

a book by BOA office for advanced randomness

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CAMPUS WU | A HOLISTIC HISTORY

A HOLISTIC HISTORY

by BUSarchitektur

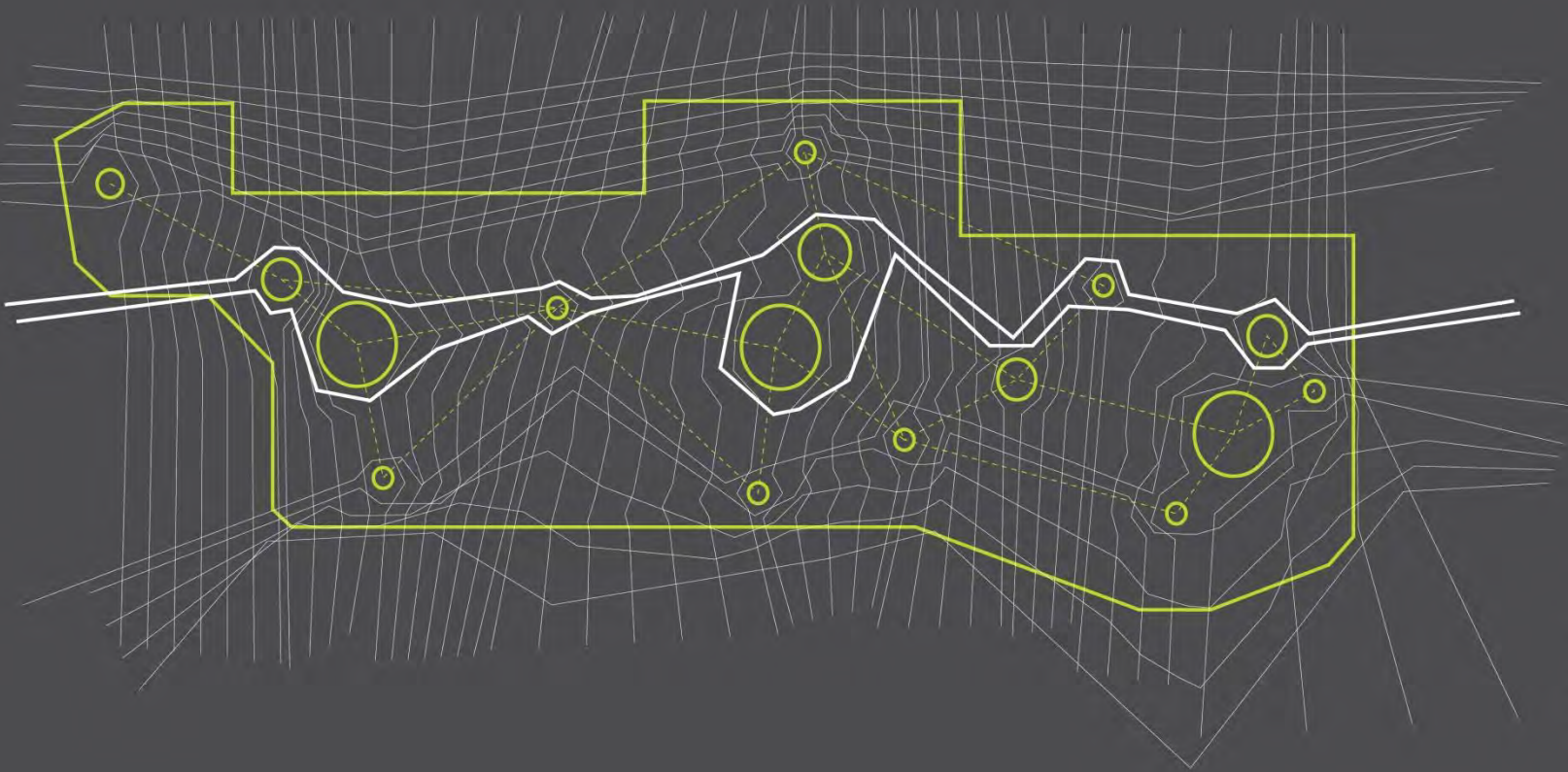
CAMPUS WU



IS ARCHITECTURE **SHAPING** SOCIETY ?

THEMATIC MODULES FOR INTEGRAL PLANNING • ENERGY EFFICIENCY OF THE NEW CAMPUS WU IN VIENNA • **FORM FOLLOWS ENERGY ?** • BETWEEN EFFICIENCY AND EFFECTIVENESS • QUALITY OF LIFE AND INDIVIDUAL COMFORT IN THE 24/7 RHYTHM • RECOMMENDATIONS FOR AN INTELLIGENT ARCHITECTURE • RENEWABLE ENERGIES AS A BASIS FOR A NEW VALUES SYSTEM • **PASSIVE OR ACTIVE ?** • LIVING WITH NATURE • EMERGENCE OF A MICRO CLIMATE FOR THE NEW CAMPUS WU • ECOSYSTEMS BETWEEN URBAN SPACE AND NATURAL SPACE • **RECYCLING RESOURCES ?** • METAMORPHOSIS WITH NATURE • FIVE ELEMENTS IN HARMONY: WOOD, FIRE, EARTH, METAL, WATER • RECOMMENDATIONS FOR REUSING RESOURCES • MOBILITY AND ENVIRONMENT • **SELF-ORGANIZED SYSTEM ?** • SPACE AND RESOURCE OPTIMISATION • HUMAN BEINGS, CONSUMER GOODS AND CULTURAL LANDSCAPE RESIDUES • RECOMMENDATIONS FOR CROSS-LINKED FLOWS • SECURITY AND GENDER MAIN-STREAMING • **FREEDOM WITHOUT CONTROL ?** • SOCIETY, CITY, TECHNOLOGY AND RESOURCES • UNIVERSITY BETWEEN GLOBALIZATION AND EDUCATIONAL LANDSCAPE • RECOMMENDATIONS FOR SOCIAL SUSTAINABILITY • ART AND ECONOMY • **SOCIAL ART ON THE CAMPUS ?** • THESES FOR PROMOTING SELF-ORGANIZATION • ALTERNATIVE ECONOMIES, ALTERNATIVE SOCIETIES • RECOMMENDATIONS FOR CULTURAL SUSTAINABILITY •••

INTEGRAL IN THE DEVELOPMENT



ECOLOGICAL URBANISM AS A BASE

The environmental matrix is a tool inspired by interrelated circuit systems, meant to display and harmonize its own balance. Our aim as thinkers and operators should be to once again play an active role in environmental quality optimization by acknowledging the complexity of this process and searching for sustainable changes.

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TO THE ECONOMISTS OF THE WORLD



A HOLISTIC HISTORY

by BUSarchitektur

PROJECT
Campus WU for the Vienna University of
Economics and Business
Welthandelsplatz 1, 1020 Vienna

Start of the construction works: 2009
Project completion: 2013
Usable area: 100.000 m²
Total cost: 492.0 Mio €

OWNER
Projektsellschaft
Wirtschaftsuniversität Wien Neu GmbH

PRINCIPAL
BIG Bundesimmobilien-gesellschaft m.b.H.
Wirtschaftsuniversität Wien (WU)

PROJECT MANAGEMENT
ARGE PS WU Neubau
Dress&Sommer / DELTA

CONCOMITANT CONTROL
FCP - Fritsch,
Chian & Partner ZT GmbH

EXECUTIVE GLOBAL PROJECT
ARGE Campus WU
BUSarchitektur /
Vasko + Partner Ingenieure

ARCHITECTS
Atelier Hitoshi Abe, Sendai
BUSarchitektur, Vienna
CRABstudio, London
Estudio Carme Pinós, Barcelona
NO MAD Arquitectos, Madrid
Zaha Hadid Architects, Hamburg

LOCAL CONSTRUCTION SUPERVISION
ARGE ÖBA Campus WU
Ingenios.Gobiet.ZT GmbH
IC consultants



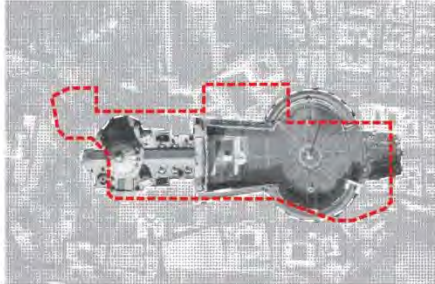
PROCESS DESCRIPTION, QUALITY ASSURANCE, THEMATIC MODULES

The Master Plan outlines the principles and major structural divisions, such as the designation of construction sites, building locations and open spaces.

It is the basis of the architectural project and provides recommendations for individual buildings' designs.

An Integral Master Plan is the goal of the entire process. Designs, cooperative planning methods and visionary models are not only developed to meet building and development regulations but to embark on an overall coherent planning and execution process guided by the Campus WU Master Plan – a plan that hopes to fulfil criteria for emotional identification while also taking into account the complex logic of its creation.

By way of a moderation process with the parties involved, the team of master planners combine building aspects with social, economic and contextual goals and requirements. It is the master planners' task to stop negative trends and to initiate positive impulses and visions, to improve the quality of life and work, to create long-term planning assurances, to foster cooperation and social networks, and to allow room to manoeuvre.



ST. PETER'S BASILICA, ROME



The Master Plan is not only an urban development model with guidelines and design manuals but also includes the entire planning and creation of open spaces as an essential part of Vienna's Campus WU.

By developing this control system as a CI project, overall orientation across all the individual building sites is ensured – inside, outside and in the parking areas as well.

The following two sub-chapters describe the individual steps in managing integrative tasks as well as listing the thematic modules developed throughout this process:

WORKING IN AN ENVIRONMENTAL MATRIX

An environmental matrix serves as a tool for achieving balance by interlinking different system cycles in order to clarify and harmonise. The matrix concept comes from the computer sciences and takes into account a group of equally important elements that all influence their environment.

MACROSYSTEMS

"NEW WU" MASTER PLAN TASKS

To elaborate on concepts for different topics that should discuss the balance between architecture and ecology.

INTEGRAL MASTER PLANNING HYPOTHESES ARE DEVELOPED TOGETHER WITH EXPERTS

Ecology means the absolute integration of systems. Therefore, interaction rather than the individual entity is the deciding factor.

WORKING HYPOTHESES CASE STUDIES

These are strategic projects that promote a holistic approach to the task, while at the same time leaving room for personal interpretation.

RESULTS AND THEIR IMPLEMENTATION

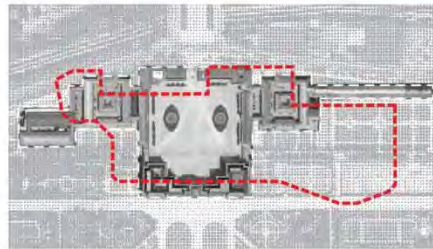
Representational scenarios should be created through a combinatorial analysis of the environmental matrix and visualisation models.

RECOMMENDATIONS FOR THE PLANNING PROCESS

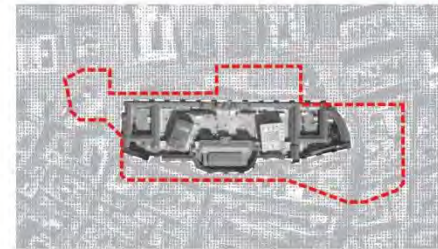
Planners and parties involved should question their findings in order to ensure a sustainable contribution to the Campus development.

QUALITY ASSURANCE CHECKLIST

Operational force analysis of the parameters is an analysis of all implementation interactions subject to review, whether they occur in the open spaces or inside the Campus buildings.



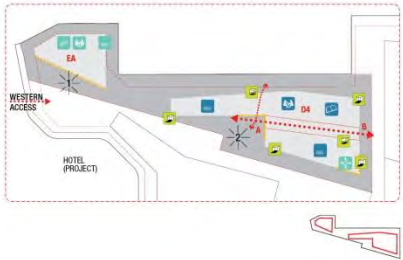
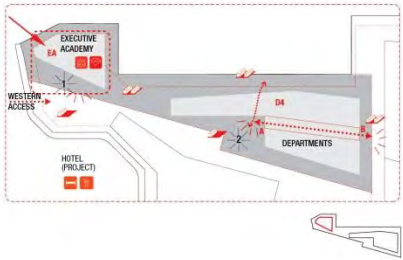
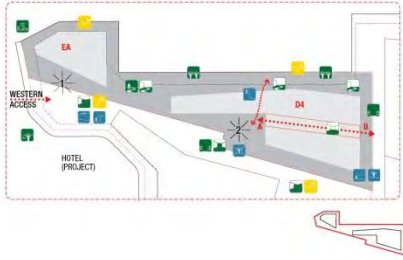
SCHÖNDORFER PALACE, VIENNA



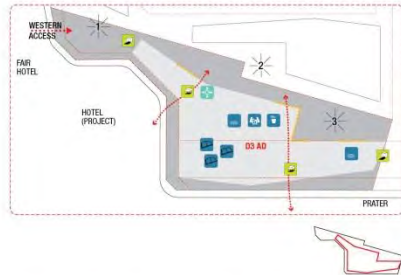
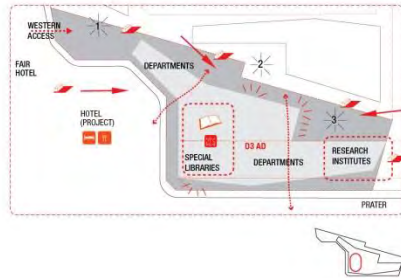
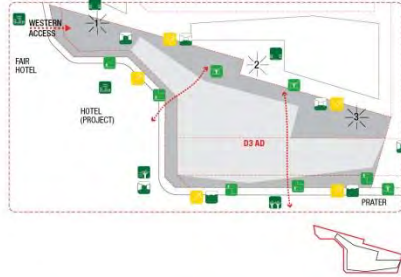
MUSEUMSQUARTIER, VIENNA



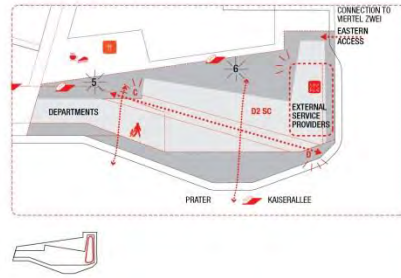
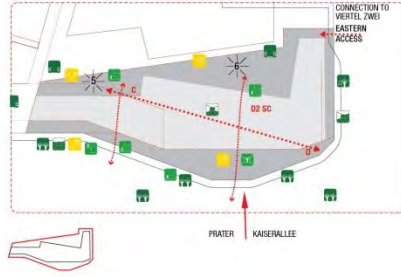
EA/D4 Building plot 6,900 m²



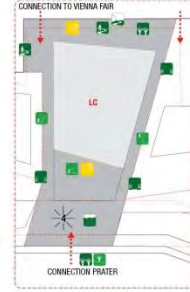
D3 AD Building plot 9,650 m²



D2 SC Building plot 10,300 m²



LC Building plot 7,650 m²



NEIGHBOURHOOD CHARACTERISTICS

URBAN RELATIONS

Urban space



Green space



OPENING TO THE PRATER

Visual relation



Accessibility



QUALITY OF WORK

Orientation



View



IDENTITY TRAITS

IMAGE CARRIERS

Functional significance



Architectural accents

External appearance and relation to the plaza



SPECIAL FUNCTION

Self-contained



Cutting across plots



PLAZAS

Public areas / intermediate areas



Spatial synergies



INTERFACE AREAS

FLOWS OF PEOPLE

Public transit routes



Passages



Entrance areas



USE OF THE GROUND FLOOR

Internal (Inherently)



Public



EXTERIOR AREAS OCCUPANCY

Open space



Optional space

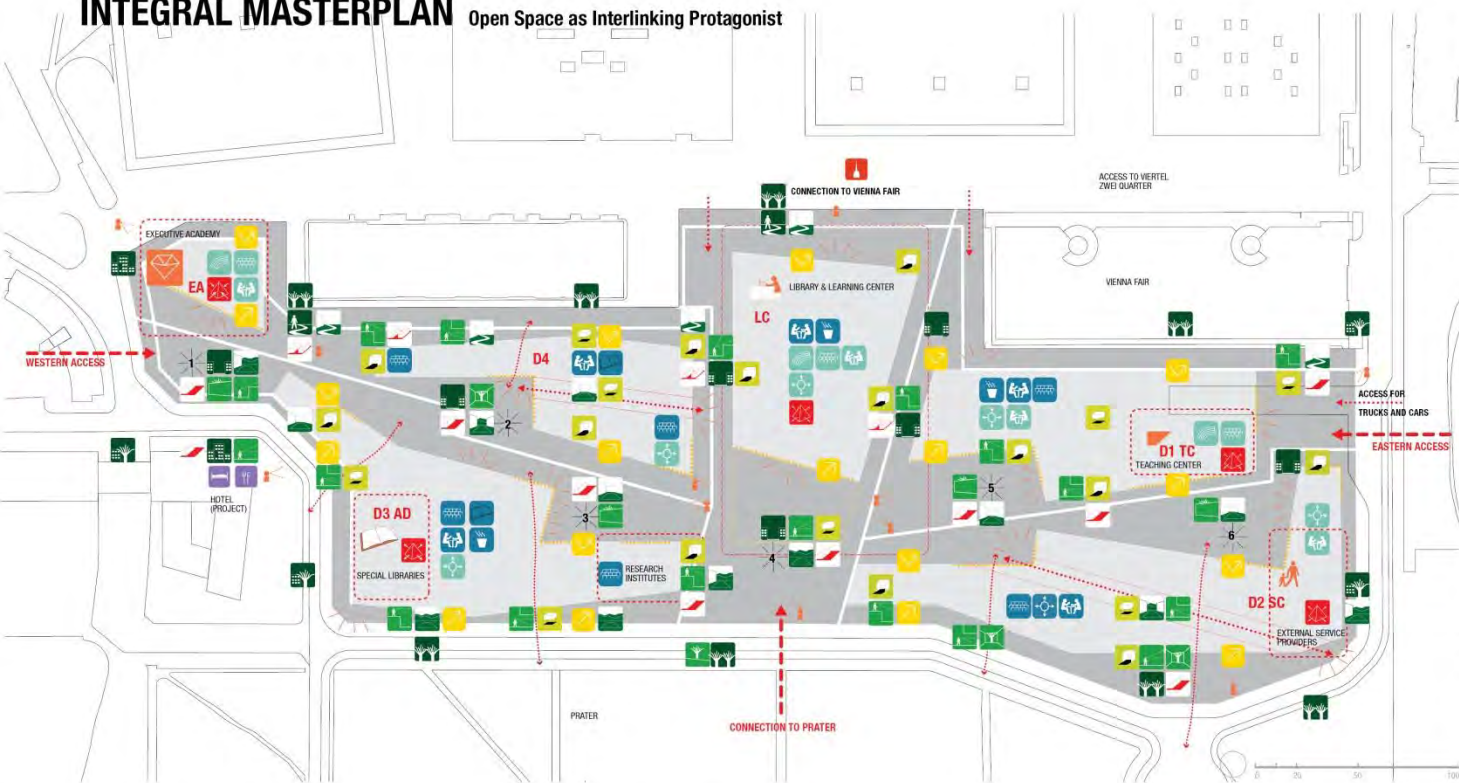


URBAN SETTINGS



INTEGRAL MASTERPLAN

Open Space as Interlinking Protagonist



D1 TC
 Departments: International Business
 Special Functions: Teaching Center
 Local Supplies & Services: Food Court

Building plot 8,200m²
 Variations of Competition Phase 1 based on Master Plan

22% Open Space

LC
 Departments: Library and Learning Center
 Special Functions: Bookshop, Center for educational materials, Restaurant, Copy Shop
 Local Supplies & Services: Bookshop, Restaurant, Copy Shop

Building plot 7,850m²
 Variations of Competition Phase 1 based on Master Plan

22% Open Space, 15% Open Space, 20% Open Space

D2 SC
 Departments: Foreign Language, Business Communication, Information Systems & Process, Management, Marketing, Strategic Management & Innovation
 Special Functions: External Service Providers
 Local Supplies & Services: Bookshop, Kindergarten, Mini-market

Building plot 18,300m²
 Variations of Competition Phase 1 based on Master Plan

40% Open Space, 12% Open Space, 39% Open Space

D3 AD
 Departments: Research departments, Accounting, Public Law and Tax Law, Business, Employment and Social Security Law
 Special Functions: Administration
 Local Supplies & Services: Bakery

Building plot 8,800 m²
 Variations of Competition Phase 1 based on Master Plan

47% Open Space, 20% Open Space, 37% Open Space

EA/D4
 Departments: Finance, Social Sciences, Statistics and Mathematics, Economic Policy
 Special Functions: Executive Academy
 Local Supplies & Services: Café

Building plot 6,900 m²
 Variations of Competition Phase 1 based on Master Plan

69% Open Space, 41% Open Space, 44% Open Space

NEIGHBOURHOOD CHARACTERISTICS

Urban space / green space

- Urban architecture
- Green zones in an urban environment
- Urban campus

Visual relations

- Seeing tree-tops
- From a building or an elevated area
- Direct view
- Porosage to the Prater

Access to the Prater

- Close proximity to the Prater
- Through a building
- Direct access

Scene which is visible from each facade

- Park with walkway
- Unobstructed view of green spaces
- Buildings on both sides
- Urban environment

The orientation of the facades requires a different facade structure

- Sun protection required
- No sun protection required

URBAN RELATIONS

These describe the relation of the Campus buildings to each other and to the buildings in the urban space. Also the layout of the green areas is visualized internally and in relation to the city.

PERSPECTIVES OF THE PRATER

These refer to the visual relation with the Prater, from different perspectives and directions. Also each access to the Prater is shown individually.

QUALITY OF WORK

This describes the orientation of the facades and the related viewpoints and perspectives. It also takes into account their exposure to light, light quality and intensity as well as their effects.

IDENTITY TRAITS

Functional significance

- Executive Academy
- Special Libraries
- Library and Learning Center
- Teaching Center
- External Service providers

Master Plan recommendation

The significance of the building as defined from its detail construction and its close relation to the locale.

- Remote visual relation
- Effect on the plaza

In addition to accommodating the University departments, the development on each plot has a special function which creates its unique identity.

Independent

- The special function does not extend beyond each plot
- Cutting across the plots
- The special function is followed by other plots

IMAGE CARRIERS

These define the function, architecture and external countenance of the building as well as their impact on the plaza in front.

SPECIAL FUNCTION

The special function indicates if there is a special orientation cutting across the plots, or whether it operates independently of the others.

Spatial synergies

- With public areas
- With intermediate areas

Place 1: LOUNGE
 Place 2: RELAX
 Place 3: EXPO
 Place 4: STAGE
 Place 5: PRATO
 Place 6: FORUM

TYPES OF PLAZAS

The six public locales and the zones between the buildings and Campus silos are categorized and characterized. This is where selective interventions and artistic inputs are sketched.

INTERFACE AREAS

Public transit nodes

Passages

Access areas

Internal (University)

- Seminars
- Cafe
- Study Area
- Auditorium
- Special Libraries
- Local Supply

Public

- Seminars
- Cafe
- Study Area
- Auditorium
- Local Supply

Probability of occupying open spaces in relation to the building

- Open space flowing into the building
- Open space flowing underneath the building
- Optional Spaces

FLOW OF PEOPLE

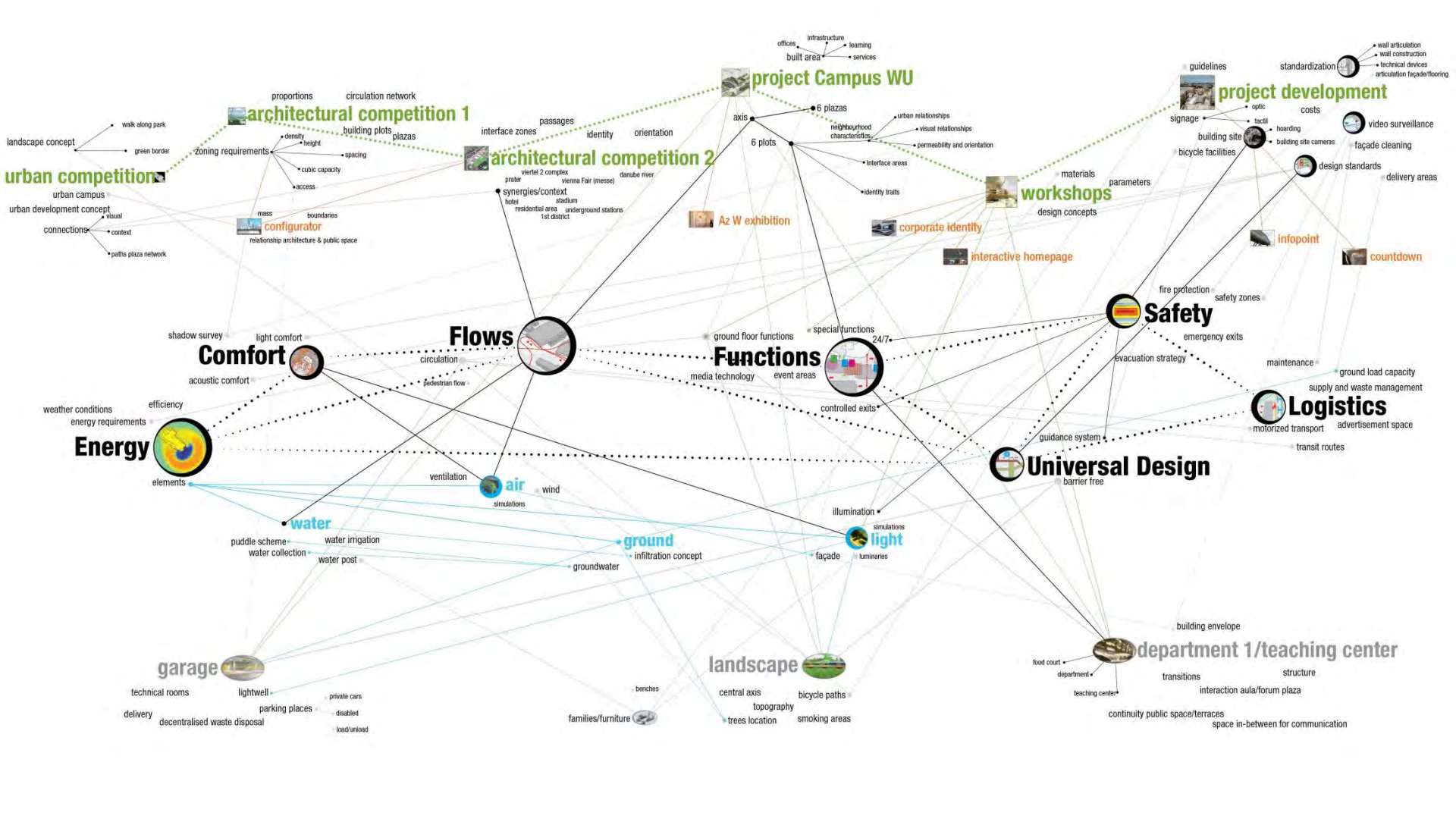
The first task of interface areas concerns flows of people on the ground floor. Which transit access routes and passages are available and necessary?

USE OF GROUND FLOOR

The local arrangement of shops, lounges and seminar rooms.

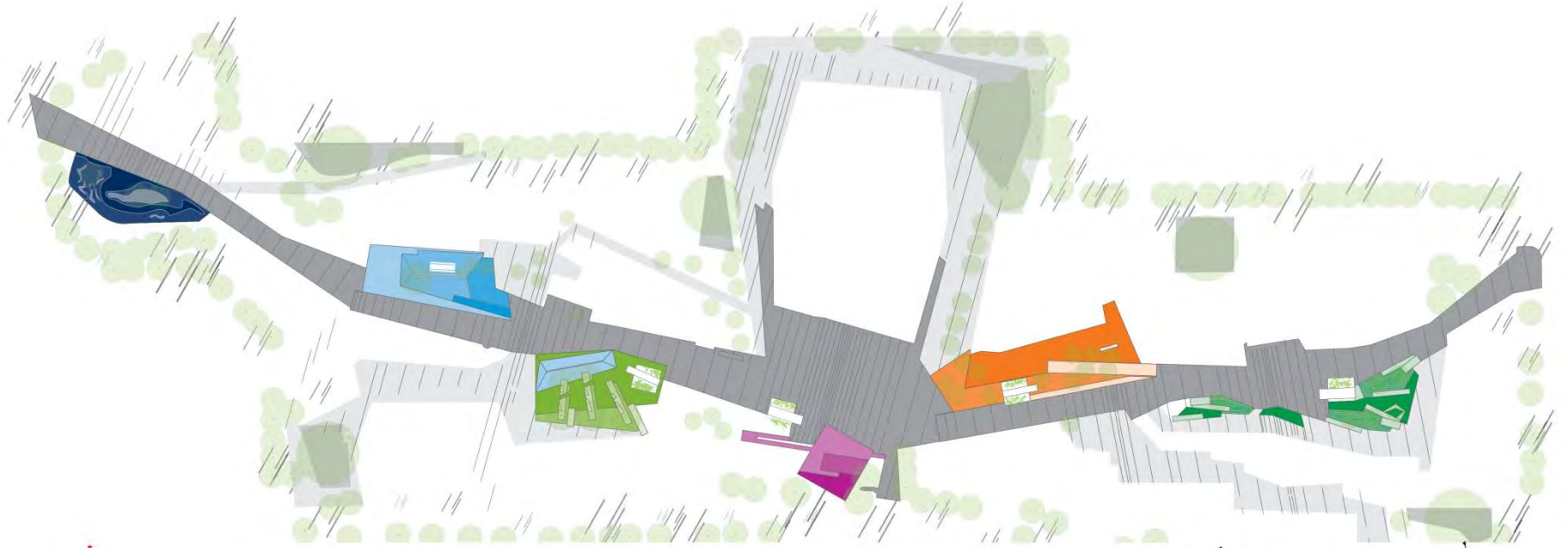
OCCUPYING EXTERIOR AREAS

The first aim is about creating up interior space to the exterior, about finding additional opportunities and options for the use of each open space and external space (the latter being independent of the weather conditions).



WALK ALONG PARK

Sampling Educational Life to Emphasize Collaborative Knowledge



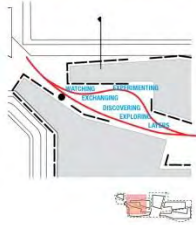
LOUNGE

Western access to the Campus



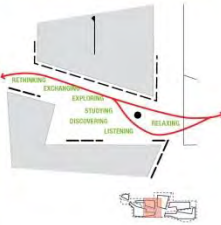
RELAX

Western side between D4 & D3 AD



EXPO

Eastern side between D4 & D3 AD



STAGE

Central location in front of the LC



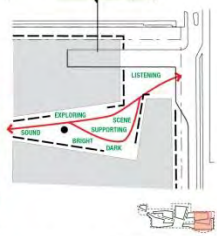
PATIO

Between D2 SC & D1 TC



FORUM

Eastern access to the Campus



LIGHT & SAFETY

Potentialities for Freedom in the Educational Field

INTERNAL

Safety Zone 5

Highly Restrictive

- Technical Rooms:
- Data Center
- Security Engineering

Safety Zone 4

Restrictive

- Administrator Office Areas
- LAN-Rooms
- IT Infrastructure (UPS, Emergency Power Aggregates)
- Building Services (Heating, Climate, Ventilation, Sanitation)
- Archive

Safety Zone 3

Internal

- Event Areas
- Office Areas
- Stock Rooms
- Meeting Rooms
- Building Services Shafts

PUBLIC

Safety Zone 2

Semi Public

- Generally usable areas within the Campus:
- Food Court
- Underground Parking
- Third Party Areas

Safety Zone 1

On Campus

- Public area within the Campus:
- Outdoor Facilities
- Sidewalks
- Event Areas
- Relax Zones

Safety Zone 0

Surrounding

- Outside Campus WU:
- Ernst Happel Stadium
- Krieau Racing Track
- Würstlprater
- Red-Light Areas
- Vienna Fair

Light fitting Type 2
2/35W/830 HC I-TLph-4,5m

Light fitting Type 1
2/35W/830 HC I-TLph-5,5m

In-floor projectors
1/35W/830 HIT

Light fitting Type 2
2/35W/830 HC I-TLph-4,5m

In-floor projectors
1/35W/830 HIT

In-floor projectors
1/35W/830 HIT

In-floor projectors
1/35W/830 HIT

Light fitting Type 1
2/35W/830 HC I-TLph-5,5m

In-floor projectors
1/35W/830 HIT

CRITERIA FOR VISUAL COMFORT

Lighting of spatial components (objects, vegetation)

Colour temperature generally 3.000K (warm white)

Ernst Happel Stadium

Krieau Racing Track

Vienna Fair

Administrator Office Area

Stairwells

LAN-Rooms

Meeting Rooms

Archive

Office Areas

Building Services

Relax Zones

Green Areas

Watergreen Spaces

Data Center

Stock Rooms

IT Infrastructure

Event Areas

Prater Park

Prater

Red-Light Area

Prater

PHILOSOPHY OF RISK MANAGEMENT

One of the principles of safety planning is to inhibit prospective risks by means of preventive and anticipatory planning strategies. This ensures the Campus WU to remain sustainably activated.

CRITERIA FOR ILLUMINATION

- Comfort and cosiness / sense of security (avoidance of "dark corners," pleasing colour temperature)
- Ensuring a sense of (quick and easy) orientation by incorporating the technique of field recognition
- Amenity values (zones for communication, Plazas)



Table tennis / 24h/7days
Safety Zone 1 / Conflict: Prater Park (Safety Zone 0)



Fitness, Basketball / 24h/7days



Plaza 4, Stage / 24h/7days



Lawn for sunbathing / 7am to 6pm



Open Space, furniture / 24h/7days

Safety zone 1

Conflict: Vienna Fair (SZ 0) / Open space: layout of paths that allow for fast passage (walk, bike, skateboard), stay and linger / Security: mix of functions and uses, facilities, psychological barriers / Light: illumination of paths and effect lighting (LED for maximizing LUX amount)

Safety zone 1

Conflict: Prater Park (SZ-0) / Open space: mix of amenities: signage, furniture, bicycle facilities / Security: psychological barriers (topography, greener), video surveillance / Light: illumination of spatial components (furniture, vegetation), visual dynamics (colour, intensity, orientation)

Safety zone 1


Conflict: road space (RZ-0) / Open space: layout of paths that allow for fast passage, stay and linger / Security: mix of functions & uses, video surveillance / Light: effect lighting, illumination of lawns and paths / Orientation: signage, visible emergency call box


Safety zone 1

Conflict: on Campus (SZ-1) / Open space: mix of amenities: signage, info posts, furniture / Security: mix of facilities, video surveillance / Light: illuminating spatial components (furniture, trees), visual dynamics (colour intensity, orientation) / Orientation: signage, effect lighting, vegetation

ENERGY & LIFE CYCLE Self-sustainability within the Existing Ecosystem

RAIN WATER CYCLE / YEAR
55,000 m³ precipitation

 7,000 m³ irrigation

 14,000 m³ processed water

34,000 m³ return flow - ground water

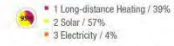
HOT WATER SUPPLY
use of solar energy for bulk consumers

HOT WATER SUPPLY

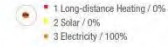
The emphasis is on reducing energy loss by decentralizing supply (based on a demand of 100 units / year)

DE-CENTRALIZED WATER SUPPLY 125%

Bulk Consumer
(Food Court, Gym, Beer garden / Brewery ~70% of total demand) / Energy Loss 25%



Individual Consumption 30% (e.g. Departments, with ~30% of total demand) / Energy Loss 0%



CENTRALIZED WATER SUPPLY 350%



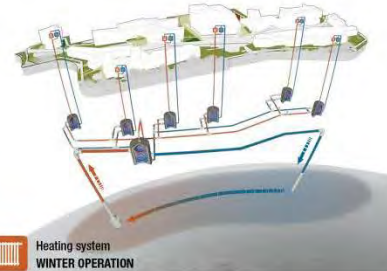
1 Long-distance Heating / 35%
2 Solar / 51%
3 Electricity / 14%


HEATING / COOLING SYSTEM

An optimum use of energy resources can be derived from the groundwater, which is found under the site. This is achieved by utilizing the heat storage capacity of the entire mass of the building site. The difference in thermal energy between heating and cooling demand is stored in the ground and flows back to the tapping point with a 6-month frequency shift, resulting in a substantial improvement in energy efficiency.

During the heating season, waste heat from the data center and groundwater will be primarily utilized for supplying energy for the low-temperature heating. Only peak loads (~20% / year) are covered by long-distance heating.

During the summer months, dissipation of operational waste heat and cooling of the buildings happen almost exclusively with groundwater. Due to the required temperature level, only the dehumidification of the ventilation systems and the redundancy of the heat dissipation are assured by compression refrigeration.



Cooling system
SUMMER OPERATION 

Heating system
WINTER OPERATION 

CONTEXTUAL SYNERGIES

Regional Significance and Community Building



Completion: 2004 / 70,000m² in 4 Halls / Capacity 25,000 People / 20 Events per Year

The Teaching Center's location on Campus allows for possible synergies with the Vienna Fair. The Library & Learning Center, together with its event rooms, should be available for external visitors, such as exhibition and fair attendees. A permeable boundary between Campus and Vienna Fair allows for mutual exchange.

Ground floor +8 Stories / 251 Rooms / 800m² lettable area / Restaurant capacity 190 / Projected

Planned use and users:

In addition to the general tourists and visitors of the Fair, target groups for future guests include attendees in the Executive Academy, external lecturers of the WU and audiences of the business domain.

Gross site area of building 15,400m² / Gross floor area above ground 50,000m² / Under Development

The area plays a special role in the urban development plan. It links the Vienna Fair to the Campus WU and the adjacent (primarily residential) areas of the Second District.

Planned use and users: offices, assisted living facilities, student hotel, hotel, kindergarten, community center, restaurants and cafes.

The new functions of the WU site will make a positive contribution to life in the surrounding areas of Vienna's Second District.

The Campus WU offers activities, such as work, study and rambling, plus cafes and restaurants.

Residents of the long-term residence quarter will contribute significantly to the vigour of Campus life.

Size of Plot: ~40,000m² / Lettable area: ~92,000m² / Expanse of water: ~5,000m² / Working places: 3,000 - 4,000 / Projected

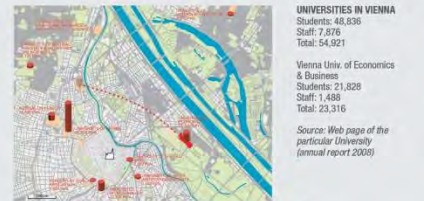
The Viertel Zwei Complex is an urban development project with a 52,000 m² usable area. It consists of individual buildings which jointly embrace a pedestrian zone. The complex, inaugurated in 2008, houses the ÖMWF headquarters, who has a cooperation agreement with the WU.

Open from mid-March through to the end of October, the Wunsiedler attracts 4.2 million visitors annually, some 250 attractions, ranging from nostalgic merry-go-rounds to modern roller-coasters, and cafes, restaurants, buffets and food stalls. The Prater Park provides vast meadows, quiet paths and shade trees. Its main artery is the Prater Hauptallee, a 4.5 km avenue used by cyclists and joggers.

Stadium: capacity 50,000 persons / 3,000 Parking spaces / Neighbourhood shopping facility for 13,000 people / Retail area: 21,000m² / Catering: 2,000m² / Children's play area: 300m² / 70 Shops / Opened 2007

The second district (95,000 inhabitants) has a new shopping center in addition to the two shopping streets - Praterstrasse and Tabakstrasse. The area anticipates some 6,000 visitors per day. Its catchment area encompasses some 600,000 people.

The Campus WU site lies hidden away between the Prater and the Vienna Fair, embedded in a city structure with sufficient open space to develop an urban campus concept. The new WU shall therefore not only function as any other modern university, but shape the options for an active educational landscape.



The functional synergies of the respective PROJECT in the neighbourhood of the WU site are highlighted in the matrix.

This legend illustrates potential synergies with particular areas adjacent to the Campus WU.

The two icon boxes display the active usage or function of the respective area. The site map on top indicates which of the topics or places the respective area may activate on the Campus.

SPACES FOR APPROPRIATION At All times of the Year



>> Look! - We can have ravioli with pesto and a chocolate cake <<



>> Tobias, please! We really have to go home. We will come back tomorrow <<



>> Why don't we apply to both faculties? Do you agree Franz?... <<

SPRING

In spring when the flowers begin to bloom, they clearly highlight the rhythm of the vegetation as a guidance system. In regard to the rain water cycle, fertilization meets ecological requirements not to contaminate the groundwater.



>> That's good, water fountains all over the place... how refreshing! <<



>> There is a concert starting at 8pm today. The group is from Sao Paulo <<



>> Shh Lisa, look at him. Do you know if he has a girlfriend? <<

SUMMER

During semester break other user groups populate the area, taking advantage of all water. Additionally to the water posts, two water basins regulate the micro climate of the Campus.



>> I'll be in Madrid for one semester. I might take flamenco classes <<



>> I'm still here at the lounge, are you coming? We can go to the bar <<



>> I'll have to skip classes tomorrow, it's already 3am! It was nice to see you! <<

AUTUMN

In autumn the dominant bright yellow of the Ginkgo trees, clearly marks the boundary of the Campus area. At this time of the year the character of the park clearly contrasts with the colours of its surroundings.



>> Good morning Professor Kiesbaur-Beelitz. Do you want a chocolate? <<



>> It's a pleasure meeting you! Will you join our group for BM? <<



>> So silent, compared to the bustle in the hall. I enjoy this very much <<

WINTER

A special organic substrate (expanded clay) is used in order to reduce the possibility of repeated icing, thereby considerably decreasing the operating and follow up maintenance costs.

GAMEBOARD OF REALIZATION

Multiplicity of Stakeholders Activating the Space



Campus Safety



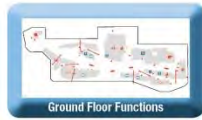
Maintenance - Cleaning



Accesses



Green Periphery



Ground Floor Functions



Transit Routes



Energy Concept



Guidance System



Furniture



Benches



Advertisement Space



Shadow Survey



Ventilation Constructions



Controlled Exits



Energy Requirement



Plazas



Fire Protection



Puddle Scheme



Illumination



Logistics



Load Capacity



Special Functions



Emergency Exits



Event Areas



Water Posts



Hoarding



Trees



Water Irrigation



Materials



Video Surveillance



Smoking Areas



Bicycle Facilities



Landscape



Event Scenario



Supply and Waste Management



Barrier Free



Air Balloons



Building Site Cameras



Acoustic Comfort



Standardization



Motorized Transport



Safety Zones



Master planners

Philosophy



Architects

Form



Site Manager

Realization



Engineers

Dimension



Managers

Process



Lighting

Ambiance



Landscape

Environment



Verification

Verification



Safety

Liberty



Fire security

Certitude



Builders

Artisanship



Client

Desire

REALIZATION OF A COLLECTIVE VISION - PARTICIPANTS IN THE DEVELOPMENT PROCESS



Welcome!



Student

Is the library open 24 hours / 7 days a week?



Rector

How to disseminate information widely?



Portier

I need to work concentrated!



Secretary

Where am I having lunch?



Mayor

Where shall we take the press photo?



Mother

Is the campus safe for my daughter at midnight?



Councillor

How to facilitate people's lives?



Neighbour

What do I see from my window?



Feminist

Everyone should have the same opportunities!

HETEROTOPY OF PERCEPTIONS

The project genesis of the Campus WU is understood, composed and concluded as the collective production of new realities to invite and embrace the largest possible amount of diversity.

PROTAGONISTS OF NEW REALITIES

ECOLOGICAL URBANISM

Intensities & Densities: Encouraging Interaction in Public Spaces

9,900 m² of bushes, perennial herbs, flowers
enhance the liveliness of the Campus on a micro level – adding to the background atmosphere of vitality.

1,659 m² of lawn
emphasize the non-programmed quality of the open spaces, allowing the freedom of circulation in winter and sunbathing, picnicking and playing in warmer seasons.

720 m of bicycle routes
982 secured bicycle facilities
support clean mobility through the city and the Campus along a ring of 1,200m.

232 trees
become protagonists in providing shade during the hot summer days, participating in daily and seasonal usage patterns.

83 benches
invite people to rest, communicate, study or contemplate.

48 waste bins
help to maintain the Campus clean. They are the beginning and the endpoint of the waste separation system established in the whole Campus.

9 water fountains
help to preserve a clean Campus, and are the starting point and the endpoint of the water system.

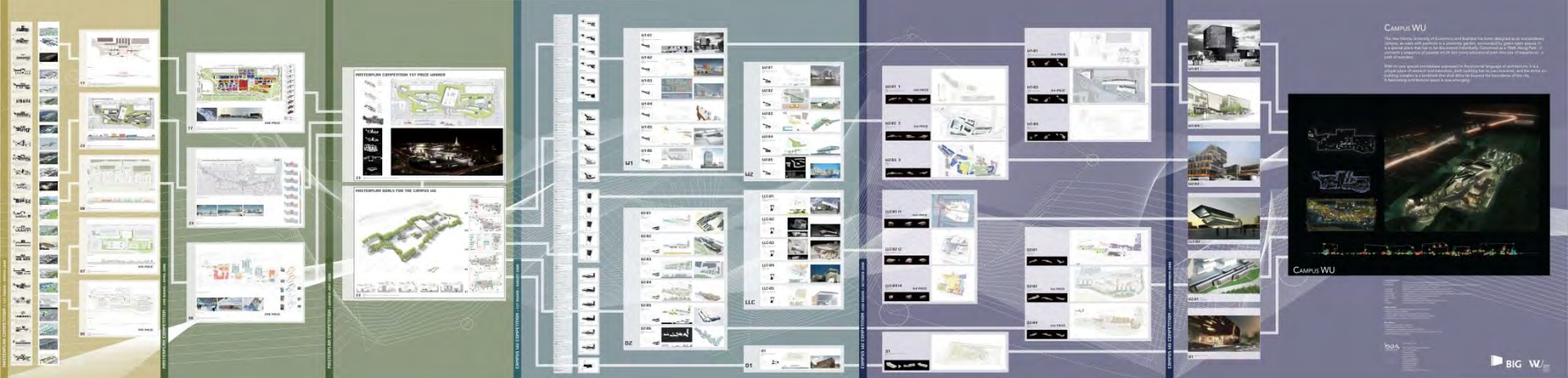
An open field for actionisms and on-site interventions

was established throughout the design and planning process in order to keep the community informed and encourage people to get involved, to participate and to contribute.



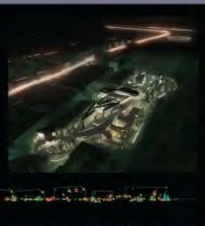
- **Table Tennis**
3 tables
- **EA Coffee Bar**
Outdoor area
180 m² – 45 seats
- **Fitness**
Basketball
- **D4 Coffee Bar**
Outdoor area
165 m² – 40 seats
- **Stage**
Open air events
– 500 people
- **LC Coffee Bar**
Outdoor area
160 m² – 40 seats
- **Lawn**
Sunbathing area
- **D1 TC Food Court**
700 seats
– 500 people
Outdoor area 210 m²
– 50 Seats
- **D2 SC Beer Garden / Brewery**
Outdoor area
110 m² – 30 seats
- **D1 TC Teaching Center**
Total seats 3,370
- **Film Festival**
5 screens
– 3,050 people
- **Parties for Students**
– 1,850 people





CAMPUS WU

The new WU Campus at the University of Applied Sciences in Vienna has been designed by architecture studio BIG and is located in a former airport terminal's glass roof space. It is a prime example of urban regeneration and is a landmark building in the city center. The building is a prime example of urban regeneration and is a landmark building in the city center. The building is a prime example of urban regeneration and is a landmark building in the city center.



CAMPUS WU





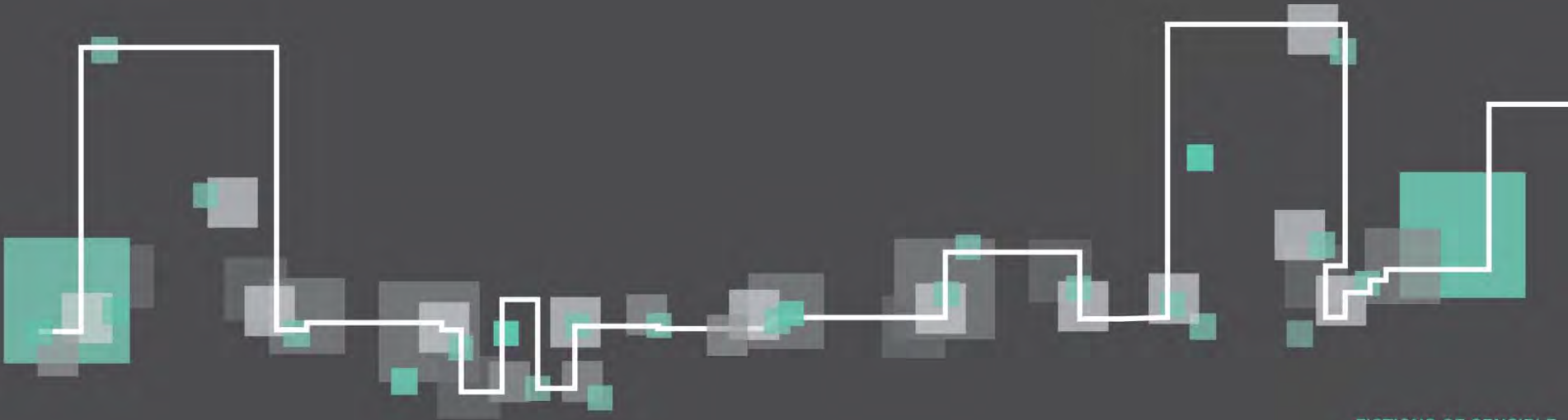




CAN LANDSCAPE **QUALIFY** THE ENVIRONMENT ?

LOUNGE : PROJECT • STRATIFY • OBSERVE • CONTEMPLATE • INTERACT • PLAY • APPEAR • INTERNALIZE
• WAIT • INCIDENTAL ENCOUNTERS • RECEIVE • **RELAX :** SPLASH • CONTEMPLATE • EXCHANGE • DEEPEN •
RISK • DISCOVER • REPOSE • EQUILIBRATE • REINTERPRET • WALK • SUNBATHE • SUIT • **EXPO :** EXPLORE
• PERMEATE • LEAN • STUDY • LISTEN • DISCOVER • REINTERPRET • JUMP • PROTECT • MEDITATE •
CONTEMPLATE • **STAGE :** SHAPE • STAGE • HAPPEN • VOCALIZE • DRAMATIZE • LISTEN • ELEVATE • FLY •
STAGGER • UNDERSTAND • SHOW • **PATIO :** MOBILIZE • INTERRUPT • ACTIVATE • VISUALIZE • REGENERATE
• TEST • TAKE • REST • SOCIALIZE • DISCERN • CONSUME • **FORUM :** SUPPORT • APPEAR • LISTEN •
PERFUME • ILLUMINATE • EXCHANGE • FIND • SNOOP • DISTEND • COMMUNICATE • UNDERSTAND •••

FRactal IN THE SYSTEM



FICTIONS OF SENSIBLE HYPER-REALITIES

The interfaces are made possible through the privatized public space. The different forms of global and local communication define individuals' perception. The objective of urban-system multi-option networks is the In-Out- & Around interaction between places. As architecture gains density, it works at different communication speeds to allow spontaneous use of space.

LANDSCAPE AS A PRECURSOR FOR CREATING ARCHITECTURES



PROJECT DESCRIPTION
Campus WU of the Vienna University
of Economics and Business
Master Plan and Landscaping

LOCATION
Welthandelsplatz 1 - 1020 Vienna

OWNER
Projektentwicklungsgesellschaft
Wirtschaftsuniversität Wien Neu GmbH

PROJECT BY
BUSarchitektur & BOA office for the
advanced randomness in cooperation
with LandschaftsArchitektur

SERVICES
Comprehensive Master Plan in
collaboration with international experts
Executive Project of the
Landscape Architecture

INITIATION OF THE PROJECT
2008

PROJECT COMPLETION
2013

TYPE OF WORK
New Construction

CONSTRUCTION COSTS
18.2 Mio €

PARK AREA
67,000 m²

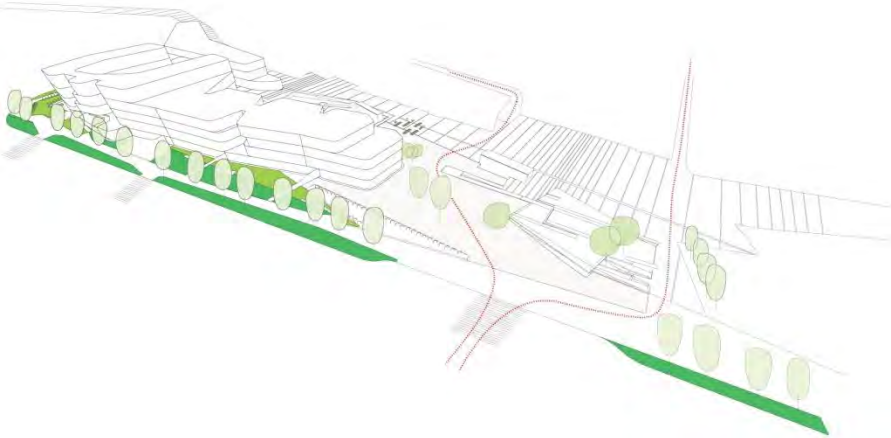
AWARDS
1st Prize of the International
Competition for the Master Plan and
the Executive Project for the
Campus WU

*The open space as milestone of
landscaping basic design concepts*

THE GREEN OSMOTIC BOUNDARY

Hidden treasures that invite you to stroll and explore the surroundings

The osmotic boundary develops along the walkway and cyclists ring tracks, opening up the different parts of the Campus WU to the outside. This campus tour is nearly 2,5 km long, it contains micro-stations for stopover and small hidden treasures which enable a sequential journey. Spatially this outer space is formed by ginkgo trees and tall grasses.



Central pedestrian zone
Multifunctional spaces



Comprehensive Green Boundary
Micro-climates on the path

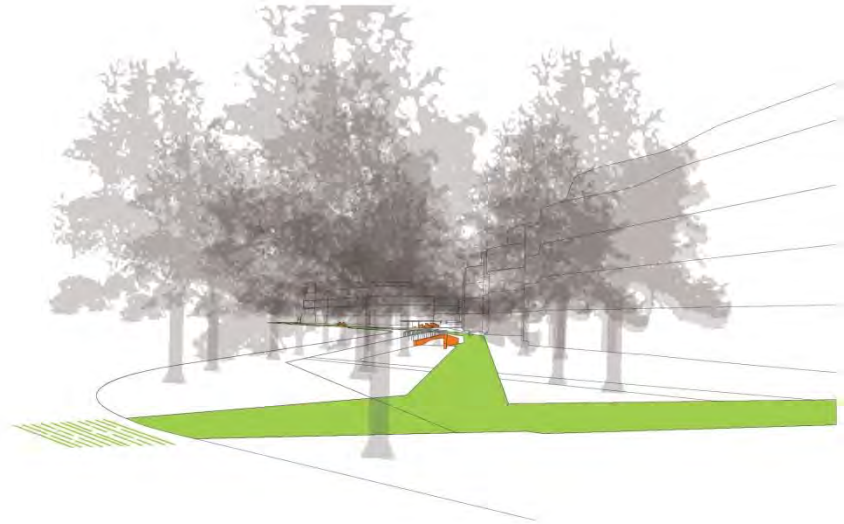


Osmotic boundary
Protection of the different areas
within the Campus WU



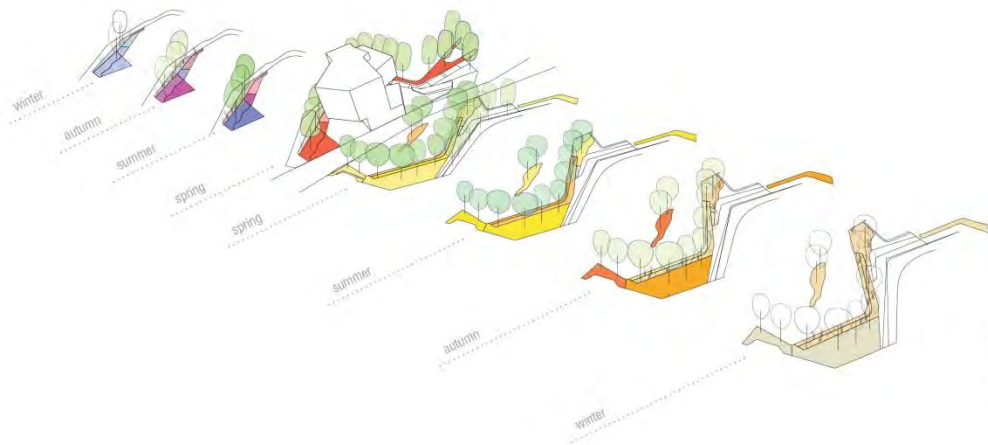
The landscape seeks to create an area suitable for resting and relaxing, which at the same time preserves the Campus' collective unity and links the university buildings with the adjacent spaces. Being accessible to the general public, the Campus is a key part of Vienna's city planning. As such, special attention has been given to developing synergies with its surroundings.

The Campus has numerous and varied recreational spaces and green areas; each is characterized by its own materiality and use, triggering differentiation and identification processes. These areas are spread throughout the Campus in order to counteract centralization, partial use and the abandonment of peripheral areas. Open space is unbiased; it does not set the value of the buildings but integrates them all using the same materials. Buildings' uses are incorporated and expanded outdoors. The plazas, located in front of the buildings, generate synergies among themselves and their ground floor areas.



THE FOURTH DIMENSION IN LANDSCAPING

Scents, colours, blooms, seasons, shadows



160-250 cm Level_3: Tree

20-50 cm Level_2: Grasses

0-30 cm Level_1: Flowers

The gray bands organise the cross-campus pedestrian walkway along its direction. These bands get closer to each other at the building accesses, generating a rhythm and orienting the user. The immense longitudinal walkway space is brought into the human scale.

THE SQUARES AND MULTIPLE PATHS

Routes and stations always diverge

The campus is a sequence of spaces which intertwine with each other. Each route forks in such a manner that the destinations can be reached via many different paths. Various stations for stopover and for activities are defined along these routes of the Walk Along Park. Each site seeks to encourage the exchange and the search for new paths towards learning.

Pedestrian crosswalks
to the Prater Park

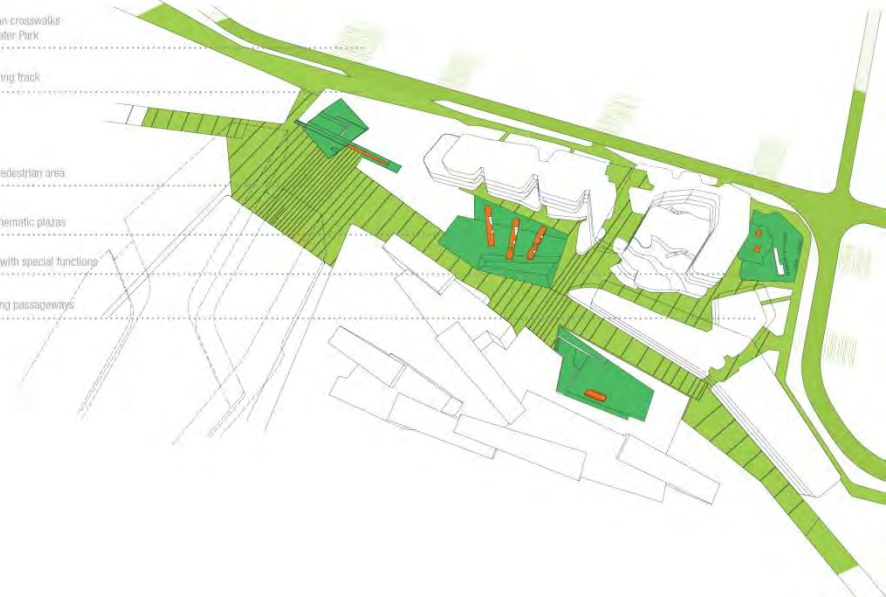
Cyclists ring track

Central pedestrian area

Central thematic plazas

Gardens with special functions

Connecting passageways





BETWEEN SPACES

CONFIGURATION

THE YOUNGEST



The nature of an urban development competition is characterized primarily by the interplay and relationships between its different volumes. Not only does this lead to differently characterised skylines, it also enables diverse open spaces to be formed.

WHAT IS THE ROLE OF AN OPEN SPACE?

An open space can be expanded, densified, channelled or even designed on upper floors as an elevated urban platform. The role of an open space is also to link the various buildings, which may manifest different schools of architectural design, and thereby present a strong, functional unit. This is the approach followed in creating a public space in the sense of an agora, in particular in the example of Campus WU.

IS THERE A „BEST“ CONFIGURATION?

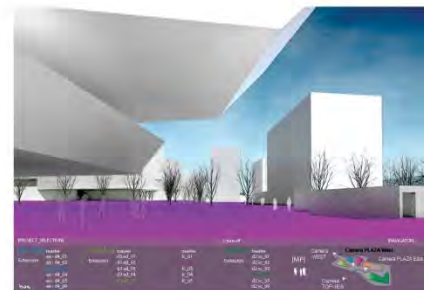
The buildings shown here are entries that were presented in the competition's first stage and are used in four different assemblages or aleatoric configurations as participants in this urban development game. The questions concerning the different options resulting from the various interactions between the players are to be examined based on the examples provided. In contrast to the almost infinite combinations, here we show four concise results based on decisions taken that centred on the architect's often overlooked autobiographical traits that characterize their work – their cultural heritage, geographical context and generational context.

THE YOUNGEST ARCHITECTS

As the saying goes, "a new broom sweeps clean", the contribution of the youngest architects on each construction site leads to an encounter between expressionist works and a loose pavilion structure.

When entering the Campus from the west, one crosses a succession of three plazas, set up by elongated and angular typologies, condensed by the focal points of the open spaces: plazas Expo and Relax. Leaving this sequence, which is characterized by the interplay of near and far views, one crosses the central plaza, and arrives at a structured area, reached via plazas Patio and Forum.

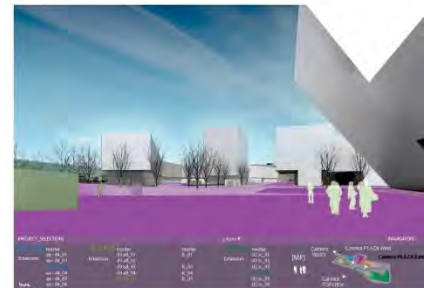
Continuing through the building that comprises the southern area and has an open space on the roof of the first floor like an urban plate, one has views through the pavilion-like structure to Prater Park and Krieau racetrack. If one were to cross the Campus the other way round towards the west, then it becomes denser and denser until the visitor becomes transfixed in the quiet courtyards.



Camera PLAZA West



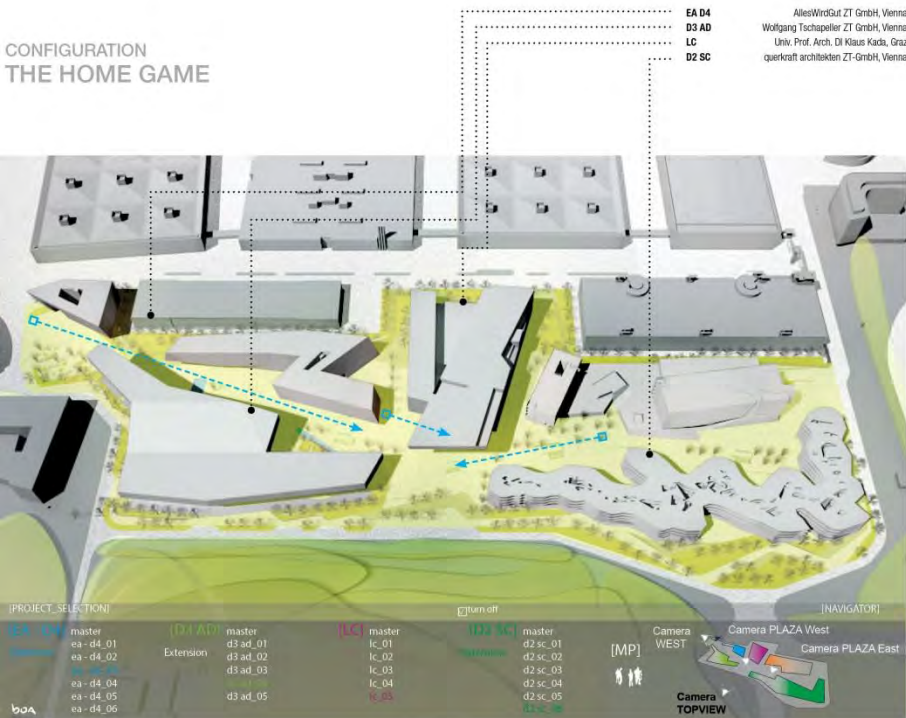
Camera West



Camera PLAZA East



CONFIGURATION THE HOME GAME



THE HOME GAME

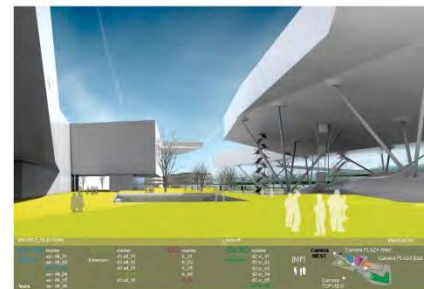
The "home game" analysis shows Austrian-only contributions.

The visitor encounters an open city characterized, especially in western areas, by broad views towards Prater Park, made possible by raising the building mass. Meanwhile, the long building to the north establishes a protective barrier to the neighbouring fair grounds. Additionally, the elevation creates a landscape that provides communicative structures for both discovery and leisure with plazas Expo and Relax, as well as blurring the limits between the open spaces and buildings.

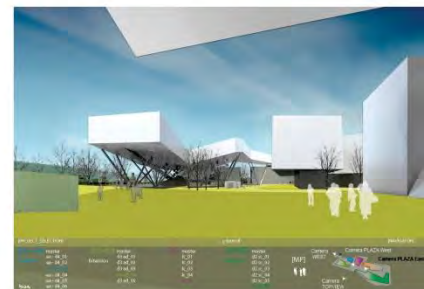
Towards the east, single protrusions enter and focus attention in the open areas of plazas Patio and Forum, creating a division of the space that once more leads to intimate rest areas envisioned as tiny bays.



Camera PLAZA West



Camera West



Camera PLAZA East



CONFIGURATION LATIN EUROPEANS

EA D4 NO.MAD Arquitectos, S.L.P., Madrid
 D3 AD Vazquez Consuegra Arquitectos, Sevilla
 LC Massimiliano Fuksas Architecto, Rome
 D2 SC Josep Llinàs i Carmona, Architect, Barcelona



LATIN EUROPEANS

In comparison to the above configurations, here urbanity will be characterized by buildings comprising smaller elements that are fused together into greater structures.

Upon entering the Campus from the west, the open space towards the left hand side leads through different corners to a pueblo-like area, inviting passers-by to enter the space and linger. Plazas Expo and Relax form a sort of buffer zone towards the south that is in turn transformed into a communication artery by the long buildings on each side. In the eastern sector, a visually open space becomes more condensed towards the side of the Forum plaza, which is flanked by galleries. Towards the end of the galleries, one can enjoy the panoramic views of Prater Park. Looking in the other direction, one can observe the Campus as a whole.



Camera PLAZA West



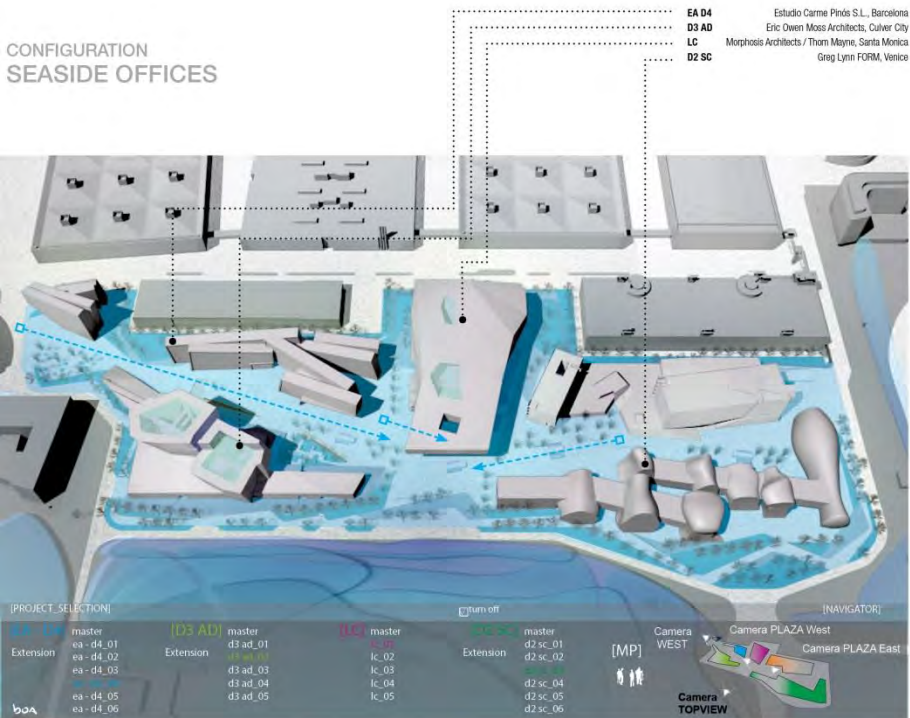
Camera West



Camera PLAZA East



CONFIGURATION SEASIDE OFFICES



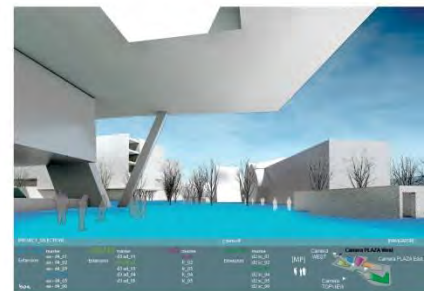
SEASIDE OFFICES

A loose structure – part glass panels, part pavilions – that offers the visitor different perspectives through overlapping layers and divisions that give rhythm to the open space.

The western area is kept open; the cross-campus walkway guides the visitor into plazas Expo and Relax.

In crossing the plaza, the pedestrian walkway again contrasts with the open pavilions on the eastern side.

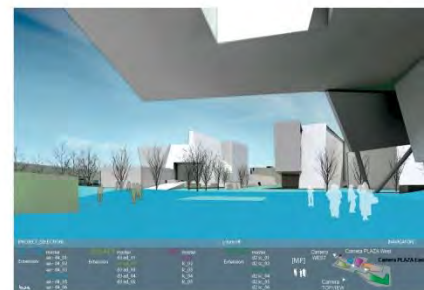
Views of the Prater park are interrupted only by the ground floor level buildings. In this way, the Forum area in particular relates to the Prater grove.



Camera PLAZA West



Camera West



Camera PLAZA East

CONCLUSION

In general, different scenes may be observed comprising different groups that either form focal points on their own or contribute to the whole free flow of the campus.

Finally, evidence shows how many different varieties of urbanity are possible, while the open space serves to establish in all cases its nature as a basic guide to the Campus layout, as well as to ensure the necessary circulation infrastructure is provided.

Lucas Kulig, BUSarchitektur
 Vienna, 31.08.2013



Cement tiles

Low growing grass

High growing grass

Ornamental greenery

Dense vegetation

Grass covered cobblestone

Ground drainage

Granulated rubber

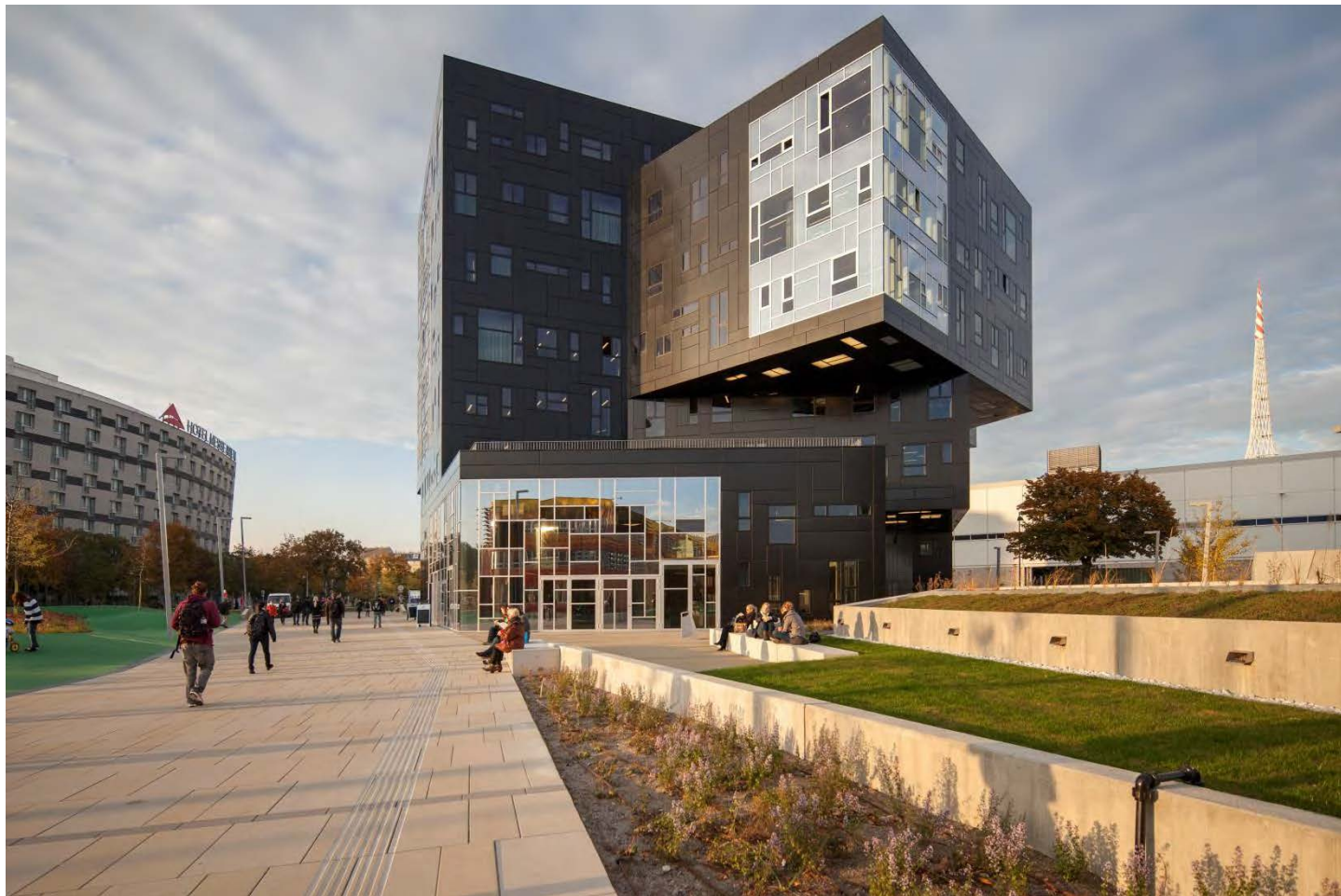
Grass

Gravel

Cobblestone

Asphalt

Western entrance from the City
Executive Academy
NO.MAD Arquitectos, Madrid
Lounge Plaza
BUSarchitektur, Vienna



Urban life and protected academic operating
Executive Academy
NO.MAD Arquitectos, Madrid
Lounge Plaza
BUSarchitektur, Vienna





Main pedestrian walkway (West)
Departments
Estudio Carme Pinós, Barcelona
Relax Plaza
BUSarchitektur, Vienna



Urban life and protected academic operating
Departments
Estudio Carme Pinós, Barcelona
Relax Plaza
BUSarchitektur, Vienna





West entrance from the Prater Park
Departments & Administration
CRABstudio, London
Expo Plaza
BUSarchitektur, Vienna



Urban life and protected academic operating
Departments and Specialized Library
CRABstudio, London
Expo Plaza and Passage
BUSarchitektur, Vienna





South entrance from the Prater Park
Library & Learning Center
Zaha Hadid, Hamburg
Stage Plaza
BUSarchitektur, Vienna



The main place of the Campus WU
Library and Learning Center
Zaha Hadid, Hamburg
Stage Plaza
BUSarchitektur, Vienna





East entrance from the Prater Park
Departments & Students Center
Hitoshi Abe, Sendai
Forum Plaza
BUSarchitektur, Vienna



Urban life and protected academic operating
Departments and Students Center
Hitoshi Abe, Sendai
Forum Plaza
BUSarchitektur, Vienna





Main pedestrian walkway (East)
Teaching Center & Departments
BUSarchitektur, Vienna
Patio Plaza
BUSarchitektur, Vienna









mensa



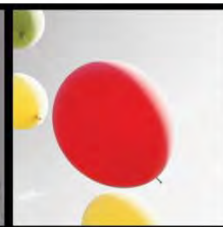
ABSTRACTION



DISCUSSION



IDEALISM



ENTHUSIASM



CASTLES IN THE AIR



Jury session of the
Architectural competition
Campus WU
2nd September 2008

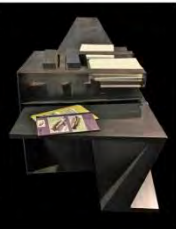
Compilation by Daniela Kobel, BUSarchitektur
Vienna – 18.07.2013

AND IT ALL BEGAN WITH AN IDEA ... TO CREATE A DIFFERENT EDUCATIONAL LANDSCAPE

INFORM



ENGAGE IN CONVERSATION



PROVIDE INSIGHT



TRANSMITTING IDEAS

Exhibition about the competition
Campus WU - BIG Az W
Architecture Center of Vienna
21st May 2009

Compilation by Daniela Kobel, BUSarchitektur
Vienna - 18.07.2013

ARCHITECTURE SHOULD ENCOURAGE SOCIAL INTERACTION BY CREATING NETWORKS AND GIVING MOMENTUM TO DEVELOPMENT

FORETELL WHAT WILL COME



BE A PARTICIPANT



ENCOURAGE CURIOSITY



DEMOCRACY AND EQUALITY



LONG FOR JOY



Public space installation
Hoarding on Campus WU
Building Site
June 2011 - March 2013

Compilation by Daniela Kobel, BUSarchitektur
Vienna - 18.07.2013

RESPECTING THE CITY ... BY TEMPORARY OCCUPATION ?



FOLLOW THE PROCESS



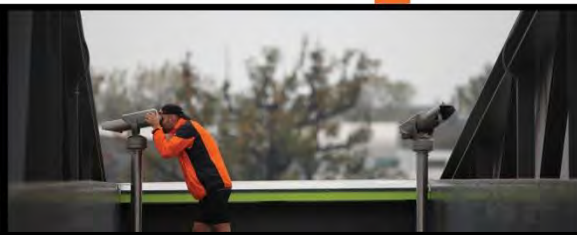
TRANSPARENCY



PROVIDE PERSPECTIVES



ESTABLISH AWARENESS



Infopoint Opening and guided tours
through the exhibition
Infopoint Campus WU
30th September 2010

Compilation by Daniela Kobel, BUSarchitektur
Vienna – 18.07.2013

IN CONTRAST TO THE VISUAL ARTS, IT IS ESSENTIAL FOR ARCHITECTURE TO BE UNDERSTOOD

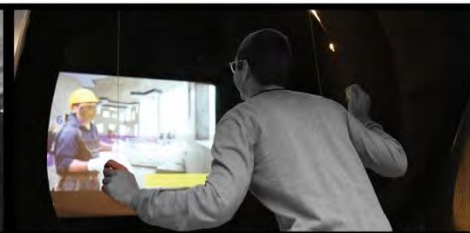
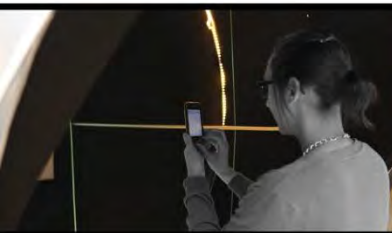
TRY SOMETHING NEW



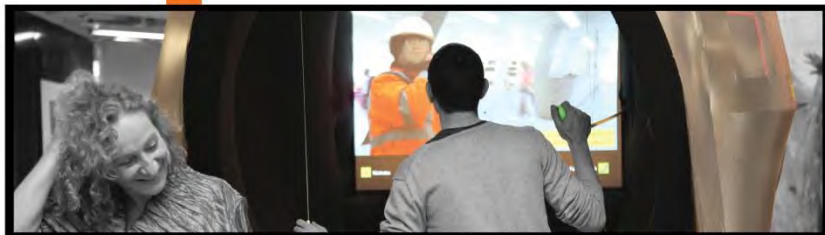
ENCOURAGE PARTICIPATION



DISCOVER A BUILDING SITE



ROLE PLAYING GAME



EXPERIMENT



Opening Countdown WU
Space Installation
Aula previous WU
14th June 2012

Compilation by Daniela Kobel, BUSarchitektur
Vienna – 18.07.2013

EXPERIENCES ARE THE TRUE TEACHINGS



INTERACTIONS



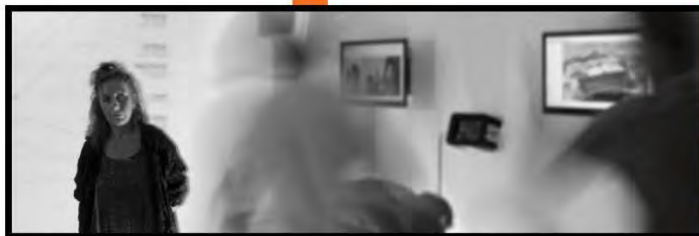
A NEW PERSPECTIVE



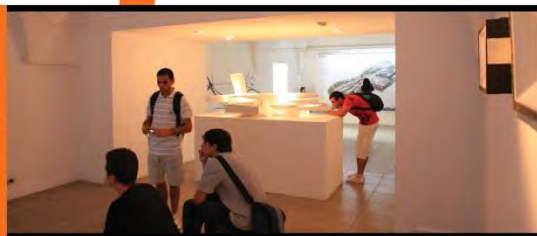
DISPLAY



WORLD OF IDEAS



EMERGING CURIOSITY



Opening of the individual exhibit
within the Architecture Biennale BA11
Buenos Aires, Argentina
8th October 2011

Compilation by Daniela Kobel, BUSarchitektur
Vienna – 18.07.2013

THE PARAMETERS MAY CHANGE, THE SCALE PREVALES HUMAN

PROMISING



COHESION



SPATIAL EXPERIENCE



EXCITEMENT



MEANINGFUL



Campus WU
Pre-opening
Library & Learning Center
19th September 2013

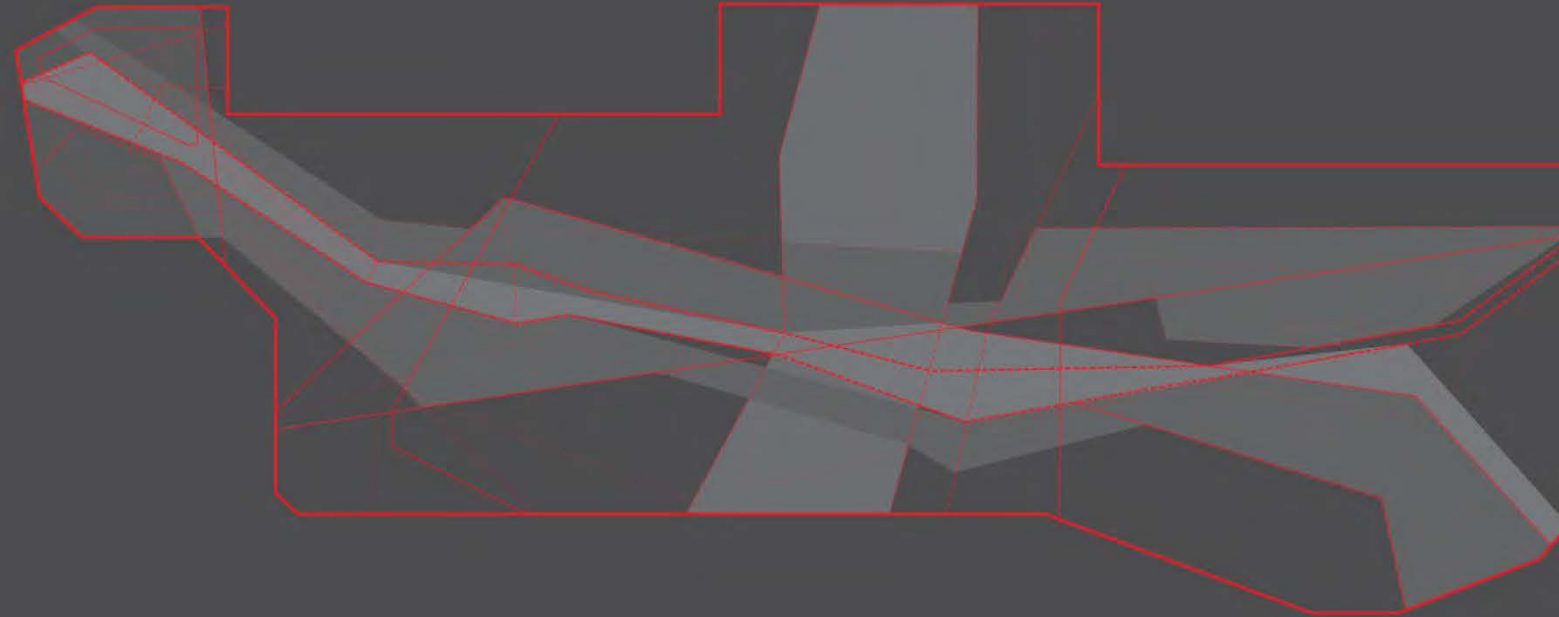
Completion by Dörte Kobl, BUSanführer
Venus - 26.09.2013

IF YOU DON'T TRAIN, YOU DON'T SCORE

SHOULD THE ARCHITECT **SUBMIT** TO THE MARKET ?

A TEACHING CENTER DESERVES AN ENTRANCE THAT ENCOURAGES **COMMUNICATION** : THE AULA EMERGES FROM THE PROGRAMMATIC **OPTIMIZATION** OF ALL USABLE AREAS AND THEIR INTERCONNECTIONS. THE ARCHITECT INVENTS THIS ADDED VALUE FOR **SOCIETY** ••• A TEACHING CENTER DESERVES AN INSTITUTIONAL **PRESENCE** : TEAMWORK WITH TECHNICIANS FROM ALL DISCIPLINES MAKES IT POSSIBLE TO **MATERIALIZE** CONCEPT IN SPITE OF BUDGET RESTRICTIONS: THE ARCHITECT BELIEVES IN THE IMPOSSIBLE ••• A TEACHING CENTER DESERVES THE HIGHEST ECOLOGICAL STANDARDS: ALL BUILDING LIFE CYCLES ARE RATIONALIZED BY MUTUAL **SYNERGIES** IN ORDER TO **HOLISTICALLY** INCREASE THE SPATIAL QUALITY OF THE COMPLEX : IT ASPIRES TO BE AWARDED THE MAXIMAL GOLD CERTIFICATION IN "**GREEN BUILDING**" •••

ORIGAMI IN THE PROCESS

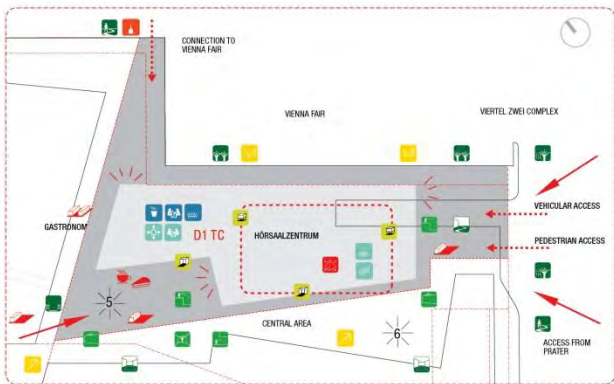


HETEROTOPY OF THE ARCHITECTURAL EMERGENCE

To create architecture today is a nomic game. The rules of the game are paradoxical, players are continually changing their minds and every operational process ends up being self-referential. The development of random operations, understood as strategies and methods in the evolution, optimization and modification of the whole and its parts, allows the structure to emerge.

SHAPING TOPOGRAPHY

Teaching Center elements



D1 TC - Building plot 8,200 m²
NEIGHBOURHOOD CHARACTERISTICS

URBAN RELATIONS

Urban space



Green space



OPENING TO THE PRATER

Visual relation



Accessibility



QUALITY OF WORK

Orientation



View



IDENTITY TRAITS

IMAGE CARRIERS

Functional significance



Highlighted by the architecture External appearance and relation to the Square



External appearance and relation to the Square



SPECIAL FUNCTION

Self-contained



Cutting across plots



Cutting across plots



SQUARE

Public area / Intermediary area



Input from the open space



Input from the open space



INTERFACE AREAS

FLOWS OF PEOPLE

Public transit routes



Passages



Entrance areas



USE OF GROUND FLOOR

Internal (University)



Public



OCCUPYING EXTERIOR AREAS

Open space



Optional space



Learning Center

Garage access

Patio Plaza

Forum Plaza

Garage access

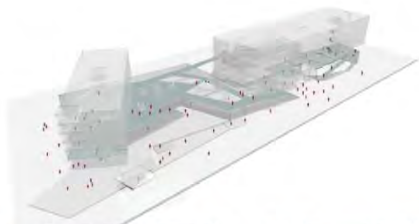
Vehicular access (cars/trailers)

EVERYDAY LIFE

Incidental encounters on the way to the classrooms



Beginning and end of lecture



Accompanied by the scent of caramel



Looking out over the diagonal

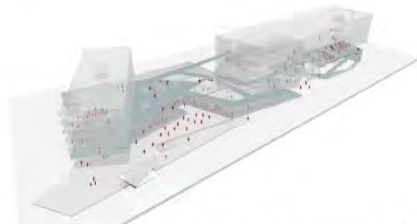


Wandering below us

Multiple options for a coffee break



Lunch break



Letting our imagination fly



Searching whilst whispering together

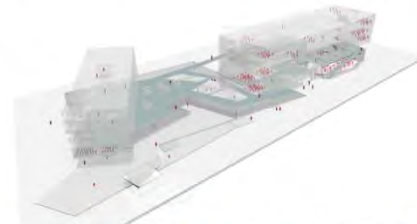


Globalizing and Localizing within the Campus

A center for 4,585 students



Theoretical and practical lectures



Wandering above us



Desire to discover and initiate search



Discovering our surroundings



4. LEVEL
Learning and Research

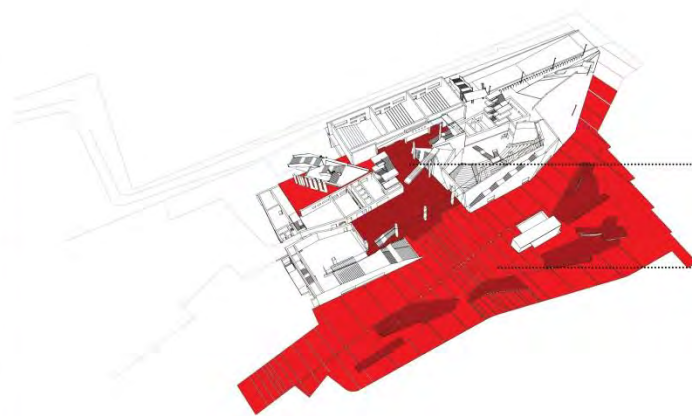
2. LEVEL
Self-Study Zone

1. LEVEL
Outdoor Studying Areas

MAIN ACCESS LEVEL
Ground Floor

URBAN INTERACTION

Campus space flowing into the Teaching Center's Aula



Aula

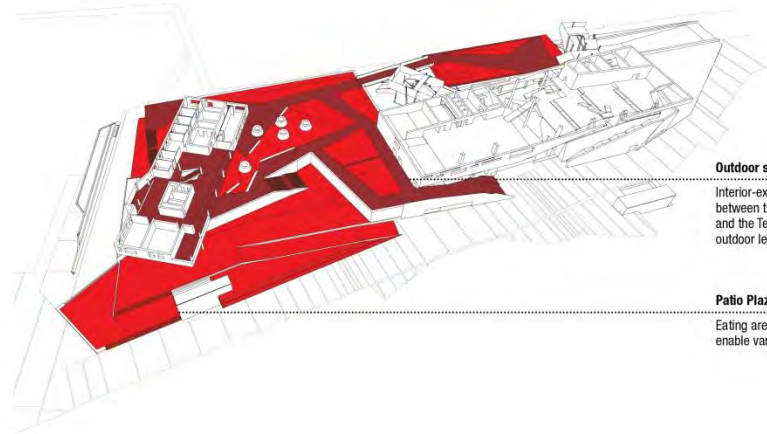
Space as the intersection of multiple interrelations. The reinterpretation of the Campus space indoors.

Forum Plaza

Configured space with wooden terraces to emphasise the eastern Campus entrance.

TOPOGRAPHY DEFINES SPACE

Levels and paths to qualify the recreational space



Outdoor studying areas

Interior-exterior relationship between the Department building and the Teaching Center through outdoor lectures.

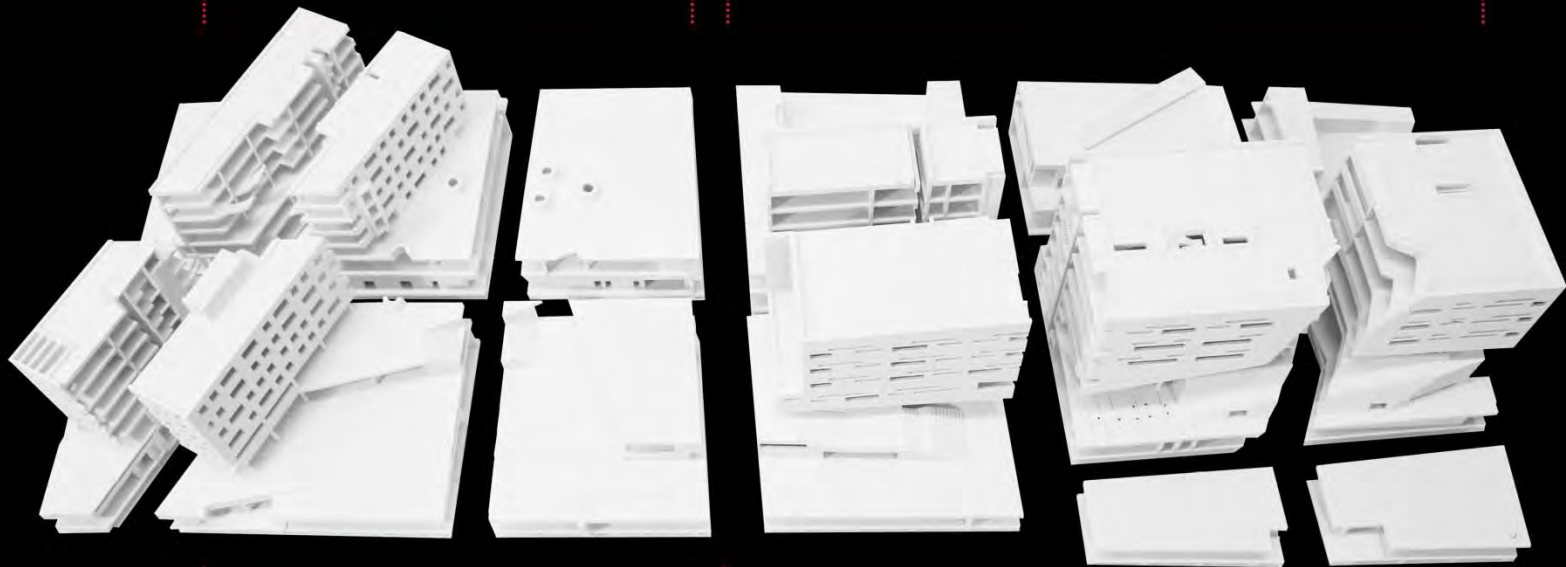
Patio Plaza

Eating areas at different levels to enable varying degrees of privacy

DEPARTMENT OF GLOBAL BUSINESS AND TRADE

FOOD COURT

TEACHING CENTER



PATIO PLAZA

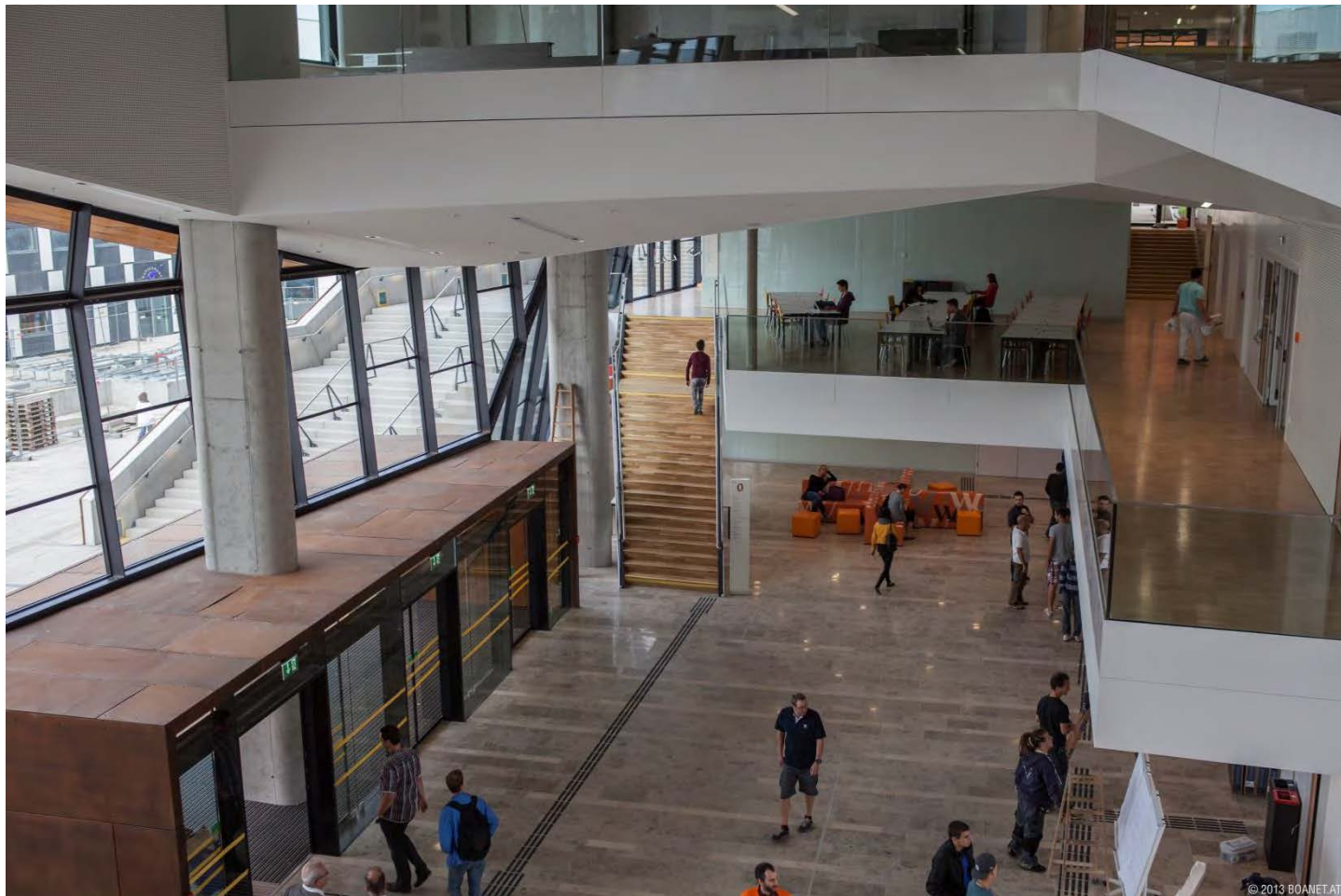




Entrance and views to the Campus Teaching Center and Departments
BUSarchitektur, Vienna
Urban interactions

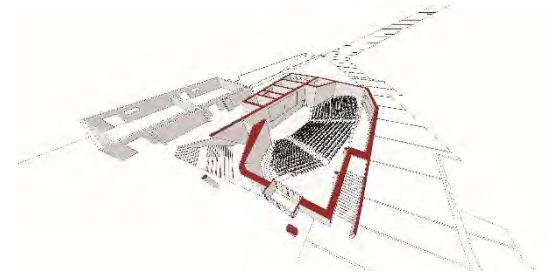


View from the self-study zones
Teaching Center and Departments
BUSarchitektur, Vienna
Routes and stations





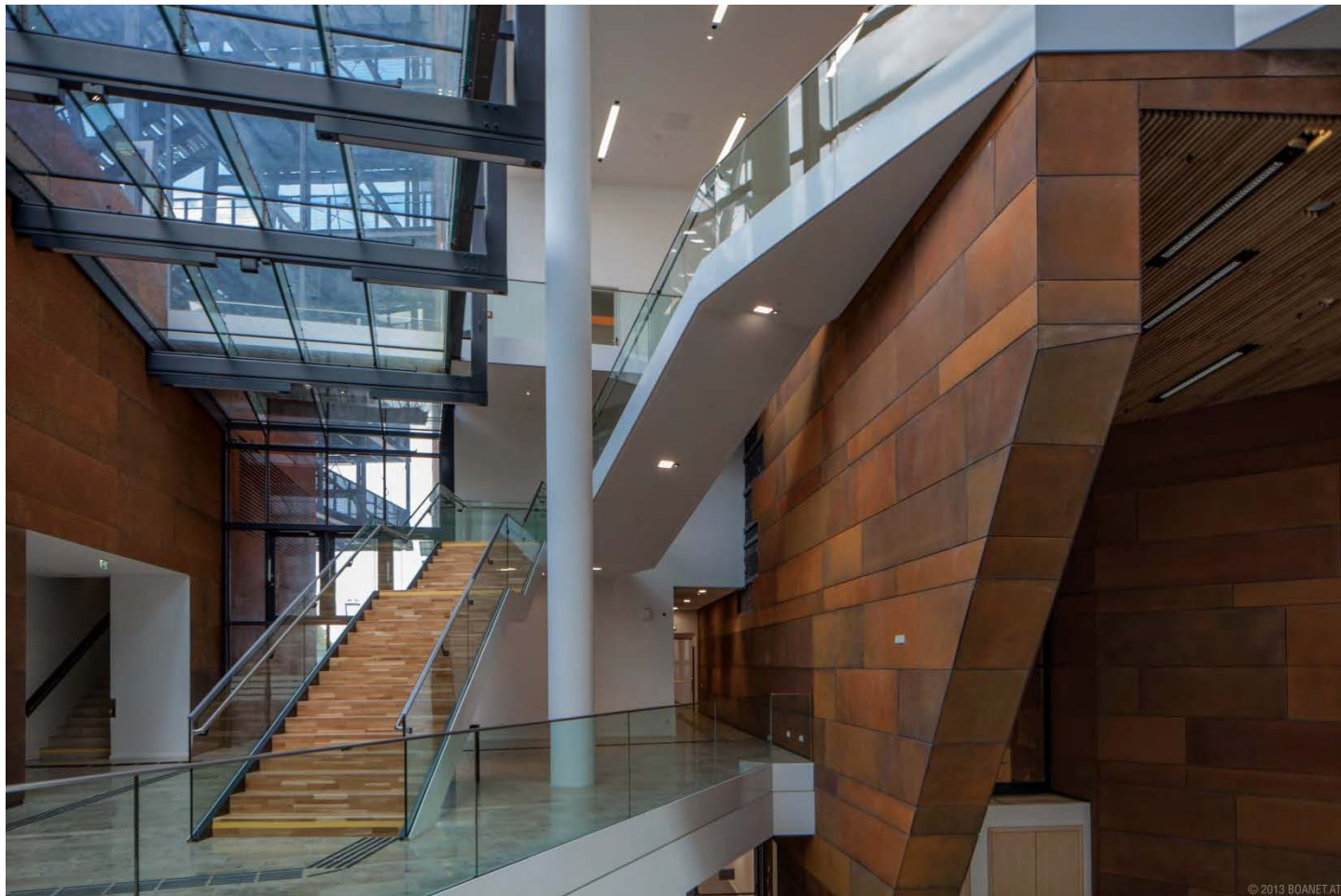
Audimax
Teaching Center and Departments
BUSarchitektur, Vienna
Waiting and listening







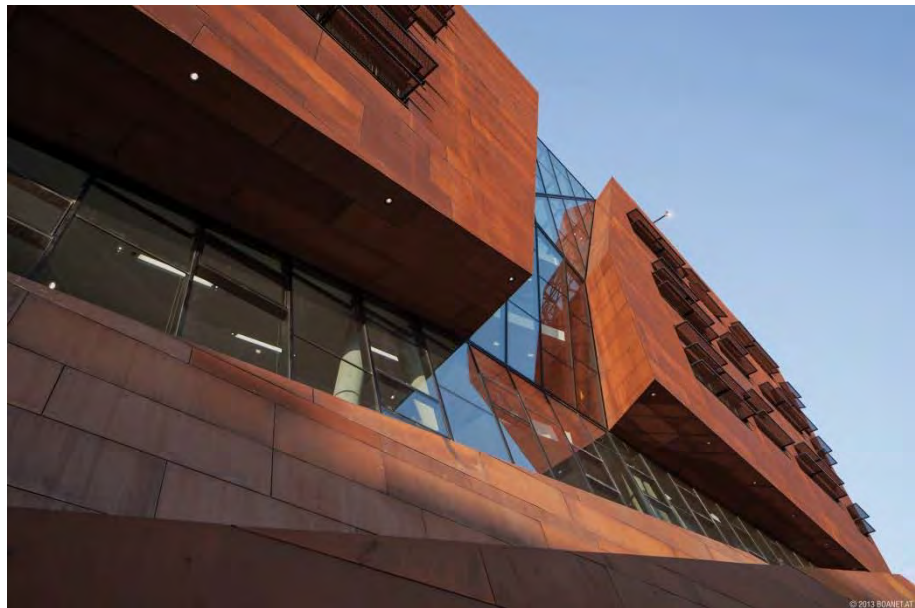
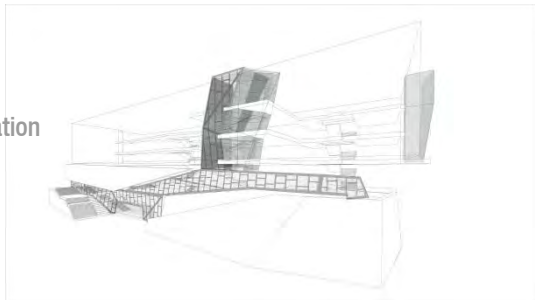
Stairs to the self-study area
Teaching Center and Departments
BUSarchitektur, Vienna
Short and Long views



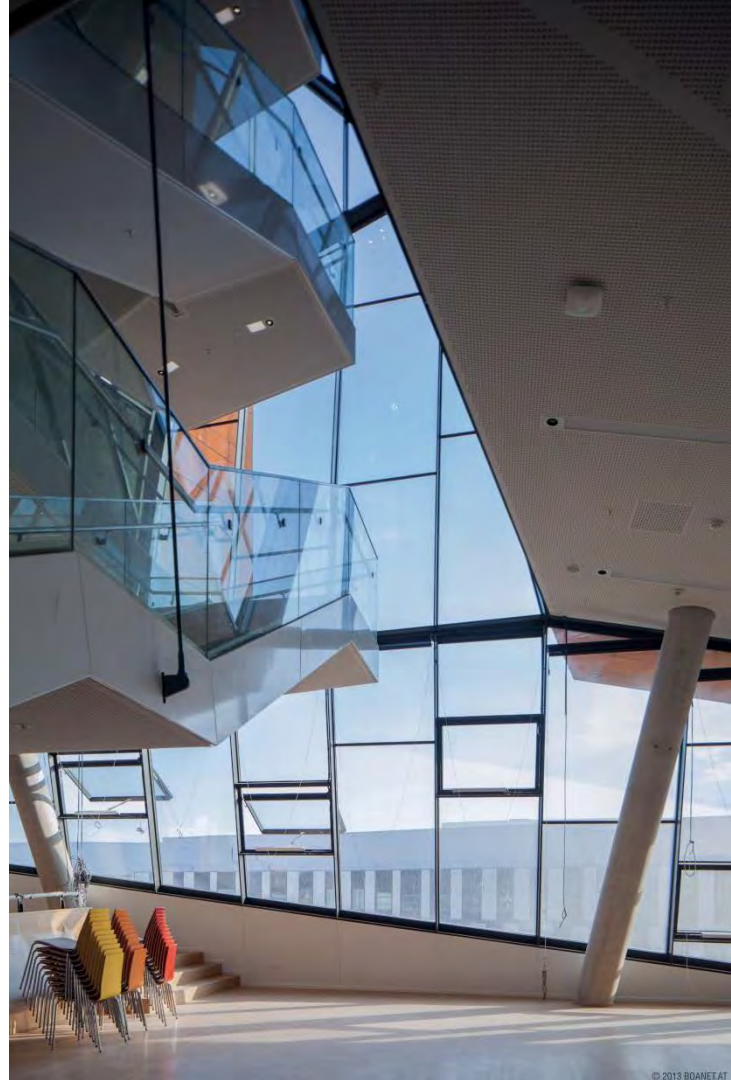




South facade
Teaching Center und Departments
BUSarchitektur, Vienna
The space in-between for communication



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South facade
Teaching Center und Departments
BUSarchitektur
The space in-between to discover the Campus

