BURAK ÇELİK Architecture Portfolio Selected Works | 2015-2017

I'm Burak Çelik, senior architecture student in Bilkent University. I am seeking for an Architectural Internship in SHoP Architects to improve my abilities and to be a part of a team that I believe my approach to architecture fits most.

My 4 years undergraduate studies in Architecture led me to develop my abilities in design and architecture which were already a part of my life since childhood. Since childhood, my interests which are related to creativity made me pursue a career in Architecture that I believe fits my personality most. During my high school, I improved my language skills on English and German with my foreign teachers and had an opportunity to improve my language skills in New York in 2013 that helped me to receive a certificate, live in a city full of architecture and be inspired from.

During my 4 years of Architecture study, I visited several European and American cities and had a chance to observe. One of them was in southern Italy that I participated in an International Workshop. We worked on a historical region of Italy with Italian designers and produced designs for an international exhibition and published a book. This project improved my ability on field research, evaluation and design as well as team work and digital models. With my design studios and other workshops, I improved my ability to work in a team and gained practical experience by designing, creating 3D models and drawings with Rhino, Grasshopper, Maya, 3DsMax, Revit and Autocad. Designing was even faster with these tools and many other helped me to develop my portfolio such as V-Ray, Keyshot, Adobe Creative Cloud and so on. In Fall 2016, I received the award in Chair Design Competition by Architect Giulio Cappellini which I combined my design and digital skills together in a limited time period.

Since digital fabrication is a constantly developing field and my interest, in Summer 2017, I have also gained practical experience in Architectural Association (AA School) Visiting School Istanbul with Robotic Prototyping, 3D Printing, CNC and other digital fabrication materials as I believe that new systems and technologies provide innovative designs which is shaping future of architecture.

I have also joined in Melike Altinişik Architects in which I had a professional experience and had a chance to work on a parametric design work for "IABA 2017" Biennale that was built and exhibited in Antalya, 2017. I learnt that designing something from small to bigger scale is a creative process that I always work ambitiously and dedicate myself to develop innovative ways.

I am excited about the chance of working for SHoP Architects and please find my attached resume and portfolio which provide full details of my qualification, works and experiences.

Thank you for your time

Sincerely yours,

Burak Çelik

BURAK ÇELİK

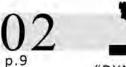
Architecture Portfolio

contact:burakc28@hotmail.com





3rd Year





"DYNO" Parametric Shelter for the Campus 3rd Year



MELIKE ALTINISIK ARCHITECTS

Work Experience

p.19

THE LIVING MACHINE Cohouse+Mixed Use +Urban Planning ARCH301



ARCHAEOLOGICAL RESEARCH CENTER A Proposal for a Historical City ARCH302





Revitalization Project 2nd Year



p.47



CHAIR DESIGN Awarded Competition Project 3rd Year

EXTRA WORKS Form Finding Studies, Parametric Designs and Competitions



Burak Çelik Architecture Student

PERSONAL

Date of Birth25.07.1995LanguagesLive inAnkara, Turkey.English: FluentNationalityTurkishGerman: IntermediateContactGsm: +905068409204
Mail: burakc28@hotmail.com
burak.celik@ug.bilkent.edu.trTurkish: Native

EDUCATIONAL

| 2013-Present | Bilkent University Department of Architecture Scholarship student CGPA:3.29/4 DesignStudio CGPA: 3.70/4 Expected Graduation: May 2018 | |
|--------------|--|--|
| Summer 2014 | Kaplan College Language School Manhattan New York,NYC. | |
| 2009-2013 | Hacı Ömer Tarman HS Foreign Language: German | |
| | | |

WORK EXPERIENCE

| Summer 2017 (2 Months) | Melike Altınışık Architects Projects Involved; IABA2017, AFA Cultural Center, Süleymanpaşa Municipality Competition, Ahlat Youth Center Competition, Çamlıca TV Tower Model |
|---------------------------|---|
| Summer 2017 (1 Month) | A Tasarım Architecture Atoure Antonia |
| Summer 2016 | Sinpas GYO Intern Architect |
| | Projects Involved; Marina Ankara(2500 Apartments), Sinpas Altınoran (2647 Apt.), Sinpas Ege Evleri(887 Apt.) |
| 2013-Present | Department Assistant Bilkent |
| | Graphic Designer Arch. Department of Bilkent Uni. http://www.arch.bilkent.edu.tr |

SKILLS

| | | basic | fluent |
|-------------------------|---|-------|--------|
| 3D Modeling Drafting | Rhinoceros* Grasshopper* MAYA* 3Ds Max Revit BIM AutoCAD Sketchup Pro | | |
| Rendering | V-Ray* Keyshot* Lumion 6 Maxwell | | |
| Post Production | Adobe Photoshop Adobe Illustrator Adobe InDesign Adobe Premiere Pro | | |
| Physical | 3D Printing CNC Machine Laser Cutting Model Making | | |

EXPERIENCES/WORKSHOPS

| Summer 2017 | AA Visiting School 2017 Istanbul Concept of AA Istanbul Visiting School 2017 was Robotic Mediations which explores the advantages of computational methods for design, analysis and fabrication which are coupled with physical experimentation, fostering learning by experimentation in an active collaborative studio environment. |
|--------------|---|
| 2017 | "Dyno" Parametric Shelter Bilkent |
| | In Parametric Design Studio, the shelter was designed for the campus to serve people showing a parametric work can be a part of the society where needed. The structure was built in June 2017 after Spring Semester is finished by using CNC machines, laser cutters and 2 weeks of hard work of the team. |
| 2015-Present | Design and Architecture Society(DAS) Bilkent |
| | Chairman of the student society which is over 300 members. Works including various events, organizations, workshops, talks and panels. "Tasarım Bilkent" is one of the events organizing every year and architects all around the world attend the panel. In 2016, I was an active member in the event and I organized "Tasarım Bilkent 2017". Official Website: http://dasbilkent.com/ |
| Summer 2016 | Bari International Workshop Italy |
| | "Dwelling Space and the Character of Places/ Lo Spazio Domestico E I Caratteri Dei Luoghi" An international group of architectural students proposed new urban site for San Vito and the works published in an exhibition and in a book. Politecnico di Bari. |
| Fall 2016 | Sketching the City Workshop TMMOB |
| | Works consisting of historical buildings of Ankara and sketches published in an exhibition for TMMOB Chain of Architects Ankara. |
| Spring 2016 | Tensile Structure Workshop Bilkent LAB |
| | Proposal that I worked on was one of the selected three designs among 65 projects.The structure was built in Bilkent Design/Construction Lab using CNC Machines. |

INTERESTS

Parametric Design | Urban Design | Environmental Systems Sustainability | Graphic Design | Photography

TRAVELS

New York, Princeton, New Jersey(United States), Budapest(Hungary) Vien, Salzburg(Austria), Venezia, Florence, Bari(Italy), Prague(Czech R.)

REFERENCES

Melike Altınışık (Principal, Melike Altınışık Architects) Previously:Zaha Hadid Architects, AADRL(MArch) E-mail:melike@melikealtinisik.com

Mark Paul Frederickson (PhD. LEED AP | Associate Prof., Bilkent) Previously: Assoc. Prof., Uni. of Arizona | PhD, UCLA. E-mail: frederickson@bilkent.edu.tr

Giorgio Gasco (Assistant Prof., Bilkent) Previously: PhD, Polytechnic Uni. of Cataluna | Prof., Gazi Uni. E-mail: giorgio.gasco@bilkent.edu.tr

AWARDS/EXHIBITIONS

| 2017 | ARCH302 "Basamaklar" Exhibition in TSMD |
|-----------|---|
| 2017 | Chair Design Awarded Project |
| 2017 | IKSV 3rd Istanbul Design Biennial Selected/Published Project |
| 2016 | ARCH202 Selected Work Published in Department Exhibition |
| 2015 | ARCH201 Selected Work Published in Department Exhibition |
| 2015 | ARCH102 Basamaklar Sergisi in TSMD |
| 2014-2016 | School Representer in TMMOB Chain of Architects |
| 2012 | President in Hacı Ömer Tarman Anadolu Lisesi |
| 2011 | Merit-based scholarship worths appr. 2,000 \$ in high school. |

EXTRA-CURRICULAR

| 2017 | Event: "Tasarım Bilkent" 2017, Head. |
|---------------|---|
| 2016 | Event: "Tasarım Bilkent" 2016, Active Member. |
| 2016,Venezia | Venice Biennale di Architettura |
| 2016,Istanbul | 15th Istanbul Architecture Bienal |
| 2016,Ankara | 29th Construction Fair |
| 2015,Istanbul | 3rd Bosphorus Bridge Construction |
| 2015,Ankara | 28th Construction Fair |
| 2014,Istanbul | 14th Istanbul Architecture Bienal |
| 2014-2016 | Civic Involvement Projects(TDP), Active member. |
| | |

01 AA ISTANBUL VISITING SCHOOL 2017 Robotic Mediations

2017 Summer

Architectural Association School of Architecture in collaboration with Istanbul Bilgi University of Architecture Tutors: Elif Erdine(Program Head), Alexandros Kallegias, Alvaro Lopez Rodriguez Project Location: Bilgi Uni., Istanbul | TURKEY



Istanbul Bilgi University LAUREATE INTERNATIONAL UNIVERSITIES

BRIEF

AA Istanbul Visiting School investigated the inherent associations between form, material and structure through the rigorous implementation of innovative design and fabrication techniques. **Computational methods** for design, analysis and fabrication coupled with physical experimentation, fostering learning by experimentation in an active collaborative studio environment.

The computational process of AA Istanbul Visiting School is formulated around **Grasshopper**, the generative modeling environment for Rhino, and various add-ons related to Grasshopper. Initially, these tools were introduced with technical tutorials conveying the logic behind algorithmic design and the ways of working with coding as a design tool. After this step, each design team began to experiment with computational tools specifically developed for the agenda of the programme.

Participating **"Robotic Prototyping"** group was exciting for me and I had a chance to learn more about Grasshopper for controlling Kuka Robot. My knowledge and experience about Grasshopper let me experience with Robotic Prototyping learning from professional and experienced tutors.

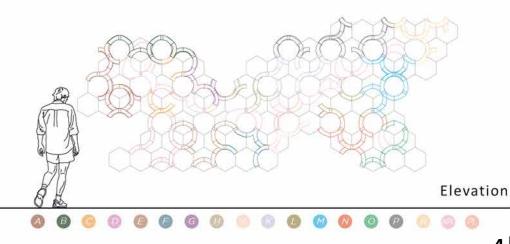
DESIGN CRITERIA:

- Sheet Aluminum Size: 200 x 100 x 0.1 cm
- Material efficiency
- Production time (of each unit and total number of units)
- Assembly sequence
- Relation to the existing holes on the wall you cannot drill new holes!
- Connections
 - -To each other
 - -To the wall
 - -To the ground (optional)
- Fabrication Techniques (bending, twisting, folding, forming, kerfing, etc.)
 Tools
 - -Jigs (configuration of the table and fixtures)
- Texture and material effects (optional)
- Perception

- z

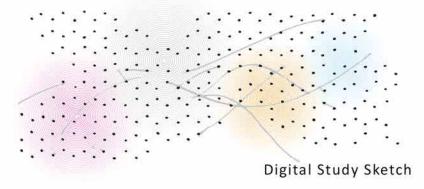
-During different times of the day -During the night

Plan



<u>GROUPS:</u>

-Robotic Prototyping -Perforation -Surface Texture -Lighting -Joints



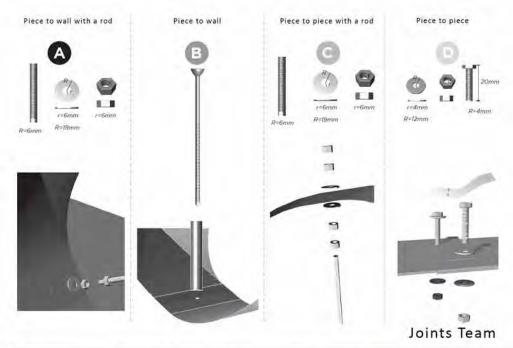
Involved Works

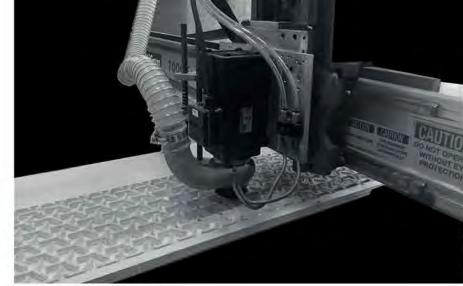
Design agenda and techniques;

1. Exploration of computational algorithms as a means to devise a structure which can become part of the built environment.

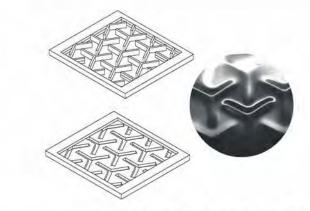
2. Consideration of real world constraints in the digital setup in order to conceive realistic solutions for the physical prototype.

3. Development of sheet metal bending techniques through which the interrelations between the digital and the physical can be rigorously tested.





CNC for surface treatment



Surface Treatment Team

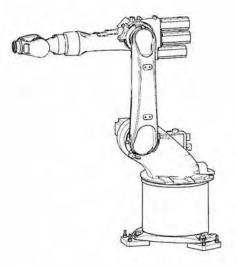


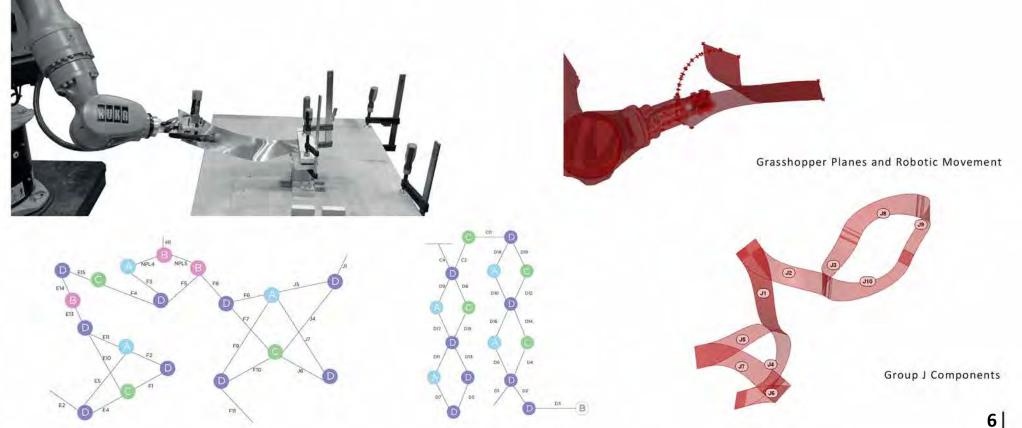
Lighting Team

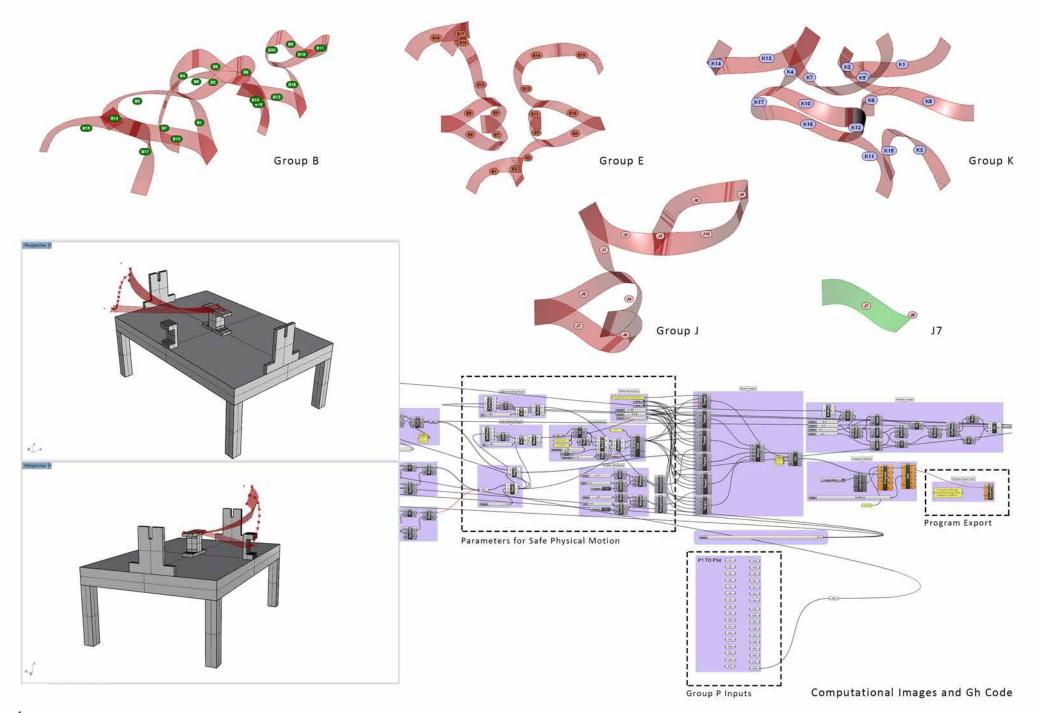


Robotic Team

The robotics team has been assigned to construct a system that bends and twists the aluminum sheets with the help of **the robot**. In order to accomplish this; cylinders and connectors were adopted to the system to utilize bending features of the cylinder. However, the system was not adequate to remain standing for the adapted design - cylinders were removed to improve the strength of the system. Since the elements were replaced according to their roles, a simplified mechanism was introduced in order to fix the aluminum sheet.







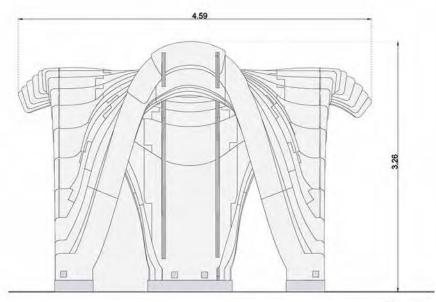


02 "Dyno" Parametric Shelter for the Campus

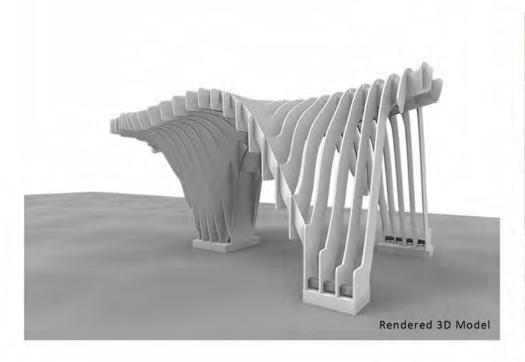
2016-2017 Spring Semester - 3rd Year Bilkent University Parametric Design Studio Team: Mert Kilcioğlu, Burak Çelik, Umur Taze, Cenk Gençer, Sevilay Göker Project Location: Bilkent Uni., Ankara | TURKEY

PROJECT BRIEF

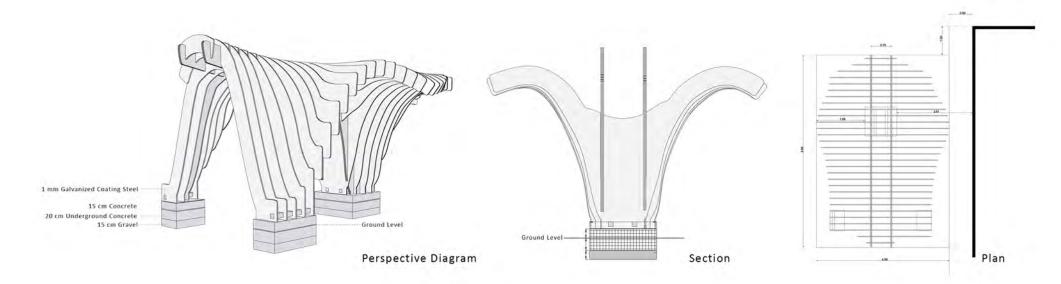
In Parametric Design Studio, the shelter was designed for the campus to serve people showing a parametric work can be a part of the society where needed. Architecture department supported the team to built the structure next to the exhibition hall and main building of Department of Fine Arts and Architecture. Main design idea belongs to Mert Kilcioğlu, when the structure was decided to built, it was revised and changed to be built in terms of structure, joints, connections, material choice, statics, environmental impact and so on. For the construction, design was revised, drawings for CNC Machine was prepared and budget for timber, joints, bolts etc. calculated for efficiency. The structure was built in June 2017 after Spring Semester is finished by using CNC machines, laser cutters and 2 weeks of hard work of the team.



Elevation

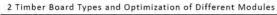






Workflow

- 1. Final Design Model prepared
- 2.Each piece paired as tongue/groove
- and prepared for CNC
- 3.Timber material was chosen
- 4.Pieces cut with CNC
- 5.Pieces glued with wood glue and bolted
- 6.Glazing sprig was used to reinforce and pieces nailed
- 7.Support profiles and nails pounded
- 8.Foundation was prepared

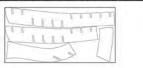


THILL

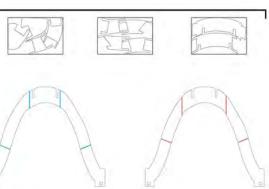
THE PLUE

Tongue

Groove





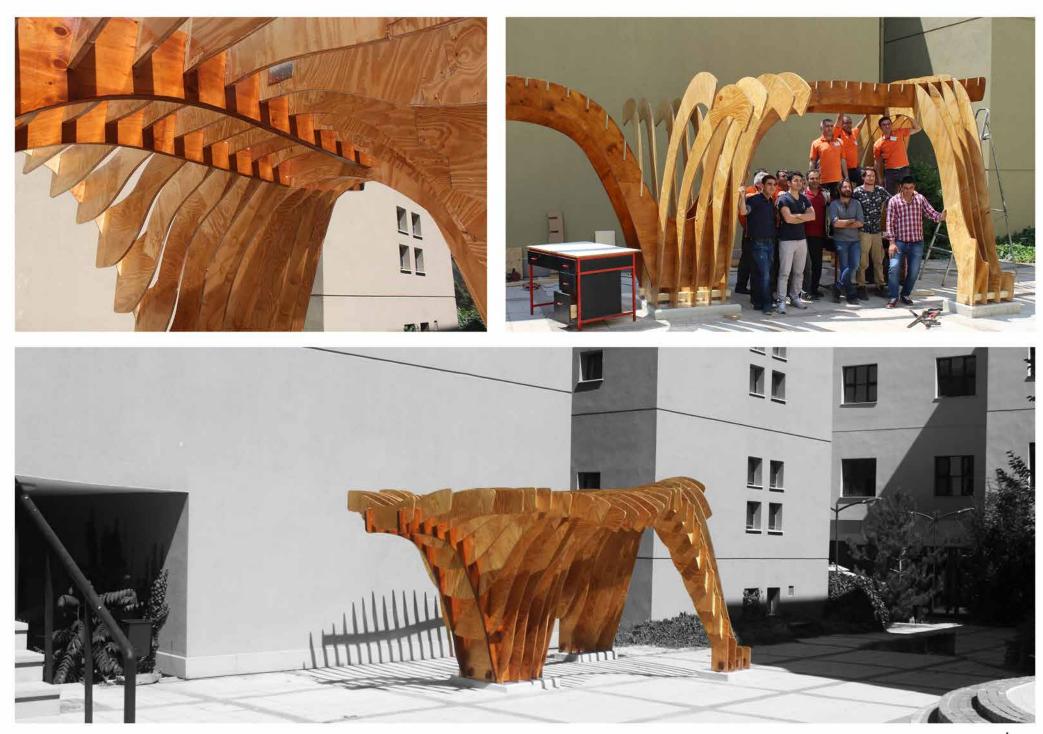


Foundation



CNC Timelapse





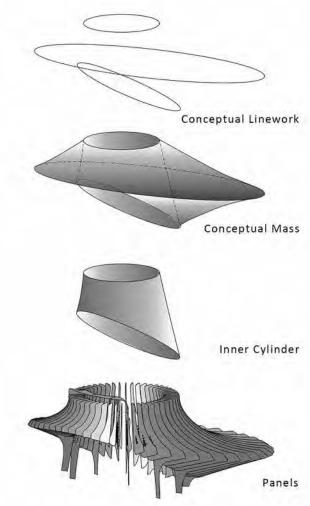
MELIKE ALTINISIK ARCHITECTS(MAA) Work Experience 03

Motion In the Shell - International Architectural Biennale Antalya(IABA) 2017

2017 Summer Architectural Intern Design: Melike Altınışık Architects Team: Melike Altınışık, Tan Akıncı, İrem Coşkun, Büşra Güler Burak Çelik, Nurcan Sütçü, Damla Erkoç, Melih Altınışık Project Location: Antalya | TURKEY Publication: Designboom, Arkitera

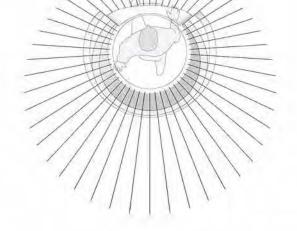
BRIEF

'Motion in the shell' is the end result of integrating construction traditions in nature with modern and digital fabrication technologies, inspired by the unique mediterranean geographical location. The project was designed and constructed for International Architectural Biennale Antalya(IABA) 2017 by Melike Altınışık Architects. I involved in the project by working on one of the digitally fabricated designs. I improved conceptual mass, wrote a definition in Grasshopper, made the design fully parametric and designed panels with a definition that uses a mathematical and aesthetically pleasing solution.





Perspective

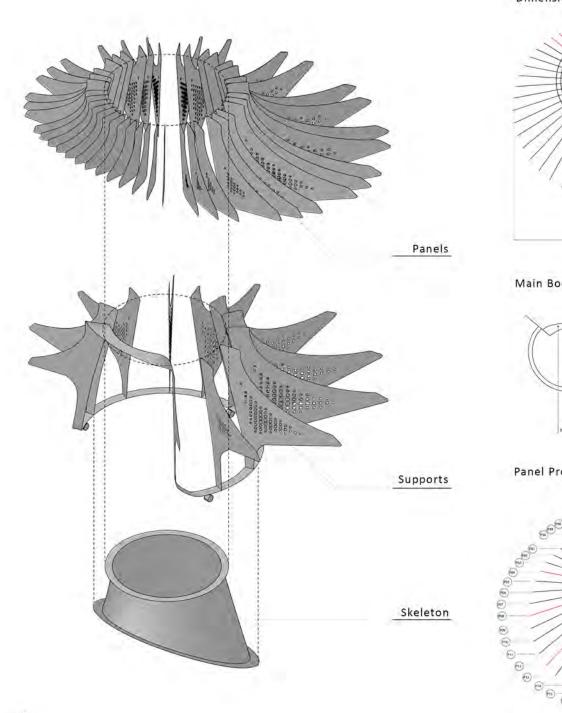


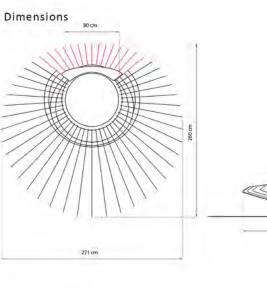
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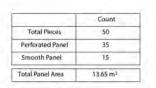
Playground scheme for Motion in the Shell

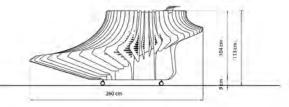
Perspective

Top View

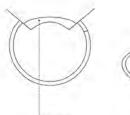








Main Body Production

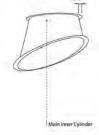


Hand Railing

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8 cm

Panel Production

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(1)

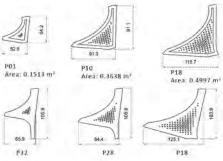
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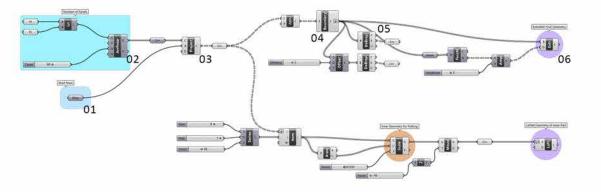
- Support Panels

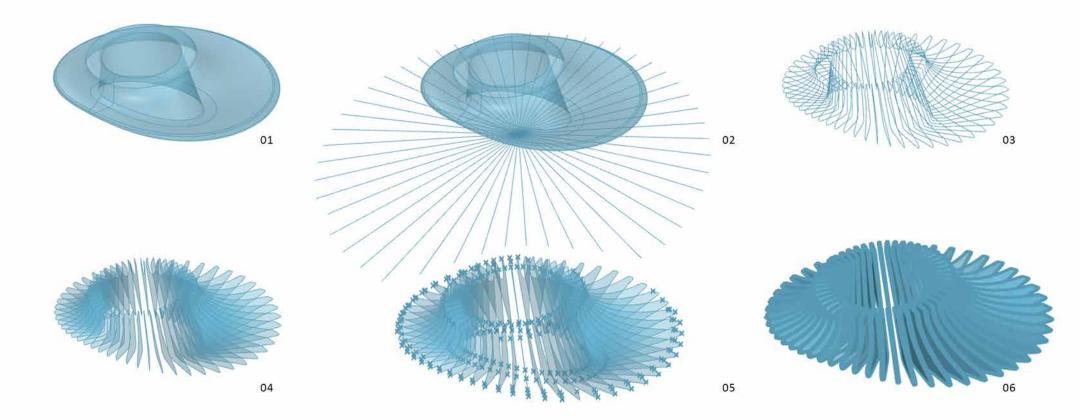
- Panels

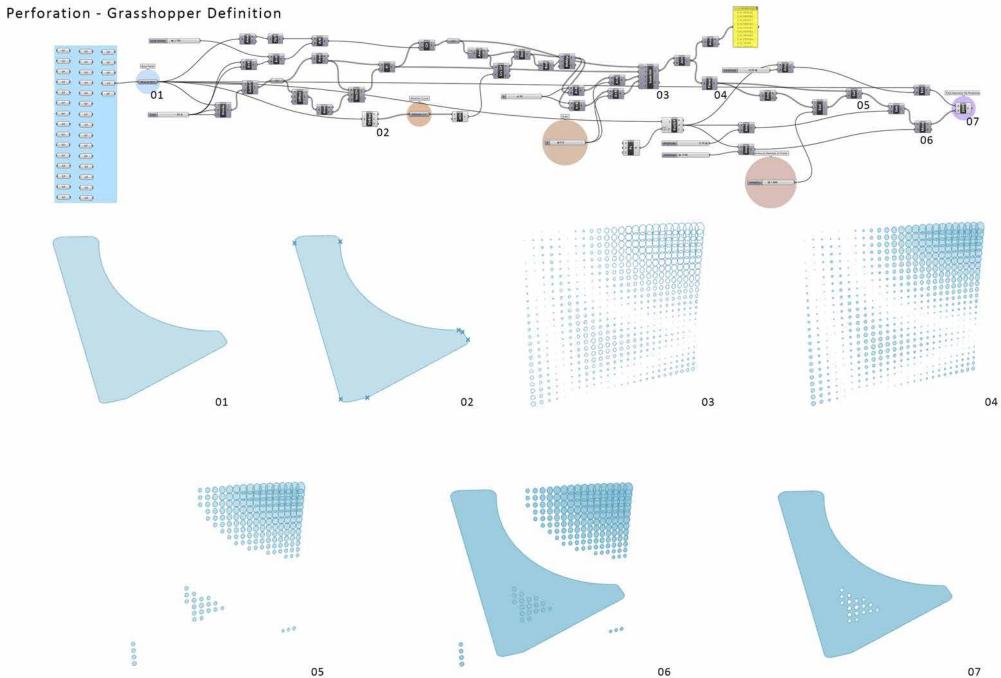
Bottom Suppo



Panel System - Grasshopper Definition









04 THE LIVING MACHINE A Prototype for a Sustainable Urban Environment

2016-2017 Fall Semester - 3rd Year Bilkent University ARCH301 Design Studio Instructor: Mark Paul Frederickson Project Location: Yenimahalle, Ankara | TURKEY

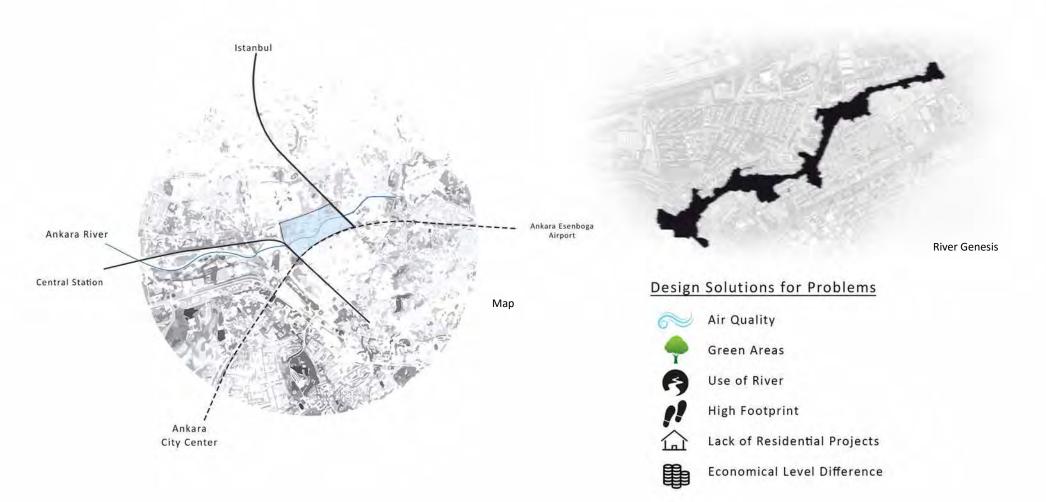
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URBAN PLANNING

The site has a historical importance as there is a historical bridge "Akköprü". Its history goes back to 1220 and the bridge is identified with the surrounding area. The design has some references to the old bridge while creating views and axis. One of the main streets are pedestrianized,

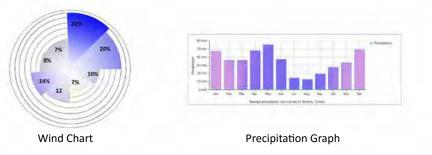
opened for public and connected to a stronger green public area. The public area offers two different paths which are connected to cohouses and the other is mixed-use areas and the historical site which has the old bridge.

AKKÖPRÜ



The Project is proposing a **prototype** for a **sustainable urban environment** by using mixed-use and residential areas together. Overall designed site is composed of different units and a strong green **urban character**. The design propose a living environment that provides open spaces and gathering areas. Strong public gathering areas are connected to each other with different characteristics such as green paths, mixed-use areas and by the river. This idea improves the quality of both mixed-use and natural paths. Mixed-use areas are planned to facilitate by this pedestrian traffic and it increases the economic level of surrounding shops, cafes and restaurants

Wind, precipitation and other natural and environmental factors were the preliminary character of the design. Overall shape serves for these factors and **ordering systems**.



- 01 Green Houses
- 02 Cohouse Type I

01

02 03

04

06

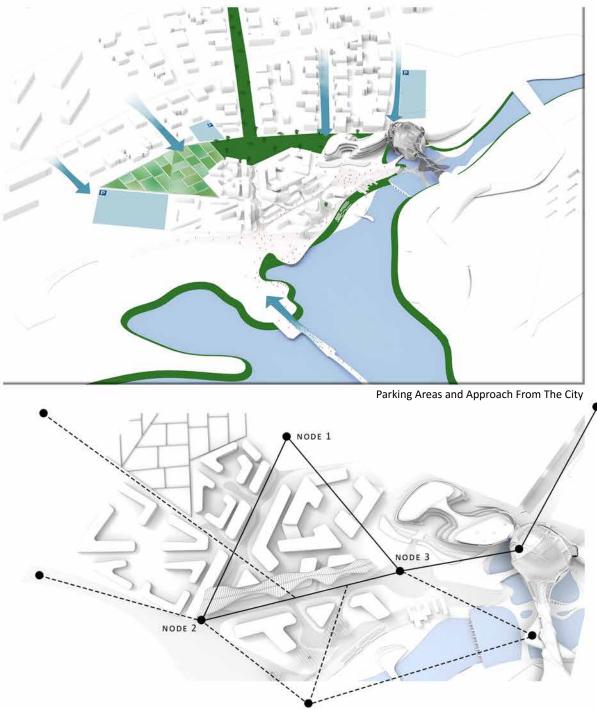
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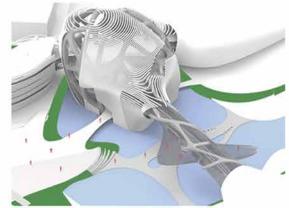
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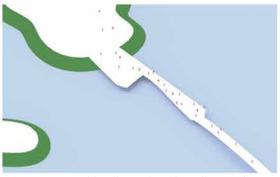
201 I I I I

- 03 Cohouse Type II
- 04 Mixed-use
- 05 Cohouse Type III
- 06 Mixed-use
- 07 Organic Cohouse
- 08 *Mixed-use

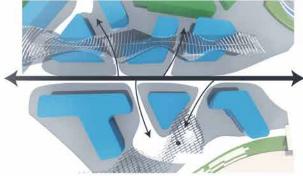




Common Facilities Building



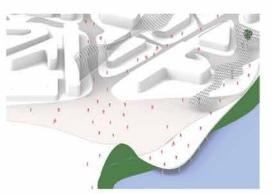
Old Bridge and Landing Place To The Site



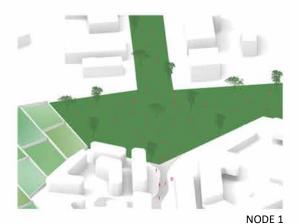
Building Configuration



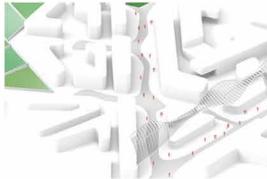
NODE 3 Center of the Site, Place for Everyone, a Passageway



NODE 2 Landing Place, Intersection of Different Axes

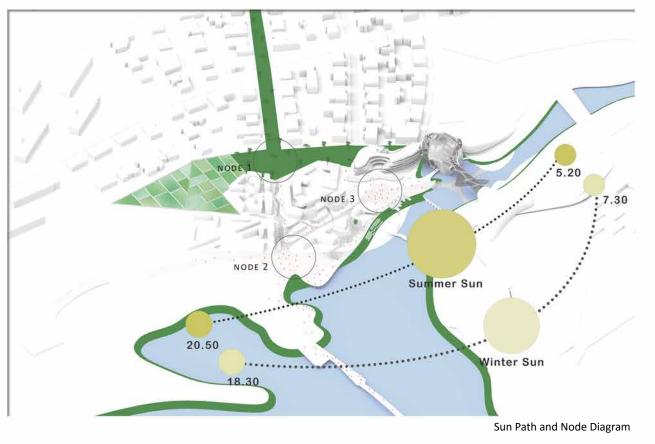


A Green Public Area Serving The City as a Fresh Space That Is Needed

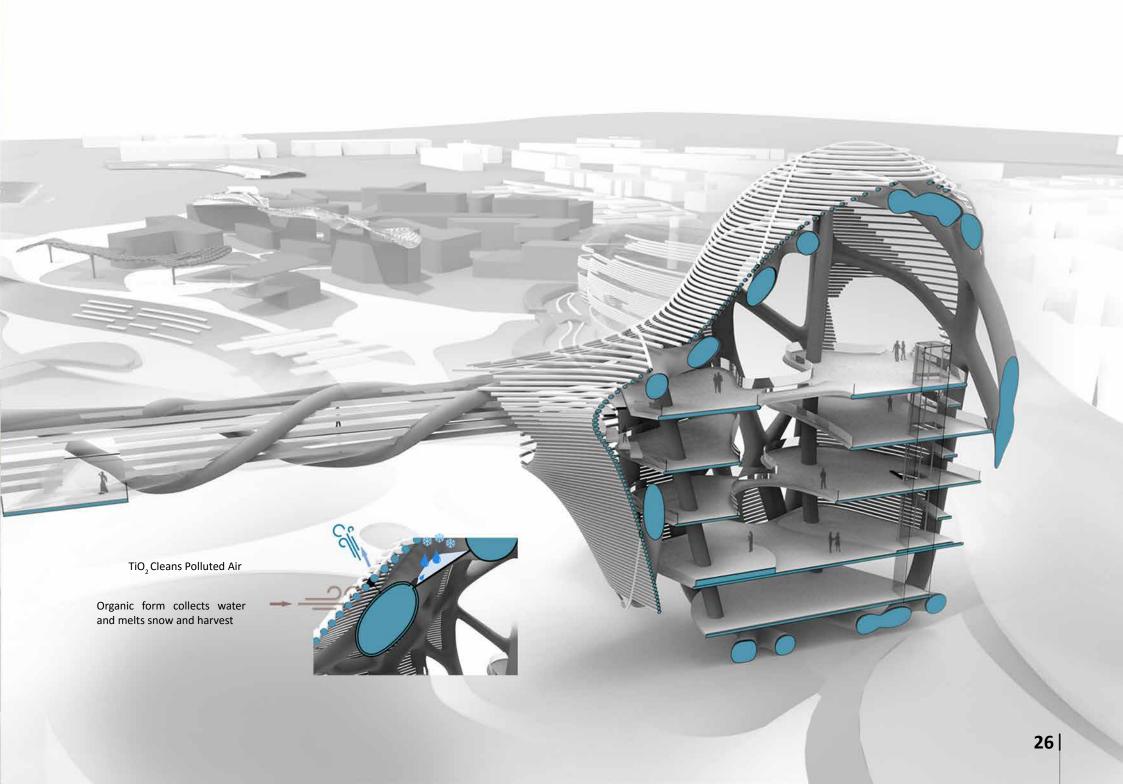


Commercial Transit



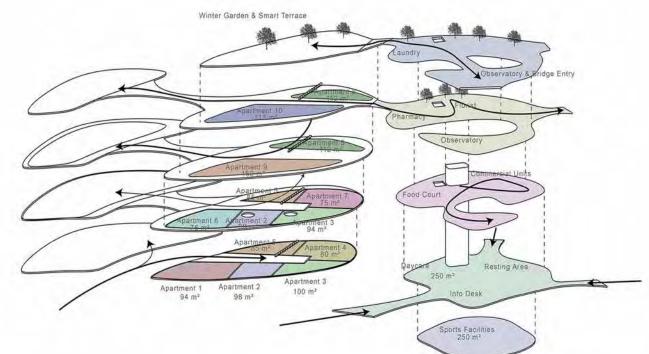






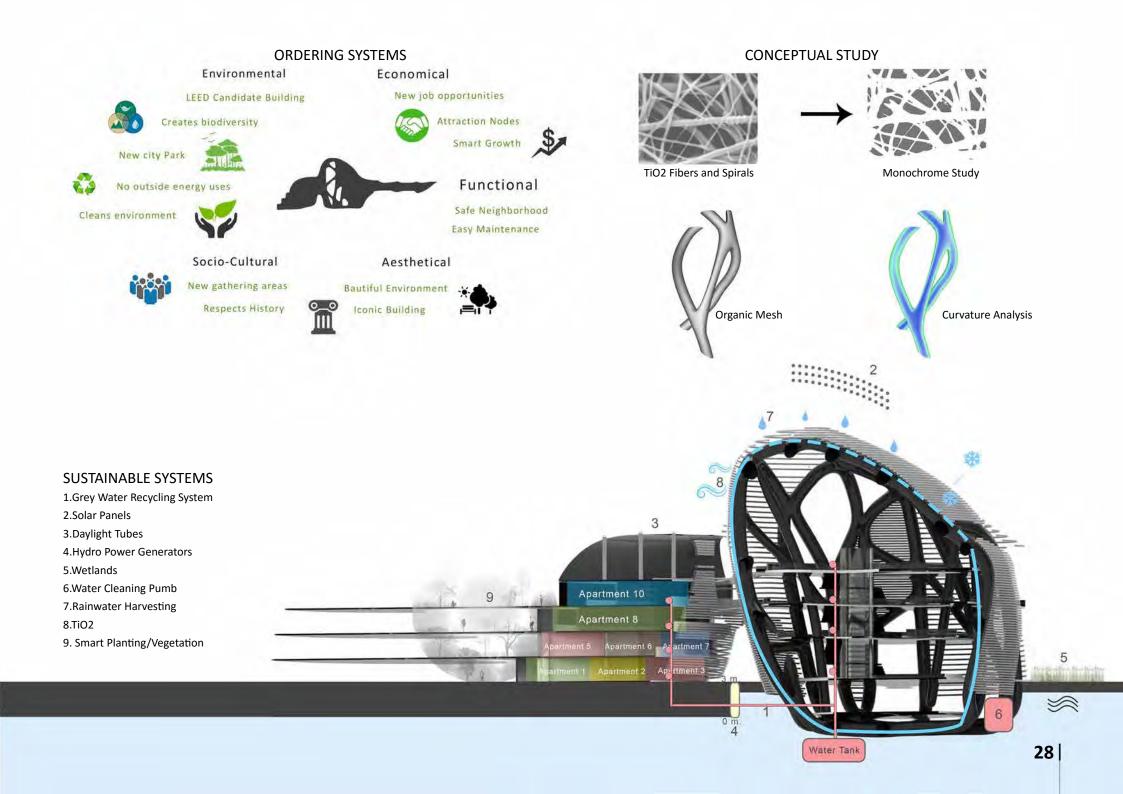
BUILDING DESIGN

Two cohouses are connected to the mixed-use public building which can also be used by the users of cohouses. Common building has an iconic shape that shape was inspired by TiO2 fibers and spirals. Floors also has an organic form designed to serve for visual connection, circulation and building performance. The building was designed according to many different and important environmental systems including connected winter gardens that decrease the solar gain during summer time.

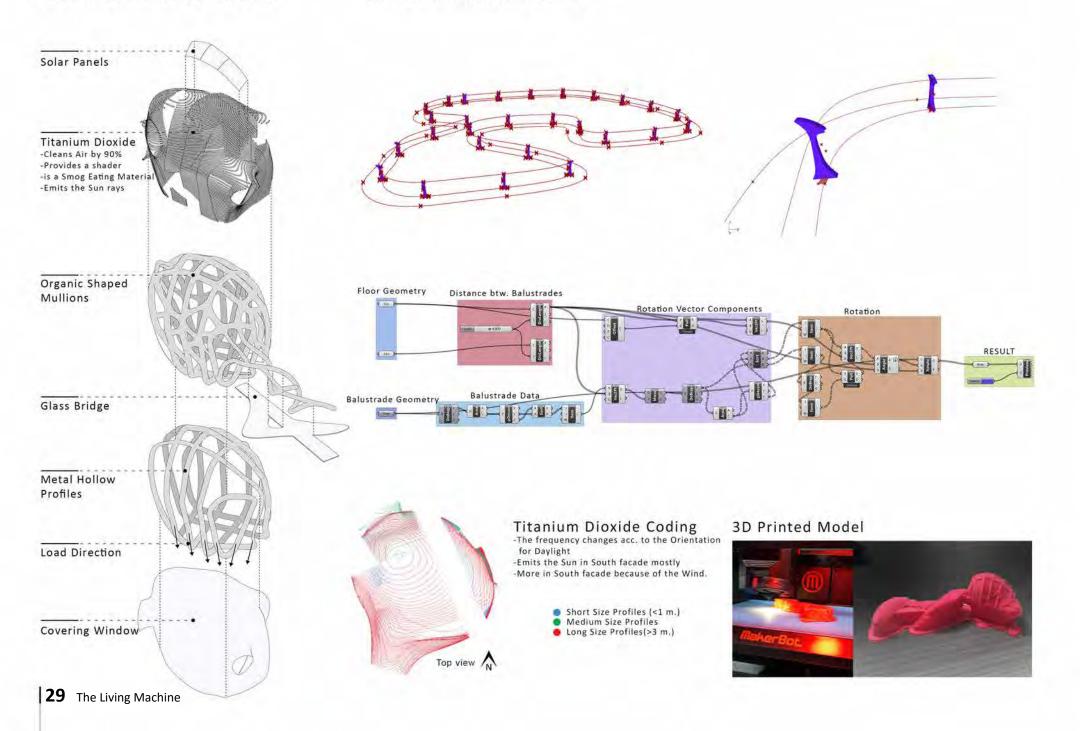








Floor and Balustrade Coding





05 ARCHAEOLOGICAL RESEARCH CENTER A Proposal for a Historical City Konya

I

2016-2017 Spring Semester - 3rd Year Bilkent University ARCH302 Design Studio Instructor: Giorgio Gasco Project Location: Konya | TURKEY "Basamaklar" Exhibition in TSMD,2017

PROJECT BRIEF

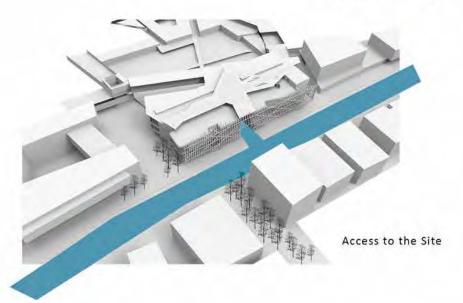
The Project started at an urban planning level as a team work. As ARCH302 class, a site study conducted to the project area and an interaction with people living near the area was formed. The site divided into 4 different regions. The area which is 72.000 m² includes an archaelogical site, a school, 27 housing units and governmental units. When group work was done, given mass was supposed to be kept for individual design which is planned to **respect urban fabric**. My design idea was to have a crack in the building that represents the dynamism of the city in terms of cultural differences and dynamism of the two bridges which are connected to the building.

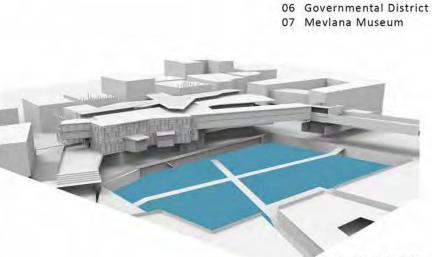
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Master Plan Diagram





Archaelogical Site

Site Diagram

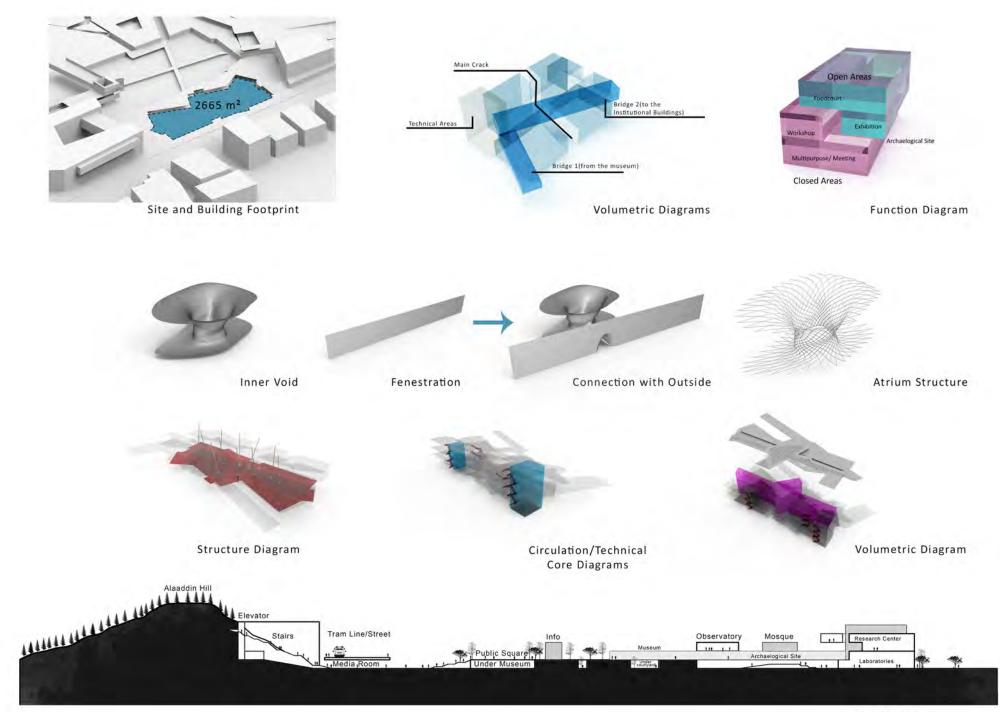
01 Airport 02 Public Library

*Design Site 04 City Center 05 Stadium

03

107

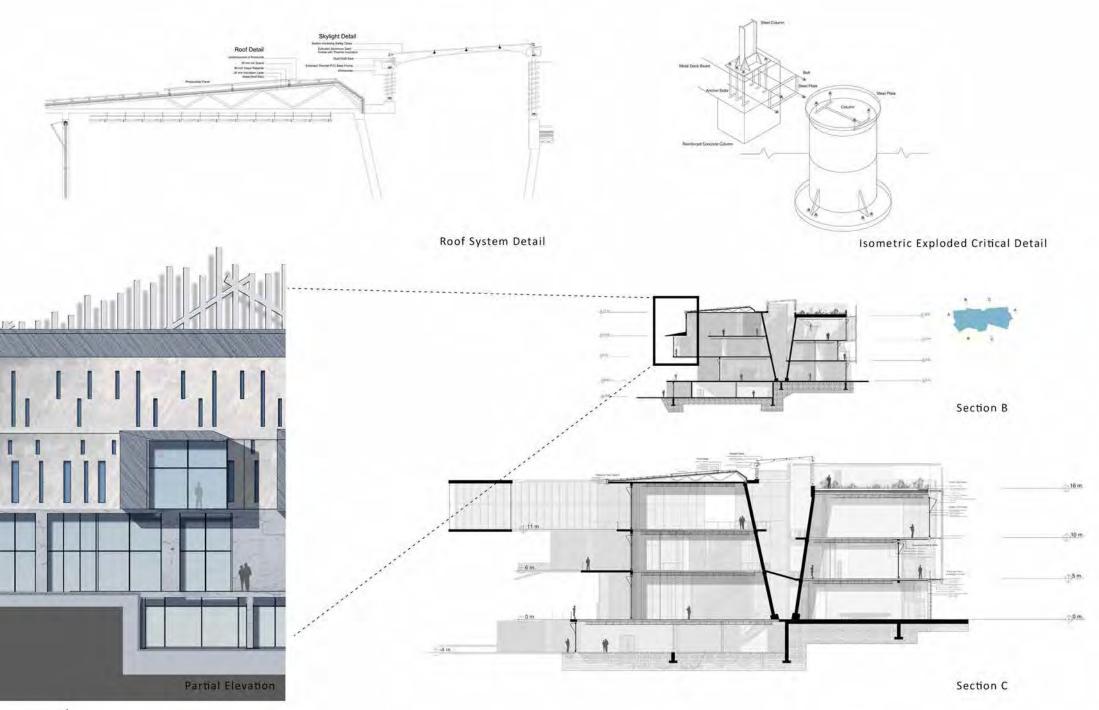
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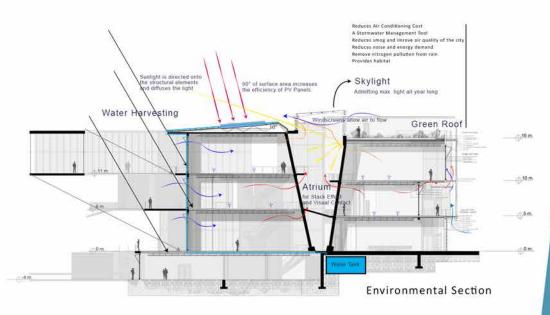


33 Archaeological Reseach Center

Site Section

Facade element covers the building along the arterial street. The facade becomes an interior element and roof which has a symbolic value as well as environmental value. Different research units and exhibition areas designed and merged in the building. The facade seeing the archaelogical site has extrusions which create experimental and dynamic interiors while behaving as a sun shader.







Physical Model





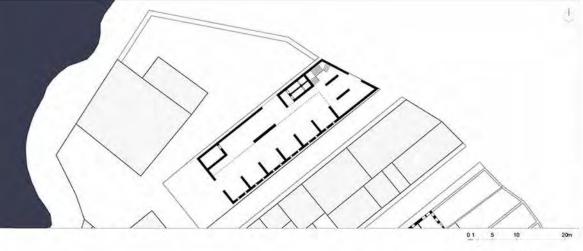
Partial Section and Elevation

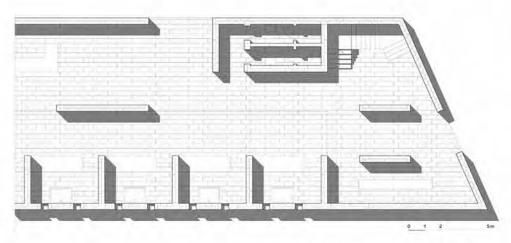
$06 \,\,_{\rm Dwelling\ space\ and\ the\ Character\ of\ Places}$

2015-2016 Summer - 2nd Year Bilkent University - Politecnico di Bari ARCH302 Design Studio Instructor: Giorgio Gasco, Burcu Şenyapılı Özcan Project Location: Polignano a Mare, Bari | ITALY



Sugar.



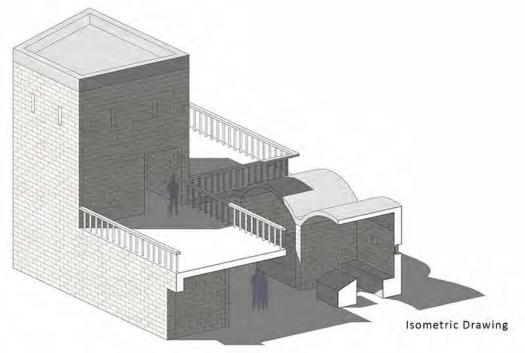


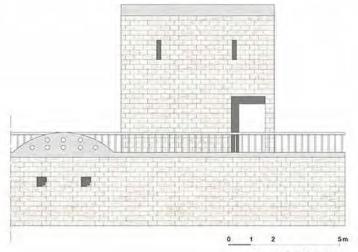
Ground Floor Plan

Ground Floor Plan Rendered

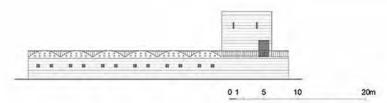
Area A

The project draws its character and its function by the proximity with the sea. The building, a low longitudinal volume, is a place designed for the storage and sale of the fish, in an area close to a natural inlet. The main access points are placed at the two ends of the volume and on the front towards the sea. The spaces used for sale, close to the urban street, consist in small wall boxes, placed side by side without interruption and covered by a flattened barrel vault. Between the two functions –storage and sale- that occupy two separate areas of the volume, there is a linear courtyard, like a large outdoor corridor. The one-storey building is simple and completes the urban fabric towards the sea. A two-storey volume marks this building: its top is a viewpoint towards the Saracen tower to the west.

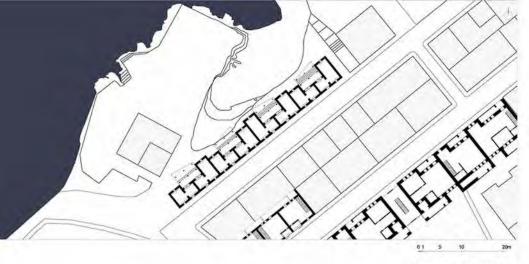




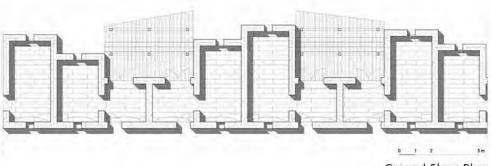




South Elevation



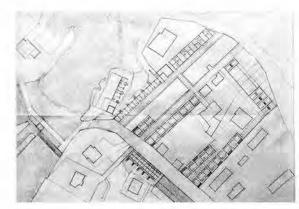


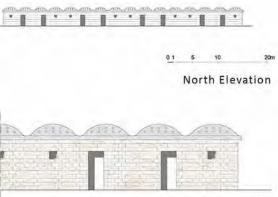




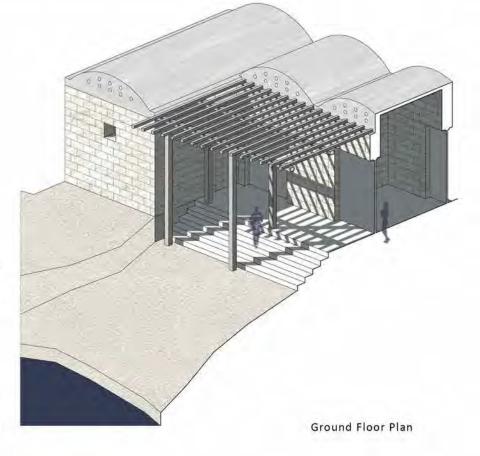
Area F

The projectual proposal is based on a low longitudinal volume standing between the city and the sea in an area characterized by a natural inlet where fisherman put up their boats and work. The front facing the city is continuous, compact and has small square openings and entrances. The front facing the sea is more complex, so as to create two small distinct courtyards, an area useful to work and store the fishing materials, have pergolas that connect the one-storey modules characterized by different sizes. The modules, places side by side without interruption, consist in small rooms covered with flattened barrel vault, which has recall a typical element of the Turkish building tradition, declined in the Apulia context.



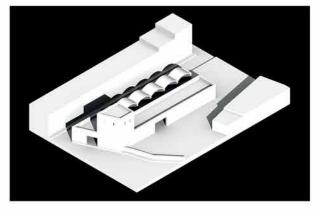


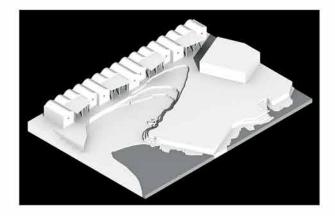
Partial Elevation

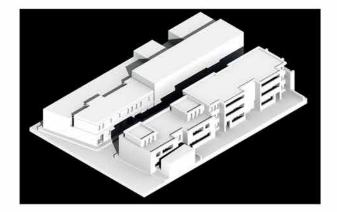


Study Sketch

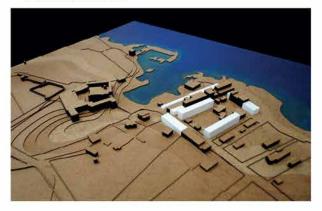
CONCEPTUAL RENDERS







PHYSICAL MODEL







PHOTOGRAPHS







07 CHAIR DESIGN COMPETITION "A Contest for Design Students and Young Professionals"

2016-2017 Fall Semester - 3rd Year Bilkent University Instructor: Mark Paul Frederickson Project Base: Milano | ITALY



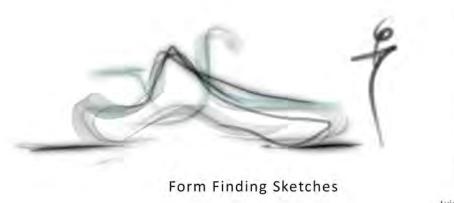


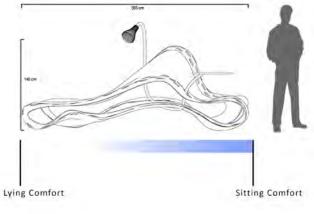


RD 1987

BRIEF

The project is designed for a competition organized by Istituto Marangoni, Milano and architect/designer Giulio Cappellini. The competition mainly focuses on new approaches on chair design and **comfort** it provides. The design has an organic/ parametric form that designed according to the human postures. It provides **2 areas for relaxing**. First part is with the lamp. Design is for lie on and resting with a light source for reading book, magazine or anything for purpose. The other part consists of a sitting area that provides a desk. This part provides all kind of sitting positions and human act for relaxing.



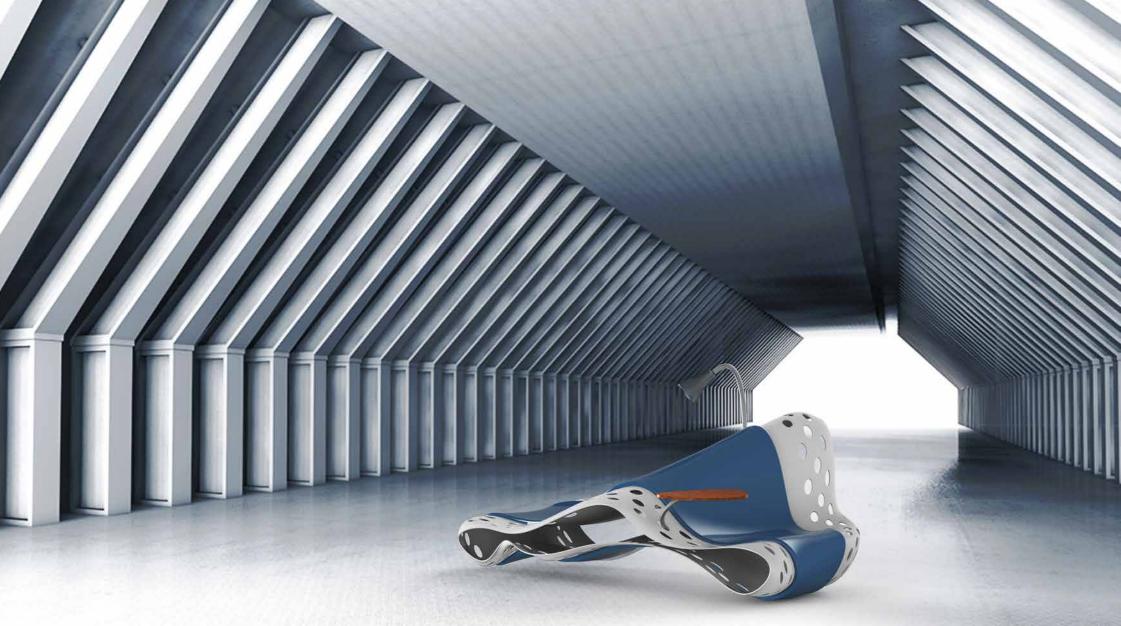




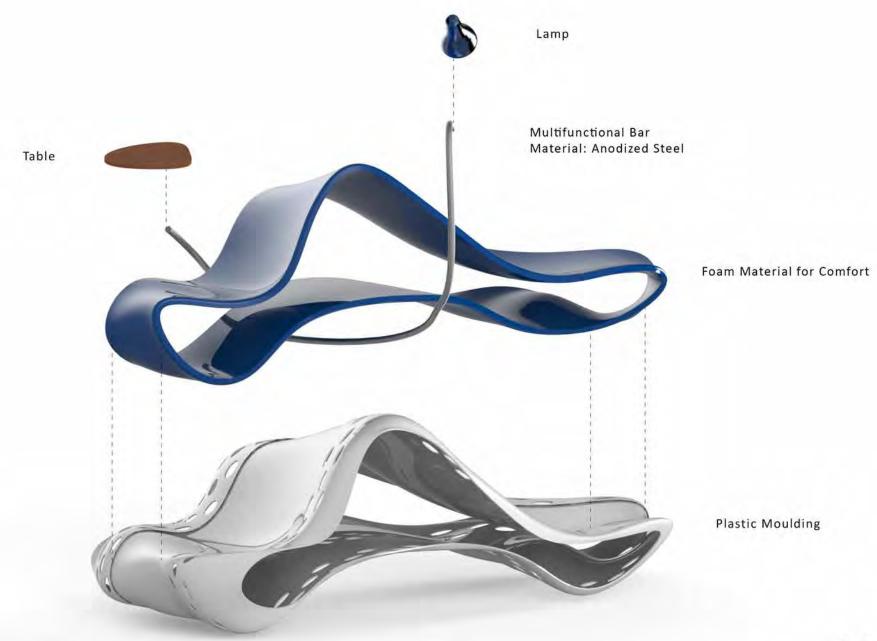
The **colors** are selected carefully. Although proposal for the competition was **blue**, seat area can be replaced easily with another color and material. **Blue** is a color makes people feel comfortable according to researches. It represents both **confidence and trust**. It is also one of the natural colors of sky and sea. It resemblances water as well. For the structural part, whitish colour is used that is the colour of plastics. **White** resemblances purity. Finally, for the desk, wooden material is used with the color dark brown.

Top View



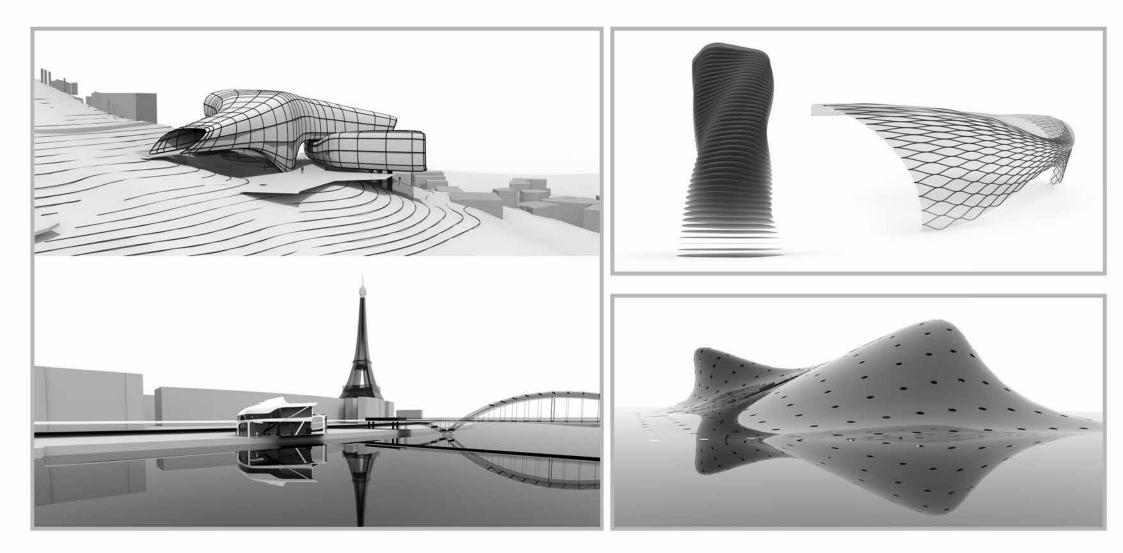


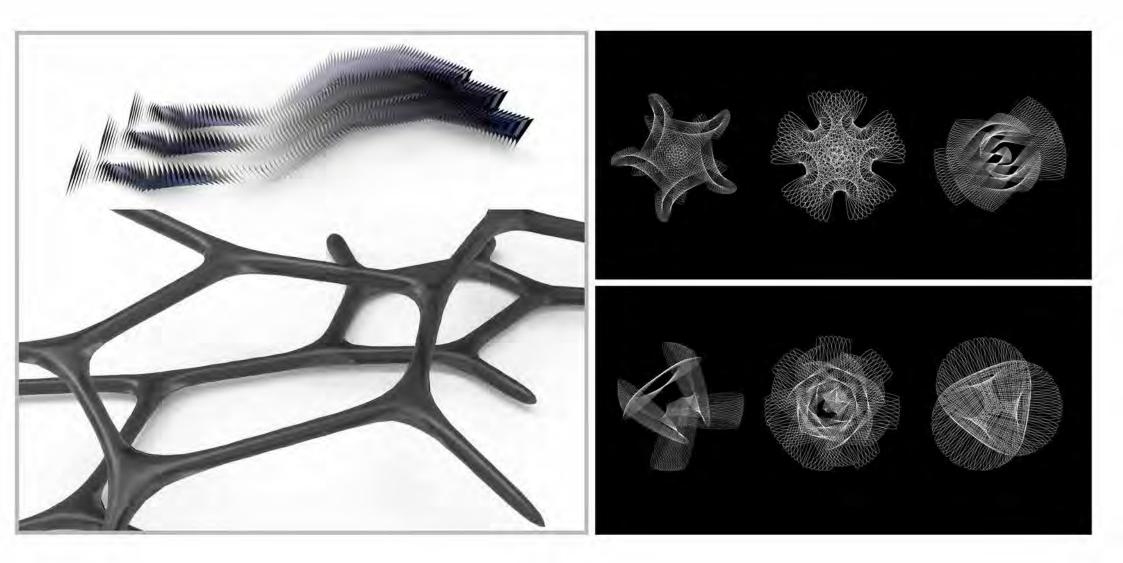
The main concern about plastics is being **environmentally friendly**. There are many types of plastics that are environmentally-friendly and recyclable. Plastics used in the project can be bend when someone sits or lie on the chair for making the structure more comfortable. The plastics structure is 2.5 cm thick. Also, lamp and desk is connected with multifunctional bar that creates a **feasibility** for different uses. Lamp and desk may orient according to the users.



Exploded Drawing







lah | BURAK ÇELİK

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