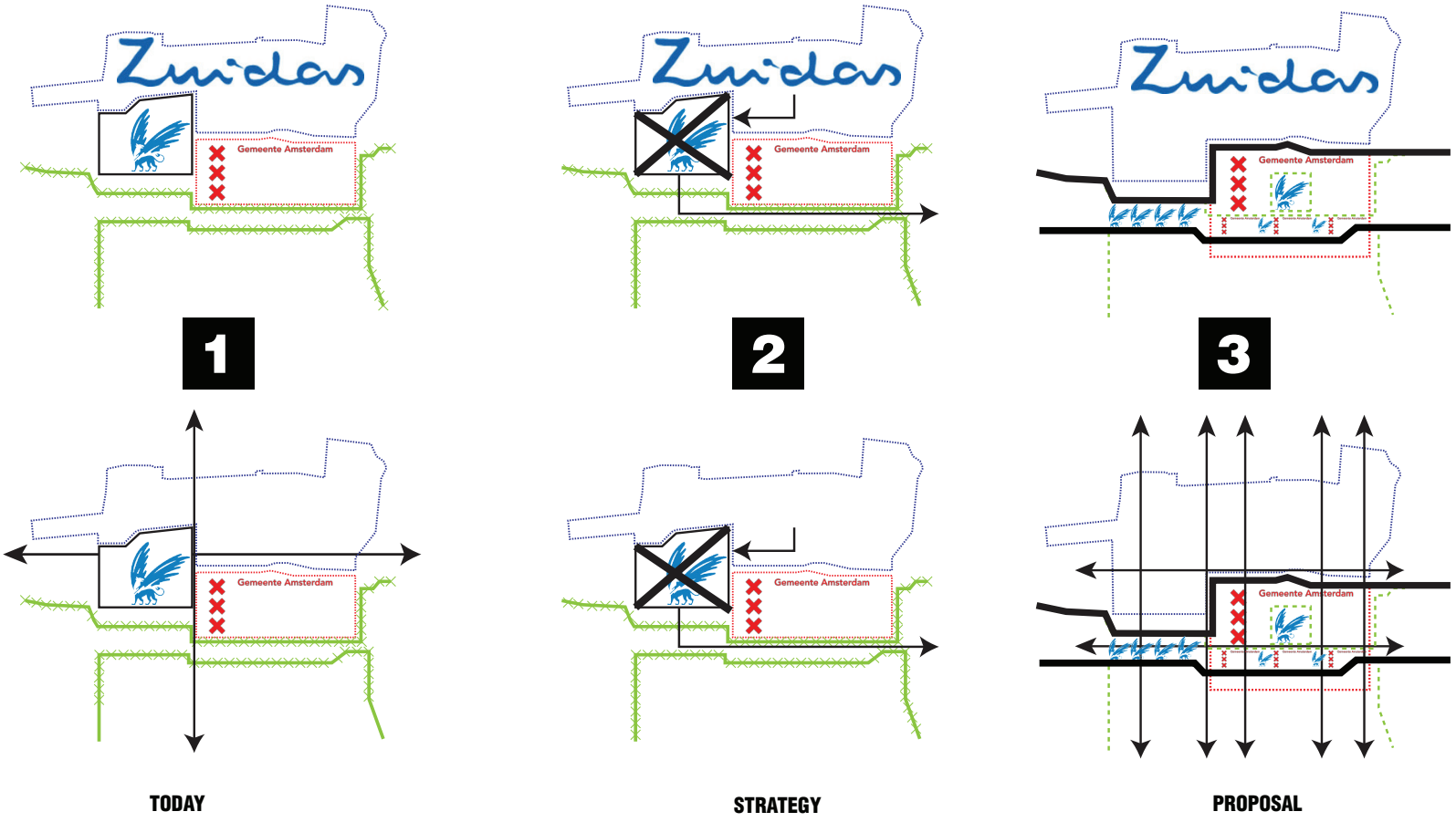
NEW CAMPUS
2030>



The campus has a critical mass able to influence the area

Urban strategy

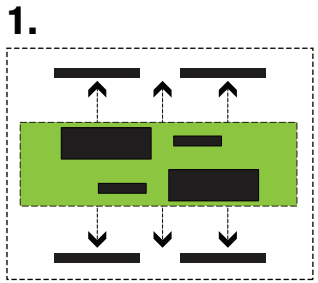
Comparison local conditions/ purposed conditions



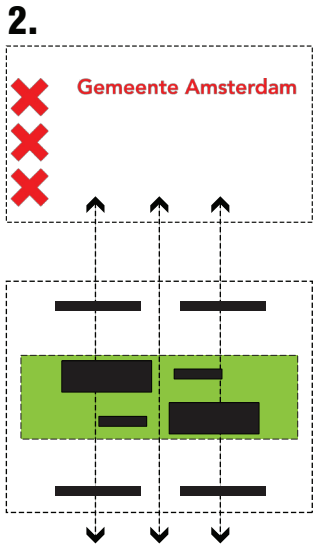
The urban strategy seek to mitigate the impact of the new CBD on the local population and their needs by relacating the campus within the core of the district

Urban strategy

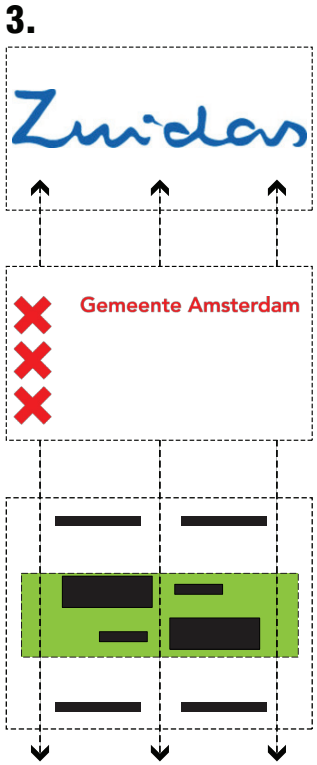
Shifting the dynamics of the district: 3 scales of interaction



INSIDE THE CAMPUS



CAMPUS/BUITENVELDERT

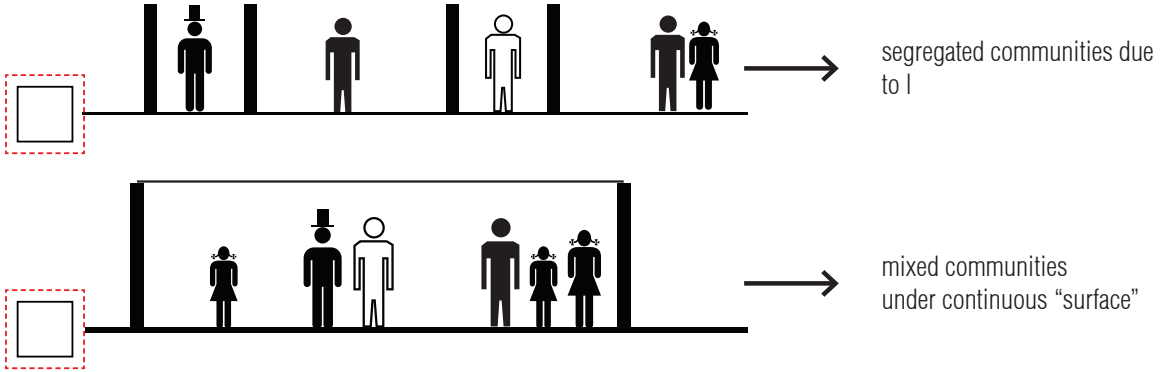


CAMPUS/BUITENVELDERT/ZUIDAS

The influence of the university involves the different actors in the area

Urban strategy: proposal

My project deals with thematics of **spatial, social and economical segregation** between two distinct communities in the Buitenveldert. Intention of my project is to offer to the global and local actors a **space** where their **confrontation** can be furtherly stimulated. The proposed strategy of **counter-gentrification** is based on the role played by the educational facilities of the VU University. The **students and the educative staff are the counter-gentrification agents**



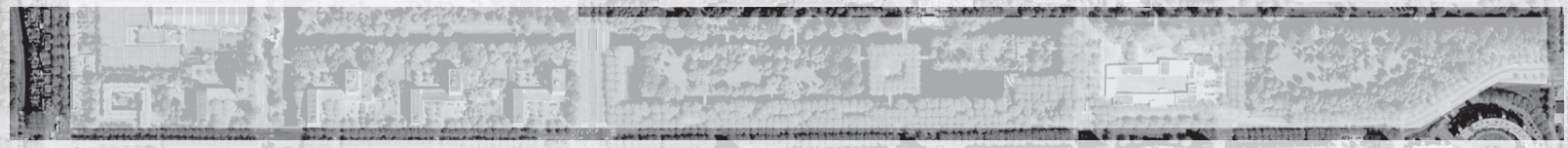
Could a particular *vision(program)* and the *architecture* it is embedded in be the *space where* such a controntation could be furtherly stimulated in this district?

Urban strategy: proposal

Gisbrecht van the Amstel park

Urban strategy

Gisbrecht van the Amstel park



170 m

2100 m

Gijsbrecht Van de Amstel park: from unproductive park to productive garden

Urban strategy: proposal

Gijsbrecht van the Amstel park

Gijsbrecht Van de Amstel park: a threshold splitting the district in two separate entities

PROGRAM

Program

The original program stresses the **“corporate identity”** of the campus

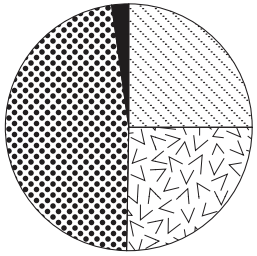
FACULTIES AT VU UNIVERSITY

* Earth and Life Sciences
* Human Movement Sciences
* Economics and Business Administration
* Sciences
* Medicine
* Theology
* Arts
* Centre for Educational Training, Assessment and Research
* Psychology and Education
* Law
* Social Sciences
* Dentistry/ACTA
* Philosophy and Education

PUBLIC FACILITIES + SPORT FACILITIES

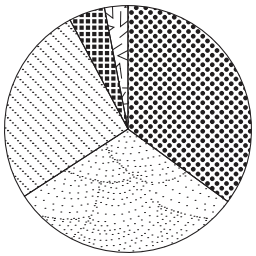
- De VU
- De VU-MC
- **De VU Hortus Botanicus**
- Sportpark van SC Buitenveldert
- De Schoolwerktuinen
- Tennispark Popeye Goldstar
- Scoutinggebouw

OLD program: 848.000m2



- 25% student housing (223.000 m2)
- 25% offices (223.000 m2)
- 47% educational facilities (417.000 m2)
- 2% other functions (16.000 m2)

NEW program: 848.000m2

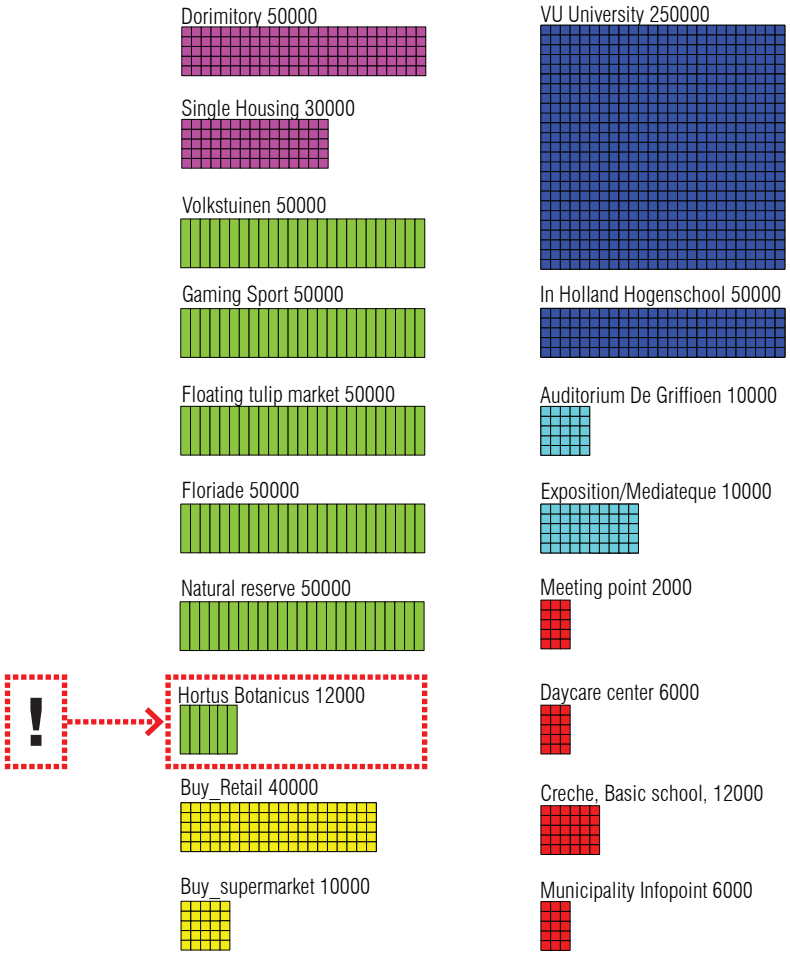


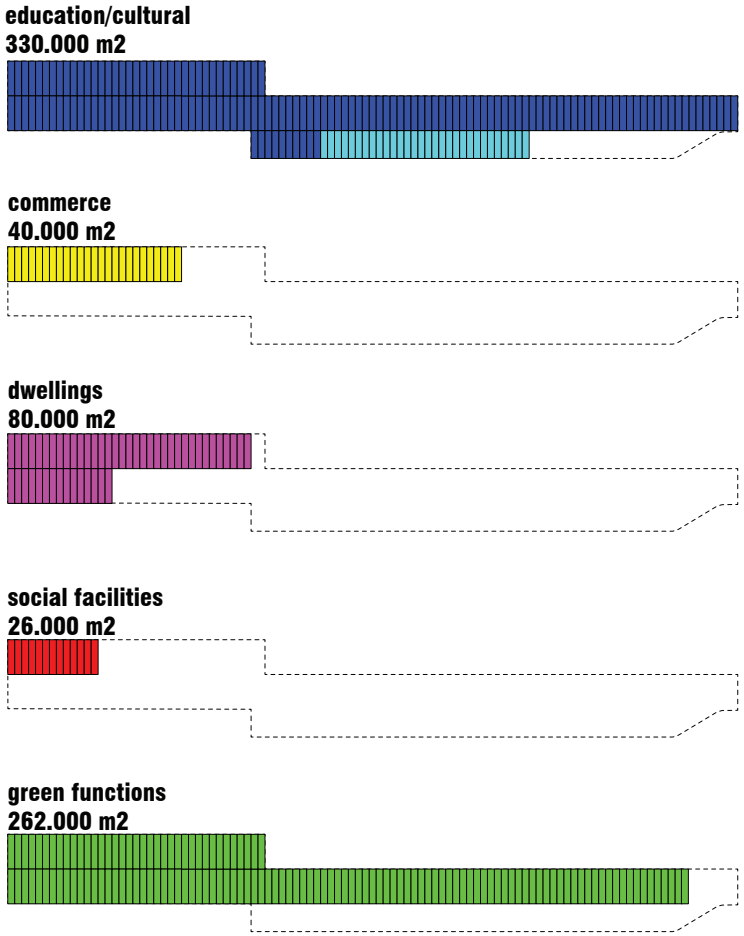
- educational facilities (300.000 m2)
- green areas (262.000 m2)
- student housing (223.000 m2)
- commerce (40.000 m2)
- social facilities (26.000 m2)

The original program is recalculated in order to accomodate the same amount of green areas of today

Program

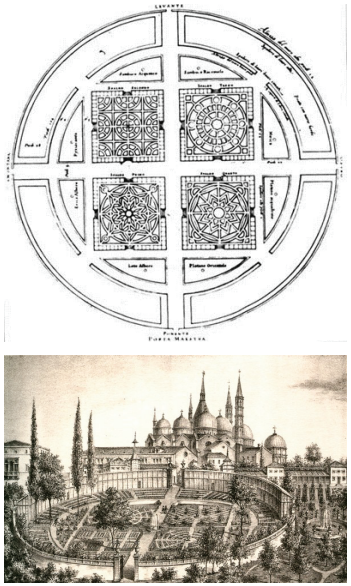
Comparisons: how the program fits the Gijsbrech of the Amstelpark





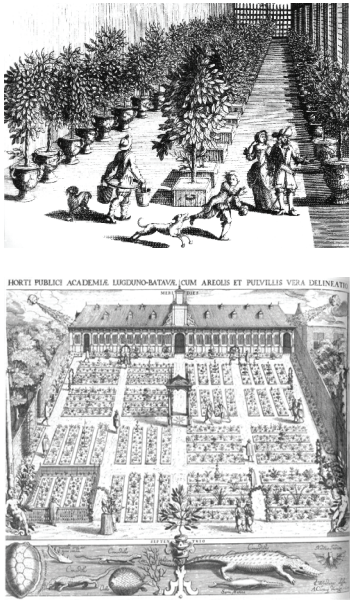
The new program preserves the same amount of green areas as today

Program
Why a botanic garden?



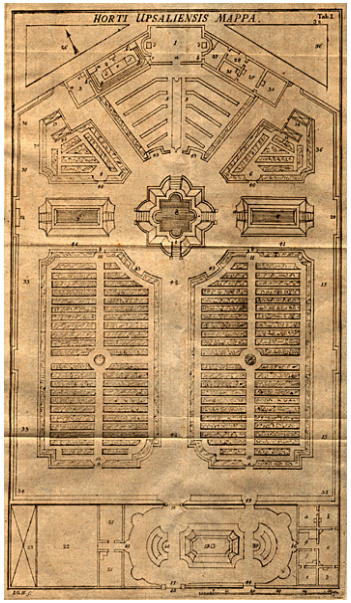
ORTO BOTANICO PADOVA, 1545
One of the first botanical gardens, founded by the Venetian Republic. It's an hortus conclusus.

1_Plants and medicine:
Medicinal plants
Herbs
Hortus siccus



HORTUS BOTANICUS LEIDEN, 1587
Botanic garden for research, ordered beds from the four continents.

2_Plants and ahestetics:
Bulbs and Tulips from Turkey

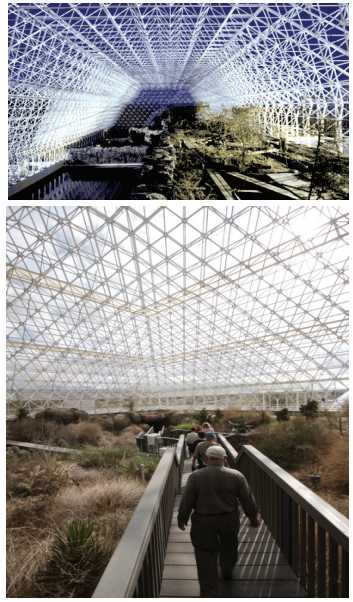


HORTUS UPSALIENSIS, 1655 (1787)
Organization of plants with the Carol Linneus's sexual taxonomy.The Linneus Garden is a tranformation of a previous Baroque garden.

3_Plants and science:
Orangeries
Greenhouses

BOTANIC GARDEN AMSTERDAM 1679
Founded with the collaboration of the V.O.C, with conservatory. Seeds for overseas Dutch colonial plantations comes from here!

4_Plants and economy:
Conservatory
Acclimatiozation rooms
Spices
Exotic plants



BIOSPHERE 2, TUCSON 1980
Sealed environment for research than converted into botanic garden for display of natural biodiversity. Mission: public sensibilization

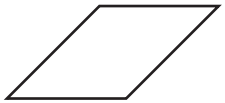
5_Plants and environment
Climatic greenhouses
Earth Biomes

The botanical garden of the Vu university, rather than being suppressed as from original program is intead made the core of the project tranforming the park into a productive area able to deal with the productive forces of the neoliberal development model

Program

The university organize the faculties according to the Botanic Garden

FACULTY 1: PLANTS AND ECONOMY: Economy,Law,Business Adm.



102.000 m2

flowers
bulbs
cash crops

Flower market
Seedsbank
Seeds exchange
Keukenhof "to Go"

FACULTY 2: PLANTS AND PEOPLE: Social Sc.,Psychology,Education

65475 m2

Vegetable
Fruits

Vegetable Market
Readymade-food
Elderly daycare center
Restaurant

FACULTY 3: PLANTS AND MEDICINE: Medicine,Dentistry,Human Mov.

47570 m2

herbs
seeds
flowers

Aphotecarius
Laboratories
Spa/baths

FACULTY 4: PLANTS AND SUSTAINABILITY: Earth+Life Sciences

37650 m2

endangered plants
carnivoral plants
parasite planst

Climatic Solarhouse
Volkstuinen
Vegetable Market
Seedsbank

FACULTY 5: PLANTS AND ARTS: Arts,Theology,Philosophy

30600 m2

flowers
herbs

Exhibition Halls
Workshops
Library
Theatre

FACULTY 6: PLANTS AND ICT: Exact Sciences

22920 m2

detox plants

Virtual Herbaria
Mediatequa
Mechanical Crane

Six thematics drives the principles for the distribution of the program in the plot area

DESIGN PARAMETERS

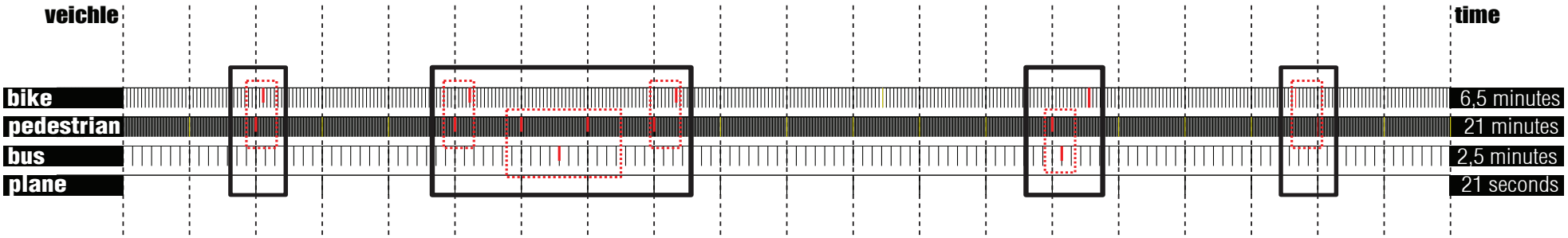
“Not a real landscape, but like an exquisite painting[4]”

Anonymous, Garden carpet, 17th century, Iran

Plinio il Giovane (Plinius the Young), describing the garden of villa Tusci (Florence)

Architecture:

Step1: Mitigation of the phisical borders

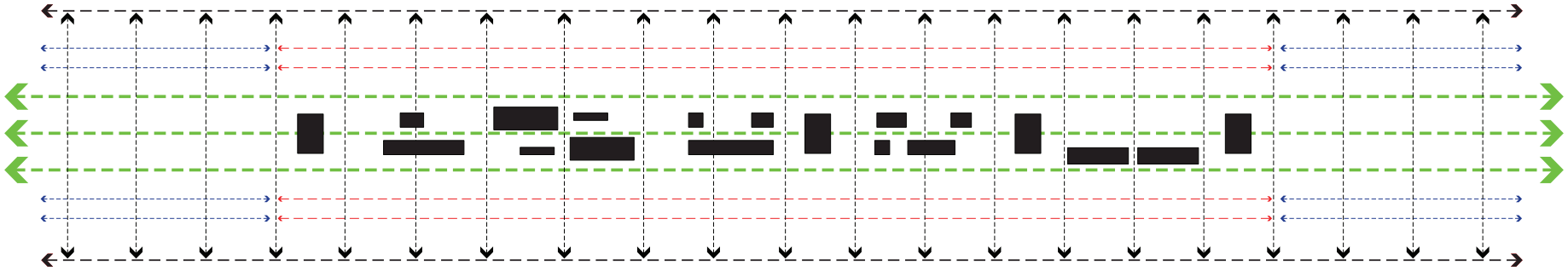


Analysis of distances and times

The calculation of travel times determined the necessity of densifying the road network . This allows an augmented permeability of the urban blocks

Architecture:

Step 1: new road network proposal



Proposed networks of roads and paths

Pedestrian bridges

Botanic promenade

Market promenade

University patio

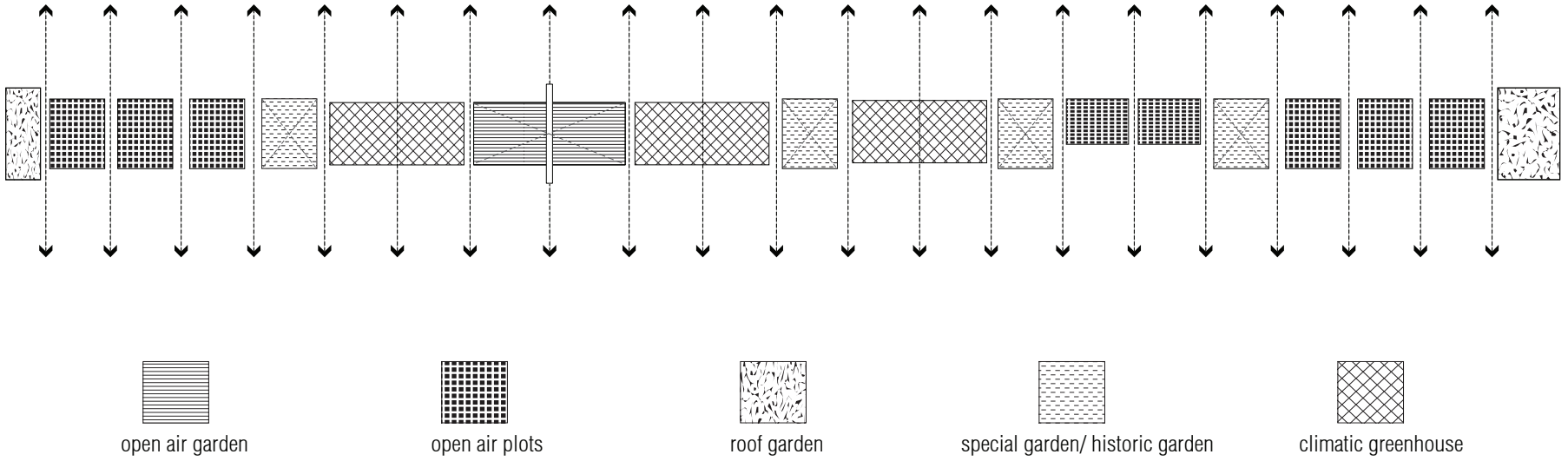
Special/Public Function

At the centre of the infrastructural network is the socioproductive functions of the program are placed

Architecture:

Step3: stimulate social interaction

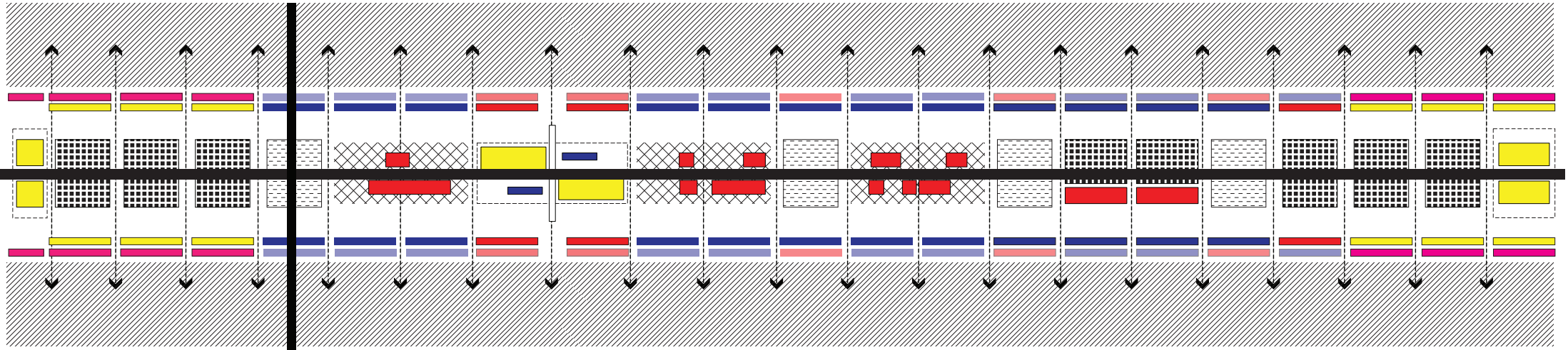
Step4: stimulate economic revenue: cultural and educational facilities



The promenade of gardens has the function of distribution and landmakr for the orientation within the perimeter

Architecture:

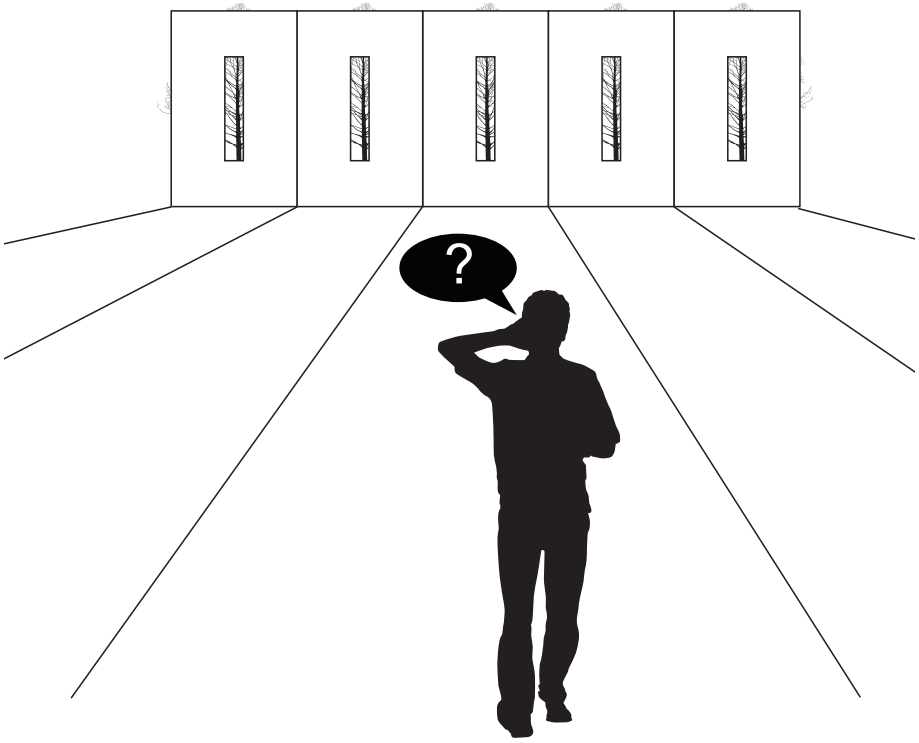
Step4: stimulate economic revenue: cultural and educational facilities



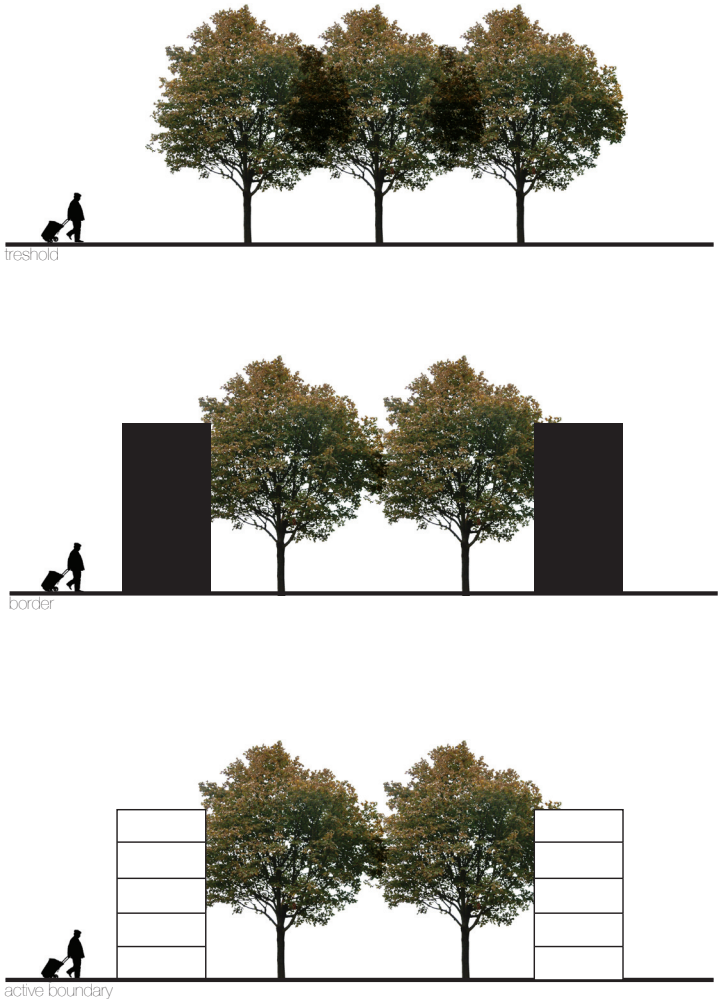
The educational facilities and the residential facilities have the function of framing the area

Architecture:

Step 5: framing the area



Stimulate attractivity

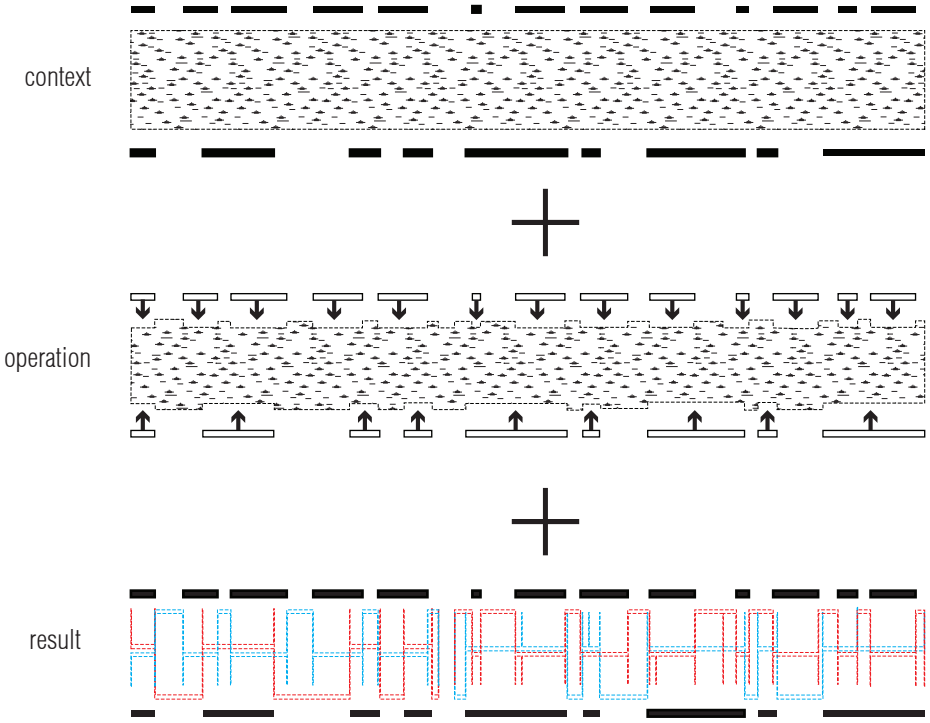


From open park to Hortus conclusus

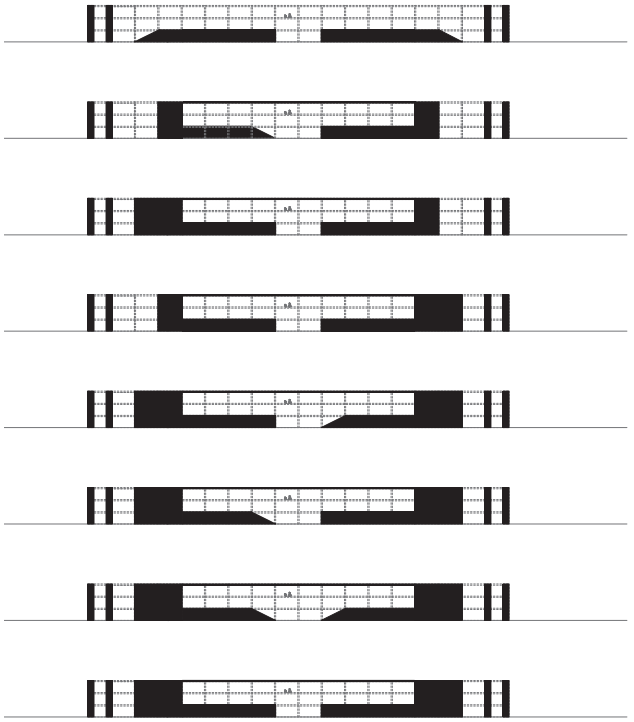
The frame gives a spatial definition of the area and define a clear sign of rupture to the existing urban fabric

Architecture

Step 5: framing the area



index model of possible sections along the site

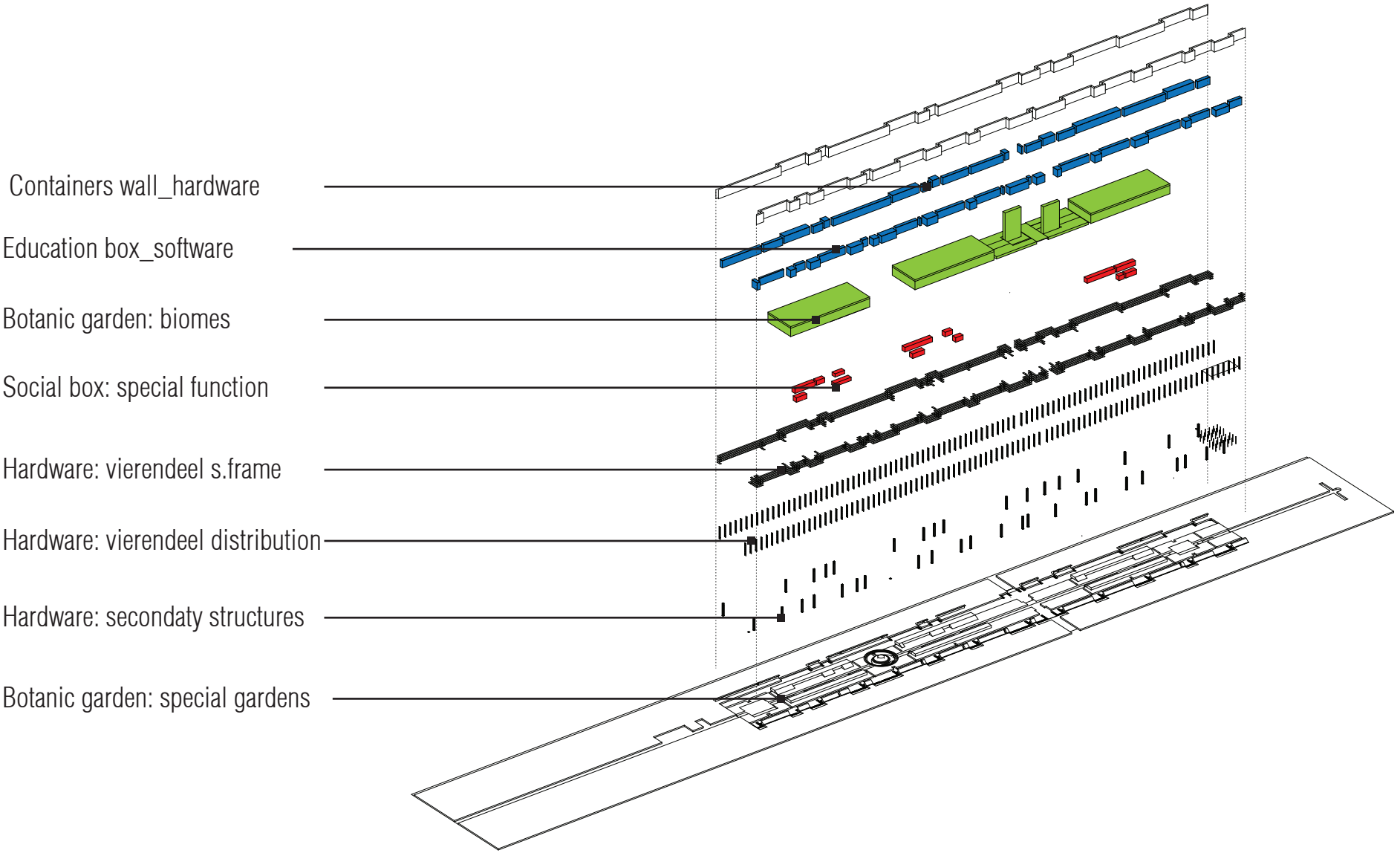


The context function as device for the determination of the boundary

ARCHITECTURE

Architecture

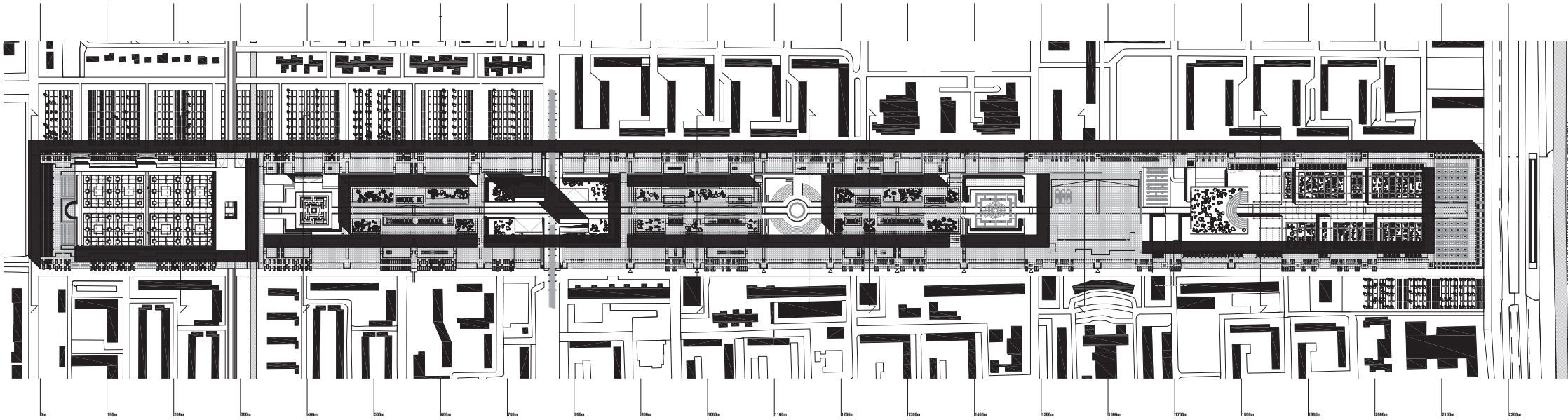
axonometric explosion of building components



The frame gives a spatial definition of the area and define a clear sign of rupture to the existing urban fabric

Architecture

masterplan



Architecture

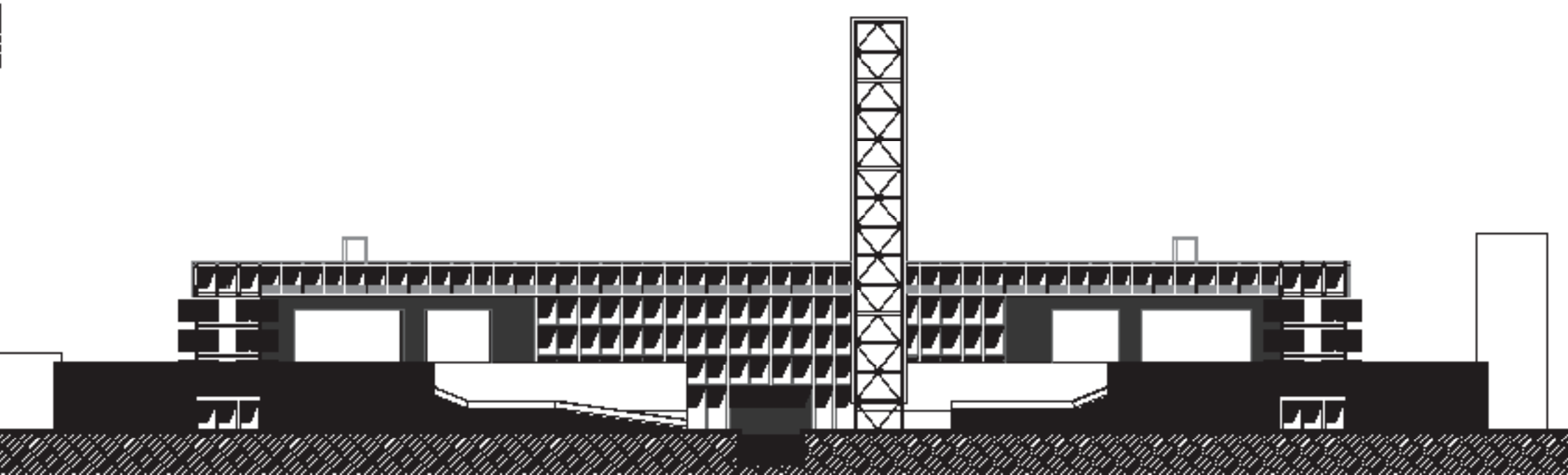
masterplan in the context

Architecture

Door East/West, productive areas entrances

Architecture

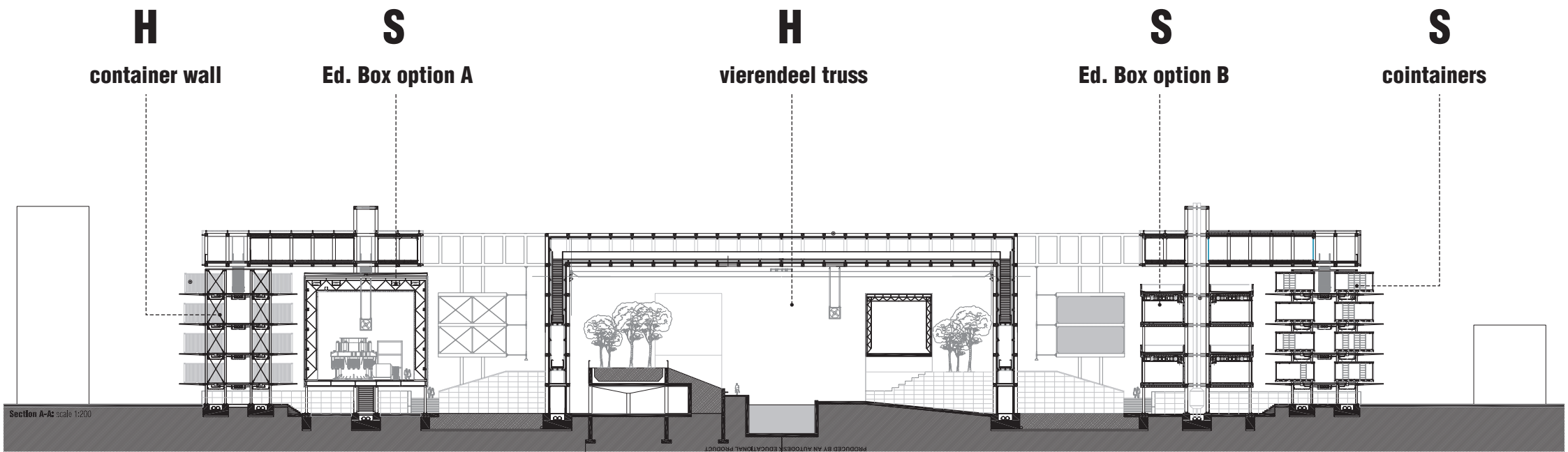
Main door, Campus plaza



MATERIALIZATION

Materialization:

Hardware and software elements in the VU campus

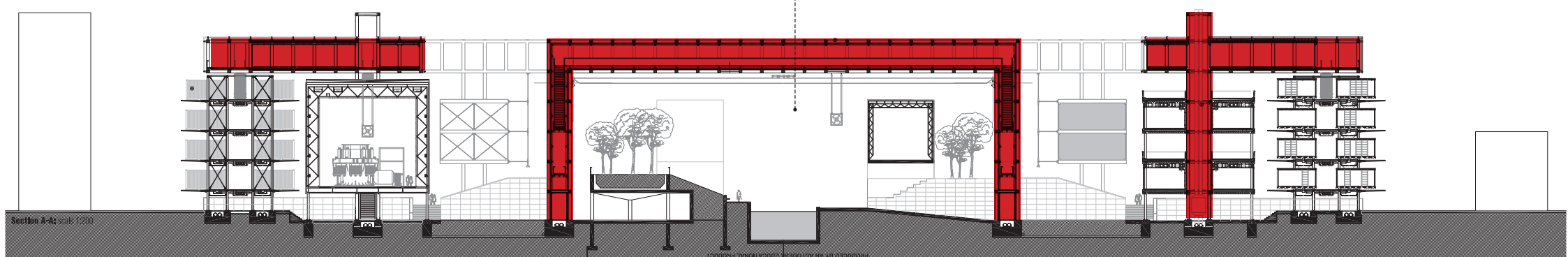


Materialization:

Hardware and software elements in the VU campus

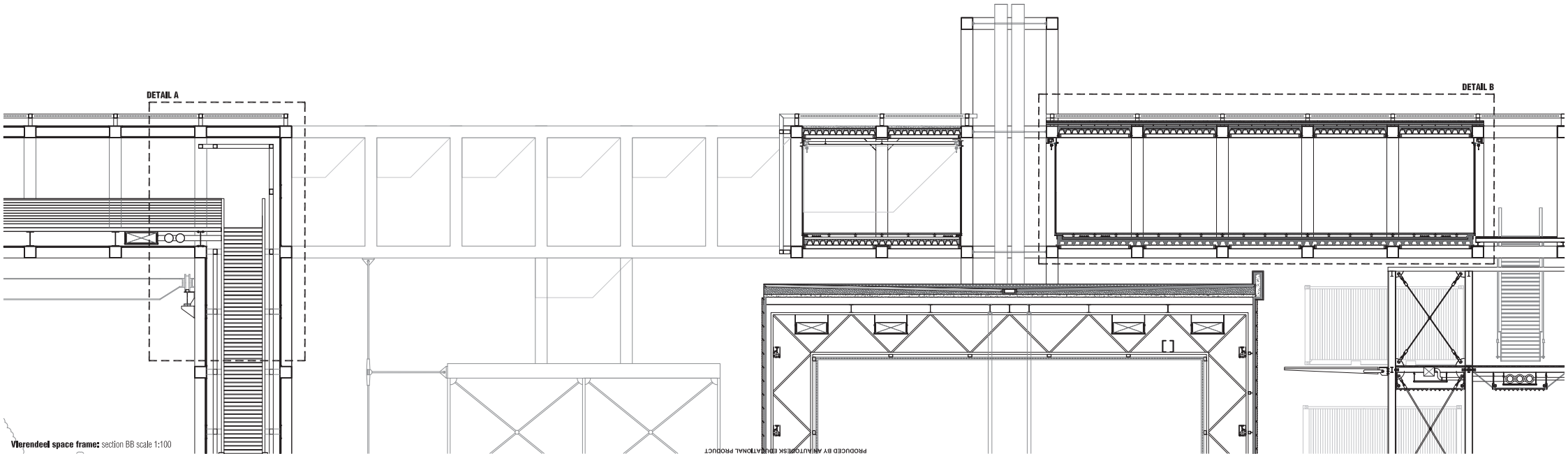
H

vierendeel truss



Materialization:

Hardware: The vierendeel truss, primary space framing structure, climatic solarhouse



Vierendeel space frame: section BB scale 1:100

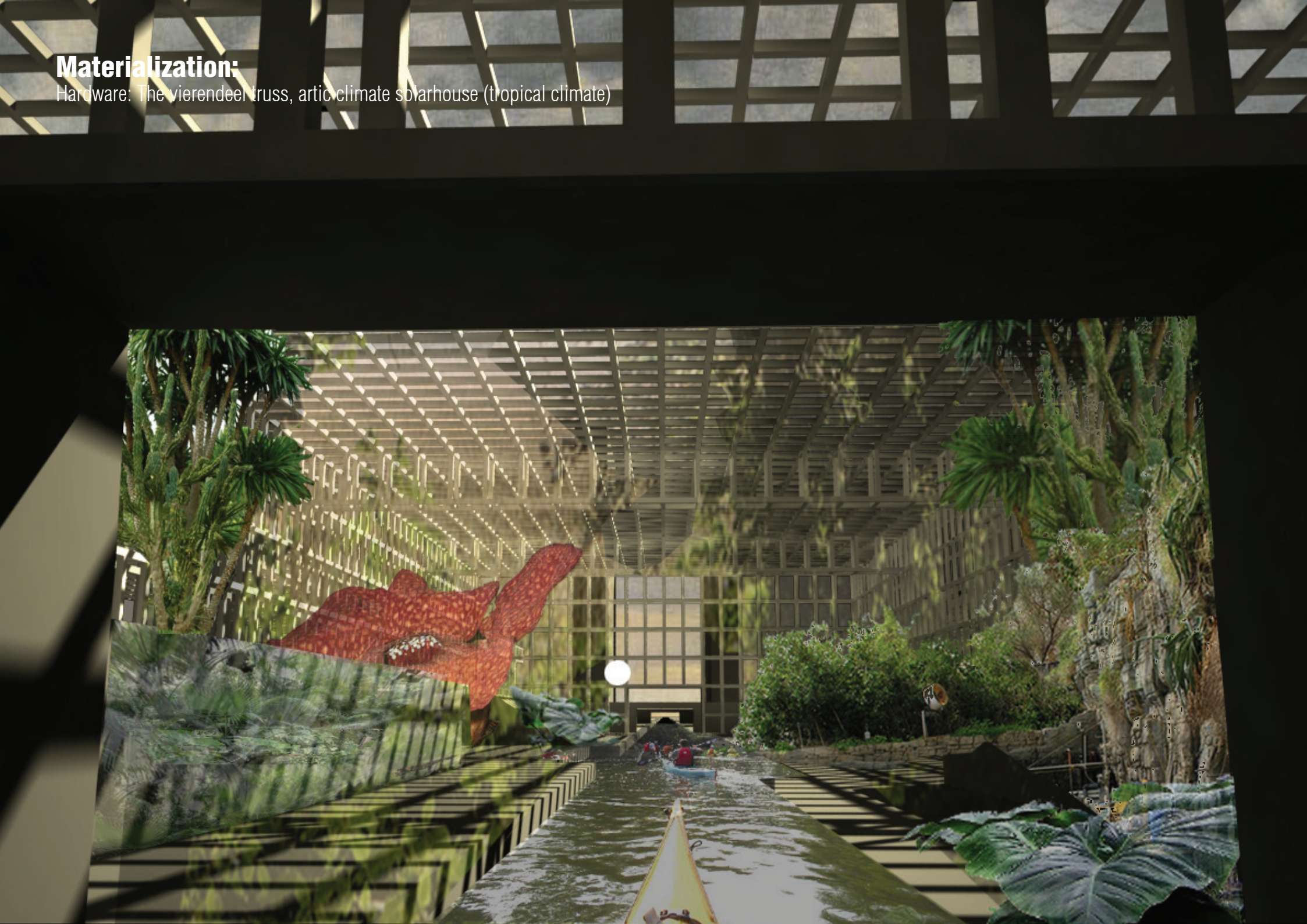
Architecture

Area2 Educational spaces, options A+B

Materialization:
Hardware: the spaceframe filled with living and workinf activities

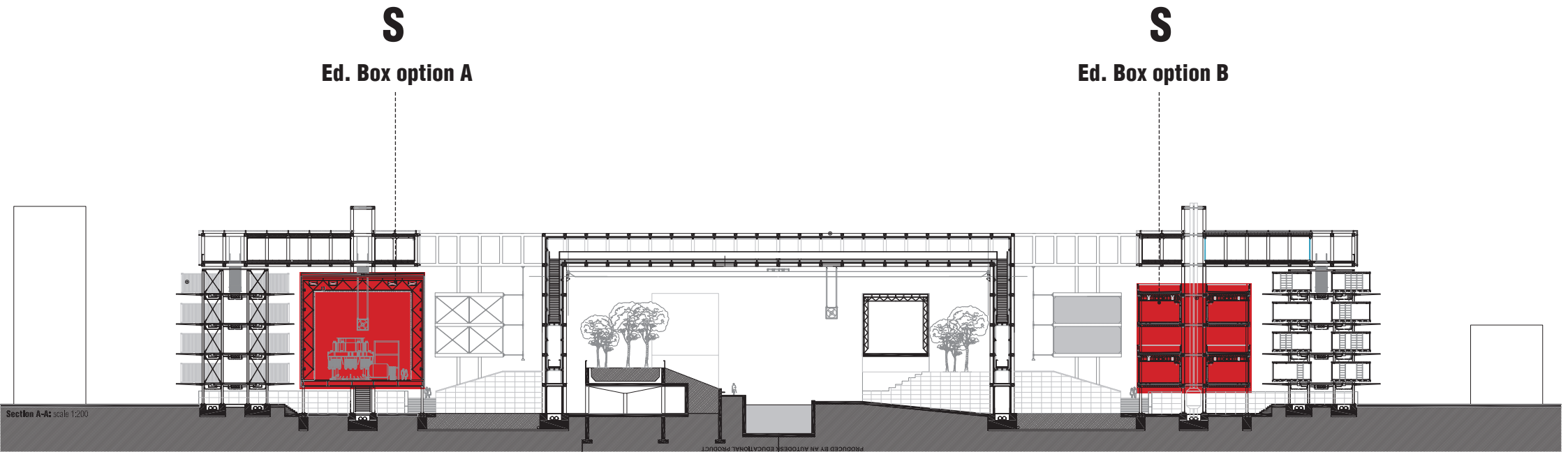
Materialization:
Hardware: The vierendeel truss, artic climate solarhouse (tundra)

Materialization:
Hardware: The vierendeel truss, artic climate solarhouse (tropical climate)



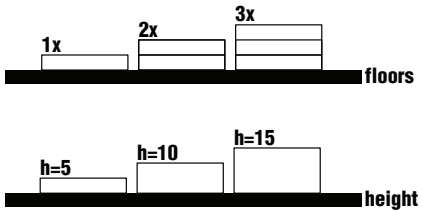
Materialization:

Hardware and software elements in the VU campus

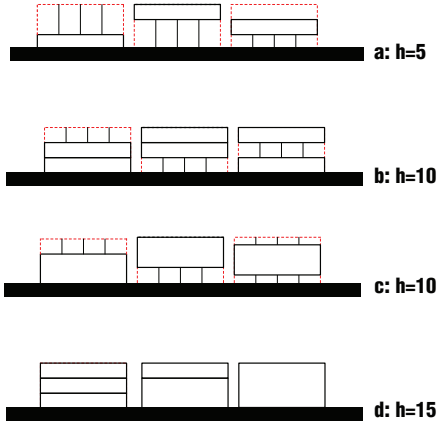


Architecture

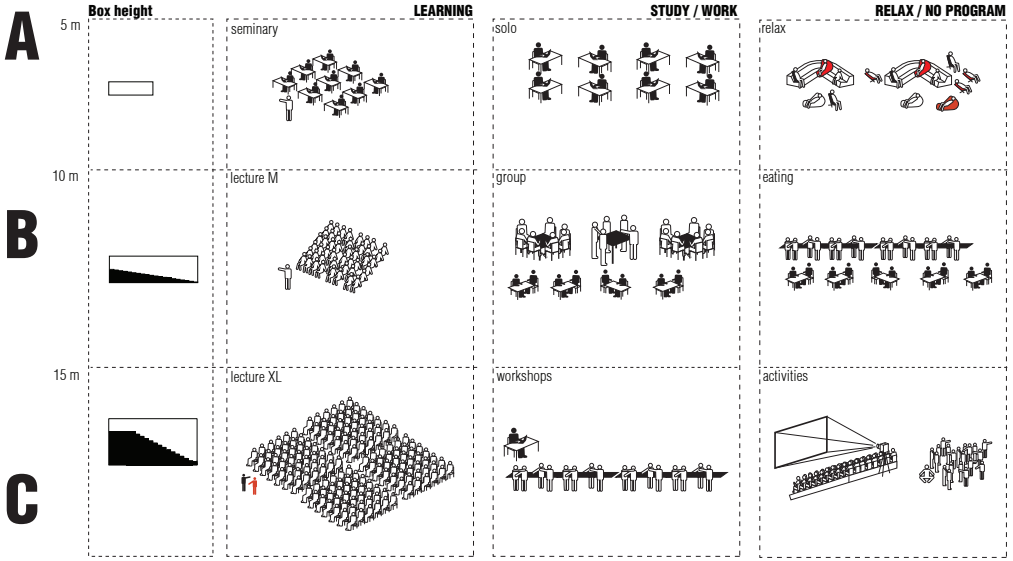
Area2 Educational spaces, options according height



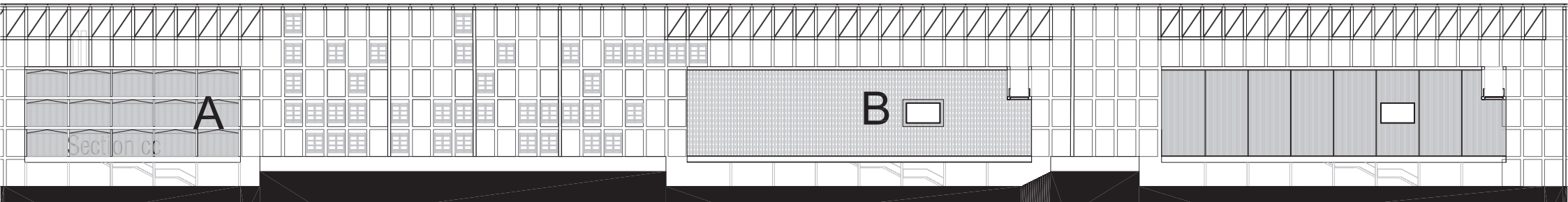
different function requires different internal heights



different floor heights are than combined in variable boxes solutions



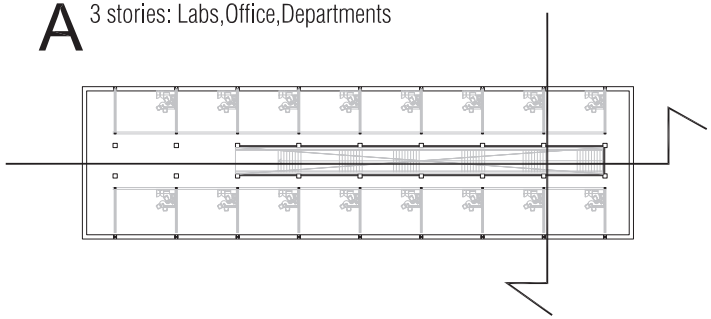
Facade from inside 1:200

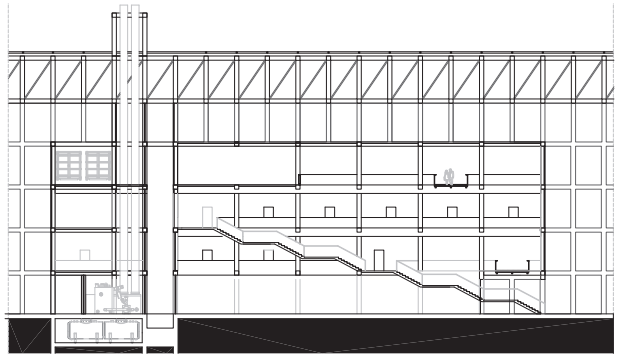


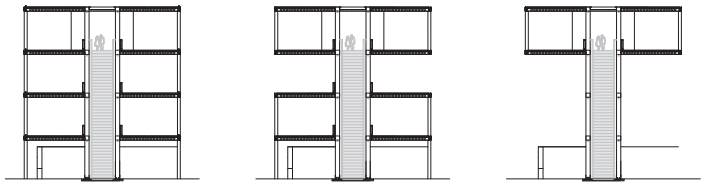
Architecture

Area2 Educational spaces, options A+B

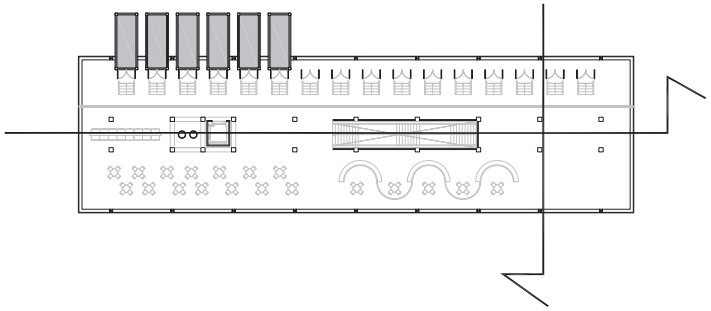
A 3 stories: Labs,Office,Departments

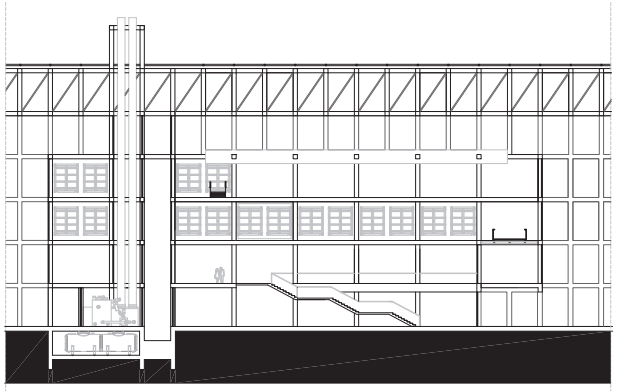


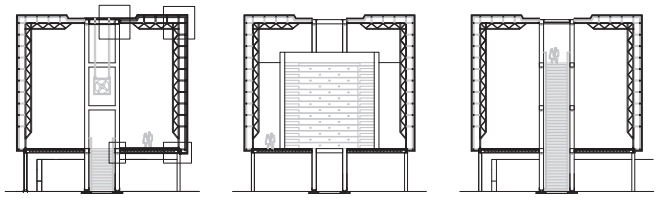




B 1 storie: Lecture Halls, Meeting, Industrial hall







Materialization:

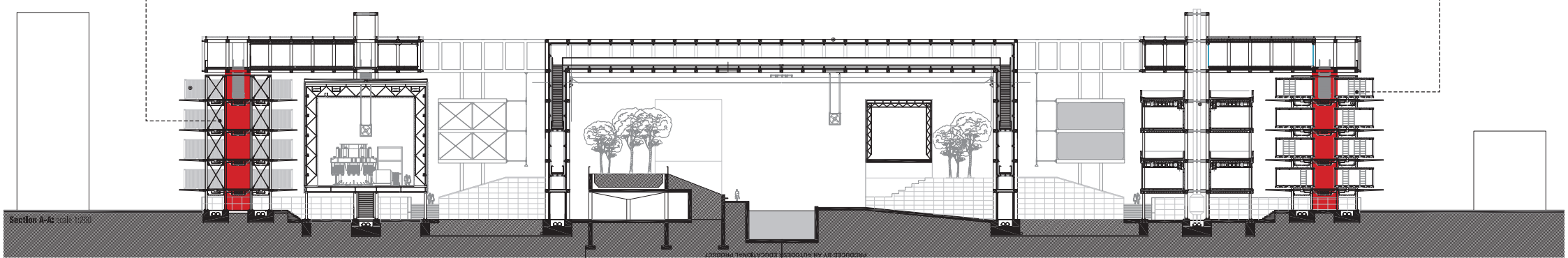
Hardware and software elements in the VU campus

H

container wall

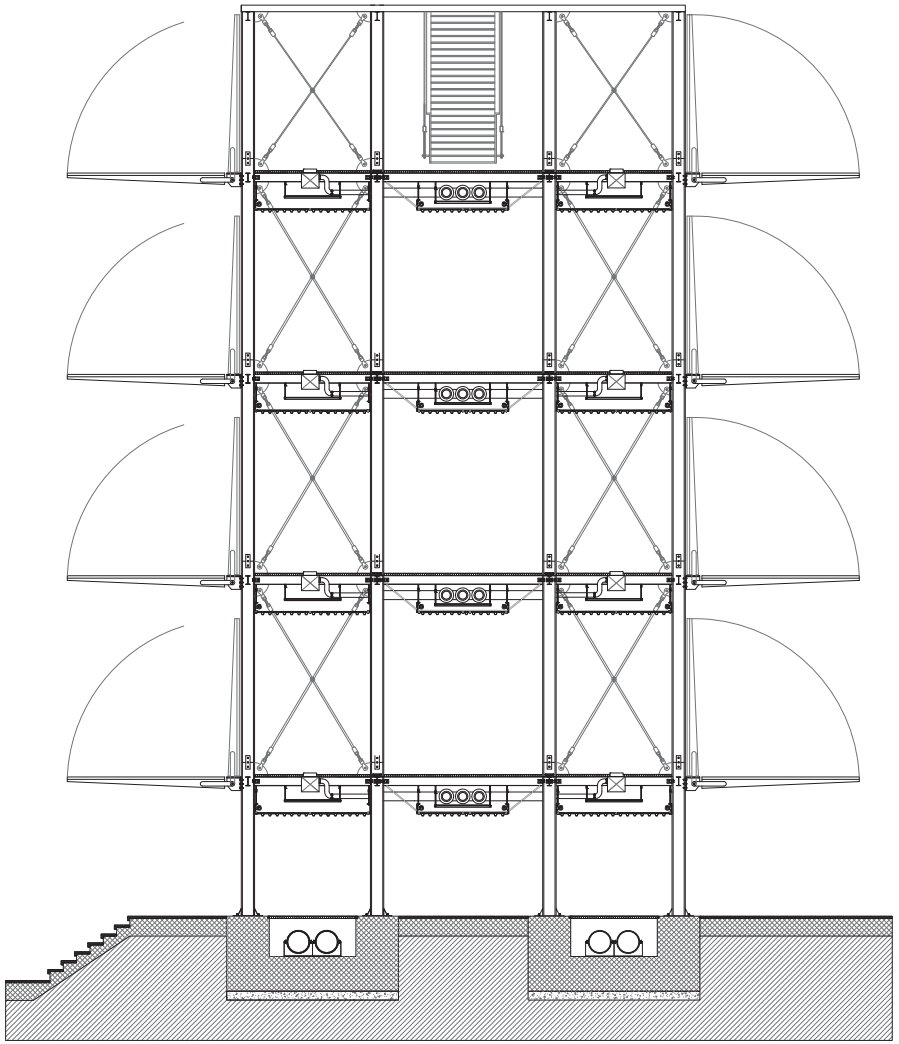
H

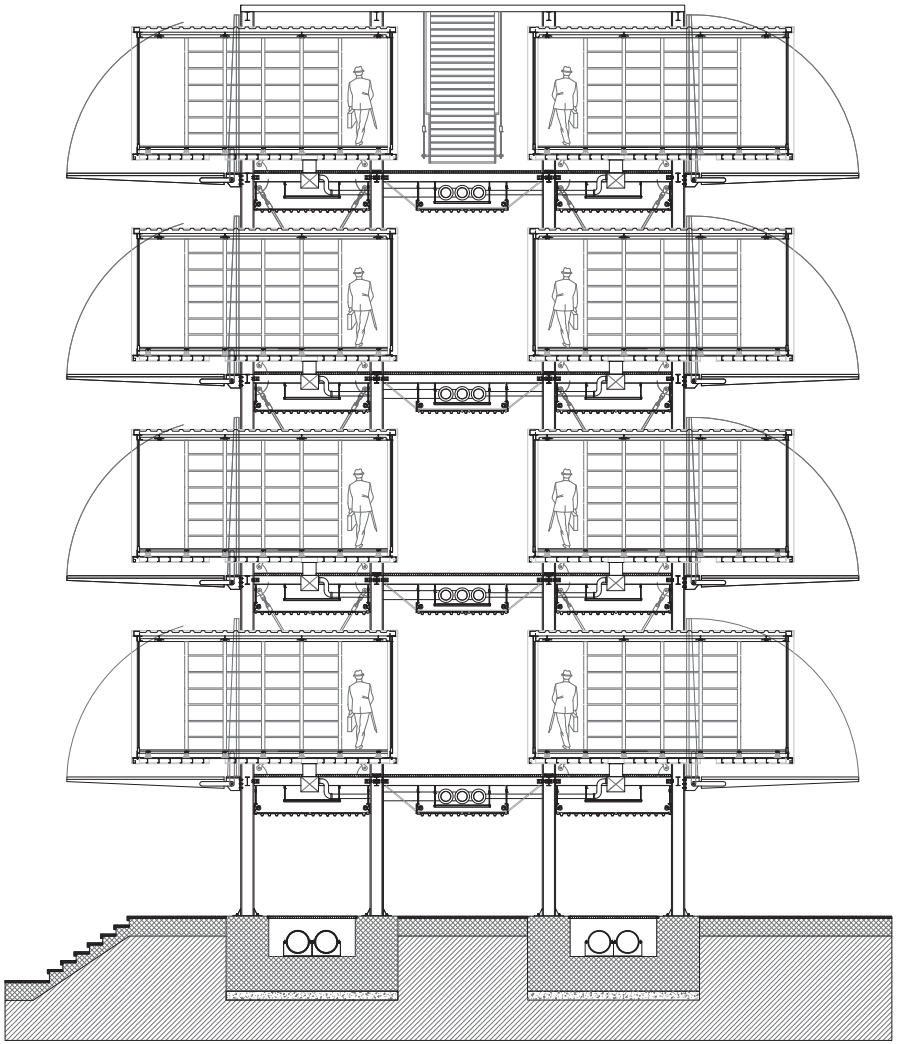
container wall



Materialization:

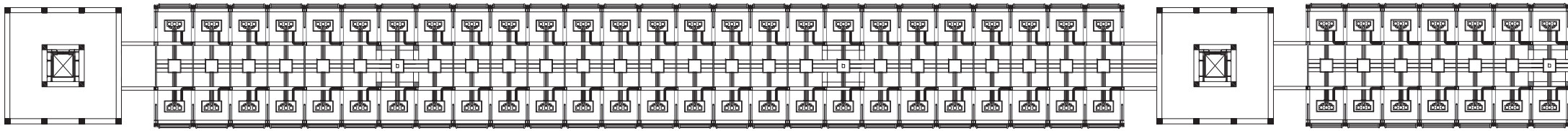
Container shelves structure,cross section section

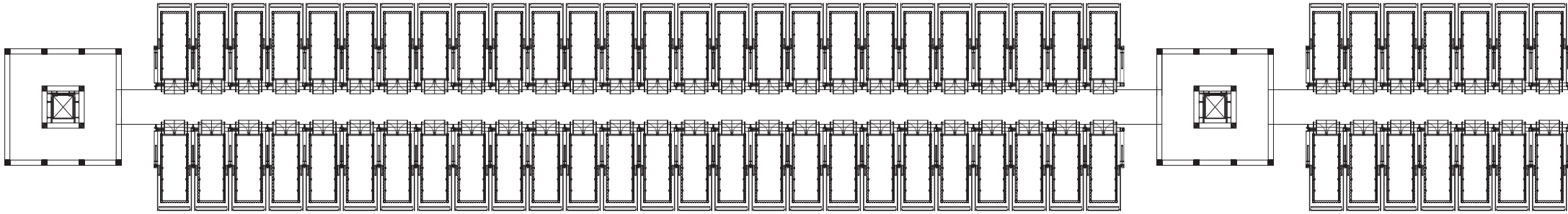




Materialization:

Container shelves structure, technical plan

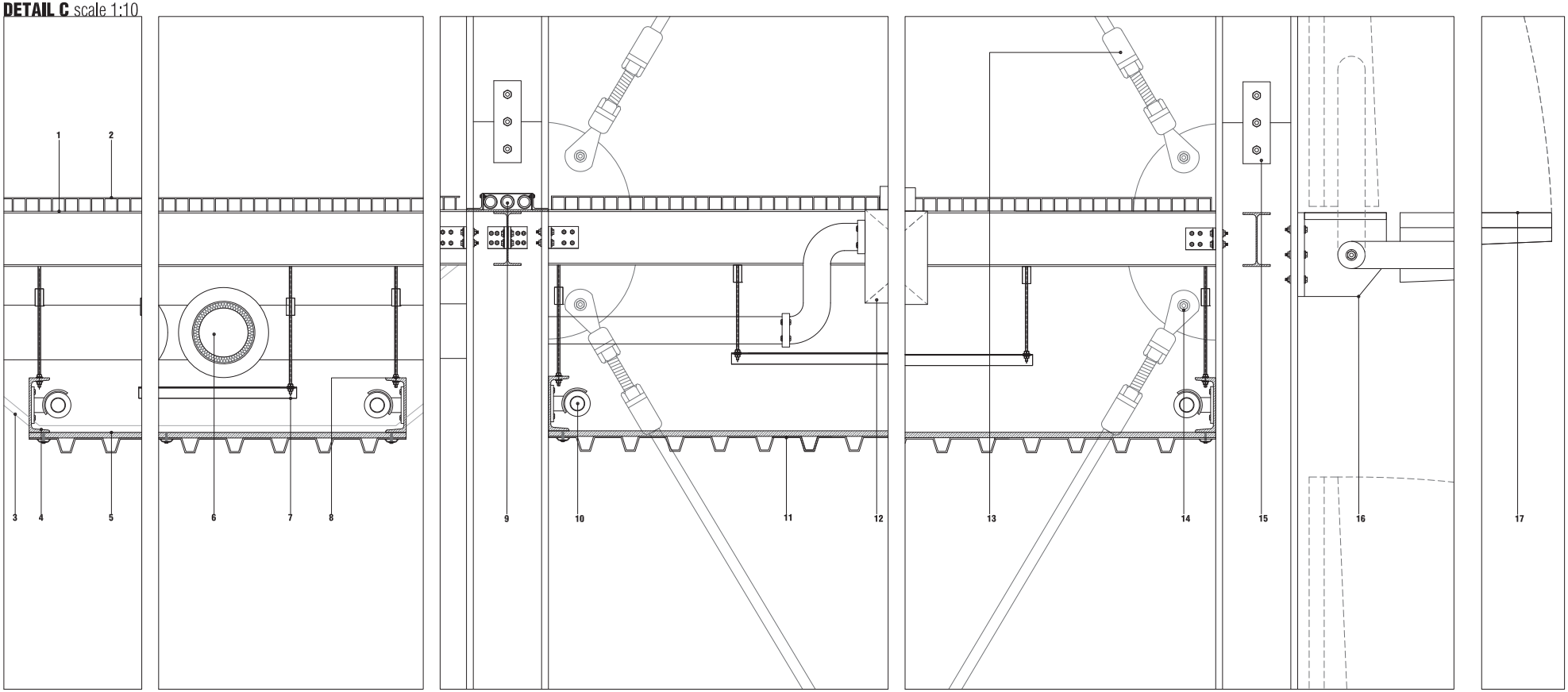




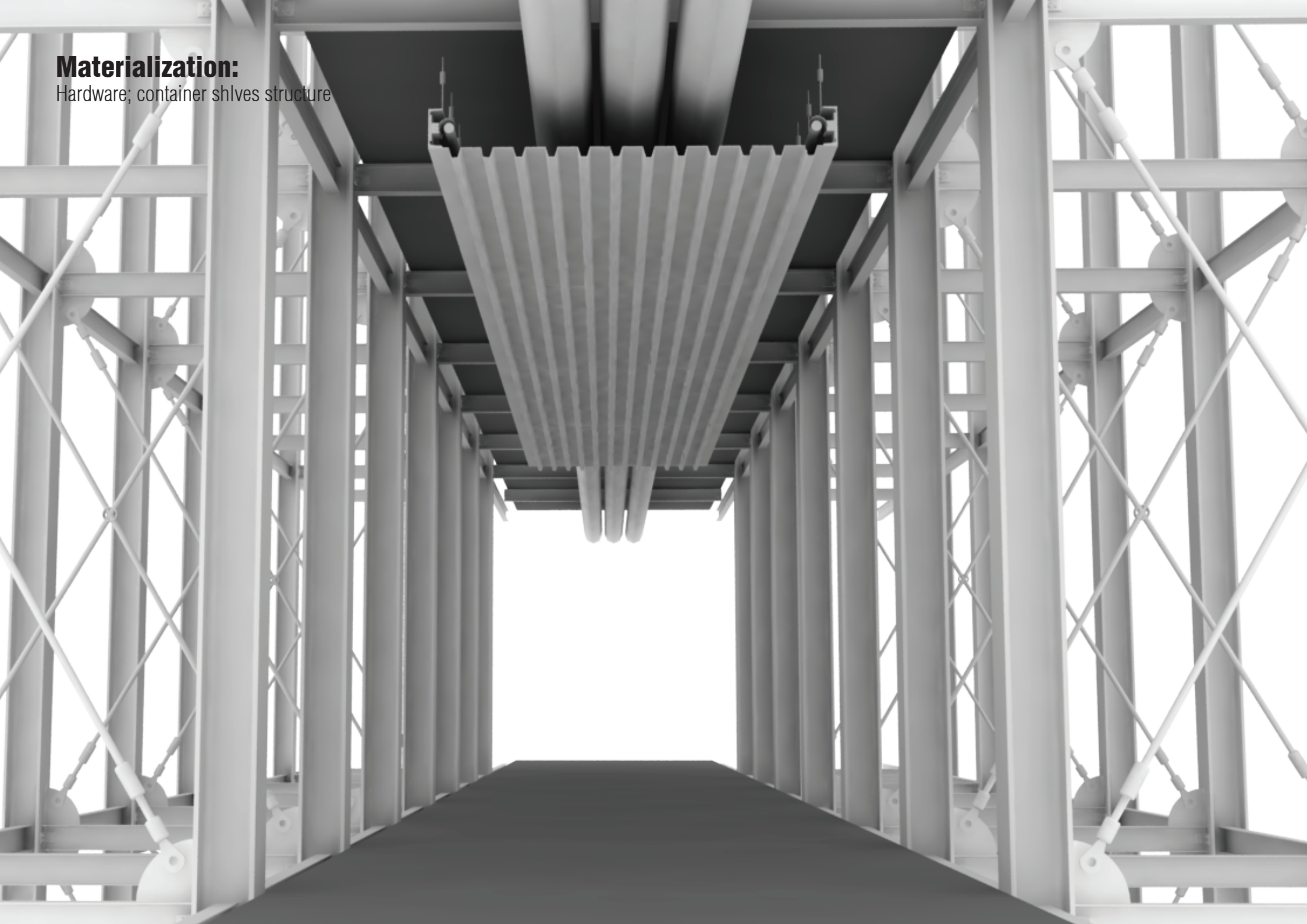
Materialization:

Container shelves structure, plug in system for housing and living units

DETAIL C scale 1:10

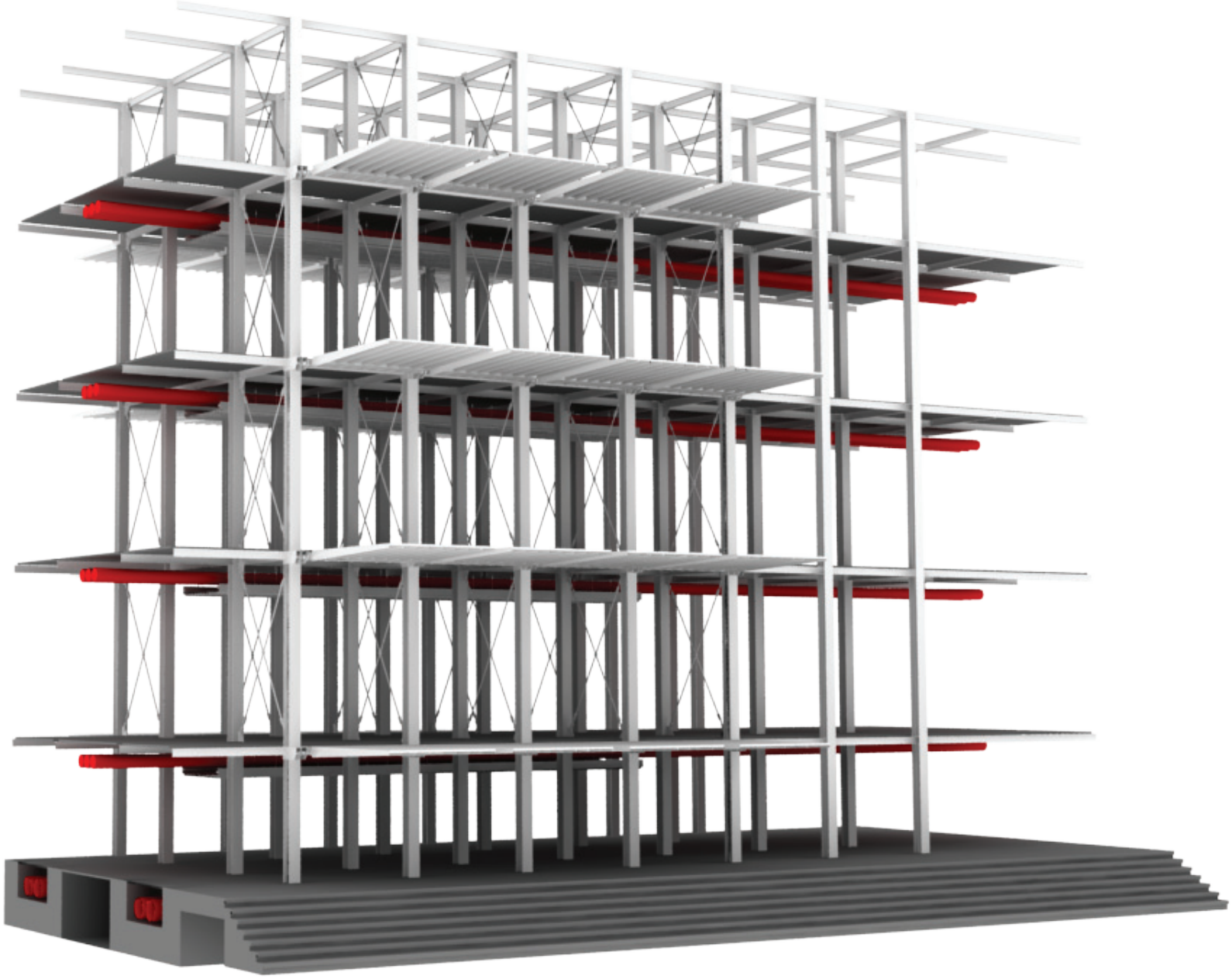


Materialization:
Hardware; container shlves structure



Materialization:

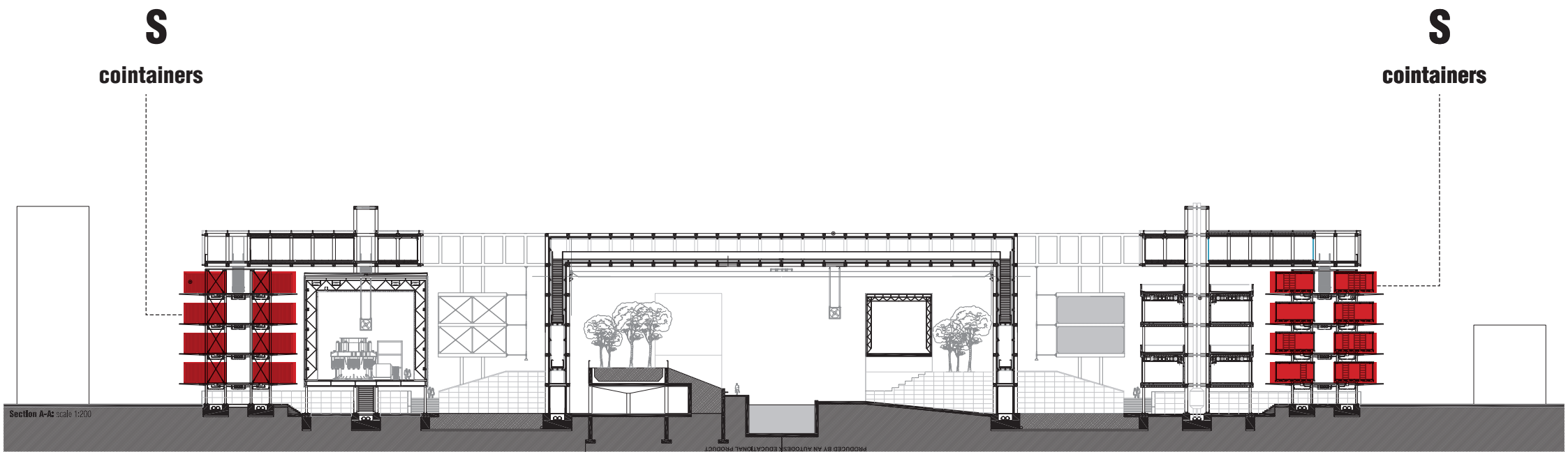
Hardware: Container wall/shelves structure



The container shelves are the host the variable number of possible containers connected to the university

Materialization:

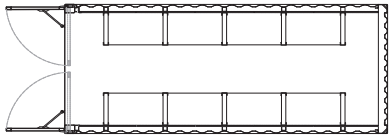
Software: Flexible and self sufficient housing and working units

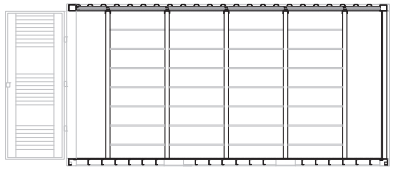


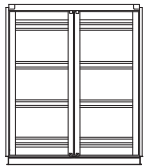
Materialization:

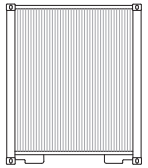
Software: typologies of containers and their use

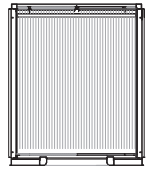
Option A: goods/books deposit



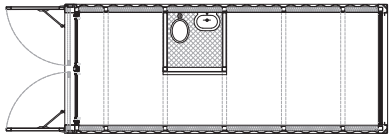


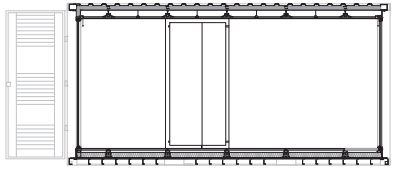


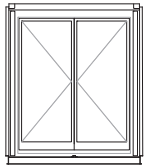


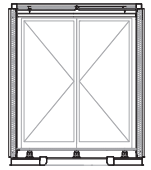


Option B: startup company (VU related)

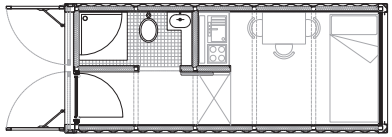


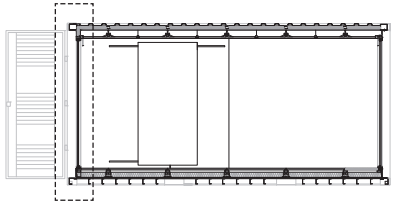


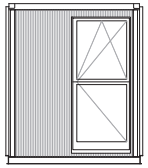


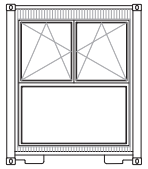


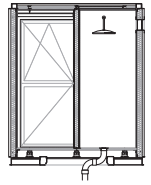
Option C: student housing







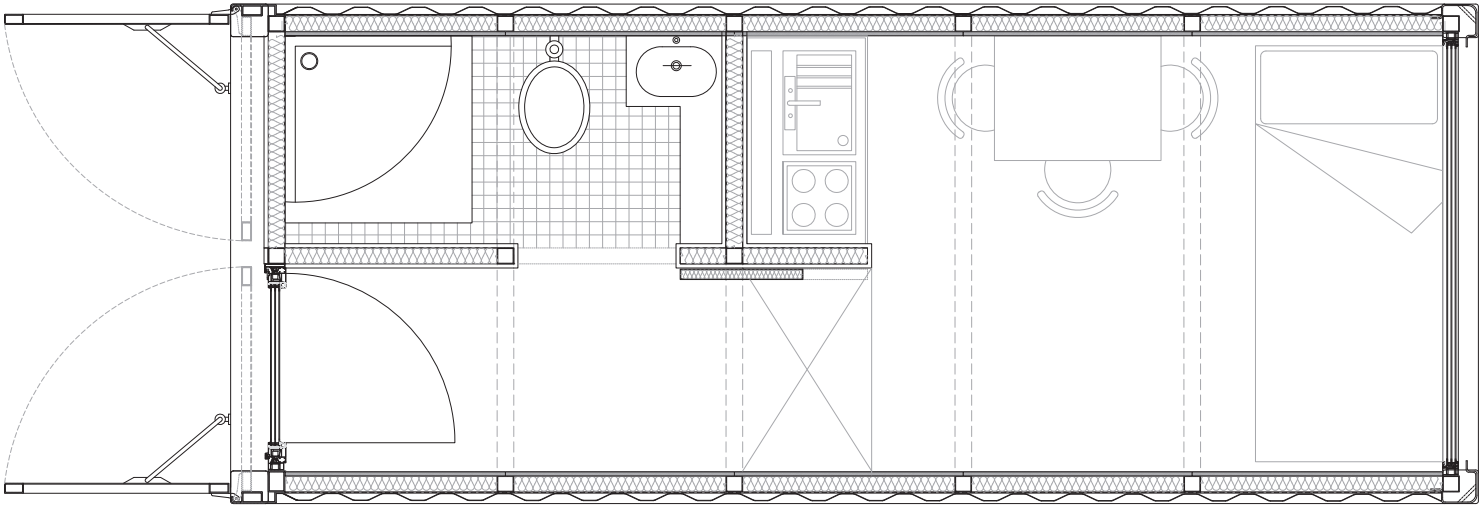


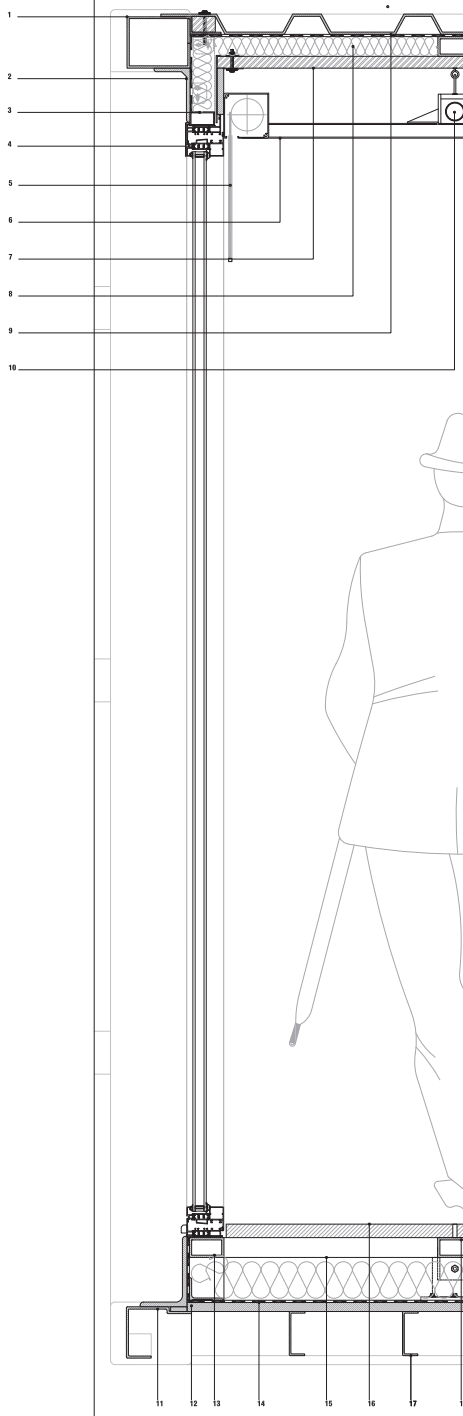


The containers as modular and flexible model for the production of alternative working and living spaces

Materialization:

Software: option C student housing unit





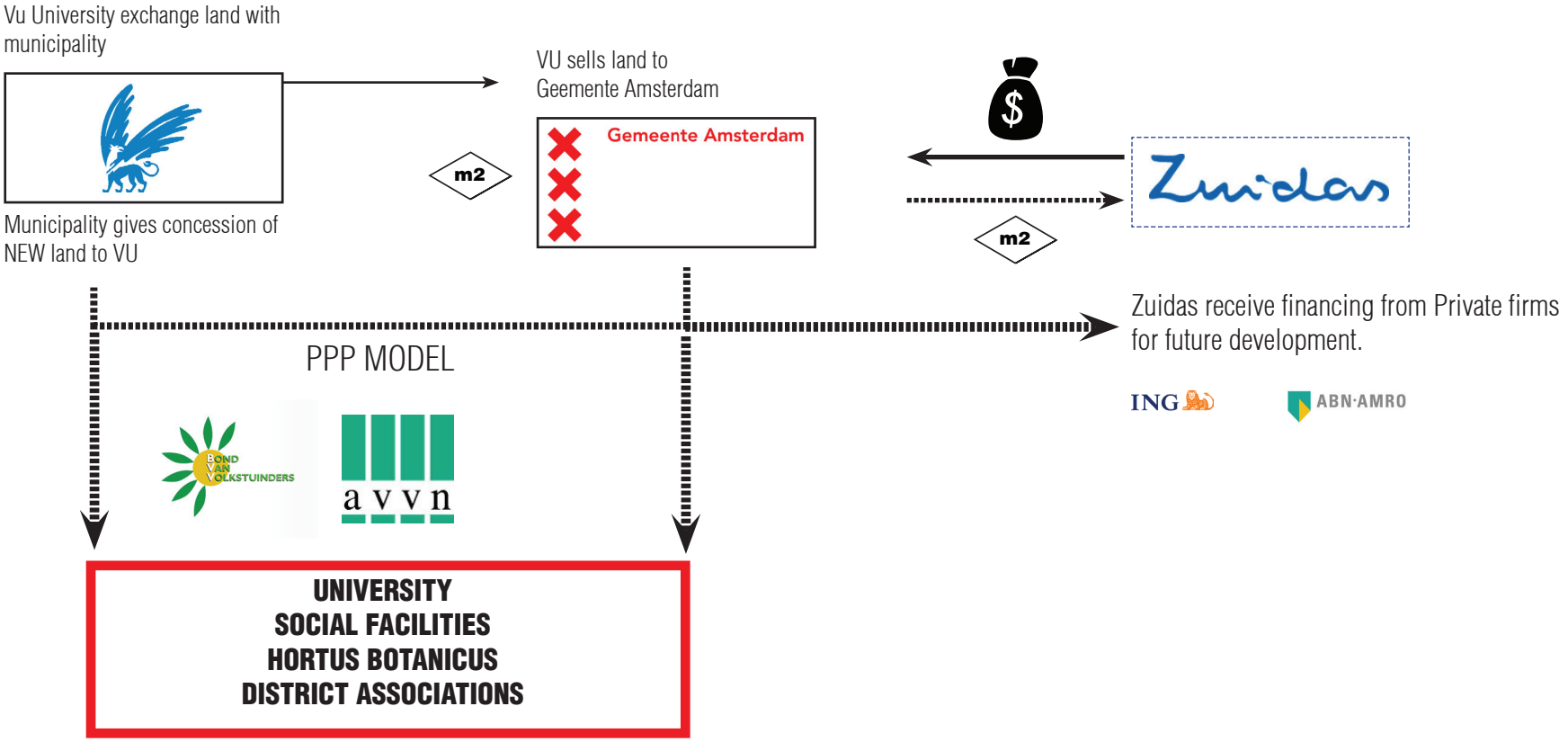
The containers self sufficent units plugged to the container shelves structure by electricity and sewage

H105
H106
H107
H089

ECONOMIC IMPLEMENTATION

Urban strategy

Economic model : Exchange of land ownership

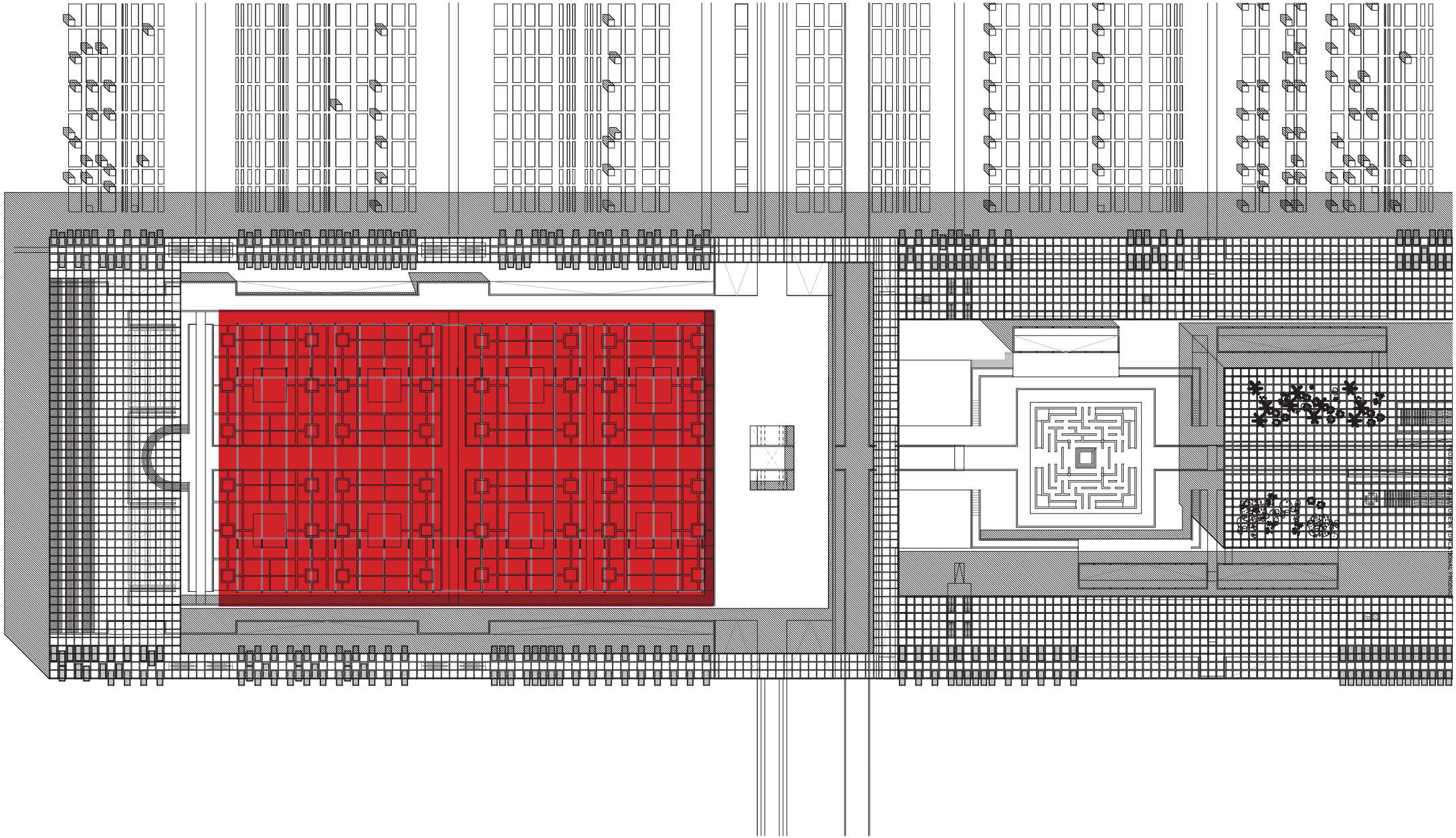


Stimulate attractivity and tourism via oriented activities and special events (EX.“Keunkenhof to go” , Floriade 2012 spin off)

Vu Campus,Vu Hotrus Botanicus, Stadsteel Zuid, District associations. A model for a sustainable Public Private Partnership.

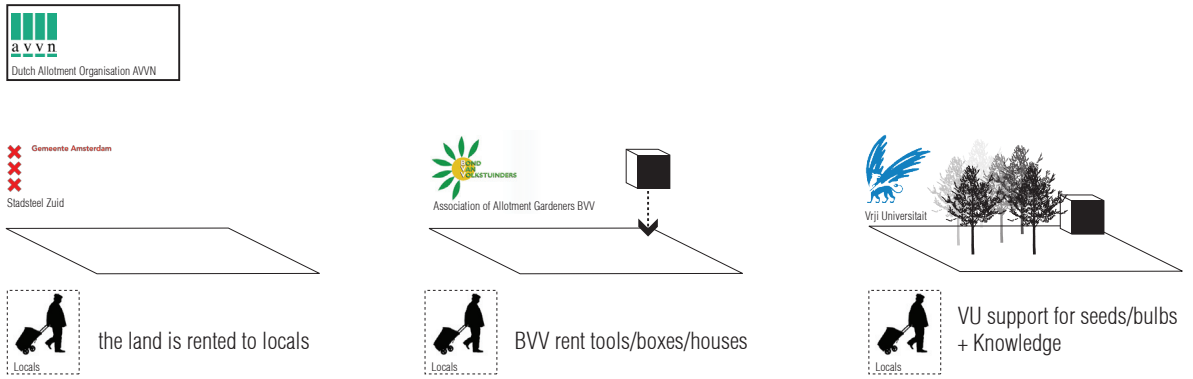
Implementation

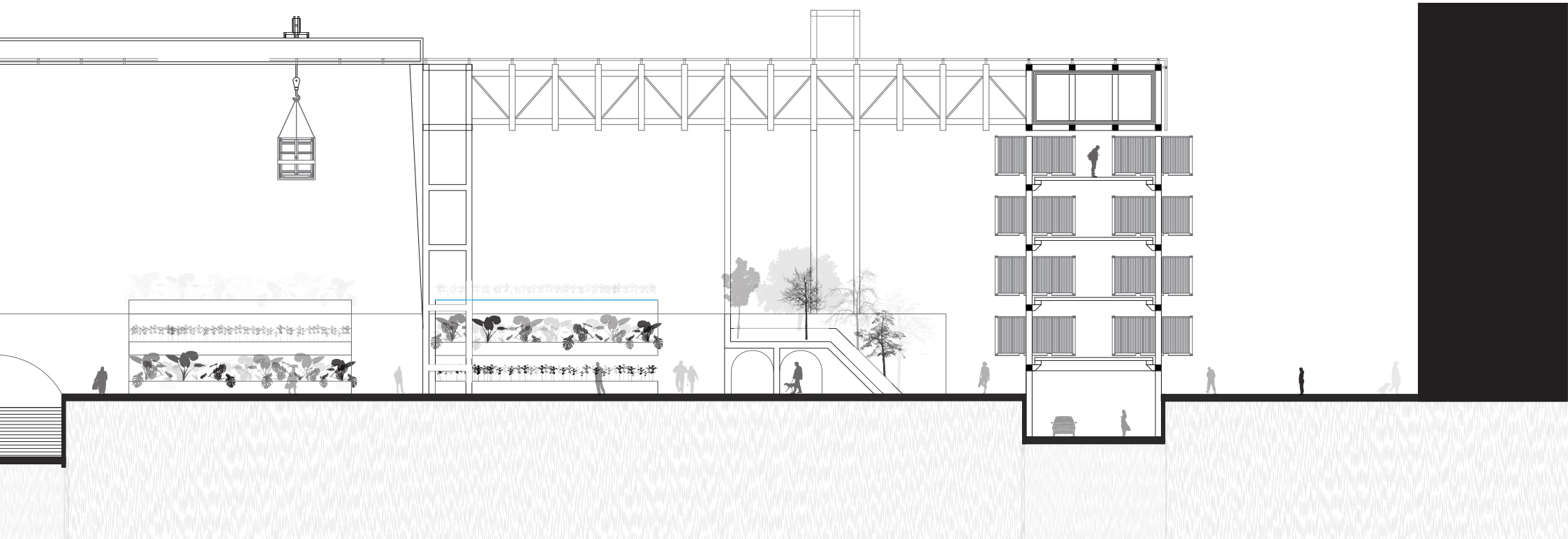
West Entrance: Flower market and flower gardens



Implementation

Flower market and flower gardens cross section





Implementation

Plants and society: Potager (French Kitchen)

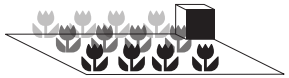
Implementation

Economic sustainability, rentable Volkstuinen

Kitchen Gardens:
to grow vegetables

rent
€ 140,00 / year

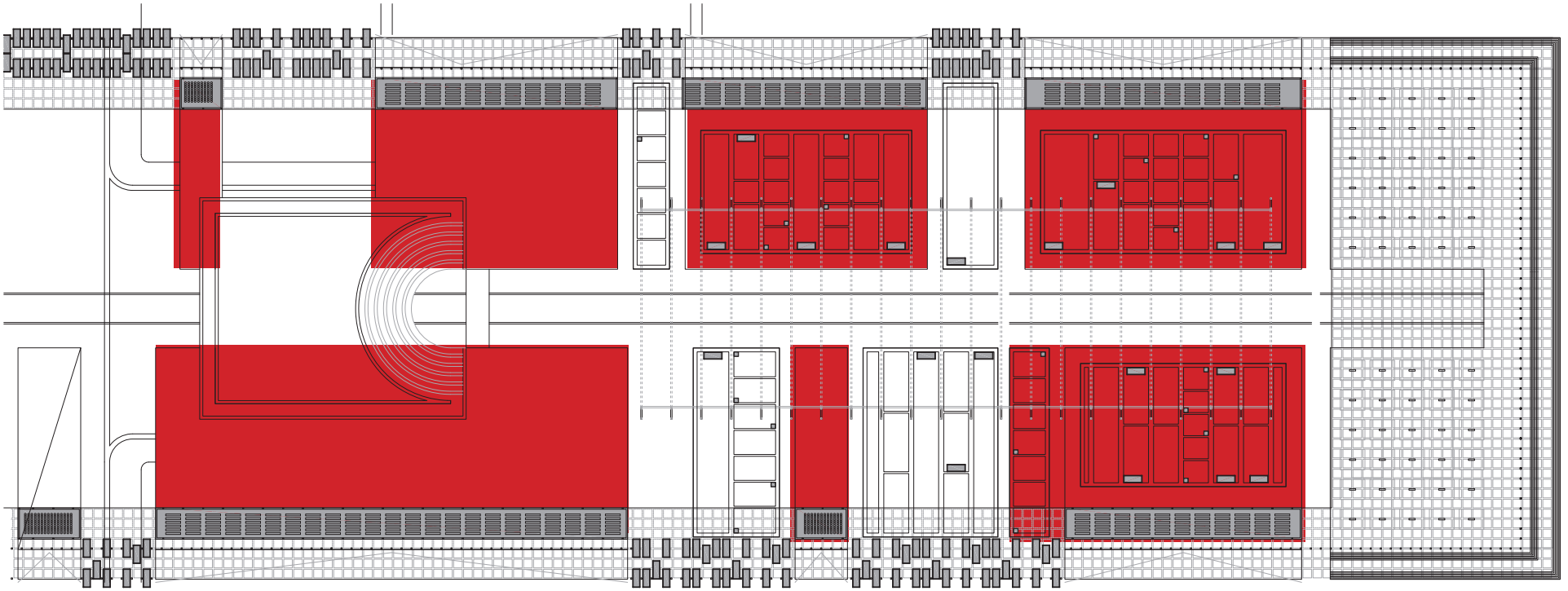
Allotment Gardens + toolbox:
no stay overnight

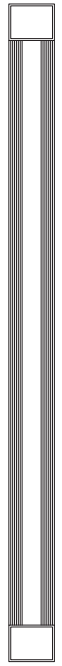


rent
€ 275,00 / year

Allotment Gardens with small house
(28m2, form April to Sept.)

rent
€ 455,00 / year





Implementation

East entrance: Volkstuinen and greenhouses

Implementation

East entrance: Vegetables market

Conclusions

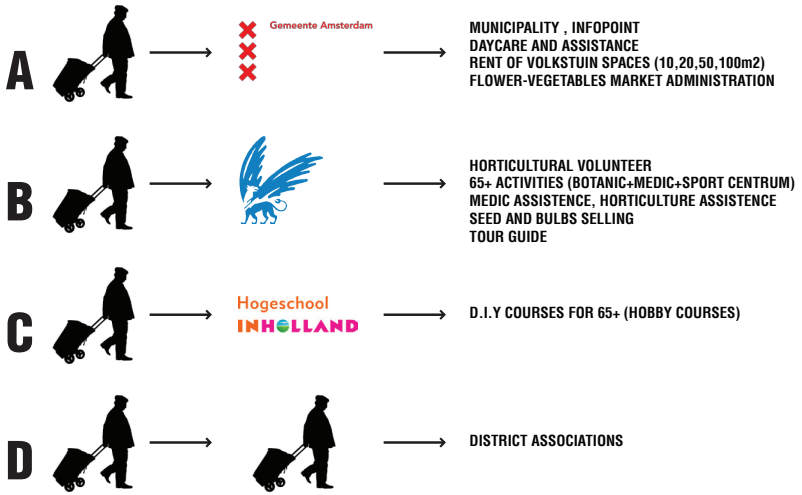
The project of the Knowledge district stresses the importance of the **market of education** in influencing the dynamics of a community, especially in a economic system based on the immaterial commodities such as of knowledge and informations.

3 main functions:
-Social function: interaction between local and global actors,
-Economic function: transforming unproductive green areas in a productive garden
-Cultural(productive)Function: diffucion of accumulated and codified knowledge

It aims to be the **place where knowledge, and informations are exchanged and shared internalized** by the different social actors involved in it`s functional program.

The interaction between university, developers and community, will hopefully nurture the district life, giving birth to hybrid forms of **"productive figures"** (locals + globals).

The project, starting from a social and spatial integration purpose makes of the local and global **Human capital** the point to the creation of **emerging economic meanings.**



Thank You

SCIENCE PARK AMSTERDAM
Floriade
Amsterdam 1972
SCIENCE PARK AMSTERDAM