



selected works  
2013 | 2016



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Ankara | Turkey

EXPO 2016 Biodiversity and Agriculture Museum

*3DsMax 2015 | SketchUp 2015 | Rninoceros 3d | Interior Modelling for Unity  
3D Simulation*

*Burak Ilhan | Mert Cagdas Baykal | Nilay Nida Can*

4.4 14 July 2015 – 29 August 2015 : Archfiction Architecture | freelance architect

Ankara | Turkey

Soteks Office Complex

*3DsMax 2014 | Vray 2014 | Revit 2015 | SketchUp 2015 | Photoshop CS6*

A Teen Room Design

*3DsMax | Vray 2014 | Photoshop CS6*

*Umrhan-Ethem BesKonakli House*

*3DsMax | Vray 2014 | Photoshop CS6*

*Eregli Municipality Commercial Office Building*

*Autocad 2015*

5.2 June 2014 – September 2014 : Arma Group Architecture and Urban Design | intern architect

Ankara | Turkey

*Diyarbakir Stadium Project*

*Autocad 2015*

*Diyarbakir Dicle Valley Nature Park | Urban Design  
Project*

*Autocad 2015 | Photoshop CS6*





# In-Between Urbanism

Healthcare: When Living Requires Assistance

Izmir | Turkey

Fall '15

METU Faculty of Architecture | Architectural Design Studio V

Instructors:

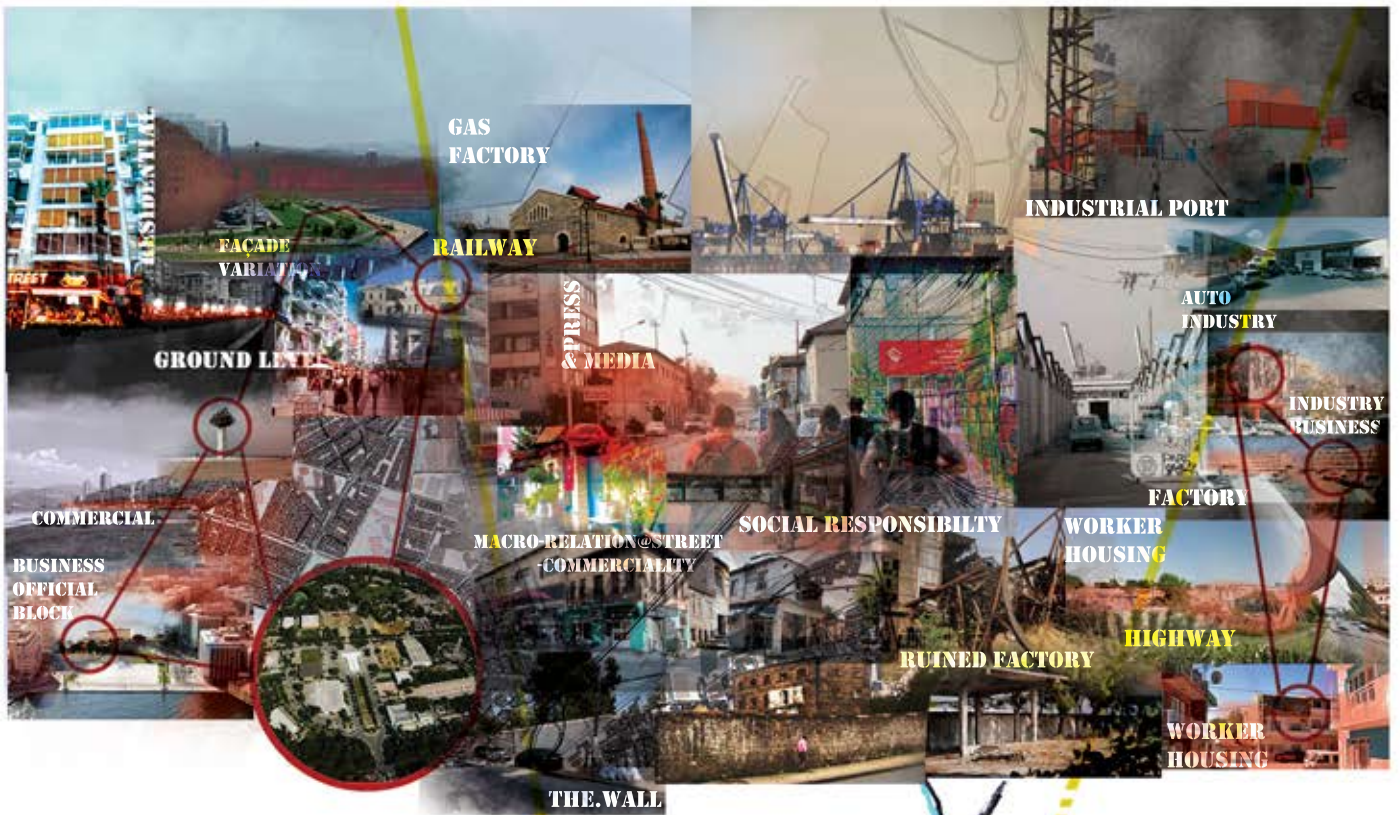
Zeynep Mennan | Ruya Ipek Balaban | Egemen Berker Kizilcan

Alsancak Industrial District covers Alsancak Port to the north, Alsancak Train Station and the railroad to the west, Meles River and Mürsel Pasa Boulevard to the south-east. This District is the most complex part of the whole planning area in terms of functional variety, historical values and social structure. This complexity comes from beyond the borders. One side of the region is encompassed with the urban life while the other is enclosed with the suburban life. Throughout the project, this betweenness situation is tackled.

Acar, Y. (2011). Urban Transformation Within The Interface of Design and Administration: The Case of Izmir Harbor District. Retrieved from <http://etd.lib.metu.edu.tr/upload/12613505/index.pdf>

## In-Between Analysis





## USERS & FUNCTIONS



Urban Side

TCDD Railway



Suburban Side

## URBAN FOOTPRINTS

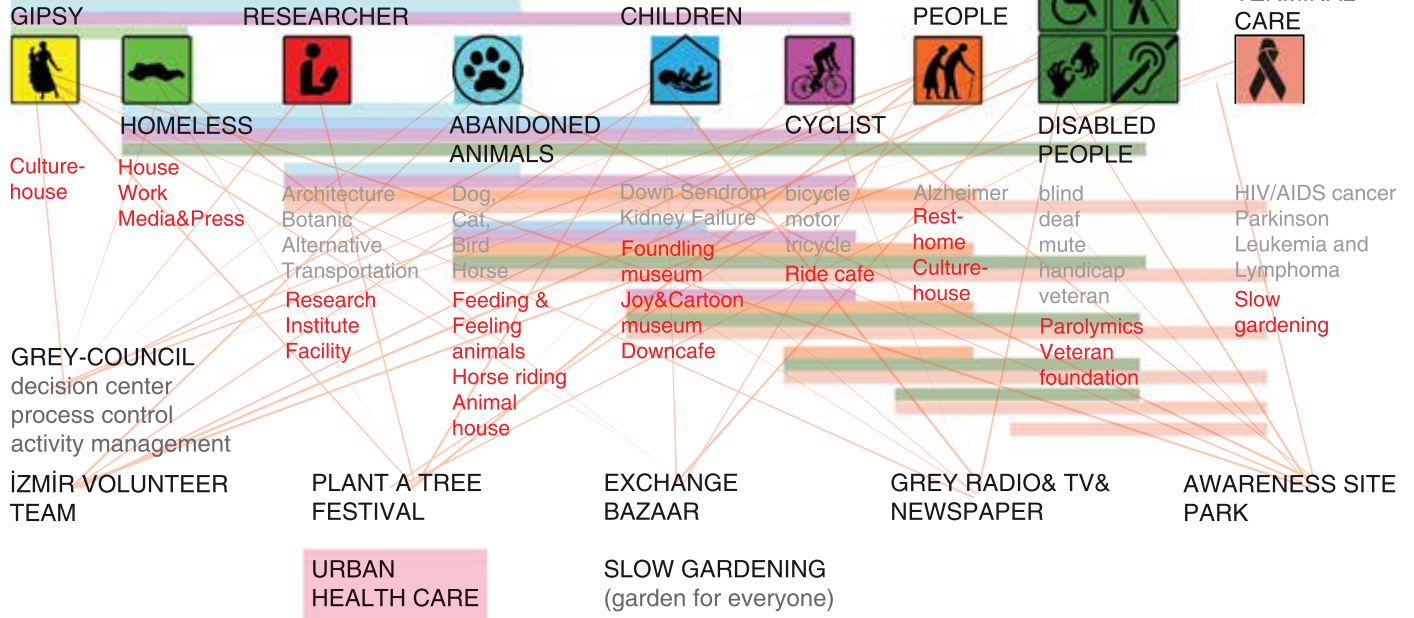


When seeing the İzmir city center, city structure is composed of squares and characteristic alleys which bind the squares. Every type of user can attribute the city life in sort of way. On the other hand, industrial side has its own users and lifestyle. It does not much hospitable to different users. In between them, post industrial soul, which was represented by Sümerbank Facility Side between 1953-2003, can be felt still. Nevertheless, in time, assumptions of the project cannot struggle better. Like Sümerbank, Şark Factory, Electric Power Station and Gas Factory has transformed or ruined in time.



## In-Between Urbanism

### GREY USERS



## Urban Footprints & Function Distribution Top Down-Bottom Up Process | KEY FACTORS ▲

Today, in the site, user typology is seen indefinite like the urban typology. Neither urban users or suburban ones can deal with the situation. There is a need of interface between both. In short, not to be in black or white. "Grey" contains both or reconciles. It preserves values of both side. In different literature, grey term is regarded as brownfield, disadvantage, disabled. In this Project "grey" can be thought as "care". Care of values, care of needs, care of health.

### BOTTOM UP PROCESS



Urban Footprint Analysis

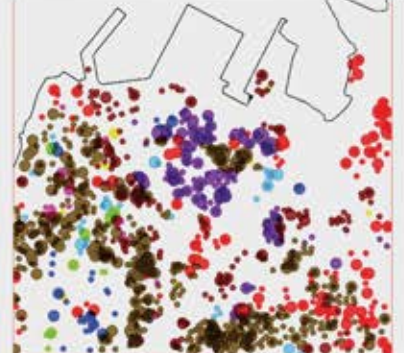
- ruined
- will be kept
- will be restored
- will be demolished

Preservation of the urban footprints having valuable traces will be realised to prevent any possible gap which can occur between the future and the past.

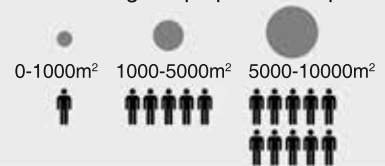


Urban Function Analysis

- residential
- commercial
- industrial
- sport facilities
- cultural
- health
- educational
- official/state



Urban Function Distribution According to population per m<sup>2</sup>



## GOALS

sustainable water system

economical sustainability

enhance social awareness

## POSSIBLE INCOME FIELDS

Small Scale AUTO Industry

Water consumption saving

Exchange Bazaar

Renting Cultural Spaces

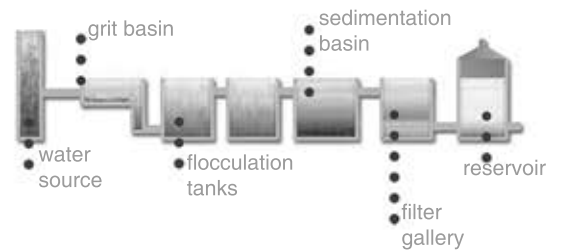
Parolyms & other Festivals

Museum Revenues

Radio&TV Revenues

## WATER TREATMENT FACTORY

sustainable water system process



C. (Ed.). (n.d.). Water Quality. Retrieved 2015, from <http://www.cityofsacramento.org/Utilities/Education/water-quality>

### Top Down Step I



Grid Reference is Sumerbank Facility Site due to its quality being touchstone of the site. Main Potential roads are to break the isolated situation of the site.

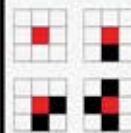
### Top Down Step II



ruined  
will be kept  
will be restored  
will be demolished

### For Automation Cellular Automata Rules

building function cell



neighbor number < 2

DEAD lonelines

green



2 < neighbor number < 3

ALIVE stasis

its function



neighbor number > 3

DEAD over / crowding

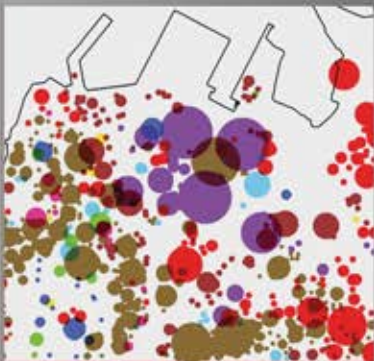
green



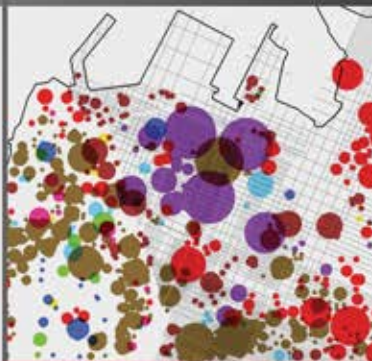
no neighborhood

REALIVE reproduction

needed function



### Function Zonning



### Mapping Function on Grid



If there is not →





In-Between Urbanism

  
residential



  
cultural



Culture Congress Center  
Urban Care Council (Sark Factory)  
Culture Museum (Gas Factory)  
Galen Museum (TCDD Building)

  
sport & green



Animal House  
Festival & Parolympics Area

  
health



Health Care Assistance  
Facility Project Site  
Water Treatment  
Facility

  
education



Research Institute Facility  
(Sumerbank Site)  
Founding Children  
Facility Site

  
commercial



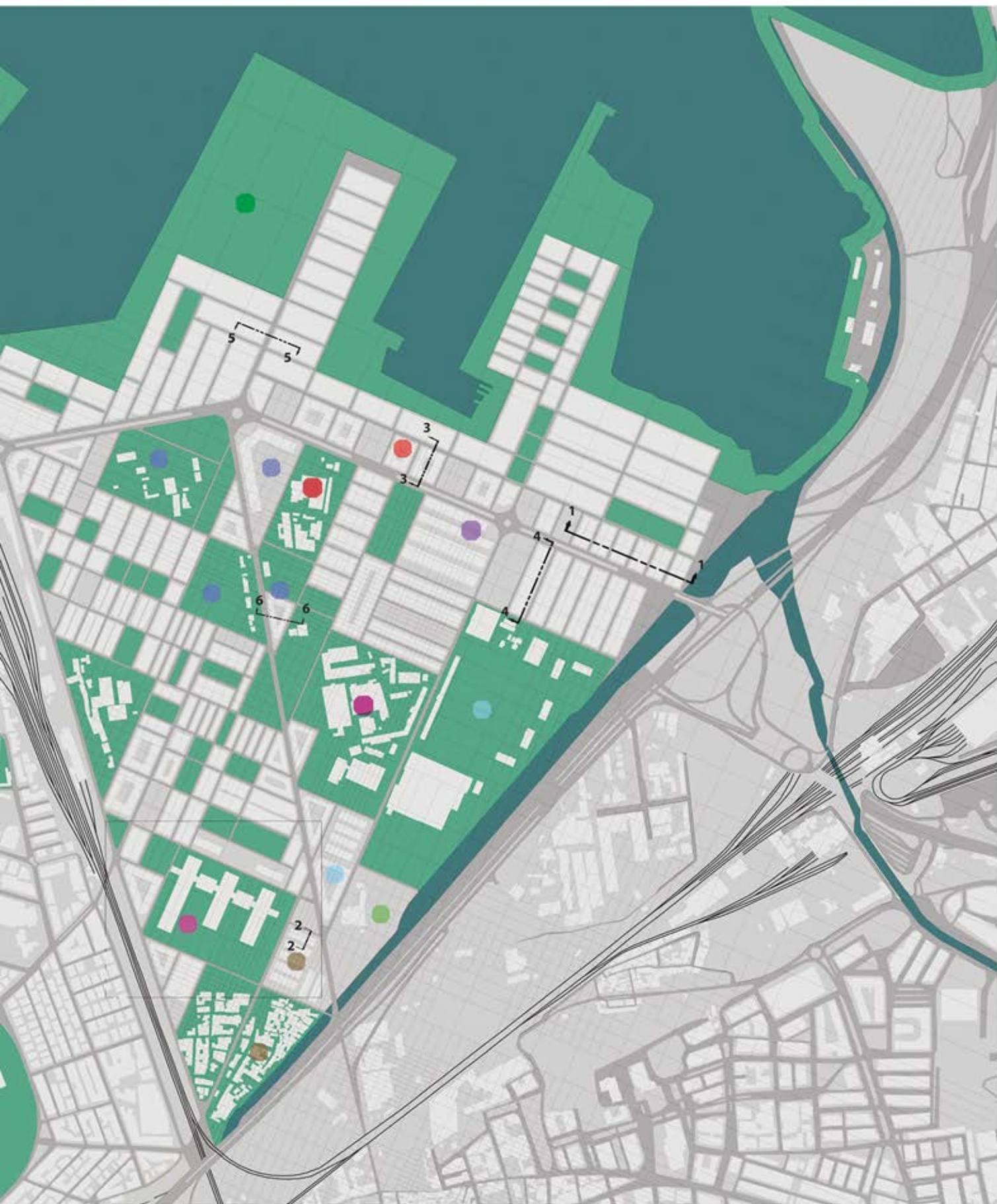
Media & Press  
Facilities  
Exchange Bazaar  
(Electric Factory)

  
industrial



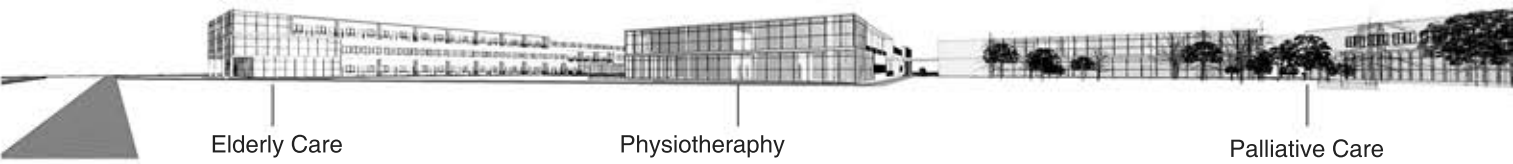
Small Scale AUTO  
Industry



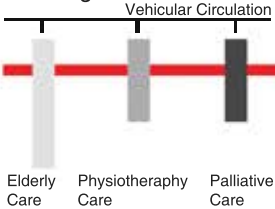




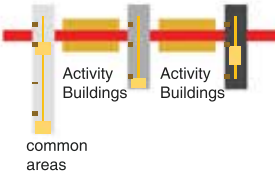
Urban Health Care



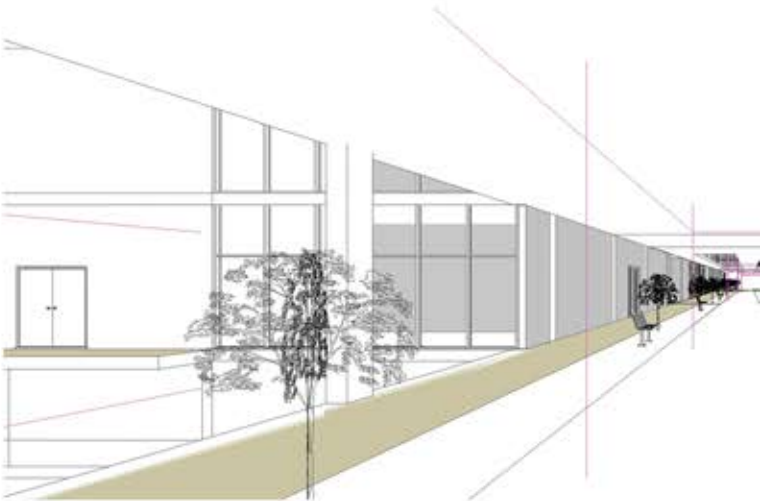
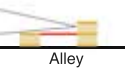
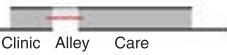
Plan Diagram



Elderly Care    Physiotherapy Care    Palliative Care



Section



Site Plan



- Soft Surface
- Semi Soft Surface
- Hard Surface
- Semi Hard Surface
- Pedestrian Path - Hard Surface
- Bike Lane

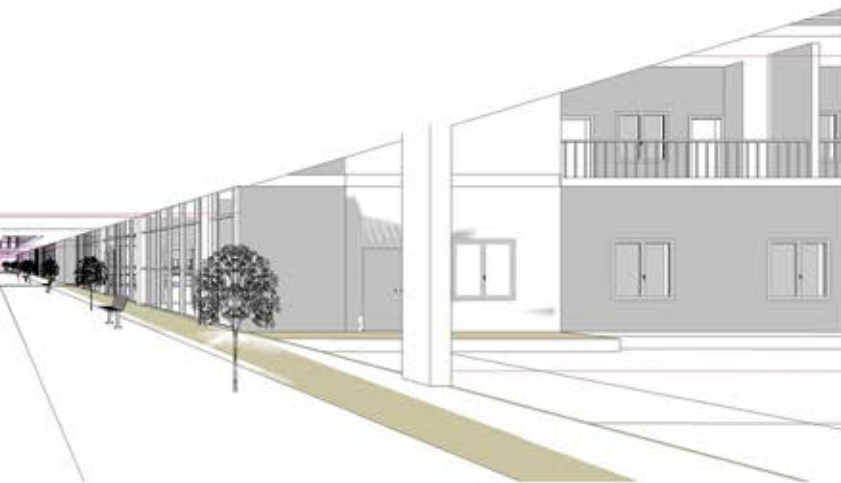
Sections



AA



BB



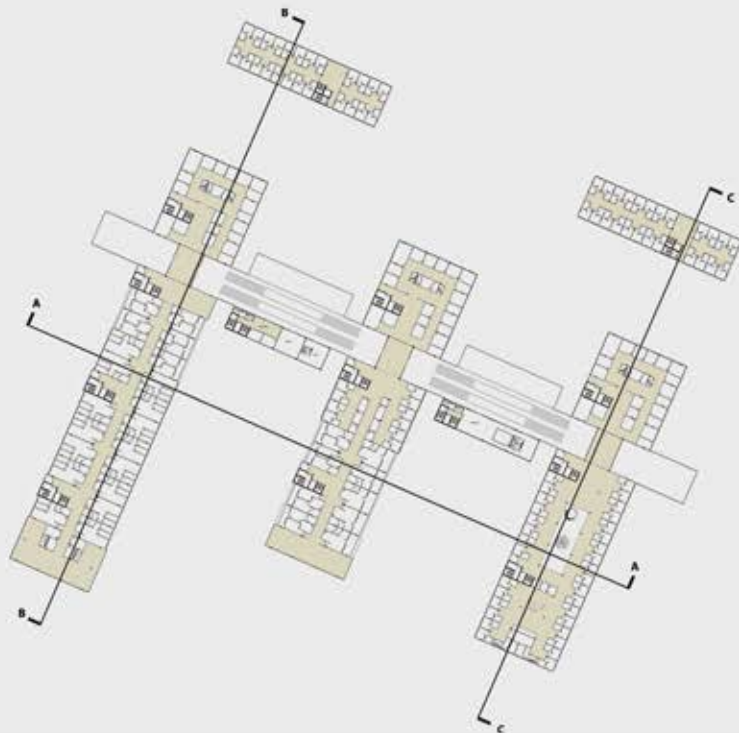
Elderly Care



Physiotherapy Care



First Floor Plan



1+1 Room Plan

Elderly Care  
Physiotherapy  
Care



2+1 Room Plan

Elderly Care  
Physiotherapy  
Care



Studyo Room Plan

Elderly Care  
Physiotherapy  
Care



100% assistance  
Room Plan

Elderly Care  
Physiotherapy Care  
Palliative Care



CC



# Interplayed ArtSpace

e-SPARK New Media Arts Centre

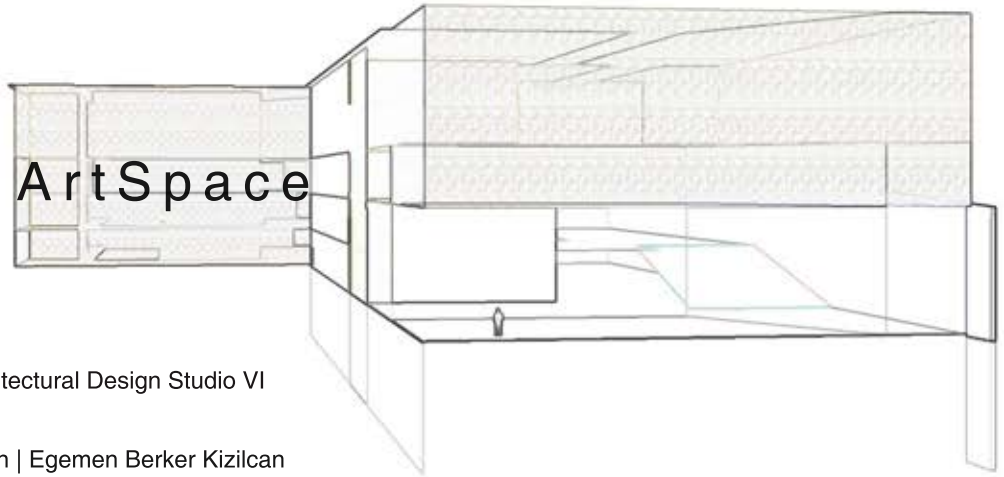
Istanbul | Turkey

Spring '15

METU Faculty of Architecture | Architectural Design Studio VI

Instructors:

Zeynep Mennan | Ruya Ipek Balaban | Egemen Berker Kizilcan



Taksim as the project site, which is in a state of flux throughout its history in terms of economic, cultural and architectural dynamics. On the other hand, the new media art comprises of many tools and methods as improving and increasing dynamics day by day. In the project, potential dynamics, coming from the site and the new media art, are interacted without the restriction between spaces in the building. So, the main concept of the design is providing an indirect visual interaction between spaces via split which is composed of light transmitting concrete wall, atrium, gallery space, and terrace. Translucent concrete wall invites people to get in a space in an indirect visual interaction. Atrium incorporates social spaces and has stairs. Gallery space enables the new media art potentials with its flexible closeness. Terrace serves as an opened and lighted area to get direct visual interaction with the urban vista. With these design elements, split is formed between the interaction spaces.

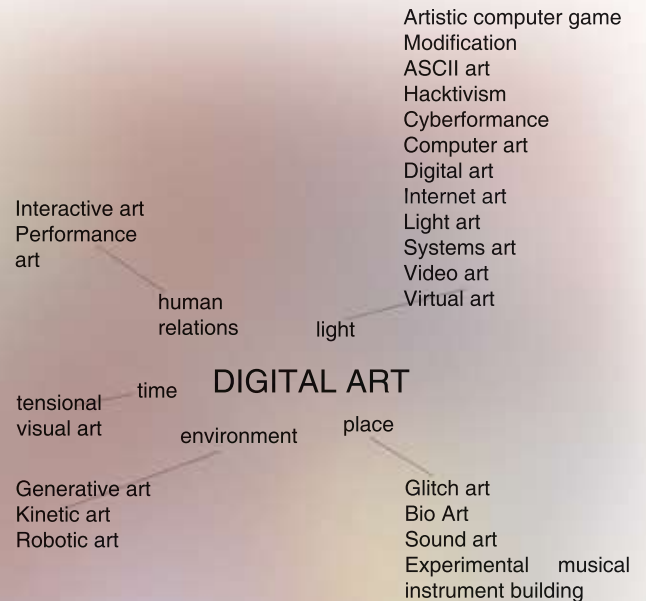
historical, cultural dynamics



transportation dynamics  
with planning strategy

public dynamics

art dynamics  
as digital



References of The Images:

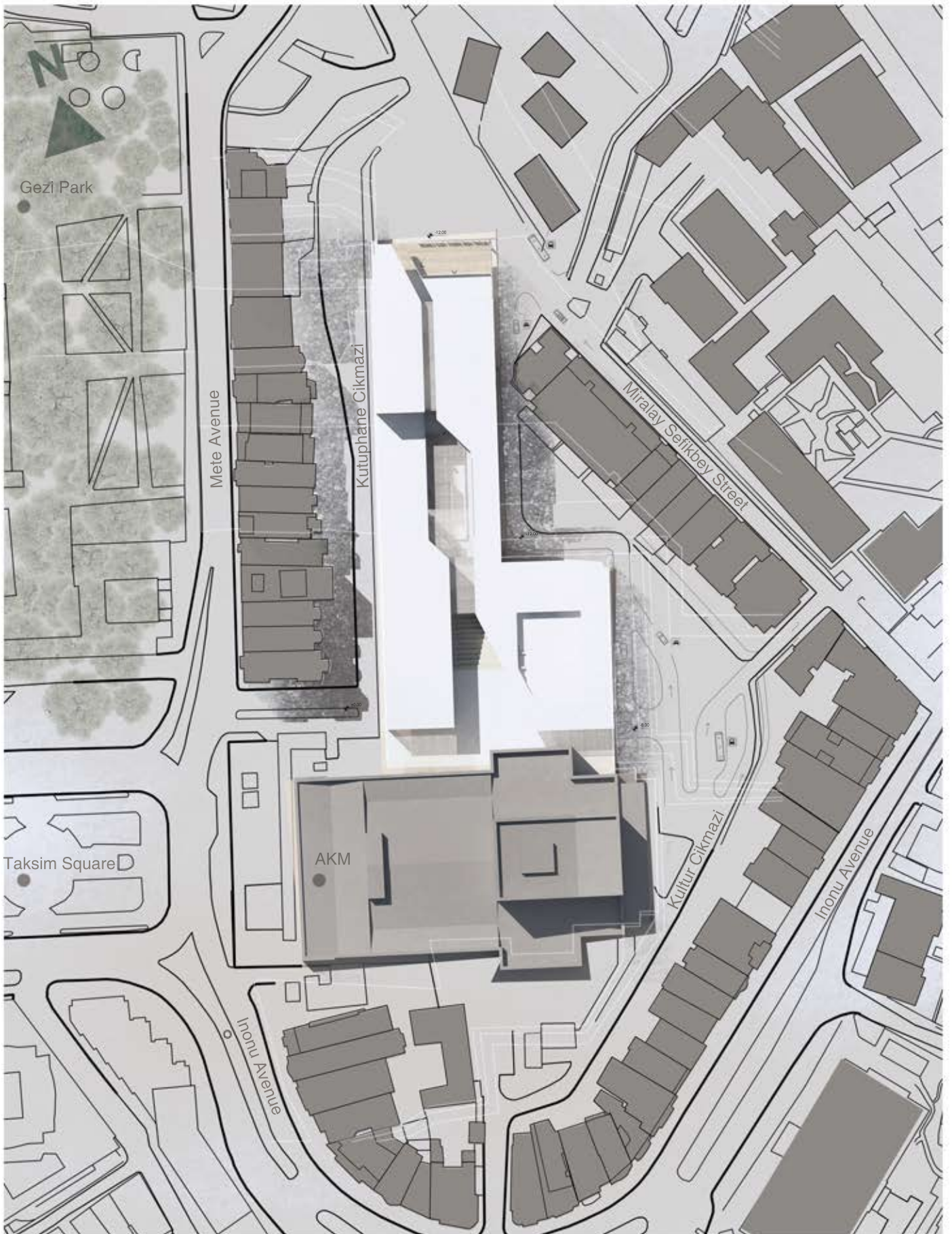
Une Vie d'Envers - Life of Desires

<http://www.lichtkunst-unna.de/en/start-page.html>

<https://www.brainpickings.org/2010/05/25/experimental-sound-music/>

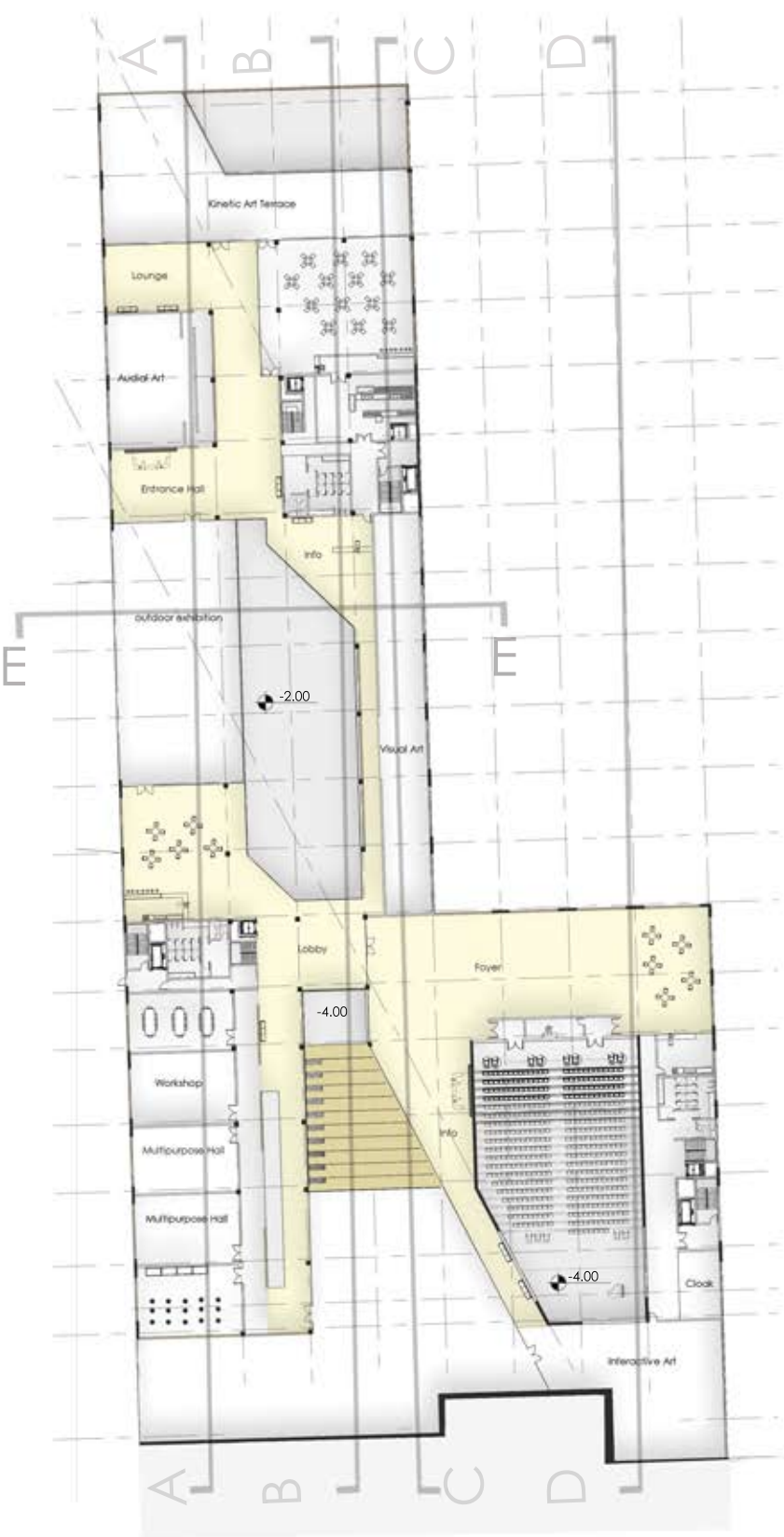
<http://www.jeffreyshawcompendium.com/portfolio/distributed-legible-city/>

<http://www.random-magazine.net/tag/light/>

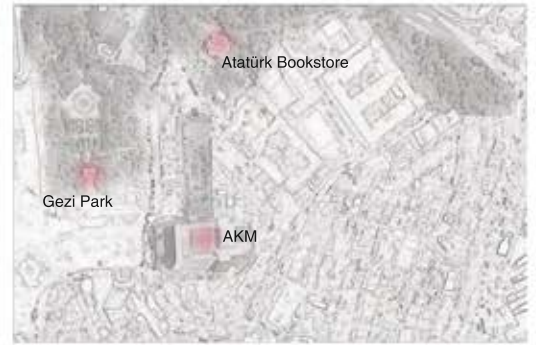
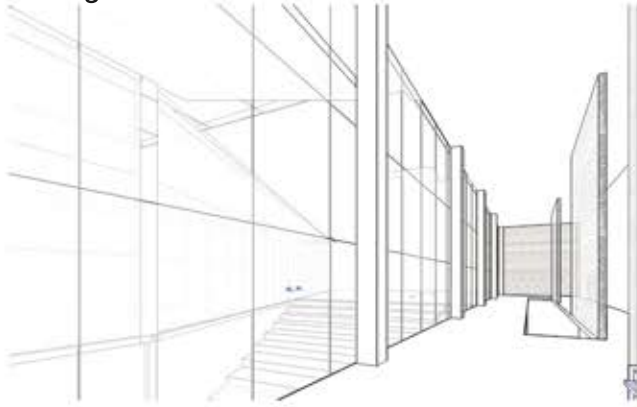




Interplayed ArtSpace



## Design Elements



Passing through the building direct relation via split



Breaking the split with interaction spaces



Interaction spaces façades and exhibition split sides are thought as translucent concrete to have a relation with spaces.

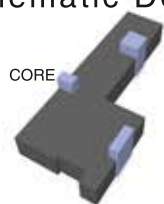


Get in building with outdoor spaces from the interaction spaces



Giving entrance from the breakings and functional space interpenetration via split

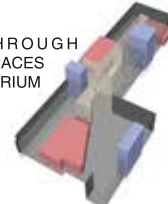
## Schematic Design Idea



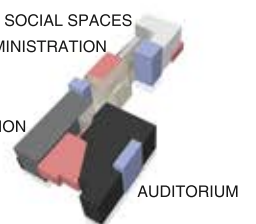
SPLIT WITH FAÇADE



THROUGH SPACES ATRIUM

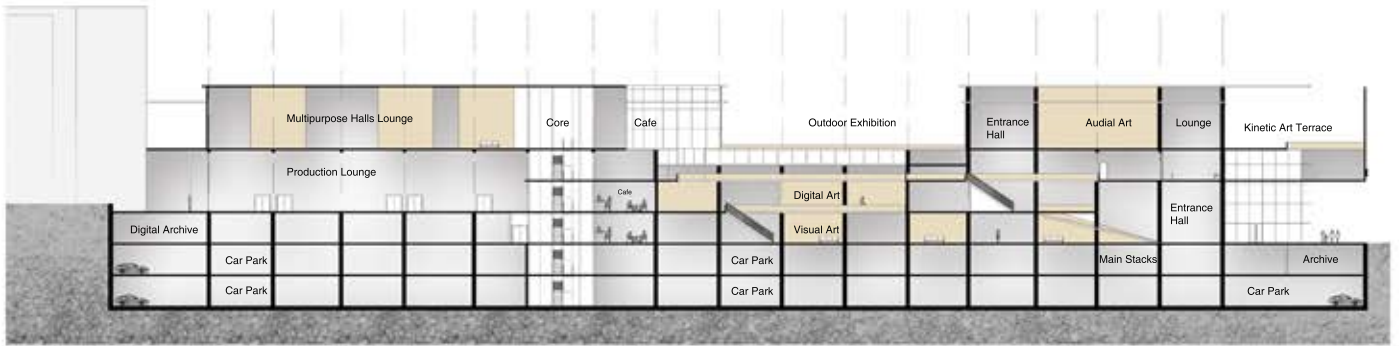


SOCIAL SPACES  
ADMINISTRATION  
PRODUCTION & CONSERVATION

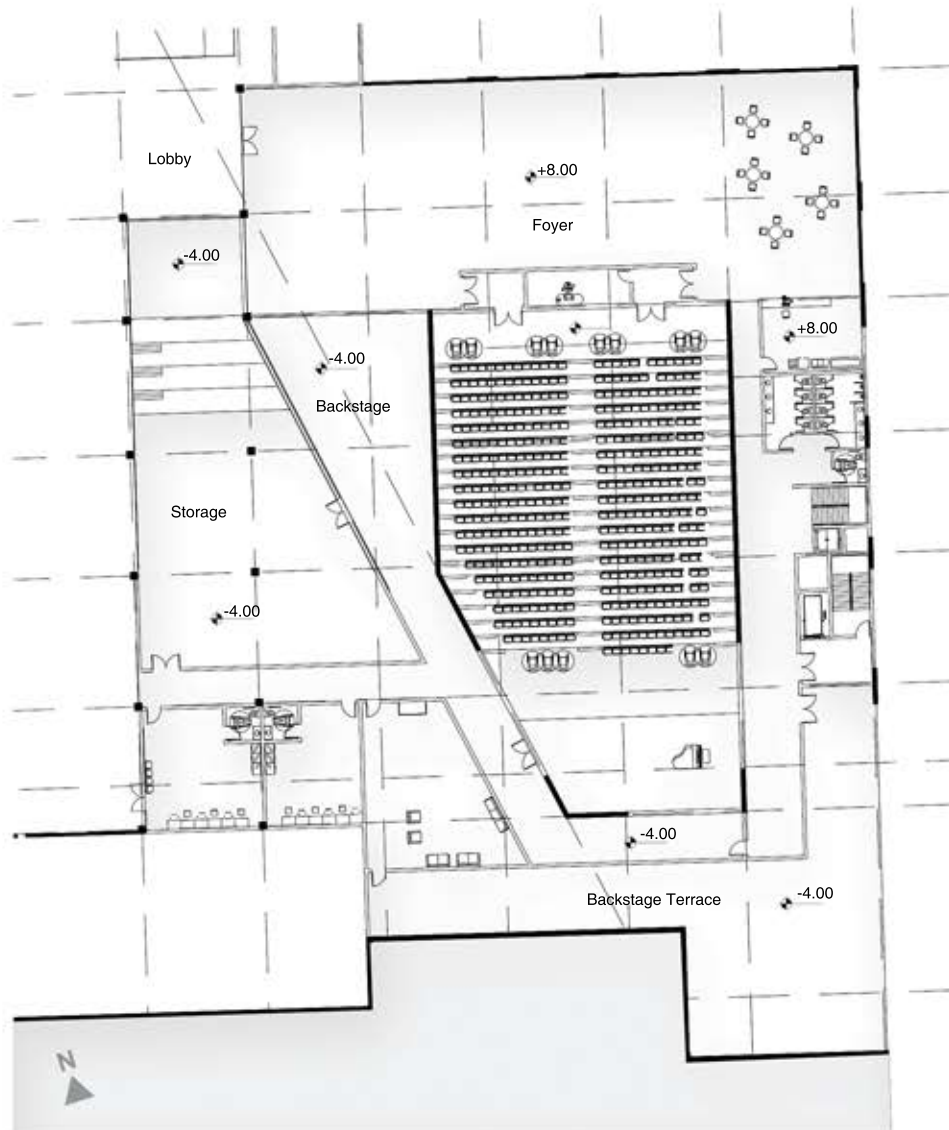


## AA Section





## Auditorium Plan





# The Generative Urban Voids

Bostanci Urban Transformation Area

Istanbul | Turkey

Spring '14

METU Faculty of Architecture | Parametric Urban Design Studio

Group Members: Merve Basak, Nilay Nida Can

Instructors: Olgu Çalışkan, Y. Baver Barut, Gökhan Ongun

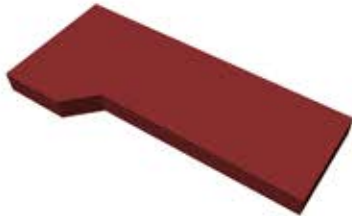
Throughout the studio, the project is enhanced by the generative design tools which have been introduced as a development in complexity science flourishing a clear awareness on existence of the emergent systems, which require associative rule-based frameworks to understand and inductive control systems to steer the processes. In this regard, our team deals with the urban voids as a reference for the transformation of the urban blocks in a generative design method. For this study, the block area being handled is 15.914 m<sup>2</sup>.



## Design Theme

### Main Principles From The Existing Plot Layout

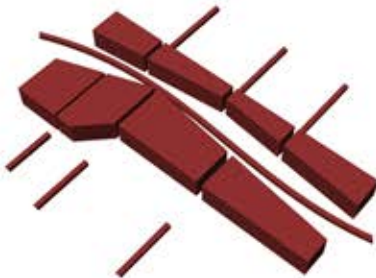
- Building rights will remain the same
- Plot order will be continued.



When the building coverage ratio is %100, number of the building floor is 2.



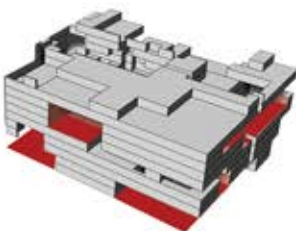
Creating a courtyard system within the ground level of the block.



In order to create public courtyard system permeability of the block is increased.



Common and private spaces on each level of the buildings.



Effective lightening of courtyard, common and private spaces on each level. Grid-based morphological system is implemented.

## Design Parameters

### Form of the Voids

- Distribution & Area
- Grid System 5\*5 units

### Total Void Percentage

- Total BCR (30%) of the building
- Total Area of the block

### Height of The Voids

- Percentage on each level
- floor number \* 1.5 (approximately)

### Courtyard

- Distribution
- Intersection Points between block median & plot edges
- Area
- BCR 30%

### Articulated Voids

- Distribution
- Area
- Height

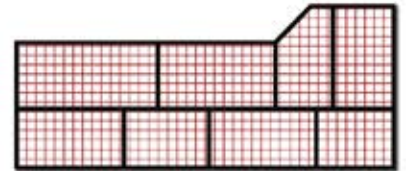
### Carved Spaces

- Perimeter Voids
- $h = 2 * \text{floor height}$
- Inside Voids
- $h = (\text{top floor number} - \text{floor number}) * \text{floor height}$

## Design Algorithms

### Form of The Voids

Block has been placed on to a grid-system which has been created in order to control the form and meaningless solid/void spaces.



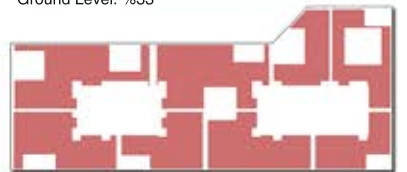
Grid-system provides design process to be flexible creating different grid size which can be controlled by the slider. (5x5m grid-pattern)



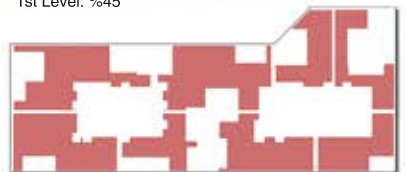
Ground Level: %33

### Total Void Percentage

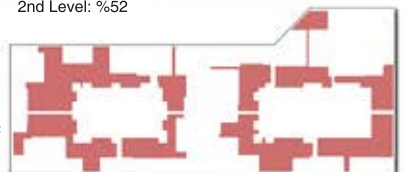
Total void within block is calculated according to the total Building Coverage Ratio of each plot. (BCR: %33)



1st Level: %45



2nd Level: %52



3rd Level: %63

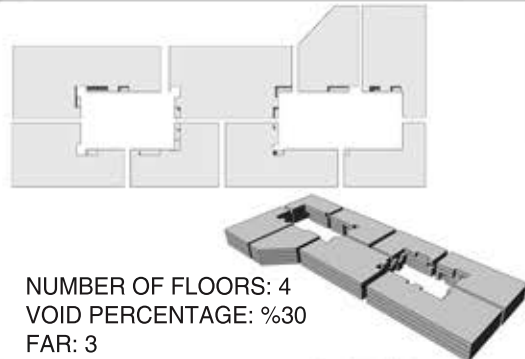
\*BCR: Building Coverage Ratio  
FAR: Floor Area Ratio

### Height of The Voids

Increasing level of void ratio in order to create common and private spaces upward of the building upper level.



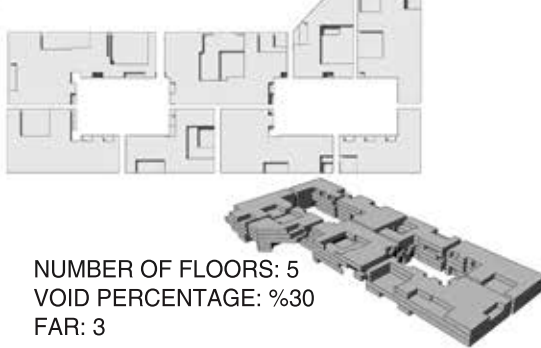
The Generative Urban Voids



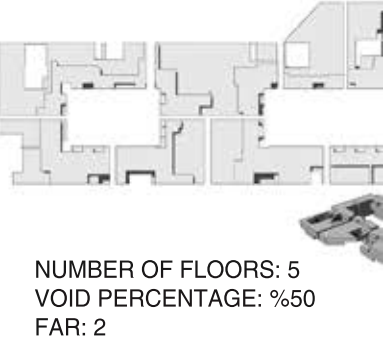
NUMBER OF FLOORS: 4  
VOID PERCENTAGE: %30  
FAR: 3



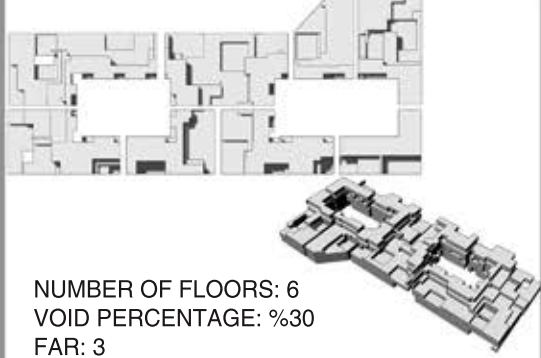
NUMBER OF FLOORS: 5  
VOID PERCENTAGE: %30  
FAR: 4



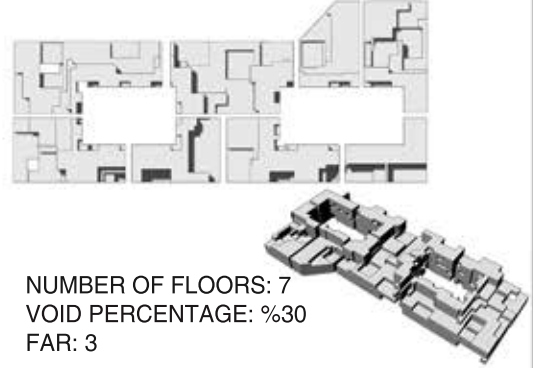
NUMBER OF FLOORS: 5  
VOID PERCENTAGE: %30  
FAR: 3



NUMBER OF FLOORS: 5  
VOID PERCENTAGE: %50  
FAR: 2



NUMBER OF FLOORS: 6  
VOID PERCENTAGE: %30  
FAR: 3



NUMBER OF FLOORS: 7  
VOID PERCENTAGE: %30  
FAR: 3

# Design Algorithms

## Codes of The Voids Within The Block

### Courtyard

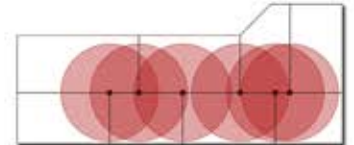
#### 1) Distribution:

In order to create inner space within block, first code has been written for the courtyard distribution. The intersection points are specified acc.to on which plot line and block median cross each other.



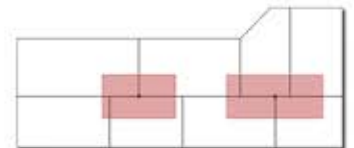
Each point's attraction region (circle) has defined.

The circles which comprise of the highest number of intersection points has been specifies as the center of the courtyard.

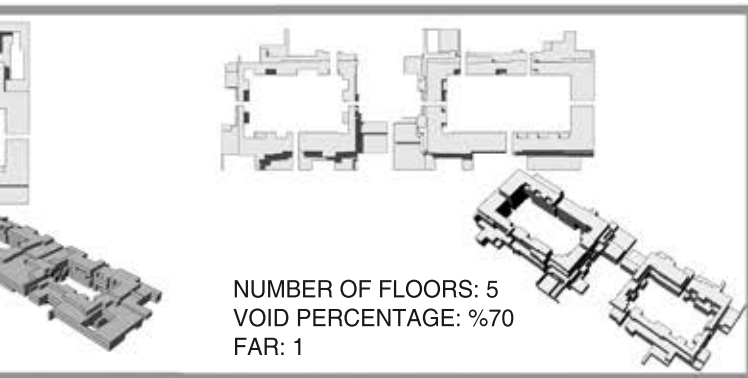
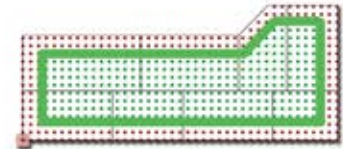


#### 2) Area

According to the Coverage Ratio of the block has defined the area of the courtyards: %30. This percentage is divided into the each courtyard as to 1/3 and 2/3 ratio. Formula: Total void within block / number of intersection points



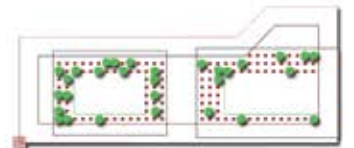
In order to avoid from meaningless void to emerge around the block perimeter, restricted region has defined around the block (offset of the block line-12 m).



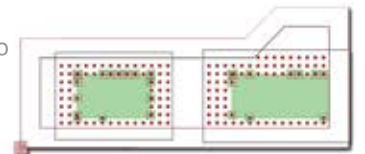
### Articulated Voids Around The Courtyard

#### Distribution:

Located around courtyard  
Random grid selection  
(Parcel by parcel).

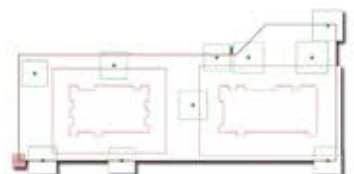


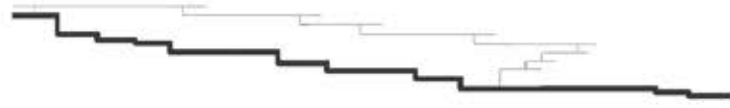
Projecting selected points to courtyard edges.



### Height of The Carved Spaces Within The Building

Void percentage is specified according to the Building Coverage Ratio of each plot. Carved spaces distributed randomly in grid sisytem. Carved spaces which emerged around the building boundary will be closed at least second level. Carved spaces which distributed inside of the building will remain open upward the building.





# Inside The City

Housing Project with Social and Commercial Facilities

Ankara | Turkey

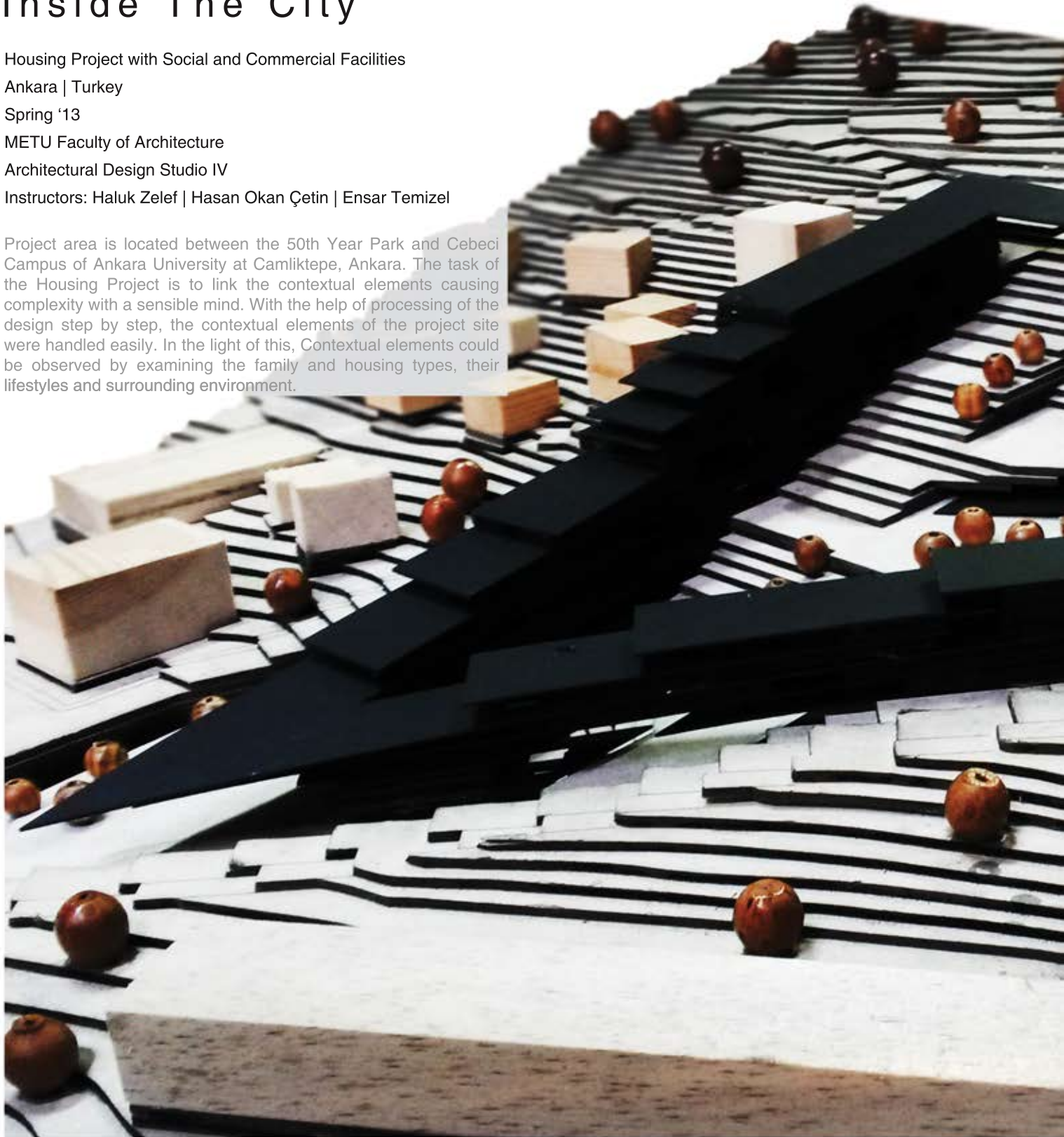
Spring '13

METU Faculty of Architecture

Architectural Design Studio IV

Instructors: Haluk Zelef | Hasan Okan Çetin | Ensar Temizel

Project area is located between the 50th Year Park and Cebeci Campus of Ankara University at Camliktepe, Ankara. The task of the Housing Project is to link the contextual elements causing complexity with a sensible mind. With the help of processing of the design step by step, the contextual elements of the project site were handled easily. In the light of this, Contextual elements could be observed by examining the family and housing types, their lifestyles and surrounding environment.





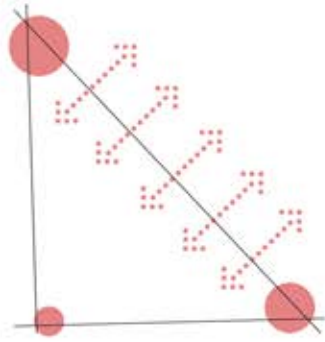


Inside The City

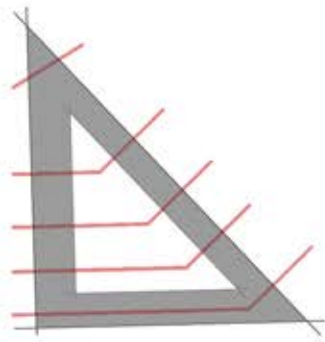




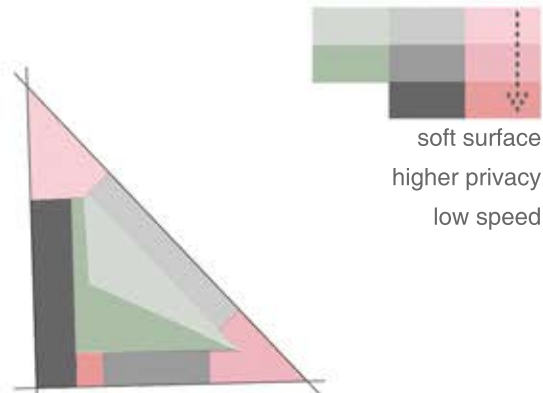
## Design Elements



Defining the site approach and its permeability



Adjusting the vista to the topography



Specifying the spatial harmony

The existing situation of the site had a weak relationship with the outside whereas social life had been enhanced by courtyards inside. Moreover, a few commercial shops were located at Aydinlar Street. In the process, strongest features of the site where tried to preserve are the inner area relationship and the controlled permeability. By this way, the proposed housing complex can meet both the social needs of neighbors and the needs of housing residents.

## Housing Typical Floor Plans

60 m<sup>2</sup> Plan



90 m<sup>2</sup> Plan



The program includes 30 units of 60, 90, 120 and 150 square meter housing units accompanied with social, commercial, and cultural facilities. Various combination of housing units lead diversity on the user typology. For instance, at Aydinlar Street, the houses with their shops can serve to small scale tradesmen. Thanks to its vista and calmness feature, the duplex houses being near the 50th Year Park are the best place for families with aged people.

120 m<sup>2</sup> Plan



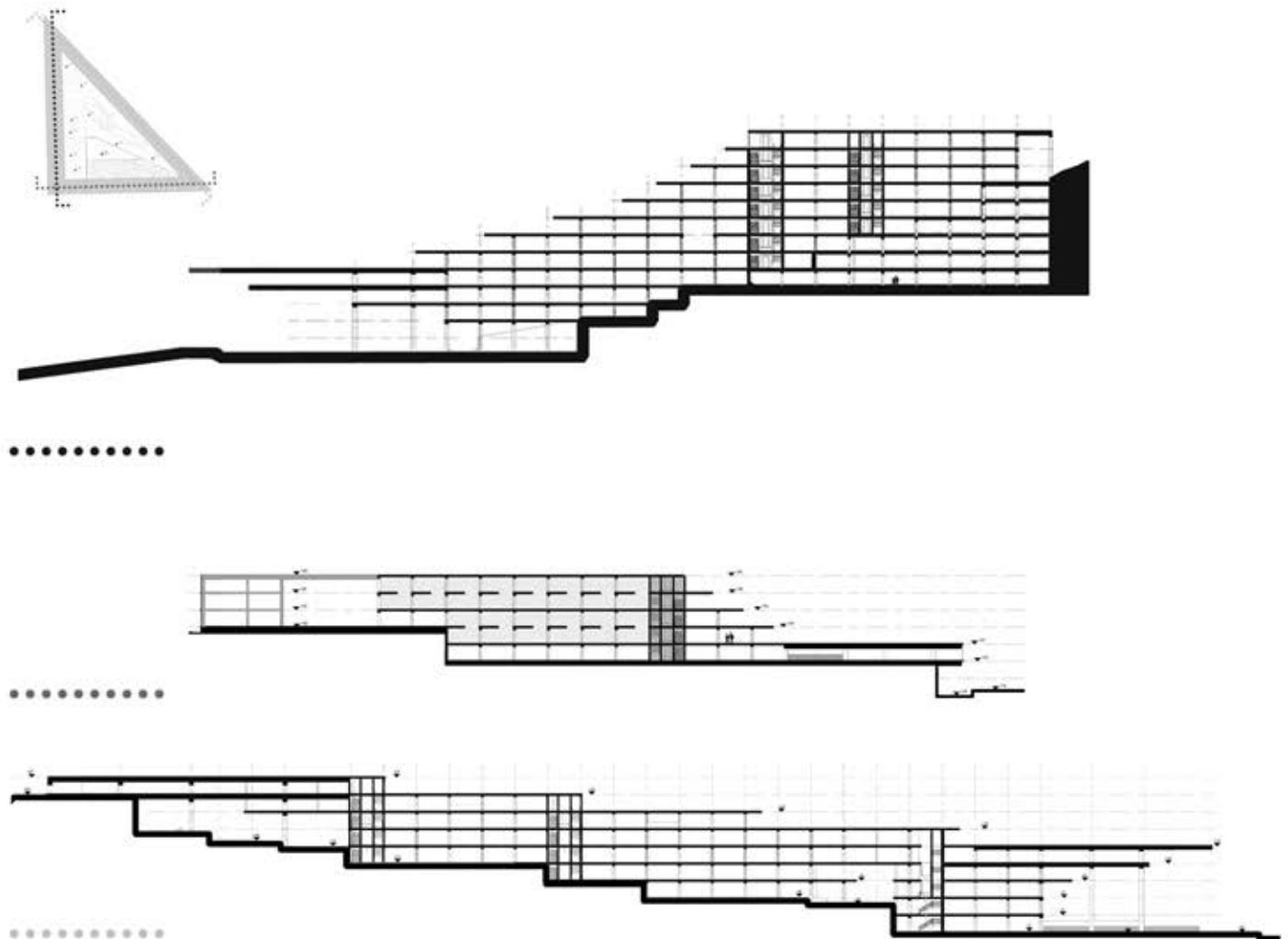
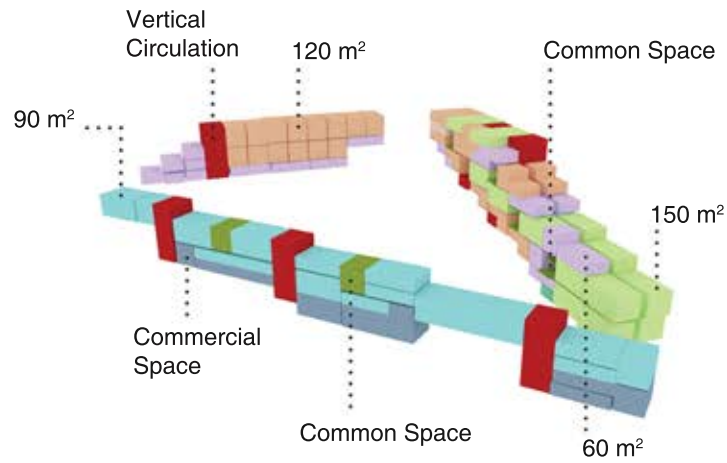
150 m<sup>2</sup> Plan



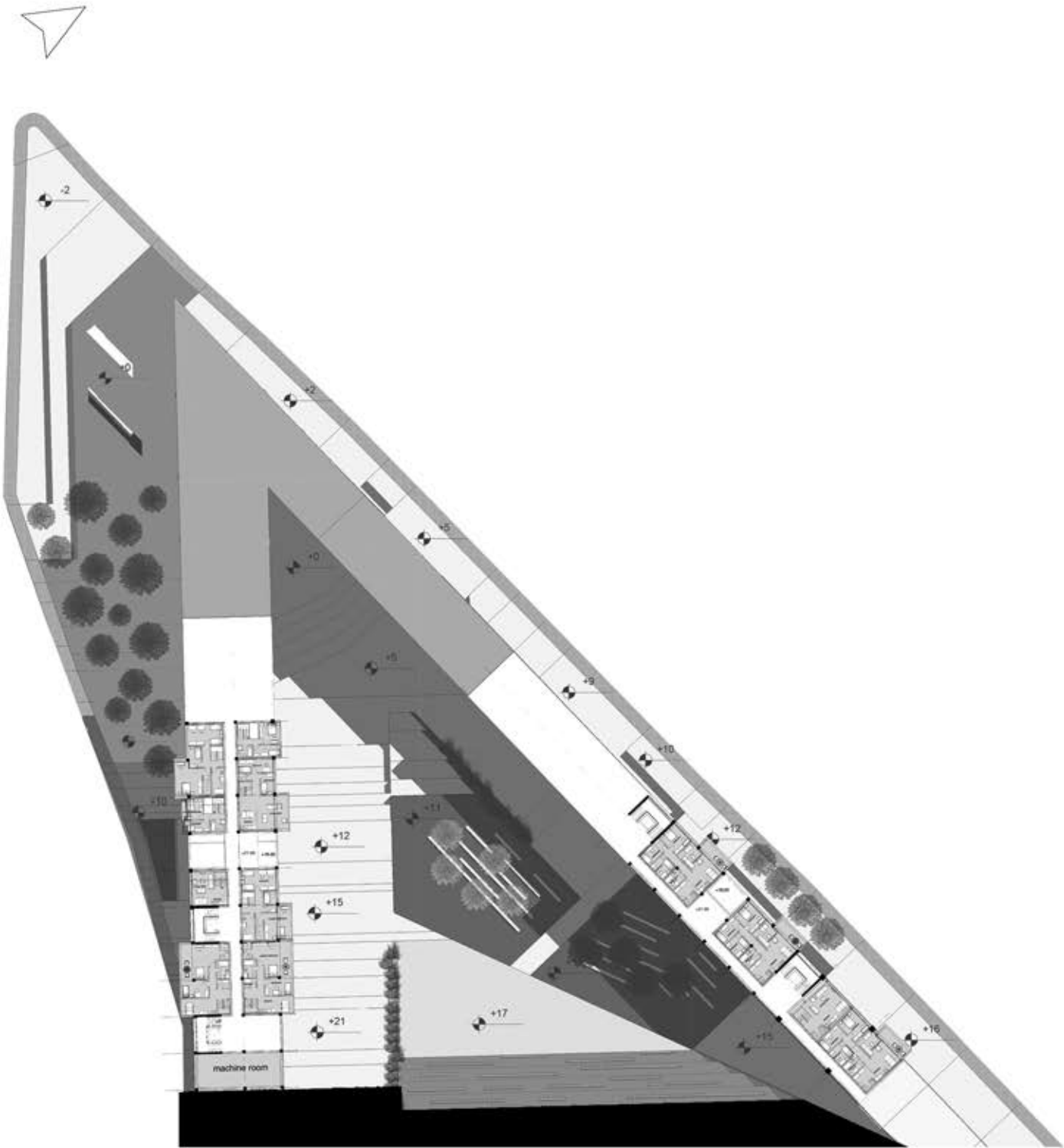
# Inside The City

“If the choice is between sitting in a private backyard or in a semiprivate front yard with a view of the street, people will often choose the front of the house where there is more to see.”

LeGatesRichard, T., & S. (1999). *The City Reader*. London: Routledge.



+21.00 Floor Plan





# The Living Furnitures of METU Campus

Exploring METU Campus Landscape

Ankara | Turkey

Fall '14

METU Faculty of Architecture | Landscape Research I

Group Members: Sevil Berenji, Nilay Nida Can

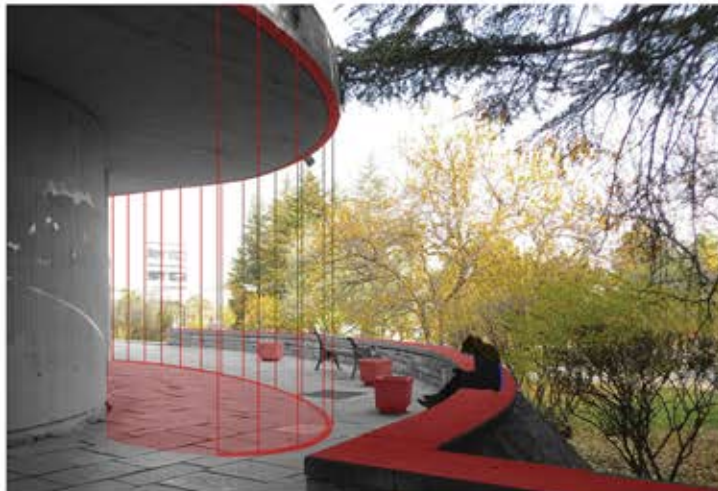
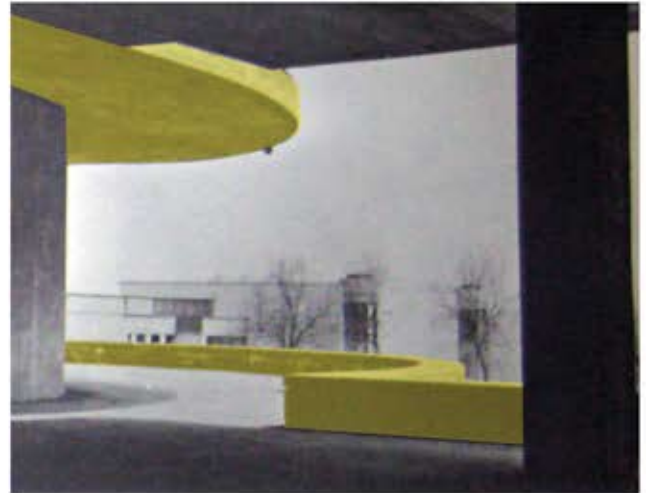
Instructor: Funda Bas Butuner



Throughout the research, our team has discovered and narrated the particularities of the METU Campus Landscape by focusing on the outdoor spaces in various scales. The project comprises of street furnitures and their relationships with their surroundings. By means of the Cinici Reports of METU Campus, the group study focused on the idea that campus is a living organism. All elements in campus are in a coherence with each other in the campus. When one element is changed, added or subtracted in time, other ones around it change their characteristics according to it. So, the theory and the ideology beyond METU campus planning stands on the idea of 'living organism'. This idea is giving plasticity to every elements in which every elements inside the campus could melt and form its mould according to its surrounding. Therefore, there is an obvious well defined integration between buildings, landscape and furniture and the solid-void relationships between their forms.

## Approach to the Site

- Parallel To METU Campus Ideology
  - Living With Time
  - Plasticity In Form
  - METU Logo As Geometric Pattern
  - Eastern Culture Effects
  - Form Integration With Landscape
  - Material Integration With Landscape
  - Solid And Void Relationship
  - Human Scale Consideration
- 
- Furniture out of Space
  - Space out of Furniture



Furnitures in METU campus are classified as "Furniture out of Space" and "Space out of Furniture". While from the view of Furniture out of Space, buildings and landscape give shapes to furniture forms, furniture forms and orientation defines a new space around it with reference to the view of out of Furniture. On the other hand, the integration and coherence between these two classifications are usually strong not to separate the furniture into two groups.

### The Physics Department

The circular amphitheatre's bumped out roof provides shadow and the shadow forms the circular and curvilinear seating space around it. The forms, lines and texture lines support the METU logo curvilinear form in addition to grid design concept of the campus. Both Outward and Inward facing seatings enhance the prosperity of the space.

## The Preparatory School of METU

The seat formed by the street stairs which by having inward facing feature provides a focal point for the statue. East part of the seat serves as inward facing and the west part of the seat mostly carries the function of outward facing seat having platform to sight the surrounding. Human scale consideration provides friendly atmosphere for the users.



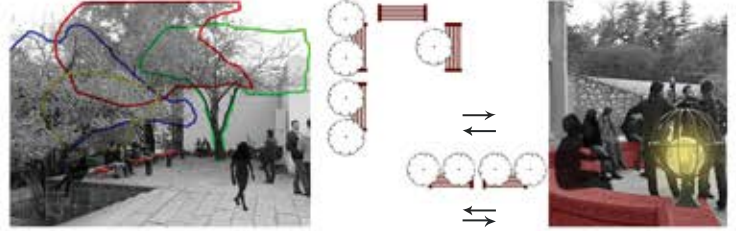
## The Presidency

The monument provides circular space around it in which people can contact in a short distance to each other. The color contrast of the monument and the back-side of the building are provided to emphasize the monument. The monument gets the attraction of the users with the help of its soaring altitude feature at the middle of the space.



## The Library

The space forms out of the building void. Seasonal change on trees creates different atmosphere on space. Trees are used as a transparent border between the seat platform and movement. The Outward-facing (sociofugal seating) seats support the axis and observing the movement on the axis. Curvilinear lamps in the form of METU logo work for the sake of lightening.



## The METU Stadium

The Stadium serves a panoramic view for the user to observe because of its curvilinear METU logo form. Wooden material is used as a live material in the strengthening the ideology beyond METU campus. Shade and shadow between seats provide color contrast. The space shows itself in a various ways for different seasons.



## The Architecture Faculty

The seat has inward-facing looking at the yard. The inspiration from the eastern culture being beside each in a short distance to others is seen here. The tree behind it provides a seasonal background. The assymetrical table having color contrast with the seat gives a sense of a different space around it. The material used in seat and the pavement depicture the living organism idea of the campus.





# Photography

METU Faculty of Architecture | Related Courses |

ID 317 Introduction To Visual Media Spring '12

Instuctor: Hasan Saltik

ARCH 365 & 366 Fine Arts Techniques Workshop Fall &  
Spring '13

Instuctor: Jale N. Erzen











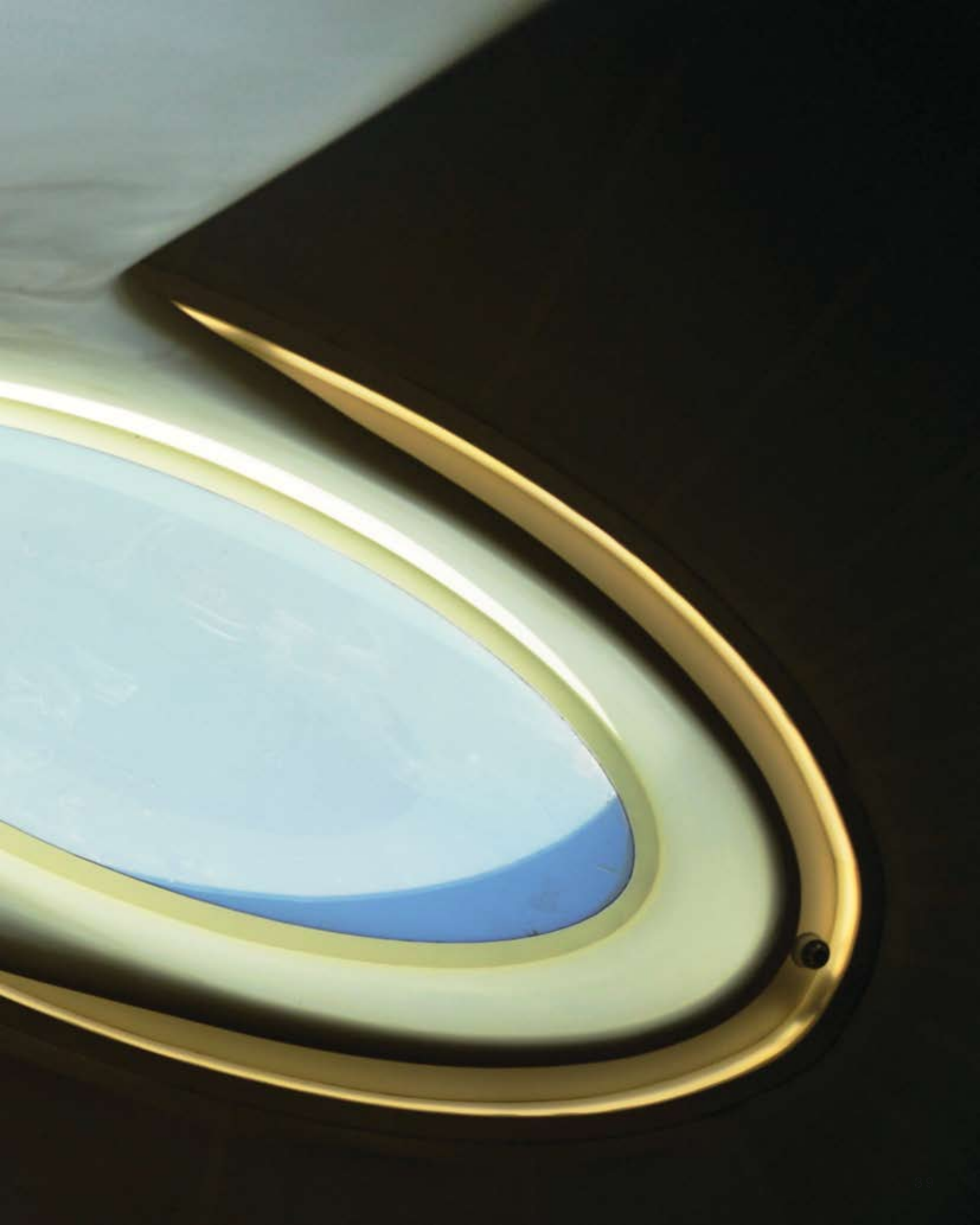


















# Reo-Tek | Simulation, Interactive Presentation and Exhibition Design

EXPO 2016 Biodiversity and Agriculture Museum

3DsMax 2015 | SketchUp 2015 | Rninoceros 3d

Interior Modelling for Unity 3D Simulation

Images are as a reference.

Burak Ilhan | Mert Cagdas Baykal | Nilay Nida Can



- BÖLÜM 0 DİZİN & GİRİŞ  
SECTION 0 DIRECTORY & INTRODUCTION
- BÖLÜM 1 YERLEŞİK HAYATIN DOĞUŞU  
SECTION 1 THE DAWN OF SEDENTARISM
- BÖLÜM 2 BEREKETLİ HİLAL- MEDENİYET ETAPLARI  
SECTION 2 FERTILE CRESCENT
- BÖLÜM 3 TARIMA ELVERİŞLİ DÜNYA  
SECTION 3 ARABLE PLANET
- BÖLÜM 4 GELECEK İÇİN TARIM  
SECTION 4 AGRICULTURE FOR THE FUTURE
- BÖLÜM 5 BİYO ÇEŞİTLİLİĞİ GERİ KAZANMAK  
SECTION 5 RECOVERING BIODIVERSITY



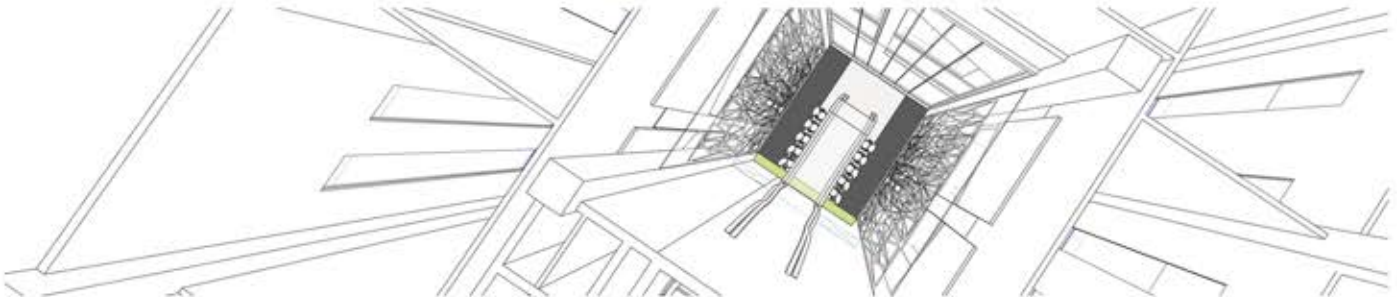




# Archfiction Architecture

Soteks Office Complex

3DsMax 2014 | Vray 2014 | Revit 2015 | SketchUp 2015 | Photoshop CS6





# Archfiction Architecture

A Teen Room Design

3DsMax 2014 | Vray 2014 | Photoshop CS6







# Archfiction Architecture

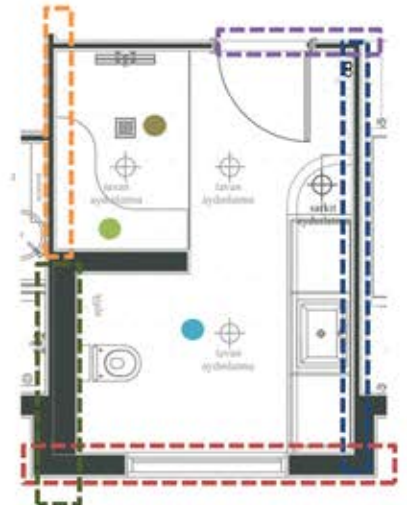
Umrân-Ethem BesKonaklı House

3DsMax 2014 | Vray 2014 | Photoshop CS6



## Material List

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		Açık Bej Akrilik duvar boyası
		egeseramik_resize_33x33_krem







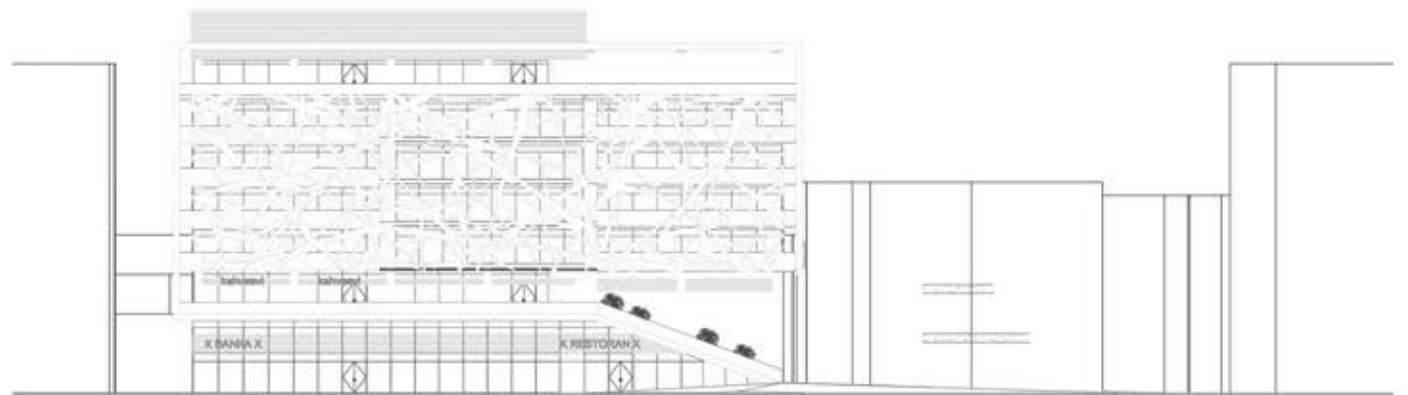
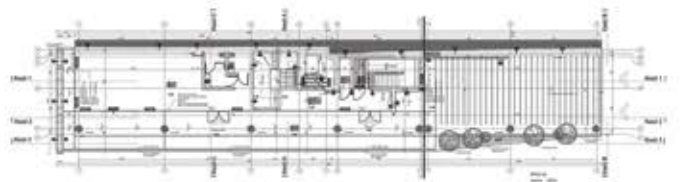
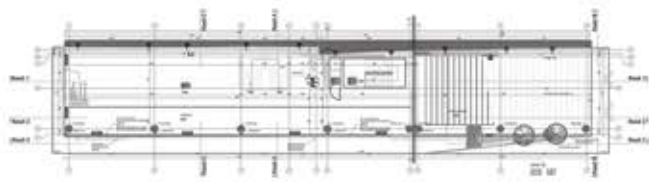
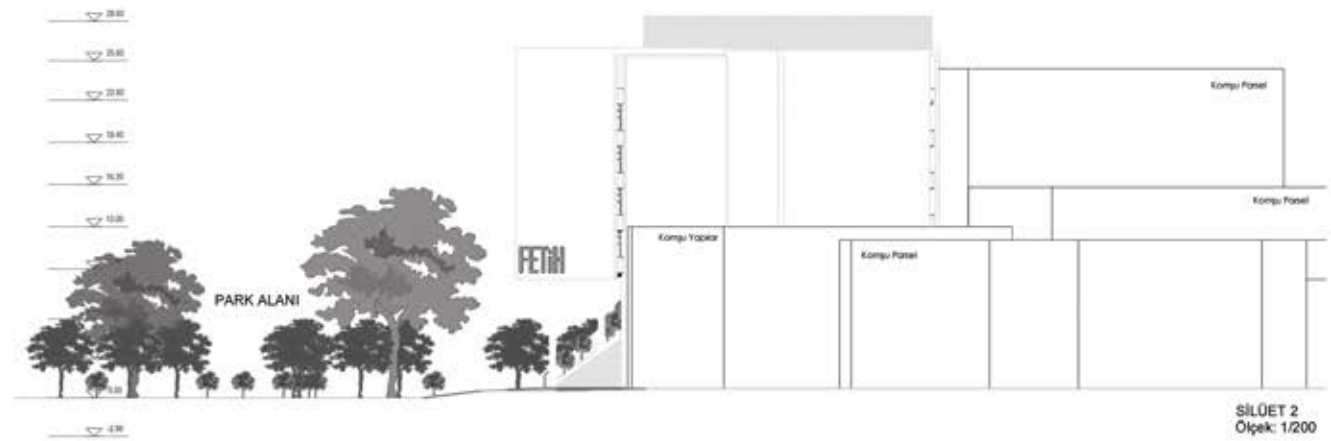


# Archfiction Architecture

Eregli Municipality Commercial Office Building

Autocad 2015

Only sections belong to me.





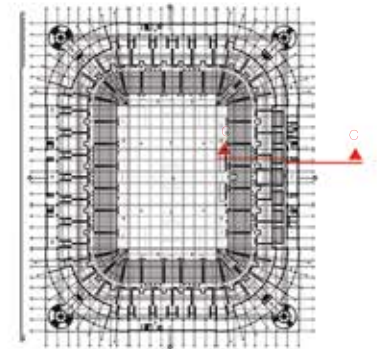
# Arma Group Architecture and Urban Design

Diyarbakir Stadium Project

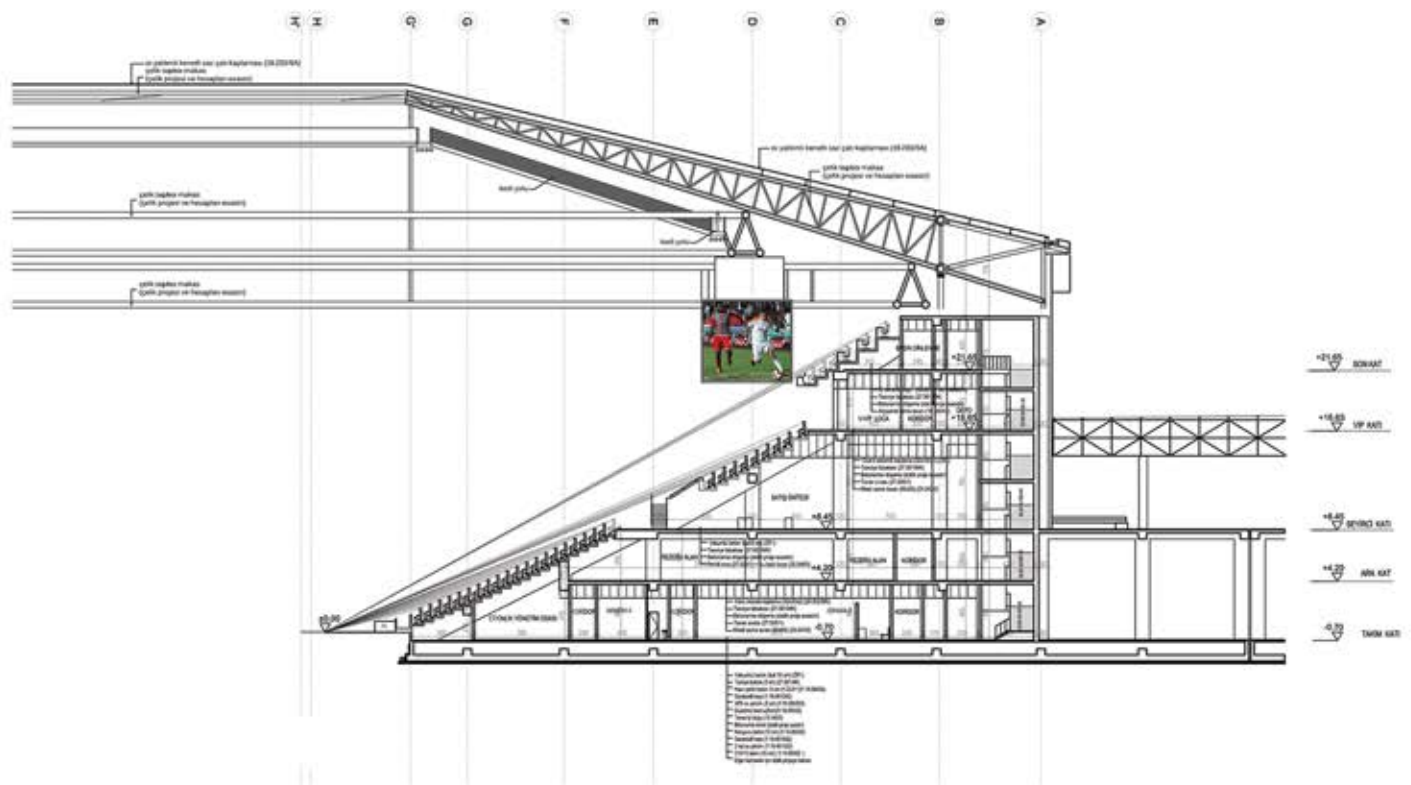
Autocad 2015

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CC SECTION

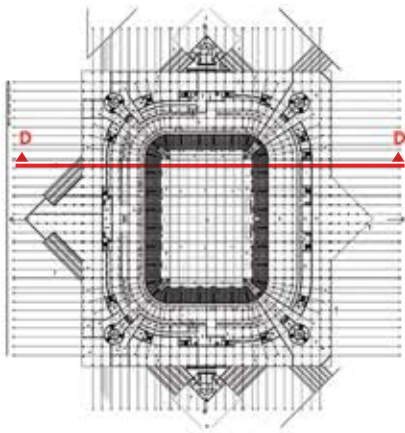


LIVE BROADCAST FLOOR

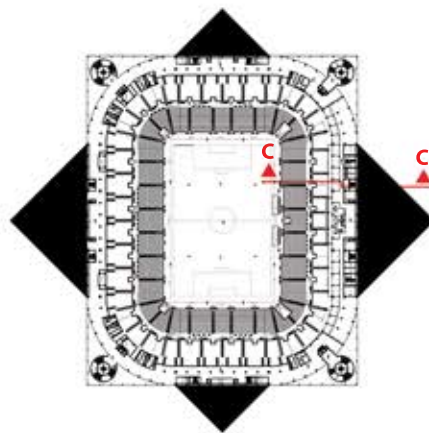




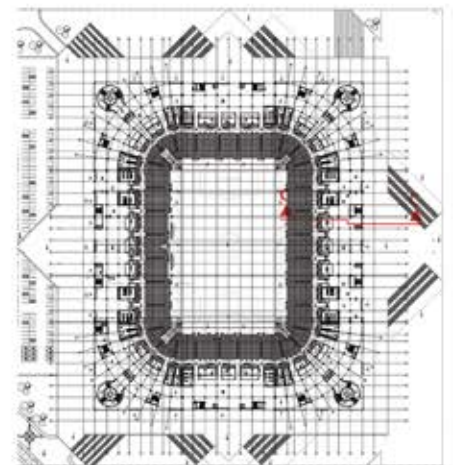
## DD SECTION



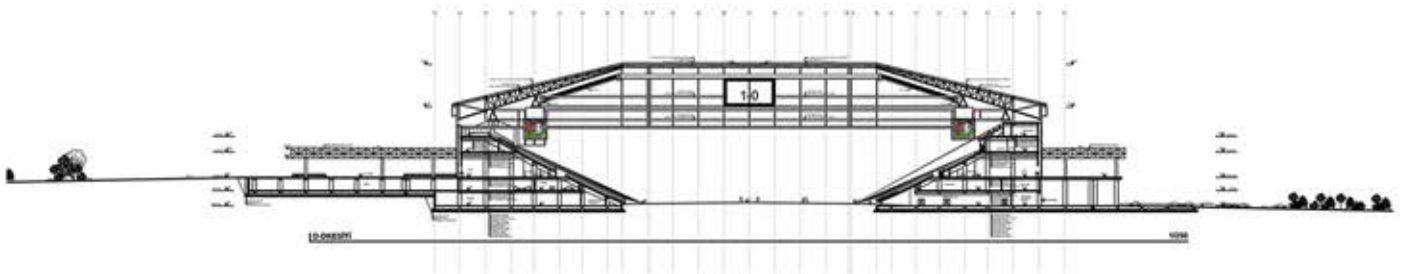
MEZZAZINE FLOOR +4.20



VIP FLOOR +16.65



AUDIENCE ENTRANCE FLOOR +8.45



# Arma Group Architecture and Urban Design

Diyarbakir Dicle Valley Nature Park | Urban Design Project

Autocad 2015 | Photoshop CS6

Only silhouettes and sections belong to me.



AA SECTION



BB SECTION



AA SILHOUETTE



BB SILHOUETTE

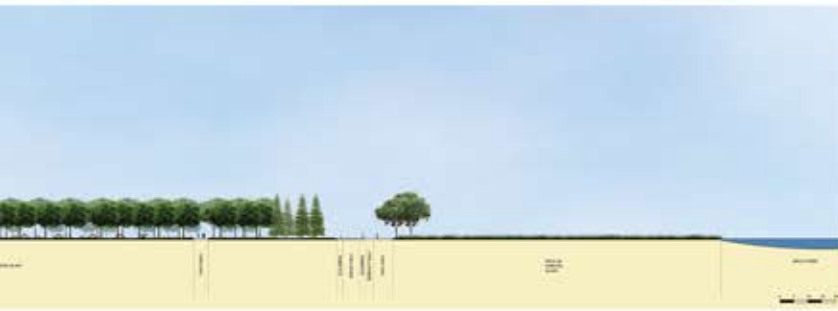


CC SILHOUETTE



DD SILHOUETTE









NILAY NIDA CAN  
SPRING | 2017

