ARCH-Y

جامعة اليمامة
Al Yamamah University

DEPARTMENT OF ARCHITECTURE

2023

COLLEGE OF ENGINERING AND ARCHITECTURE

ISSUE 2
2022-2023

MAGAZINE

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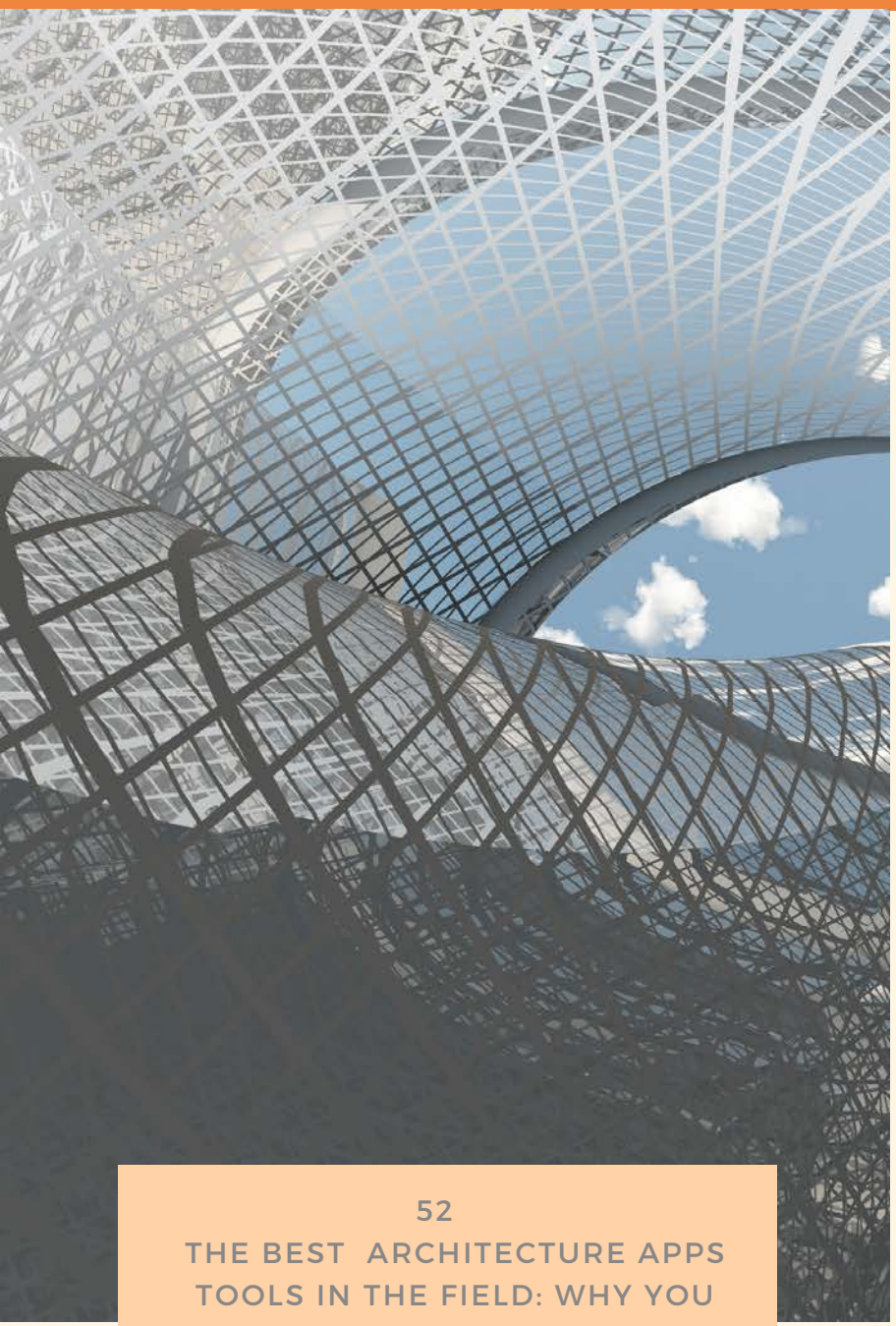


ABOUT US

College of Engineering & Architecture

A College of Engineering and Architecture (CoEA) offers a bachelor degrees in engineering and architecture with major options, in the area of Architecture, Software Engineering Network Engineering & Security, and Industrial Engineering.

Mission

To provide an outstanding education and innovative scientific research to enhance the field of Engineering and Architecture in the region

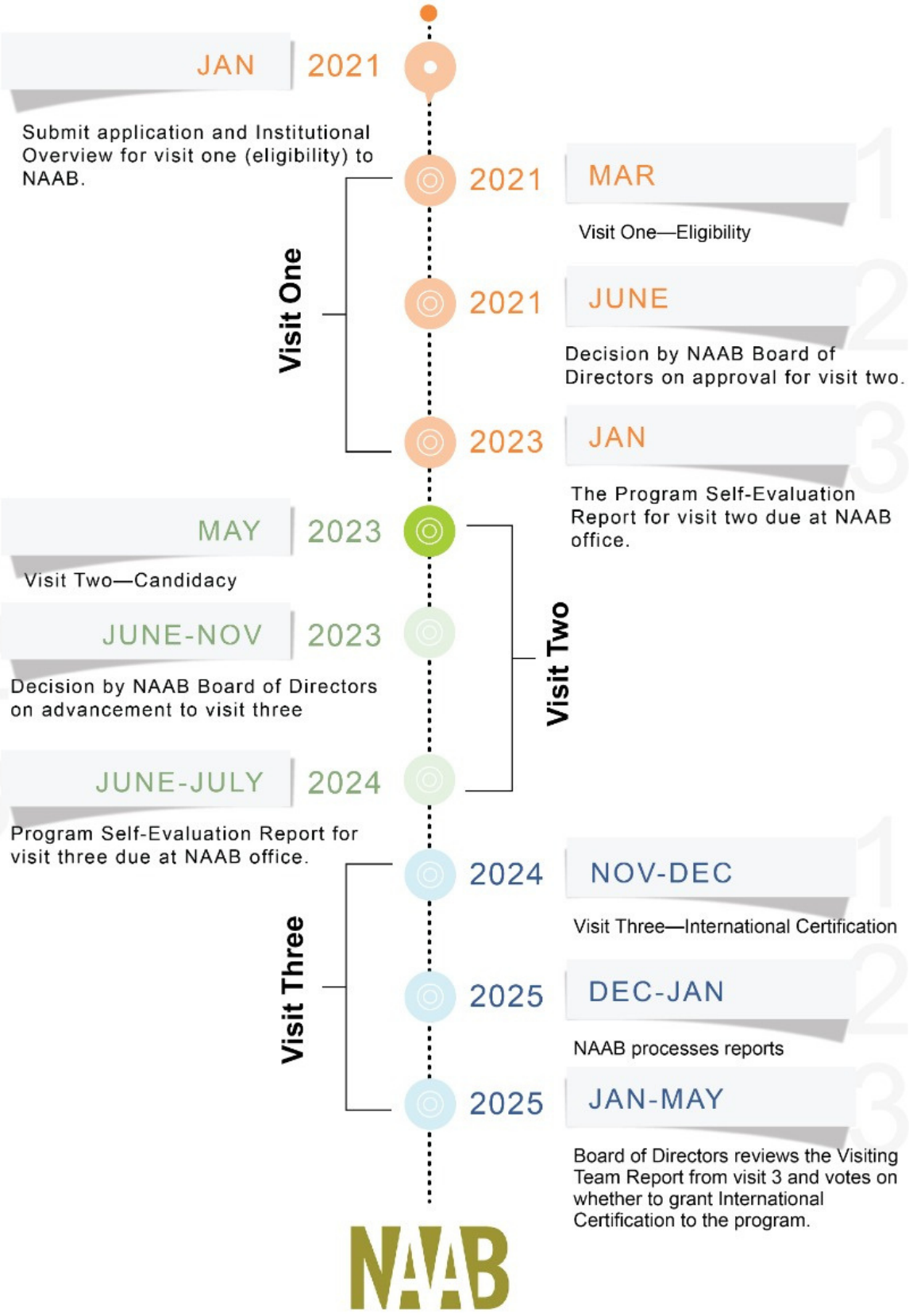
Vision

To be an educational icon for Engineering and Architecture in KSA and neighboring countries.

NAAB

The Al Yamamah University Department of Architecture/College of Engineering and Architecture is in the process of pursuing the International Certification designation from the National Architectural Accreditation Board for the following professional degree program:
Bachelor of Architecture

NAAB CERTIFICATION TIMELINE



STATISTICS

11,200 SAR

Average of Salary for the first job.

85%

Get a Job offer after their CO-OP training in the same place.

93%

Of Graduate students receive a job offer after 6 months of their graduation.

98%

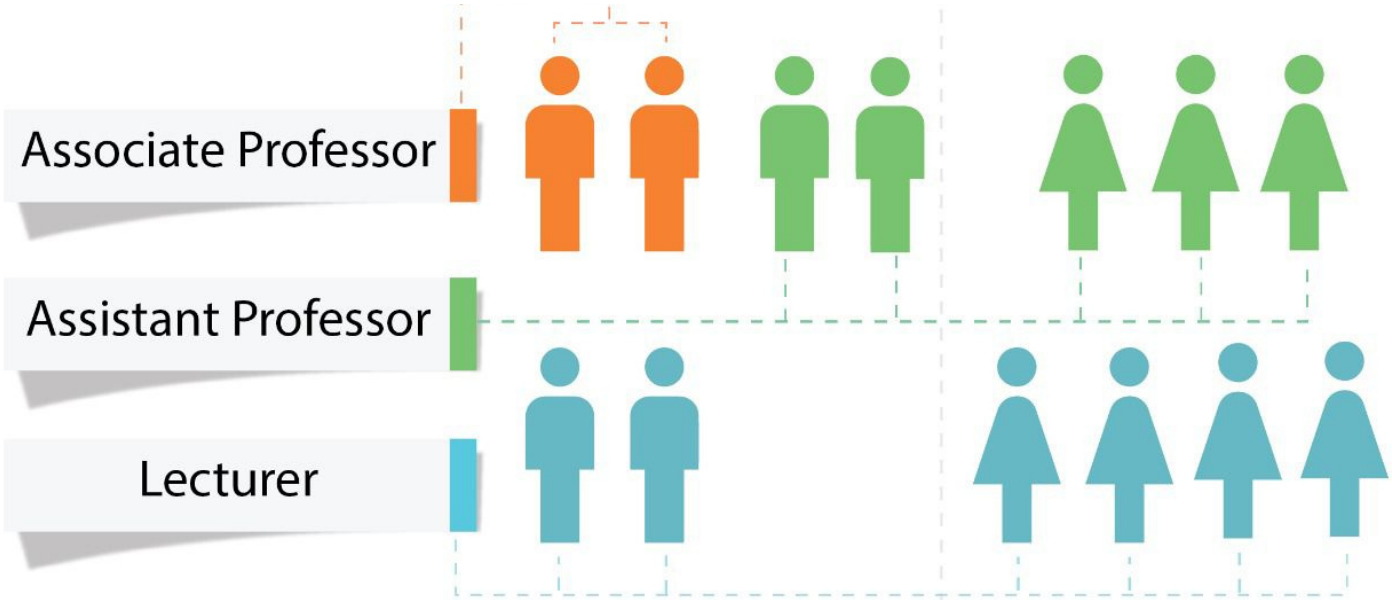
Line Managers are happy with Al Yamamah's graduate performance.

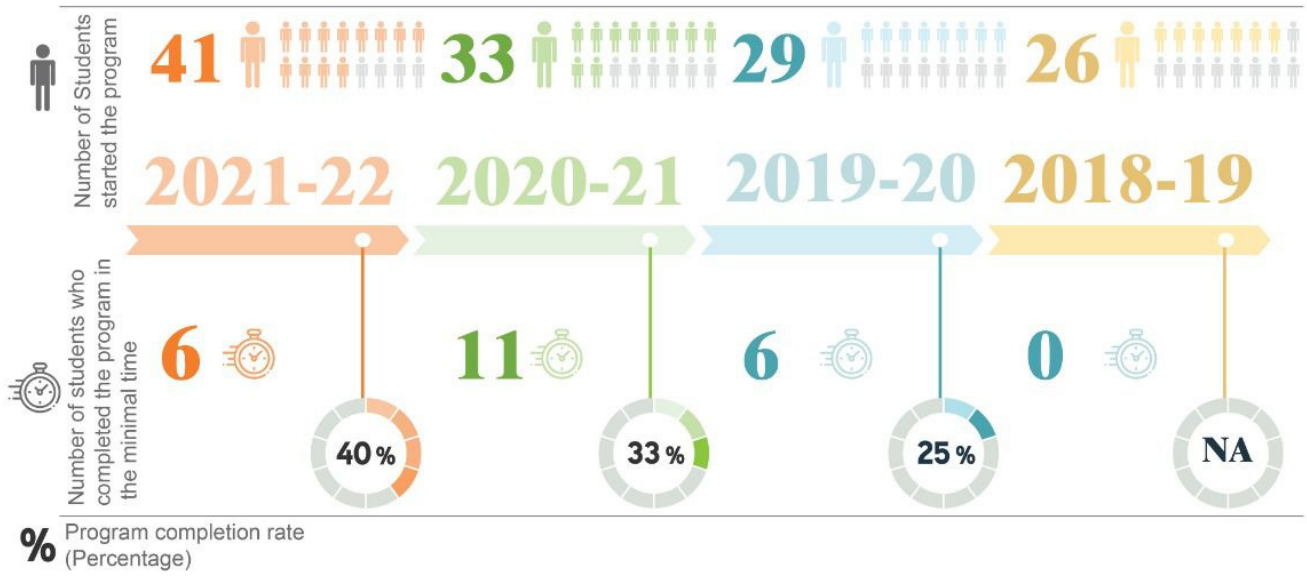
2 Offers

Average number of offers graduate student receive after graduation **within 3 months.**

2 Years

Average of time - Graduate gets his/her first promotion.





OUR TEAM

Dr. Hessah Alsalamah

Dean

Dr. Hessah Alsalamah is the Dean of the College of Engineering and Architecture, and the Acting Dean for the College of Computer and Information Sciences at Al Yamamah University. She is the Chair of both Colleges' Council, a member of the Dean Council, and Al Yamamah University Council. Dr. Hessah is also a faculty member in the College of Computer and Information Sciences and Consultant of King Abdullah's Institute for Research and Consulting Studies at King Saud University.

Dr. Dalia Abdelfattah

Head of Department

Dr. Dalia Abdelfattah is an architect and researcher in urban affairs. Dalia is an assistant professor and a researcher in UN-HABITAT Programme of Planners for Climate Action. Currently, working as Head of the architecture and interior architecture department (AIA), faculty of engineering and architecture (COEA), Al Yamamah University. In 2018, she obtained her PhD from Cairo University, Egypt, about how to motivate local community to participate in conservation programs.

Dr. Anwar F. Ibrahim

Associate professor

Dr. Anwar Ibrahim is Associate Professor of architecture. In 2008, he moved to the USA and started his Ph.D studies in Architecture history and theory from the State University New York at Binghamton and earned his degree in 2015. After that, he returned back to Jordan to work as Assistant Professor at the College of Architecture and Design/Department of Architecture (JUST) before he was promoted to Associate Professor in 2021.
He is also an active researcher and published in high-rank pair-reviewed indexed journals.

Dr. Majdi Alkhresheh

Assistant professor

Majdi Alkhresheh, Ph.D. is an assistant professor in the faculty of Engineering and Architecture(CoEA), department of Architecture and Interior Architecture (AIA). Previously was the Chair and Assistant professor of architecture in the Department of Architectural Engineering, Alhosn University, Abu Dhabi UAE. Prior to that, Alkhresheh worked as assistant professor in Jordanian University of Science and Technology, Mu'tah University and Al-Isra' Private University in Jordan.

Dr. Ibrahim Abdelhady

Assistant professor

Dr. Ibrahim Abdelhady is an assistant professor in the faculty of Engineering and Architecture (CoEA), Architecture Department. Previously was in Virginia Tech (USA), Alexandria University (Egypt) and the American University of Cairo (Egypt). He obtained his BS in the architectural design, Alexandria University, Egypt, 1993-1998 (V.Good with Honor). He has Two PhDs in Architecture in the Digital Design and Building information management (BIM).

Dr. Mayas Ahmad

Assistant professor

Dr. Mayas is an assistant professor in the Faculty of Engineering and Architecture, (COEA), Department of architecture and interior architecture (AIA), her research interests include: architectural design, heritage conservation, urban design, landscape design & urban planning. She has more than 14 years of professional experience in teaching university-level courses, practice, and services projects that include projects in the area of construction, landscape projects, and heritage conservations.

Dr. Rahma Doheim

Assistant professor

Dr. Rahma Doheim is an assistant professor in Architecture. Dr. Doheim has taught and practiced architecture in the USA, UK, and in the Middle East. She received her Ph.D. in the Built Environment from the University of Ulster in the UK., and her Master from the University of West Virginia in the USA. Her research interests lie in Architectural pedagogy, smart cities, Sustainable Mobility, and future city.

Mr. Anas Hussein

Lecturer

Anas Hussein is an Architect with a demonstrated experience of working in the education industry. Mr.Hussein joined YU as a lecturer since 2018,he is skilled in Sustainable Building Design. Strong research professional with a Master of Science (MSc) focused in Sustainable Buildings and Environments from Newcastle University.

Mr. Abdullah Elshafie

Lecturer

Abdullah Elshafie is an architect who comes from a long line of architects. He is the fifth generation of architects in his family and third generation to teach architecture in Saudi Arabia. He is passionate about architecture especially in the fields of lean construction and construction contracts. He is also interested in the field of construction and risk management.

Ms. Noor Tayeh

Lecturer

Noor Tayeh is a lecturer in the faculty of Engineering and Architecture (CoEA), department of Architecture and Interior Architecture (AIA). She obtained her B.Acrh. in Architecture from The Islamic University- Gaza in 2007, and her MSc. in Architecture, from Jordan University of Science and Technology in 2012.

Mrs. Esraa Samman

Lecturer

Esraa is a Saudi expat architect. She studied in Cairo, Boston, & Berlin. She obtained her bachelor & master degrees in Architecture from Wentworth Institute of Technology in Boston. She has been passionately involved in construction volunteering programs in Dominican Republic, Costa Rica, and Boston

Mrs. Lara Rahim

Lecturer

Lara Is a highly committed lecturer with a great experience in teaching. A subject matter expert in civil engineering with more than two years hands on experience in the construction field.
A master's degree holder in structural engineering and minor in geotechnical engineering from the University of Balamand, Lebanon.

Ms. Mahasen Alqahwaji

Lec

Mahasen is a passionate architect and creative designer with a Bachelor's degree in Architecture Engineering from Prince Sultan University, KSA (2017) and a Master's degree in Advanced Home Futures from Teesside University, UK (2022). She is also a member of the Saudi Council of Engineers and has experience in both teaching and practice of architecture.

DEAN'S WORD

DR. HESSAH A. AL SALAMAH

Our College has come a long way since its establishment in 2014. Today, the College of Engineering and Architecture is comprised of three departments: Department of Architecture, Department of Computer Engineering and the recently established Department of Industrial Engineering. These departments offer four accredited B.Sc. programs: Architecture, Network Engineering and Security, Software Engineering, and Industrial Engineering Our curricula for all programs combine a strong theoretical background with hands-on experience in excellent labs and most importantly, we emphasize close interaction with the outstanding faculty to create an atmosphere truly conducive to learning.

The College is also very active in offering short courses, workshops and seminars, which provide ample avenues to disseminate engineering knowledge to the local, regional and international community. Furthermore, the College organizes international conferences in various engineering fields, which attracts international researchers and provides them with a conducive environment in which knowledge, research findings can be shared, and new ideas can be discussed, hence promoting and strengthening a knowledge-based society.

CHAIRWOMAN WORD

The spirit of the architecture academic life is about passion, knowledge, creativity, and engagement. I strongly believe that continuous improvement & self-evaluation are the keys to successful learning environment.

Within our Architecture and Interior Architecture department (AIA) it is what guide us in our everyday University life of teaching & research.

Our AIA philosophy is about setting high university standards for our students, and try to maintain, a very lively, engaged, and interactive classrooms.

What, personally, drives me is to retain continual personal contact with my students, where I can approach a constructive impact, with honest imprint, to guide them through life experience. As teaching is not just about lecturing; it is much more about presenting passion, concepts, ideas, and empirical materials, in a way that allow our students to integrate these informations into their academic life and future career experiences.

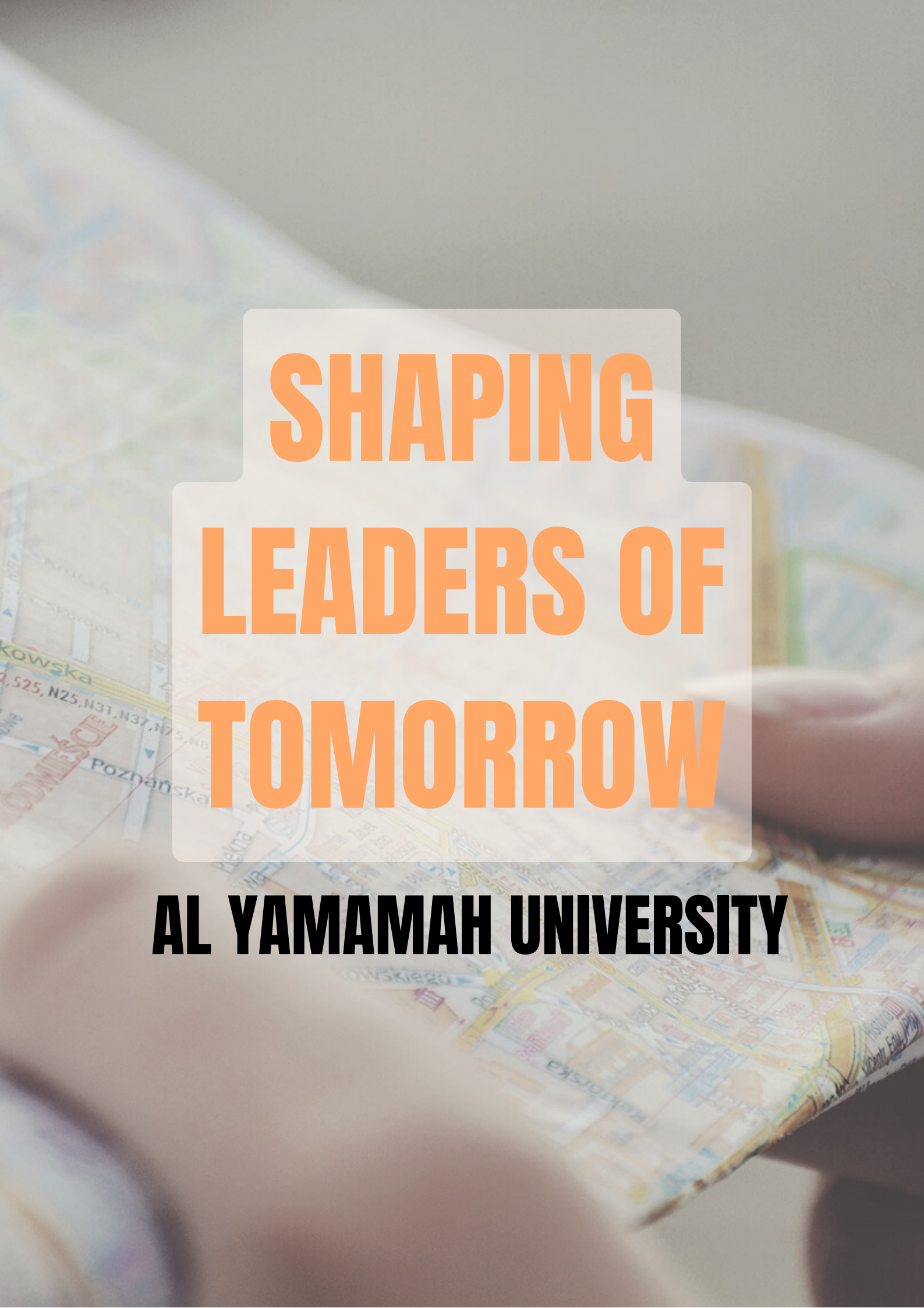
WRITTEN BY DR. DALIA ABDAL FATTAH

PROGRAM INFORMATION

The Architecture Program at YU is specially oriented to graduate architects and interior architects with comprehensive knowledge, problem-solving skills, and innovative abilities to produce architectural solutions that are sensitive to human needs and local cultural distinctiveness. The department mission is to enable the rising generation to shape a future marked by positive social and economic progress, the department of architecture is devoted to engaging students in the process of gaining the artistic, scientific, cultural, and technological knowledge upon which they systematically use critical thinking, develop analytical abilities, and master technical skill, to synthesize sustainable and aesthetically-exceptional architectural solutions. The department vision is to be one of the best architectural departments in the Kingdom, and to gain and sustain national and international recognition.

PROGRAM OBJECTIVES AND OUTCOMES:

- Strengthen core areas of focus within the program and track advancements in the comprehensive architectural technology and research.
- Elevate the profile of the program through providing the highest educational standard
- Attract and retain a diverse faculty and staff of the highest academic and professional experience.
- Establish a strong relationship between the department and the community
- To graduate professionals who have high efficiency in a wide range of professional practices.
- To fulfil the growing demands on architects in Saudi Arabia and the neighboring countries.
- Fostering interdisciplinary educational environment.
- Incorporate active learning strategies that promote student participation into the education process
- Improve the facilities and resources to support high quality learning, research and work environments.
- Providing student support and guidance to enhance the learning experience through.



SHAPING LEADERS OF TOMORROW

AL YAMAMAH UNIVERSITY

EXTERNAL ACTIVITY

Ministry of Municipal Rural Affairs & Housing

EXTERNAL ACTIVITY

Wood Factory Workshop & Concrete Factory Tour Trip

INTERNAL ACTIVITY

Saudi Arabia Motifs Workshop

INTERNAL ACTIVITY

Metaverse Cities Event

WORKSHOP

Delivering Positive Architecture and Urban Environments

SEMINAR

Earthen Architecture Seminar

EXTERNAL ACTIVITY

Ministry of Environment, Water and Agriculture

EXTERNAL ACTIVITY

“Van Cleef & Arpels: Time, Nature, Love” exhibition

EXHIBITION

Exhibition of Big 5

FIELD TRIP

The King Abdulaziz Center for World Culture "ITHRAA"

WORKSHOP

Parametric design and digital fabrication modeling workshop

GUEST SPEAKER

Arch. Nouran Osama, Photoshop Adobe

GUEST SPEAKER

Arch. Abeer Al Rayes, InDesign Adobe

FIELD TRIP

KAPSARC 'Sustainability in Architecture'

ROME TRIP

Algorithm ROME Summer School in parametric kinetic design

DEPARTMENT EVENTS

MINISTRY OF MUNICIPAL RURAL AFFAIRS & HOUSING

Visit the Distinguished cities Projects Exhibition organized by the Ministry of Municipal Rural Affairs & Housing and participate in the accompanying workshops

EVENT PICTURES

WORKSHOP

FACTORY

WOOD TOUR TRIP

This trip introduces the process of wood designs, the manufacturing process, and the execution techniques for architectural elements such as doors and wall panels, as well as furniture.


PRODUCTION
OFFICE

FACTORY

CONCRETE TOUR TRIP

Students of the Architecture department had a field trip to Al Tawi Concrete plant to learn about the manufacturing process of concrete involving preparing the raw materials, the mixing process, the transportation and testing materials for architectural elements such as doors and wall panels, as well as furniture.


آل طاوي
AL -TAWI

MOTIF WORKSHOP

This Workshop introduces the different types of printmaking as well as the process and techniques of creating your own designed hand-painting tool “Stamp” implementing Saudi motifs from different regions within Saudi Arabia.

WOOD STUD AND PARQUET FLOORING

Students for the building construction 2 were requested to construct a wood stud wall and parquet flooring representing all the layers and materials.


ARC 302 → Parquet Flooring-Stud wall
Aljohara Al Shaikh / Batool Siwar
Rawda Al Otaibi / Raghad Abu Khater

PARTITION WALLS

Students in group, designing partition walls scale 1:1 as part of ARCH111 course

METAVERSE CITIES EVENT

Cities are now choosing to emulate themselves in the metaverse, beyond their " bricks and mortar" reality. Real life cities are built through centuries, yet metaverse cities are arguably, built in hours, so how do architects and designers factor topics such as sense of place, citizenship and heritage.

DELIVERING POSITIVE ARCHITECTURE AND URBAN ENVIRONMENTS

Arch. Guido Pace, graduated from the university of Florence, has a unique expertise in both pre andpost-contract work, overseeing multicultural and multidisciplinary teams on behalf of investors, landlords, end-users and realtors, to ensure that projects be completed timely, on budget, per best quality standards, profitably and to clients' satisfaction. A highly motivated and passionate individual who enjoys the challenges of complex work environments, always striving for innovative strategic approaches and creative solutions. Currently, he is holding the position of General project manager in MISK institute, Riyadh, KSA.

EARTHEN ARCHITECTURE SEMINAR

Earthen Architecture Seminar at Prince Nasser Palace, At-Turaif.
History of building construction in Saudi Arabia

This Workshop introduces the different types of printmaking as well as the process and techniques of creating your own designed hand-painting tool “Stamp” implementing Saudi motifs from different regions within Saudi Arabia.

VAN CLEEF & ARPELS: TIME, NATURE, LOVE

Students of the College of Engineering and Architecture at Al-Yamamah University the "Van Cleef & Arpels: Time, Nature, Love" exhibition, which is a presentation of the High Jewelry Maison's universe at the National Museum of Saudi Arabia in Riyadh. The exhibition revolves around three themes that have been key to the Maison since its foundation in 1906: Time, Nature, and Love.

THE BIG 5 SAUDI EXHIBITION

Visit for to the exhibition of Big 5 Which is a part of Saudi Arabia's largest construction event, the students had introduced of more than 15,000+ products exhibiting from over 40 countries providing them with solutions that can influence their study.

ITHRAA TRIP

DAMMAM

KING ABDULAZIZ CENTER

YU Architecture Department, College of Engineering and Architecture has organized an educational trip to our pioneer students to ITHRAA culture center at AL Khobar, the trip included visiting the architecture monuments at AlEhsaa area and Tarout Island.

DAMAM

Ithraa

Trip

2023

AL MADINAH TRIP

COMPETITION

The Project is an urban design competition lunched by the Municipality of Al-Madinah Al-Munawwarah Region. The competition aims to Focusing on developing an architectural identity for Madinah that is in line with the heritage and history of the region. The competition site is located in Medina, southwest The Prophet's Mosque in Al-Asifrain neighborhood, about 1 km away from the Prophet's Mosque.

PARAMETRIC DESIGN AND DIGITAL FABRICATION MODELING WORKSHOP

YU Architecture department, College of Engineering and Architecture has organized four-days workshop of parametric design and digital fabrication modeling, participates from various universities have learnt from our international guest professors , through a unique experience within our advanced digital fabrication lab."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PHOTOSHOP ADOBE

WORKSHOP

A GUEST LECTURER
ARCH. NOURAN OSAMA

Why post-production and visualization matters, lecture to our junior students about visual representation and graphic design

A GUEST LECTURER: ARCH. ABEER AL RAYES, INDESIGN ADOBE

YU Alumni, working in PEC Engineering Consultancy. A session about the InDesign adobe, to support our students in their final presentation and submission for the competition of Al-Madina AlMunwarra.

FIELD TRIP TO KAPSARC

A field trip was organized to KAPSARC for students in the course 'Sustainability in Architecture' to enhance their learning experience through linking theory and practice and visit one of the best examples of LEED-certified buildings in the Kingdom.

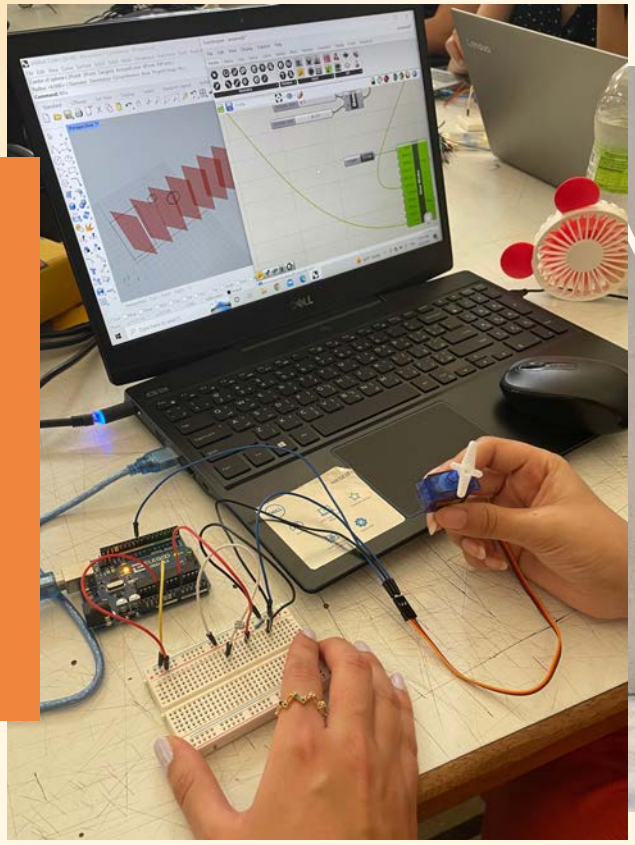
The students visited different buildings in the project and learned about the sustainable strategies used in the building design.

MINISTRY

OF ENVIRONMENT WATER AND AGRICULTURE

The students of the College of Engineering and Architecture at Al-Yamamah University visited the office of the Ministry of Environment, Water and Agriculture to attend a workshop entitled The Role of Awareness in Achieving Environmental Sustainability.

THE ALGORITHM ROME SUMMER SCHOOL IN PARAMETRIC KINETIC DESIGN



Workshop Details

Algorithm Rome Summer School has an advanced computational approach that enables designers and architects to overcome the imposition of prefixed architectural forms in order to enhance performance-driven design and responsive kinetic solutions that interact with humans and environment.

The workshop was based on parametric design simulation, generative forms as well as kinetic responsive design, analyzing and digital fabrication prototyping, are integrated together in two main parallel modules

ROME
SUMMER SCHOOL

WE TRAVEL TO SEEK OTHER PLACES

BUILDING FRIENDSHIP BETWEEN FACULTIES

we are not only colleagues but actually we are a big family.

DEAN'S HONOR LIST

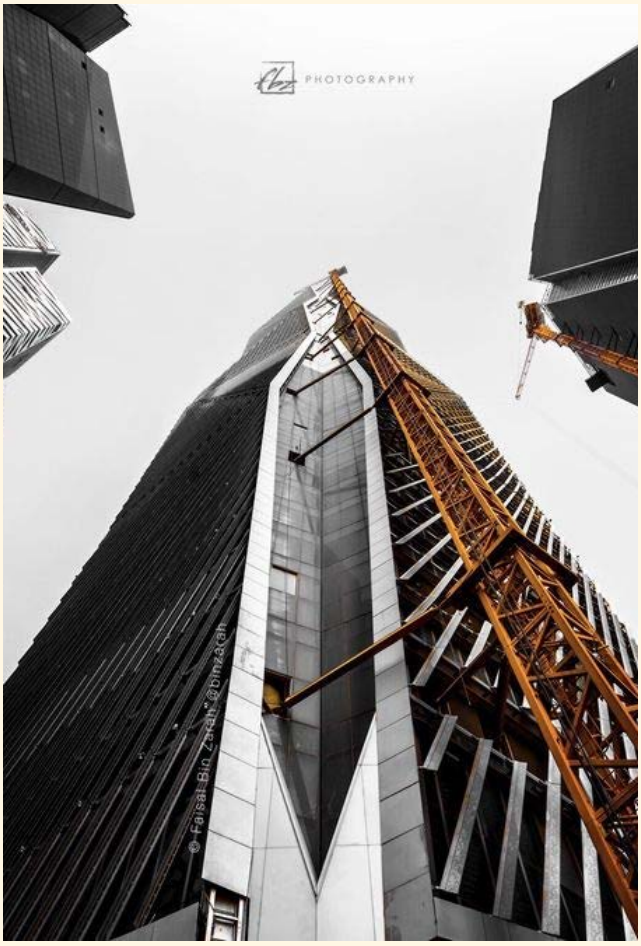
DEAN'S HONOR LIST

STUDENT NAME	GPA
RAWAN ZOHIR REYAD ABOALMAGD	3.74
SARA YOSEF TABET ABDULMALIK	3.85
SARA MOHAMMED AHMED ALWASHLEE	3.72
RAKAN GHASSAN ABOUDAKKA	3.76
ALWALED HUSSEIN M ALBAIK	3.67
LAYAN ZIAD AHMAD MAALI	3.9
LINA JAMIL AHMAD ALHANINY	3.85
DALAL ABDULLAH ALSUGHAYER	3.79
DHUHA SHAKER SAEED ALSAIF	3.77
RAGHAD ABDALRAZAK OMAR ALSAYYAD	3.7
RANEEM MOHAMMAD MOUSA MABROUK	3.86
BTOOL SAMI KHAZAL ALJIASIM	3.92
SARA RASHAD ABDULQADER SALAMEH	3.83
SARA ALSIDDEEQ ABDALLA IBRAHIM	3.83
ZAINAB ALAAELDIN ALI MOHAMMAD	3.75
JANA TAYSEER ABDULRAHMAN ABUSHARAR	3.6
LATEFAH MOHAMMED ABDULLAH ALSALAMAH	3.71
SARA ABDULKADER KHALAF BATTA	3.82
RAGHAD KHALID HAMDAN ABOUKHATER	3.91
BATOUL OSAMA KAMEL SIWAR	3.87
NABIL SALEM YAHYA AHMED	3.61
NADA SAID ABDULKADER SKHITA	3.82
NADA EHAB MOHAMMED ALSHAMI	3.63
GEHAD MOHAMED ABDELWHAB GEBALY	3.96
SARAH MOHAMMED AHMED ALSAHHAR	3.87
ABDULLAH MOHAMAD AHMAD ALSAHHAR	3.88

Academic year 2022-2023

TOP 10 SAUDI ARABIA ARCHITECTURE FIRMS:

DESIGNING THE FUTURE OF THE KINGDOM



Saudi Arabia, the largest country in the Middle East, has been undergoing a massive transformation in recent years, with ambitious plans to develop its infrastructure, enhance its public spaces, and attract more visitors to the region. To achieve these goals, the country has turned to some of the world's top architecture firms to help design the future of the Kingdom.

Here are the top 10 architecture firms in Saudi Arabia that are making a significant impact on the built environment of the region:

Saudi Arabia, the largest country in the Middle East, has been undergoing a massive transformation in recent years, with ambitious plans to develop its infrastructure, enhance its public spaces, and attract more visitors to the region. To achieve these goals, the country has turned to some of the world's top architecture firms to help design the future of the Kingdom.

Here are the top 10 architecture firms in Saudi Arabia that are making a significant impact on the built environment of the region:

1. Omrania: Founded in 1973, Omrania is one of the oldest and most respected architecture firms in Saudi Arabia. The firm has designed some of the country's most iconic buildings, including the Kingdome Tower and King Salman Park.

2. Zaha Hadid Architects: One of the world's most renowned architecture firms, Zaha Hadid Architects has been involved in several high-profile projects in Saudi Arabia, such as the King Abdullah Financial District Metro Station and the King Abdullah Petroleum Studies and Research Center.

3. Perkins+Will: With over 80 years of experience in architecture and design, Perkins+Will has been a leading firm in the region, involved in projects such as the King Abdullah University of Science and Technology and the Princess Noura Bint Abdulrahman University for Women.

4. Snøhetta: Founded in Norway, Snøhetta is a global architecture firm that has made significant contributions to the built environment of Saudi Arabia. The firm has designed the King Abdulaziz Center for World Culture in Dhahran and is also involved in designing the new King Salman Park in Riyadh.

5. HOK: a global architecture and engineering firm that has worked on several projects in Saudi Arabia, including King Abdullah Sports City.

6. Gensler: With offices in over 50 countries, Gensler is one of the largest architecture firms in the world. The firm has been involved in several projects in Saudi Arabia, including the Al Rajhi Bank Headquarters in Riyadh.

7. Dar Al-Handasah: Founded in 1956, Dar Al-Handasah is one of the leading engineering and architecture firms in the region. The firm has been involved in several large-scale projects in Saudi Arabia, such as the King Abdulaziz International Airport Expansion in Jeddah.

8. Skidmore, Owings & Merrill (SOM): SOM is a global architecture and engineering firm that has been involved in several large-scale projects in Saudi Arabia, including the King Abdullah Financial District.

9. Foster + Partners: Founded by renowned architect Norman Foster, Foster + Partners is a global architecture firm that has designed several notable buildings in Saudi Arabia, including the King Abdullah Financial District and the Red Sea Project.

10. Dar Omran: Founded in 2007, Dar Omran is a reputable architecture and design firm based in Saudi Arabia. The firm has been involved in several high-profile projects in the country, including the design of the King Abdullah Financial District Conference Center and the Al Faisaliah Tower renovation project in Riyadh.

KAFD
مركز الملك عبدالله المالي

AN ICONIC BUSINESS AND LIFESTYLE DESTINATION

KING ABDULLAH FINANCIAL DISTRICT (KAFD

King Abdullah Financial District (KAFD) in Riyadh, Saudi Arabia, is a world-class development project that seeks to create a self-contained city within a city. Comprising over 59 buildings, the district boasts of high-rise towers, commercial spaces, and residential units.

KAFD's iconic architecture, state-of-the-art facilities, and innovative design make it a premier destination for businesses, residents, and visitors alike. It is designed to be sustainable and environmentally friendly, with several green spaces, energy-efficient buildings, and eco-friendly transportation.

It is not merely a business destination but also a vibrant community where residents can live, work, and play. The district features several residential buildings, shopping and dining destinations, and recreational facilities.

The district's sustainable design is one of its most significant features. It consciously incorporates green spaces and energy efficient infrastructure, reducing its carbon footprint significantly.

The district's transportation system is also eco-friendly, with a network of pedestrian walkways and bike paths connecting the various buildings and facilities.

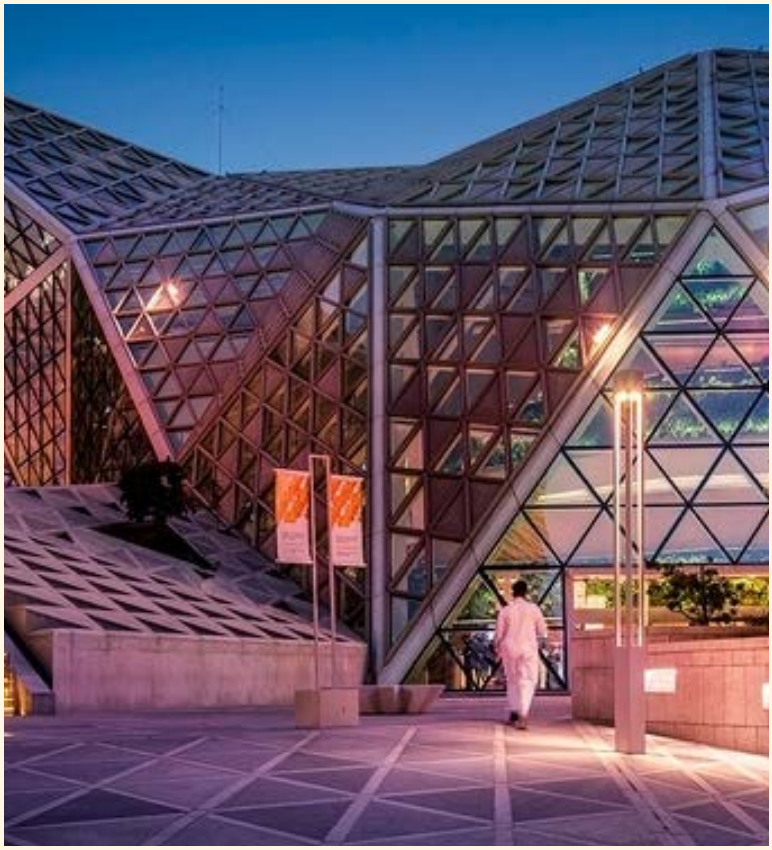
KAFD's iconic architecture is another standout feature. It boasts of several high-rise towers, including the PIF tower, which is one of the tallest buildings in the region.

The buildings are not only visually stunning but also highly functional, catering to the needs of businesses and residents.

The district's commitment to sustainability and innovative design has already attracted top companies and organizations from around the world.

KAFD is a project of the Saudi Arabian government, part of its ambitious plans to diversify the economy and attract local and international businesses. The district's innovative design, state-of-the-art facilities, and commitment to sustainability make it a model for future urban developments in the region and beyond.

In conclusion, KAFD is a remarkable achievement of modern architecture that sets new standards for sustainable and innovative urban development. Its iconic design, cutting-edge facilities, and commitment to sustainability make it a world-class destination for businesses, residents, and visitors alike. With its impressive high-rise towers, state-of-the-art facilities, and sustainable infrastructure, KAFD is set to become one of the most iconic destinations in the Middle East, shaping the future of Riyadh, and setting new standards for urban development around the world.



Let's Get Started

THE TOP APPS FOR ARCHITECTS

WRITTEN BY PAULA CANO

PUBLISHED ON JANUARY 15, 2023

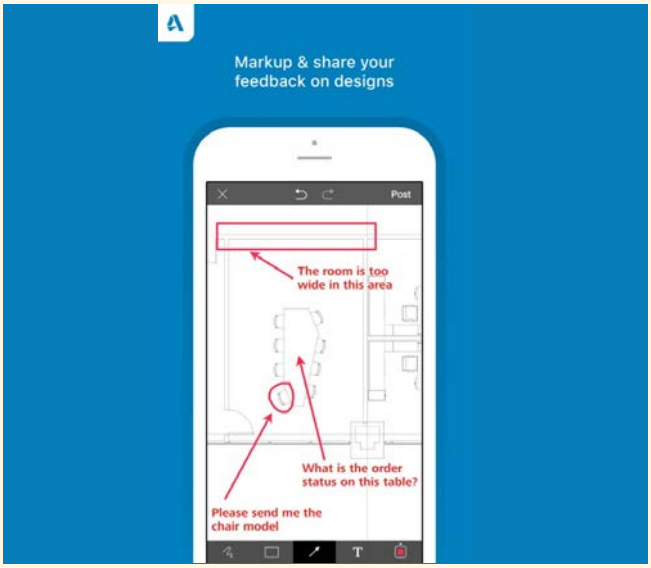
THE TOP APPS FOR ARCHITECTS

Smartphones and tablets have become so powerful that has abruptly changed the concept of workshops since the introduction of apps into the architecture industry. They have generated a more productive and efficient workflow on-site or on the go, covering different aspects of the field with versatility and variety.

Here are the best architecture apps in 2022, according to ArchDaily :

AutoCAD 360 and Autodesk FormIt 360 (iOS/Android):

Visualize any AutoCAD or Revit files on the go. Autodesk users can view and upload 2D and 3D drawings regardless of what software they use to create them.

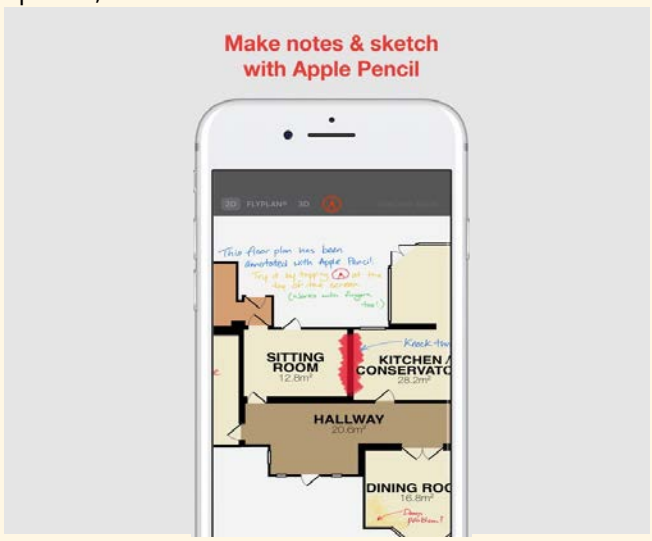


BIMx (iOS/Android)

Possessing a unique technology that integrates 2D and 3D building project navigation, this app allows architects to use Graphisoft files on any device and make measurement adjustments on-site.

RoomScan (iOS)

RoomScan Pro can create an entire floor plan using any phone. Easy to use, the process only requires the user to tap his screen and highlight walls while moving across the room, and the app generates the adequate floor plan seamlessly. In addition, the application can measure and draw stairs, facades, green spaces, etc.



Behance | Creative Portfolios

Behance is a social media platform owned by Adobe whose primary focus is to showcase and discover creative work. Behance is free, and there are no restrictions on the number of projects a member can create. There is also no limit on the number of images/media users upload.

Sketchbook by Autodesk (iOS/Android)

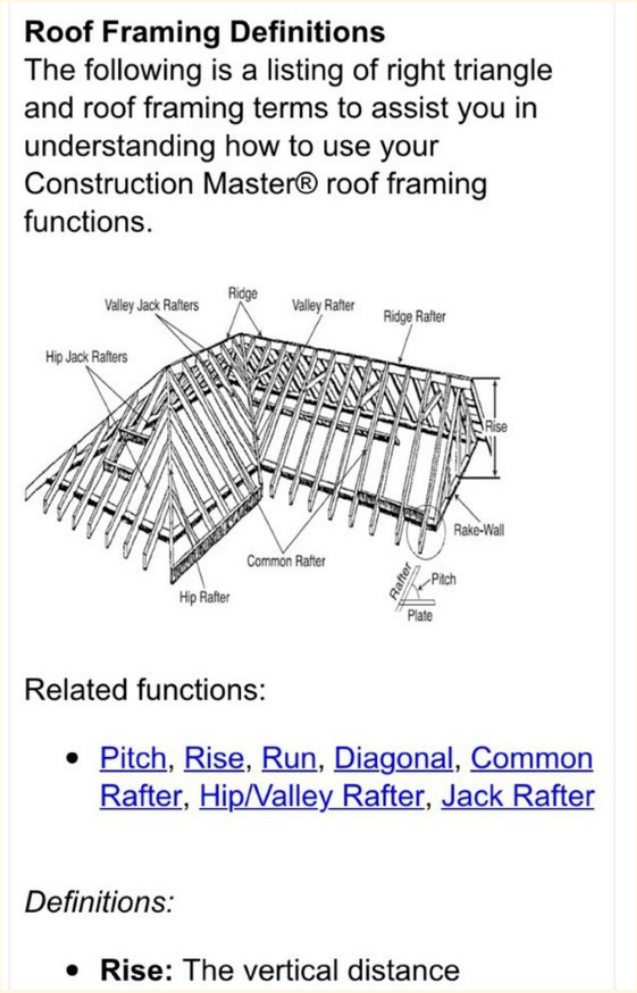
Sketchbook works for all desktop and mobile devices. From quick sketches to fully finished artwork, the app works as a digital sketching paper free for everyone. The interface allows easy access to all the drawing tools, including steady stroke, symmetry tools, and perspective guides.

Concepts (iOS/Android)

Providing a natural paper-like experience, the app supports vector-based sketching, which is ideal for architects and designers. It is incredibly responsive and flexible, allowing faster sketching for illustrators, architects, designers, etc. Concepts come as a free app, and the Pro version price may differ based on the user's location.

Construction Master Pro (iOS/Android)

Rated five on IOS in the utility section, Construction Master Pro is an application that helps you with your calculations instead of a regular calculator. It can assist anyone in estimating areas, volumes, etc., and can be used anywhere, on-site or in the office. Construction Master is a paid app, but great for calculating everything on the roof, saving time and money.



Roof Framing Definitions

The following is a listing of right triangle and roof framing terms to assist you in understanding how to use your Construction Master® roof framing functions.

Related functions:

- Pitch, Rise, Run, Diagonal, Common Rafter, Hip/Valley Rafter, Jack Rafter

Definitions:

- **Rise:** The vertical distance

MagicPlan (iOS/Android)

MagicPlan uses your mobile's camera to measure spaces and create almost accurate plans that can be exported as PDF, DXF, or JPG.

AN INTERNATIONAL TRAINING OPPORTUNITY

FOR THE 6 MONTHS COOP PROGRAMME

CITY META LAB

CITYMETALAB
Architecture Firm

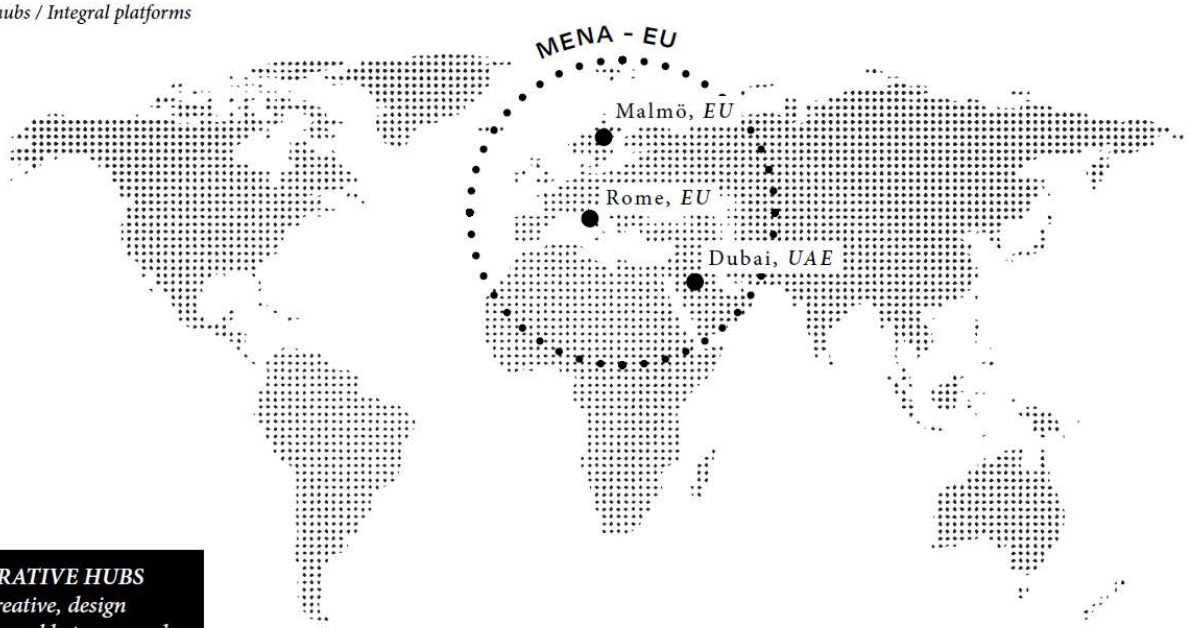
in Rome !

The architecture department established an **international agreement** with one of the distinguished Italian architecture firms that gives the opportunity to our students to conduct their training programmes abroad, an added experience that expand their exposure and gives an exceptional value to compete with the market challenges

GLOBAL PRESENCE

Regional expertise hubs / Integral platforms

about us



***Our three OPERATIVE HUBS** are centres of creative, design harvesting offices, able to respond to each dedicated regional market. One stop solution for design, architecture, planning and interior design.*

CITY META LAB is a team of *experienced international professionals* dedicated to develop design ideas which main objective is to create *memorable spatial experiences* at commitment of large, medium and small spectrum, functional aspects and sector of activities real estate, and urban realm.
Consolidating more than two decades of track record global renowned professional practice, unified as one group of specialist, responsable to turn each project into an asset, unique character architecture, city destination and thoroughly functional approach.

Ours is a multi-layered vision of the ***CITY***, decoding urban opportunities, and embracing future proof approach.

Looking beyond, ***META*** integral design approach: concepts into built memorable spatial experiences.

A *local*, *regional* and *global* expertise in constant search for better practice and outmes, a vivid commitment of professional ***LAB*** of ideas and tangible results.

SERVICES

City Meta Lab is a platform of **collaboration**, rooted in the **multi-disciplinary approach** of each task, project and ideas. Proceeding with the mechanics of a research lab, the expertise of track record global practice, and the experience developing at several scale of intervention and phases of design for planning and architectural projects.

CML' s approach prioritizes the **interconnections between various aspects of a building project** and seeks to create designs that are sustainable, functional, and harmonious with their surroundings.

CML' s principles:

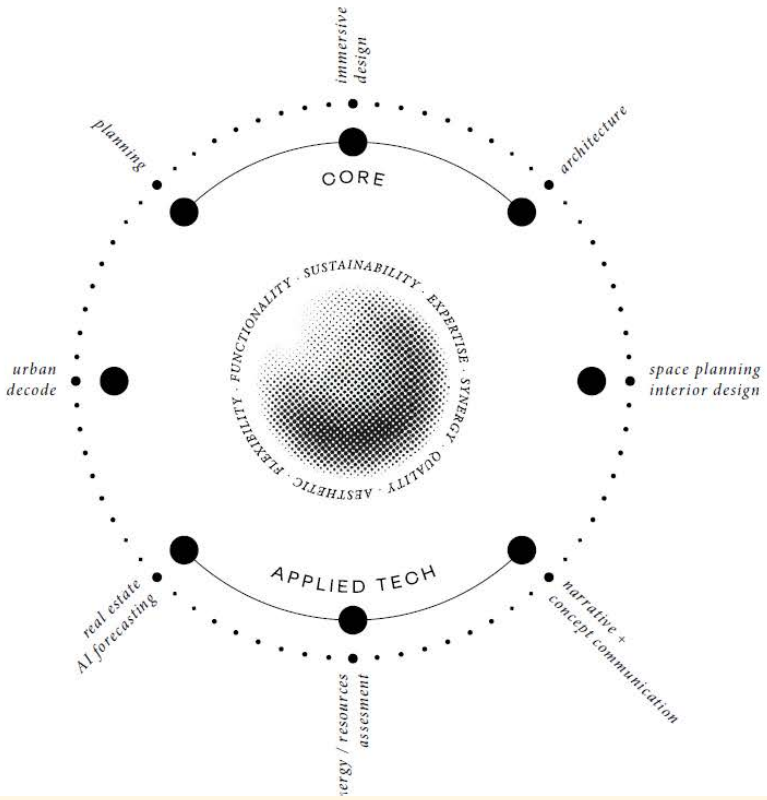
Contextual design Assessment: From spatial-physical, social, and cultural context, urban phenomena and city decoded development opportunities of a building project prior the design process. This includes analyzing the site, understanding the community, and considering the local climate, geography, and history. The base line of each project starts with the generation of the criteria of intervention, articulated with design at all instances.

Sustainability / Health and well-being: Architects incorporate sustainable design principles into their projects, including energy-efficient systems, renewable materials, and water conservation measures.

Health and well-being / Pre and Post occupancy scenarios evaluated: CML has been engaged in several analysis of cities, districts, or regions development studies, in their capacity to engage with future proof growth, preservation and development agenda, in addition to evaluation of surroundings, including its ecological, economic, and social impact.
For which our support of urban focus, has developed interactive scenarios, and real time parameter explorations, informing city planners, Urban stakeholder, and Real Estate developers and urban consultancy companies.

Adaptability: Architects design buildings that are adaptable and can evolve over time to meet changing needs and technologies.

CML is a design, architecture, planning platform aiming for long term value generation ideas and project. Spanning from conceptual / definitions up to fully completed buildings and spatial memorable experiences.



CITY META LAB PROJECTS

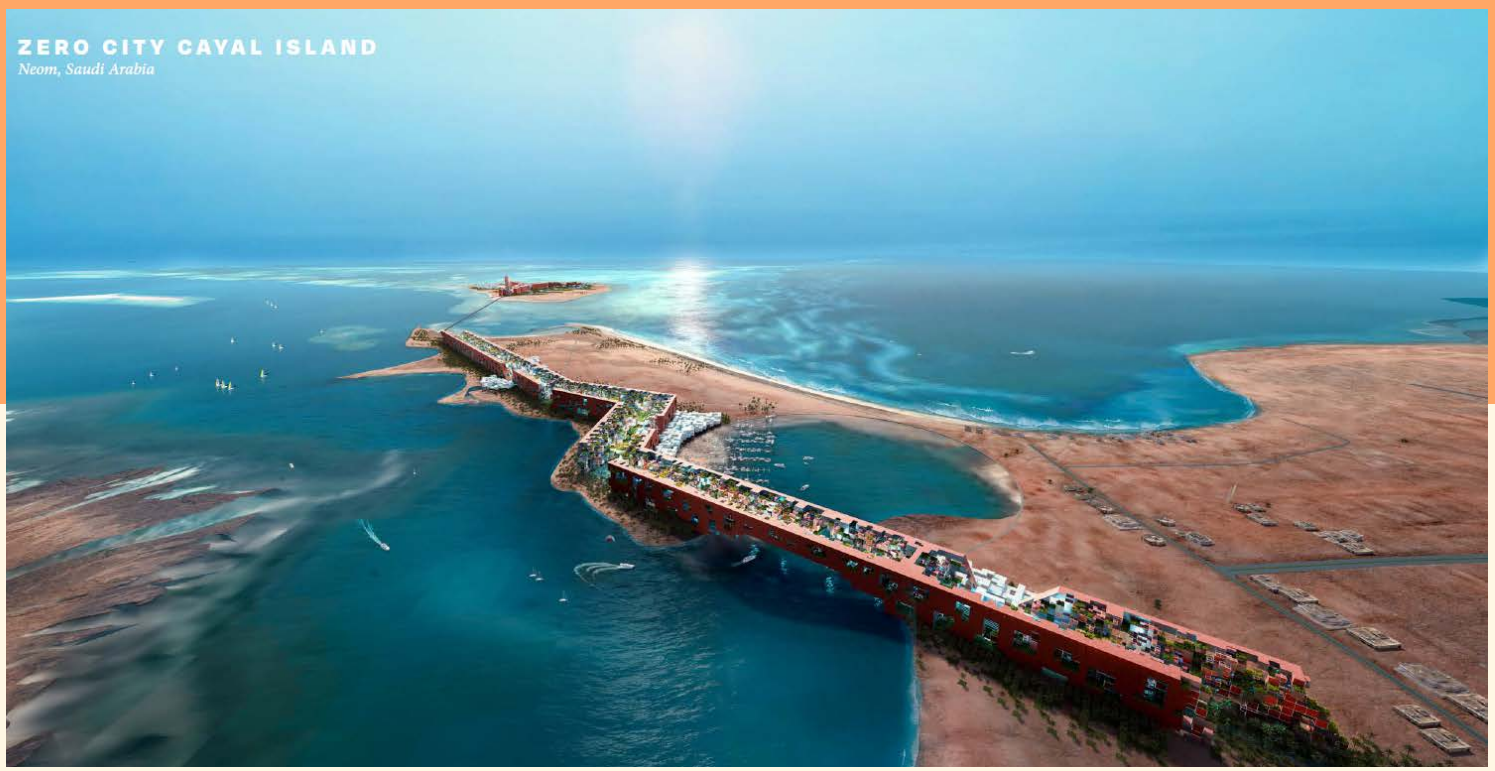
NEOM EXHAGONS

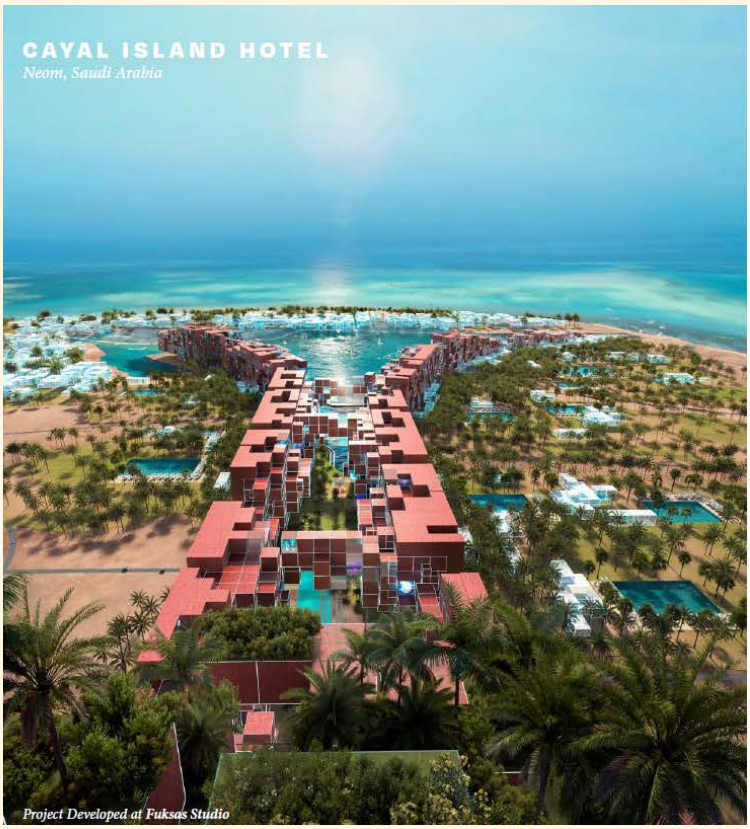
Saudi Arabia

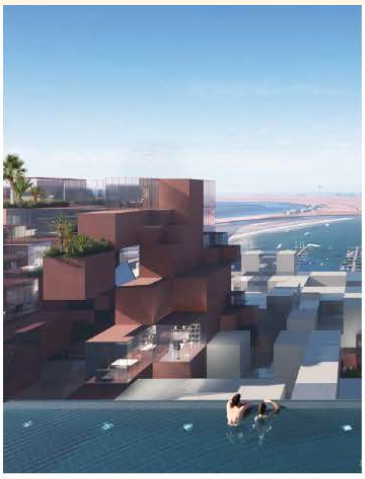
Tipology: *Ultra-luxury housing*
Date: *June 2021 - September 2021*
Status: *Shortlisted*
Design phase: *Concept*
Services: *Full Design Package / Financial and sub-consultant coordination / Client consultation*

Project Developed at ***Fuksas Studio***

CITY META LAB







Know more by visiting the website: www.citymetalab.com

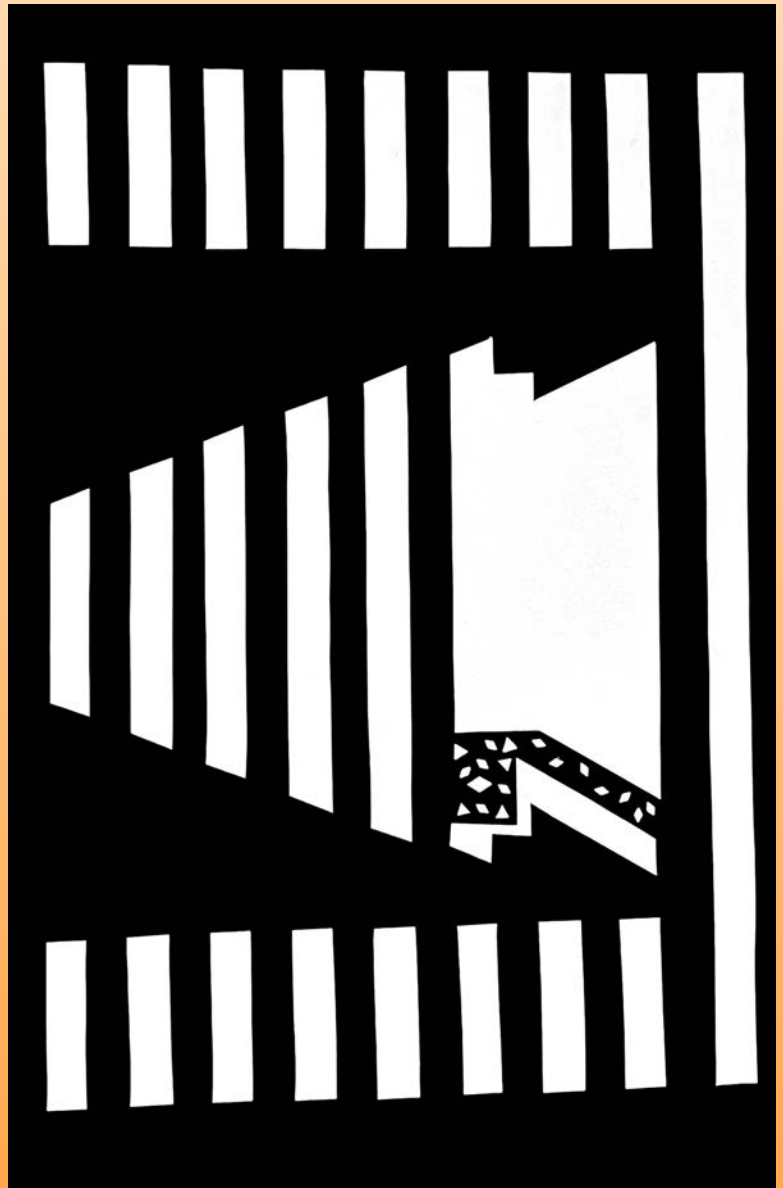
CITY META LAB

STUDENT'S WORK

2022-2023

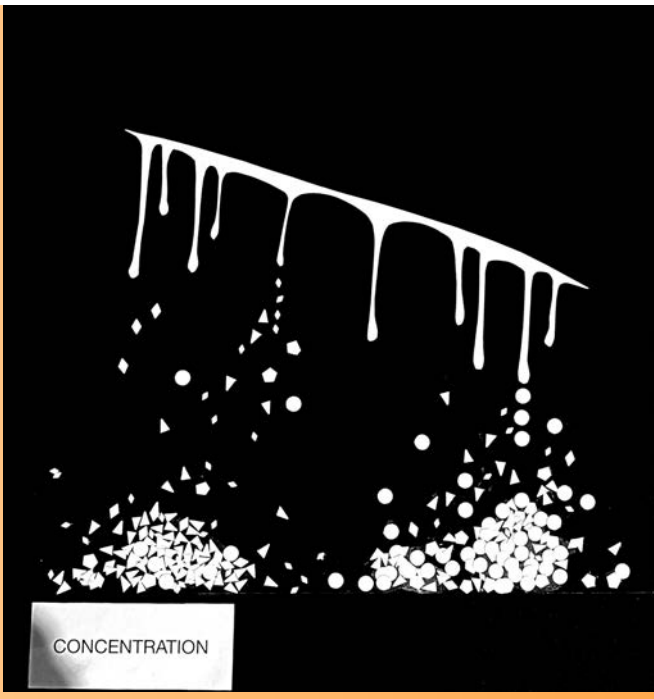
ARCH101: FINAL PROJECT

INSTRUCTOR: MR. ABDULLAH ELSHAFIE



CONCEPT

This work was produced to show the six main connotations of a dagger, and what it symbolizes : betrayal, loss, danger, protection, sacrifice & bravery. Each symbol was represented by a design principle.

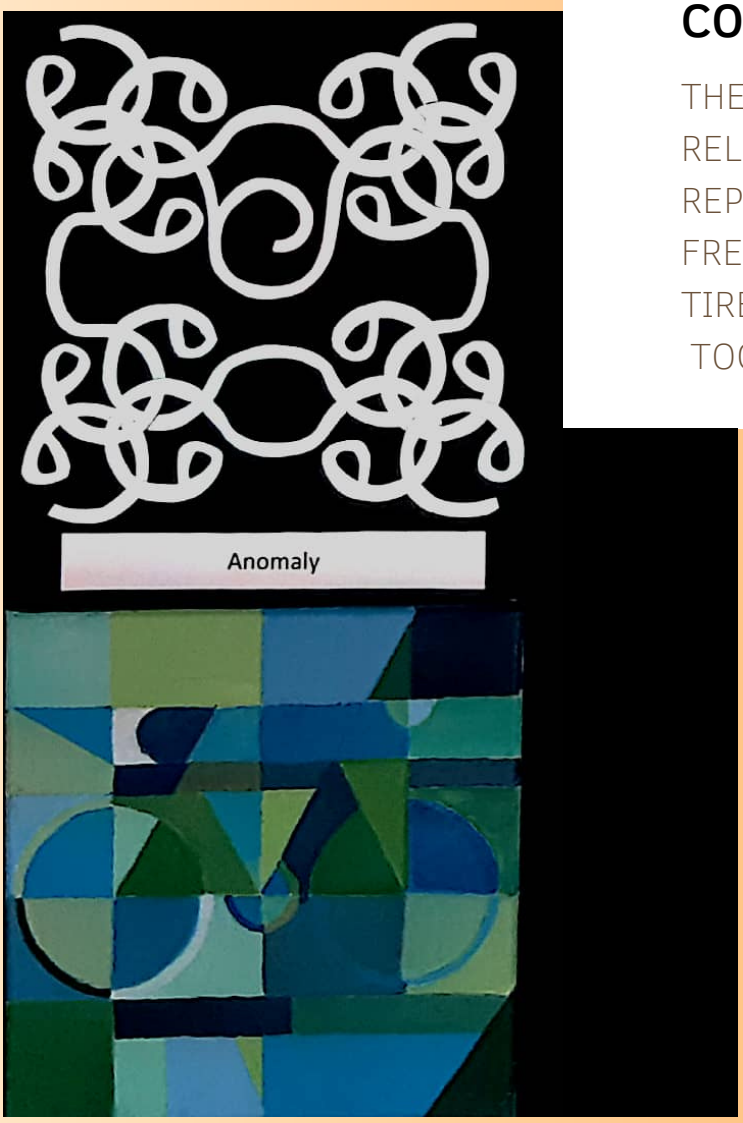


ARCH101: FINAL PROJECT

INSTRUCTOR: MR. ABDULLAH ELSHAFIE

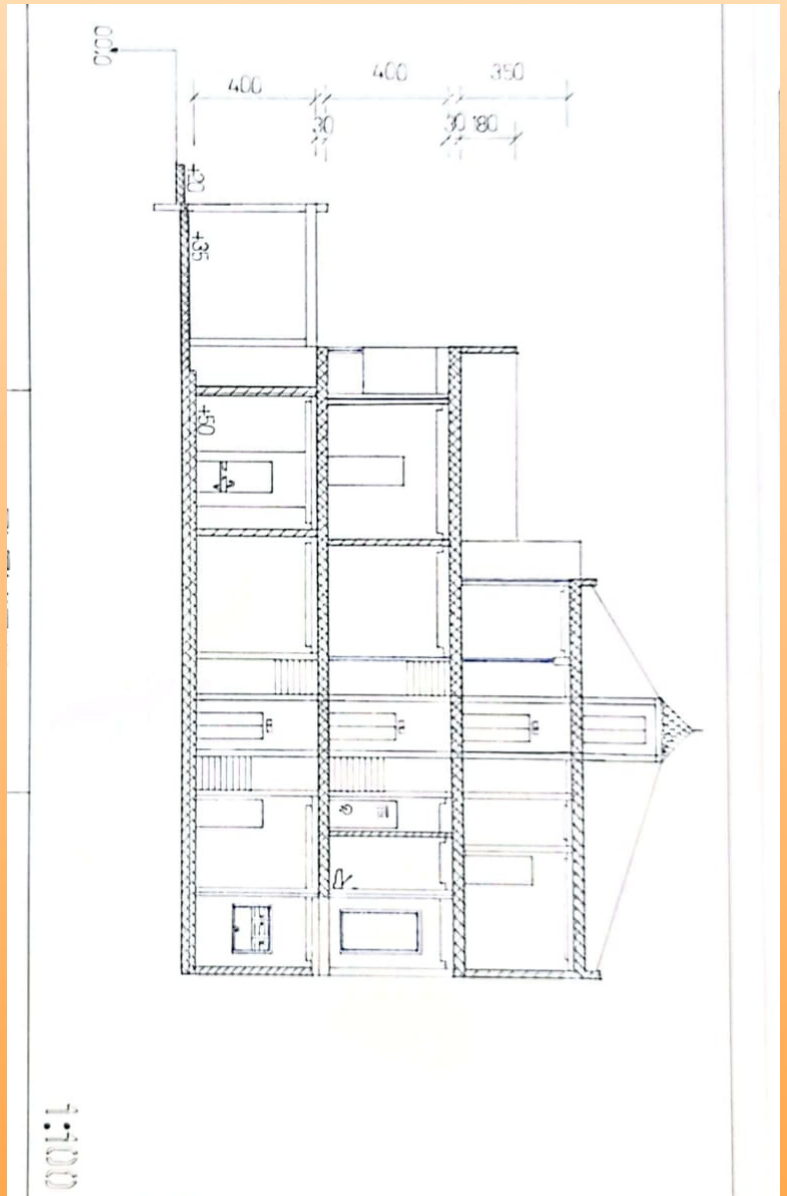
CONCEPT

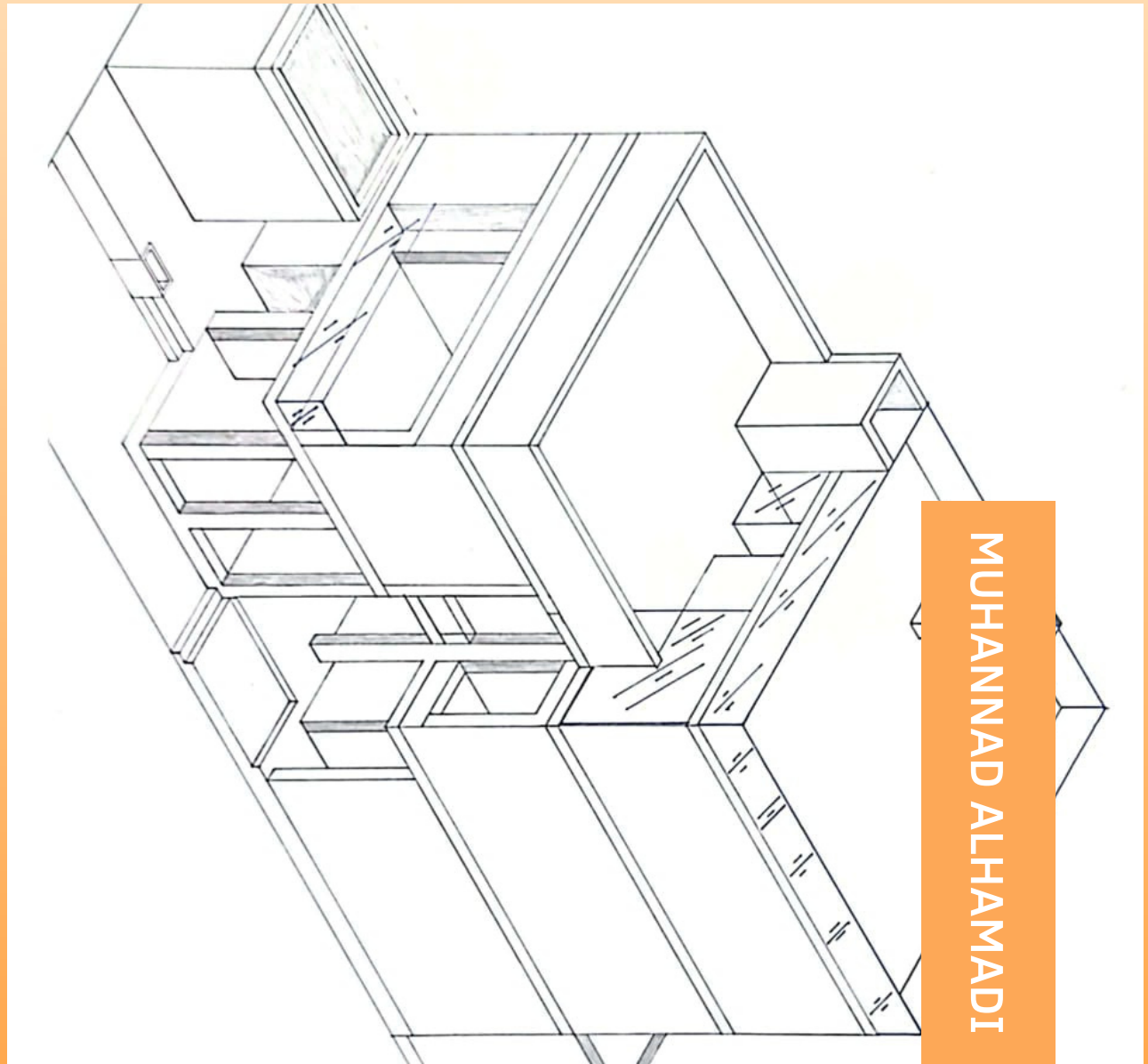
THE CONCEPT OF THIS WORK WAS RELATED TO WHAT A BICYCLE REPRESNETS., WHICH INCLUDES FREEDOM, PROGRESS AND HOPE.,, i TIRED LINKING DIFFERENT THINGS TOGETHER TO PRESENT ONE POINT



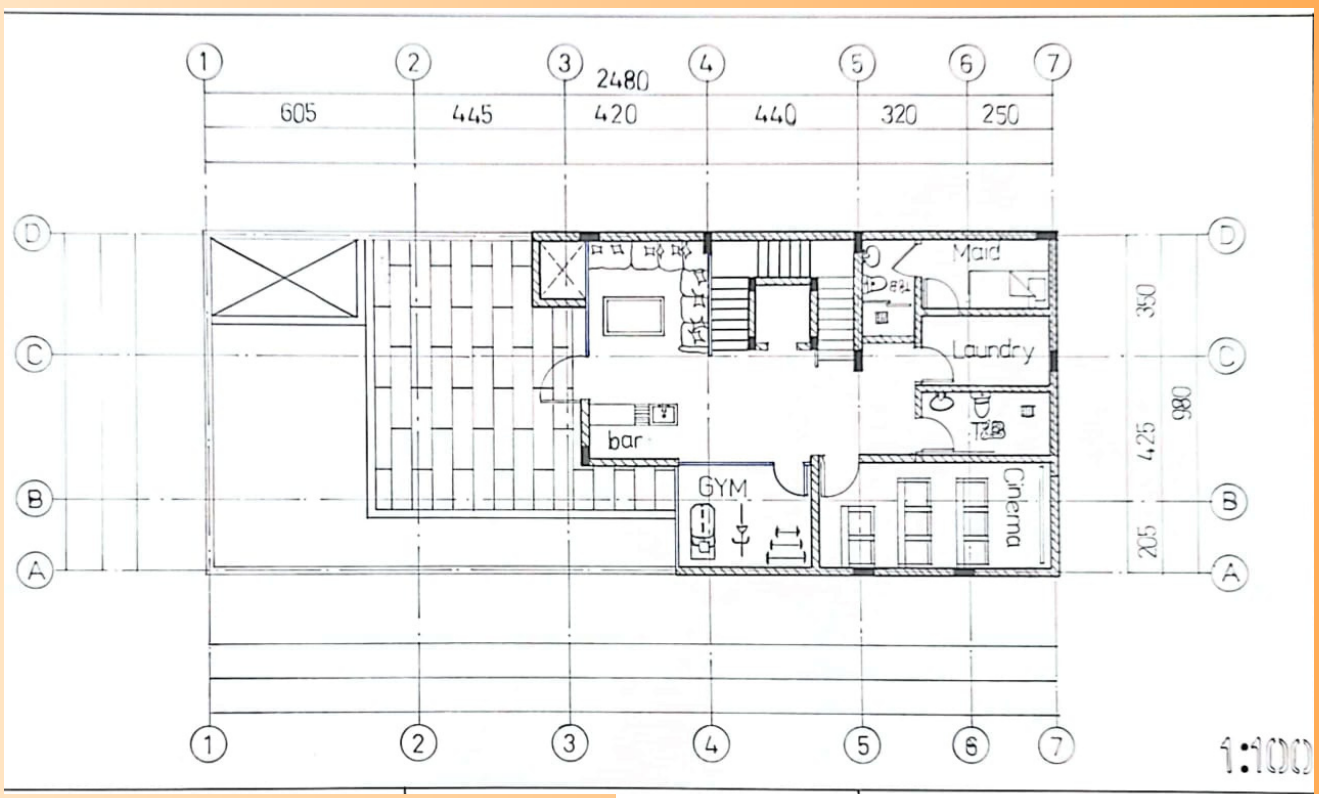
ARCH 102: VILLA PROJECT

INSTRUCTOR: MS.ESRAA SAMMAN



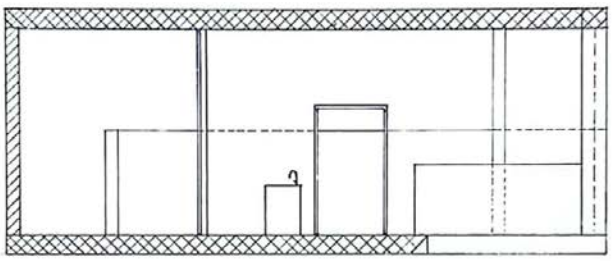


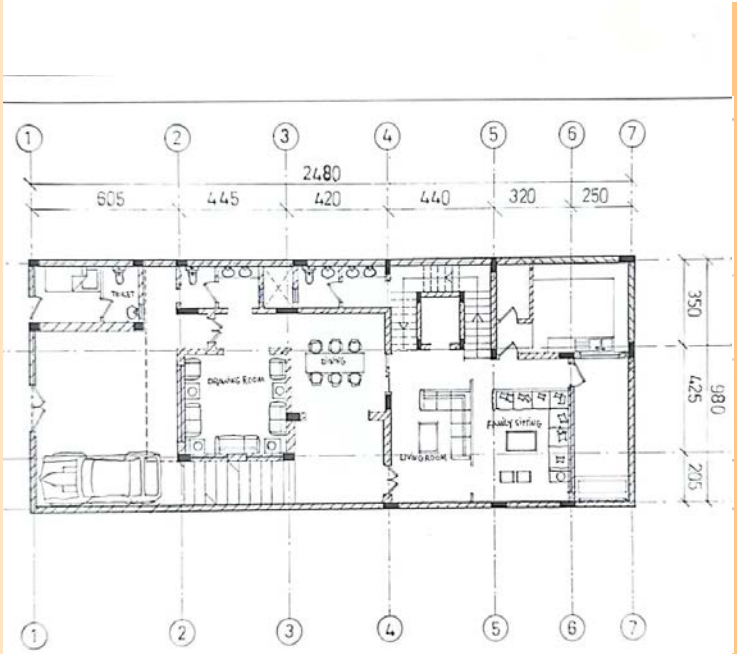
MUHANNAD ALHAMADI

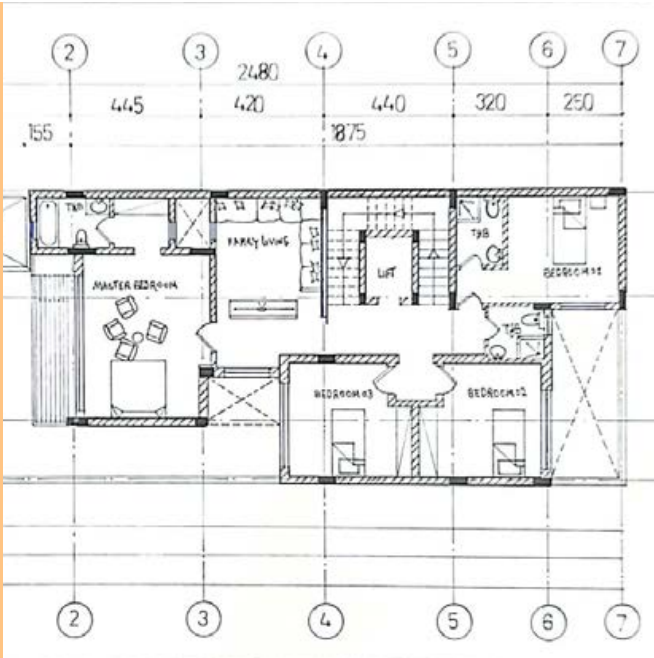


CONCEPT

Residential villa with stone was used for the columns and some parts of the facade, with profile paint (exterior paints) and the glass element to add aesthetics to the building and allow light to enter the building.



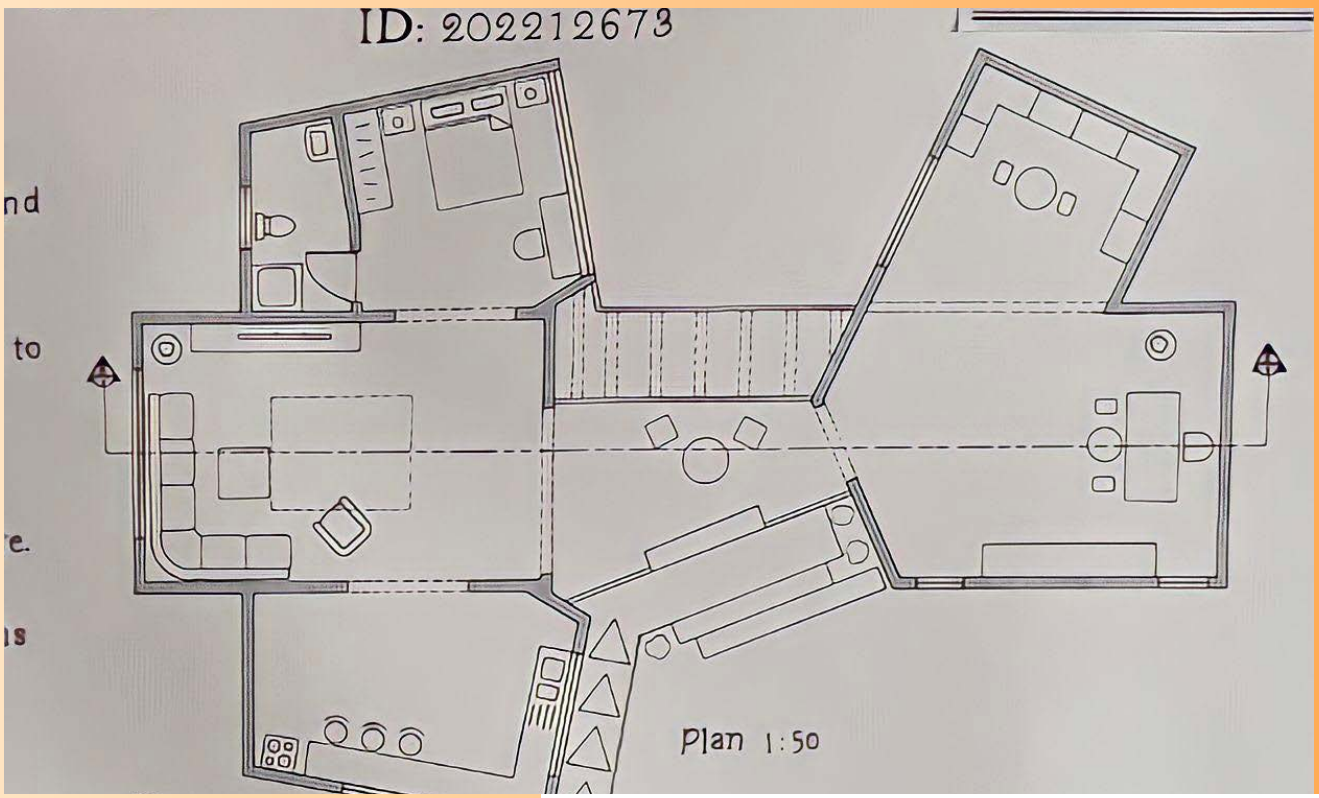




ARCH 111: STUDIO PROJECT

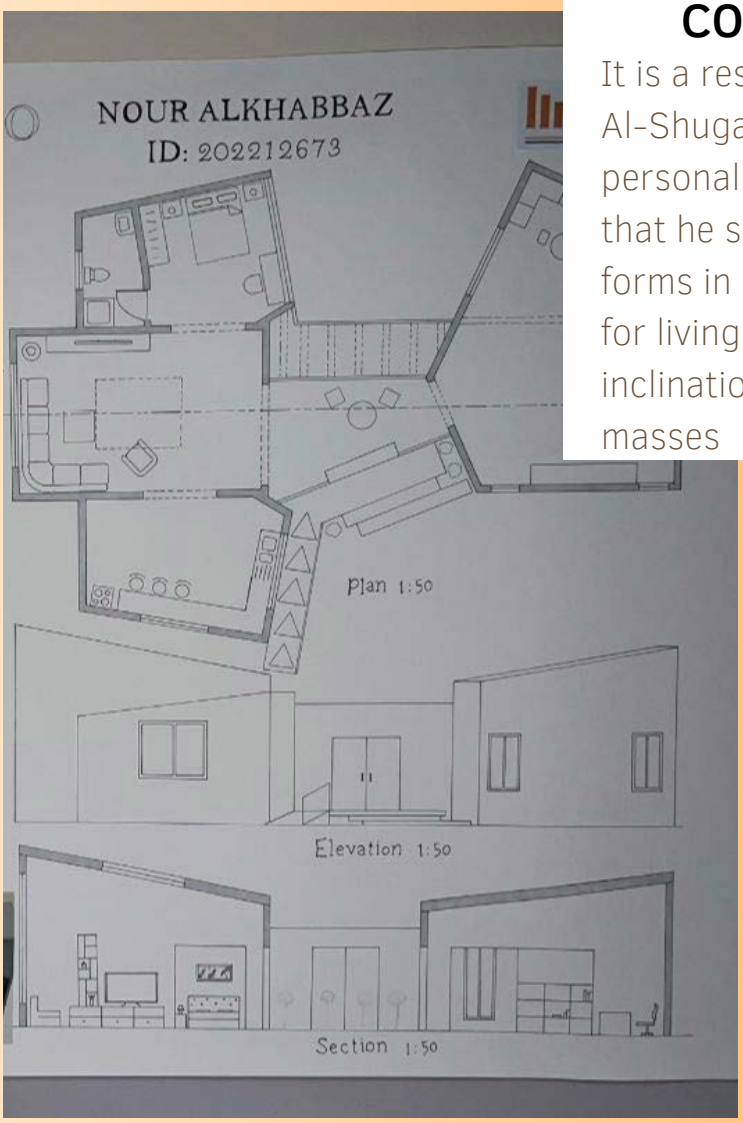
INSTRUCTOR: DR.DALIA FATTAH

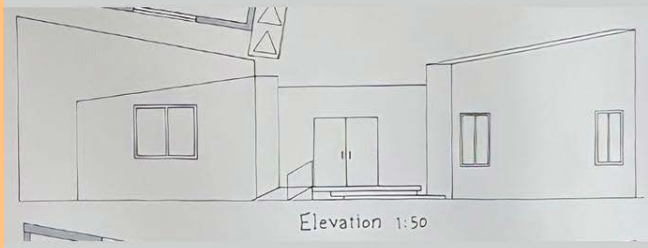
NOUR ALKHABBAZ



CONCEPT

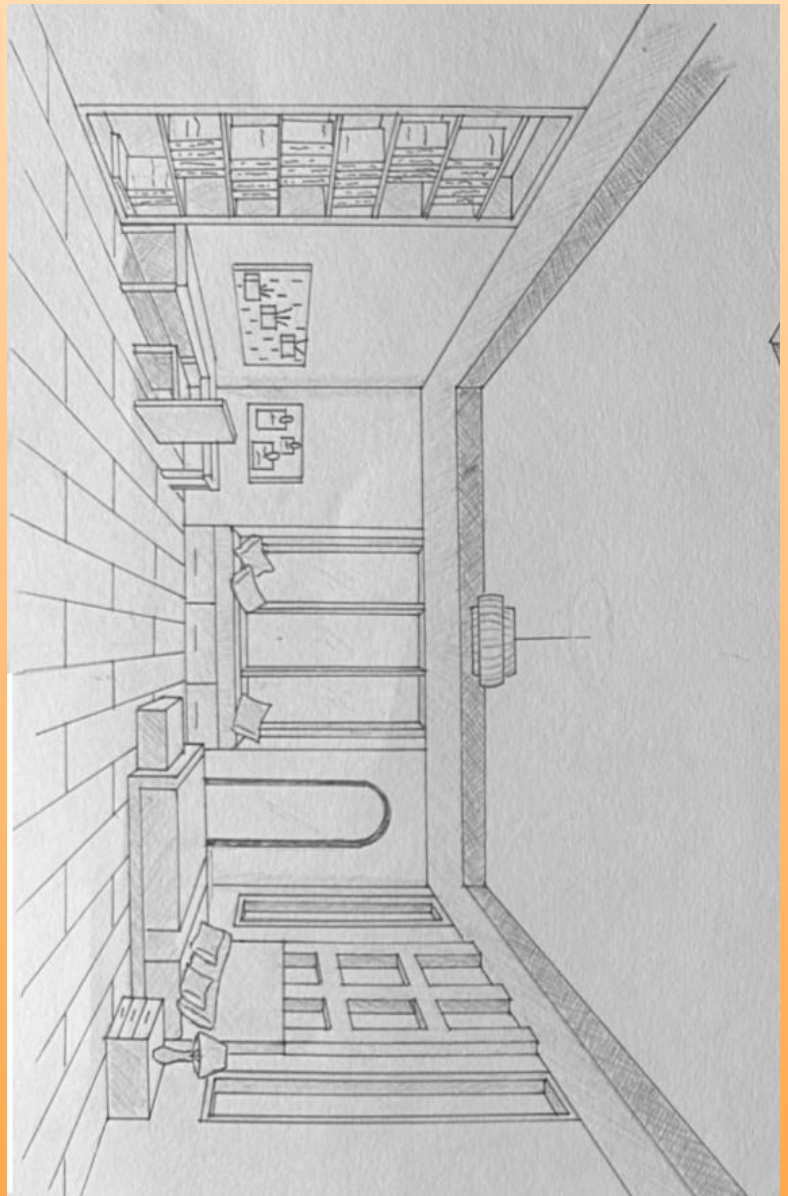
It is a residential studio for the journalist Ahmed Al-Shugairi, as it was designed based on his personality, life, work, interests, and challenges that he seeks to achieve, Using the simplest forms in architecture and the most comfortable for living, with some modifications in the inclination of the roofs and the shape of the masses

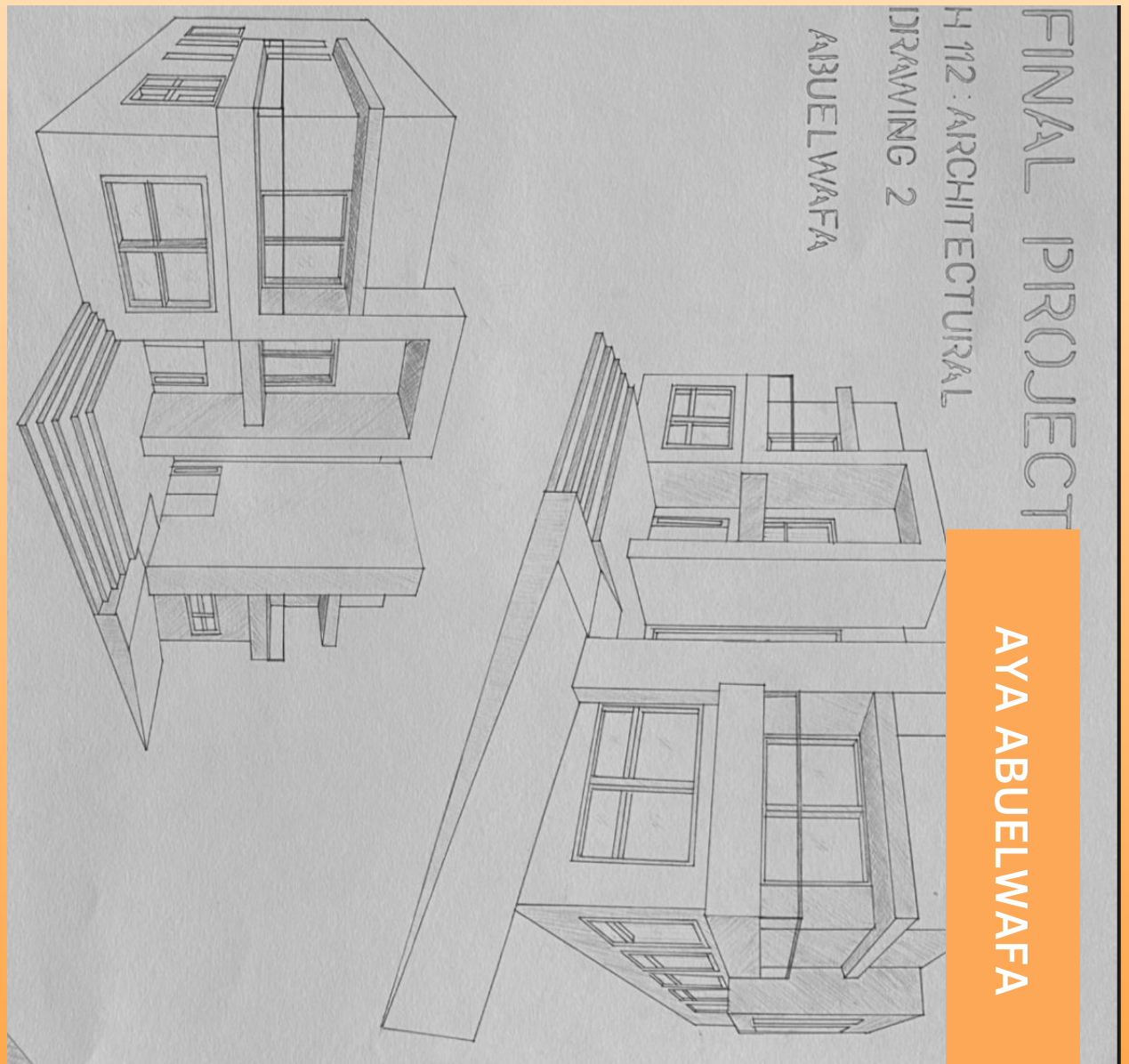




ARCH 112: VILLA PROJECT

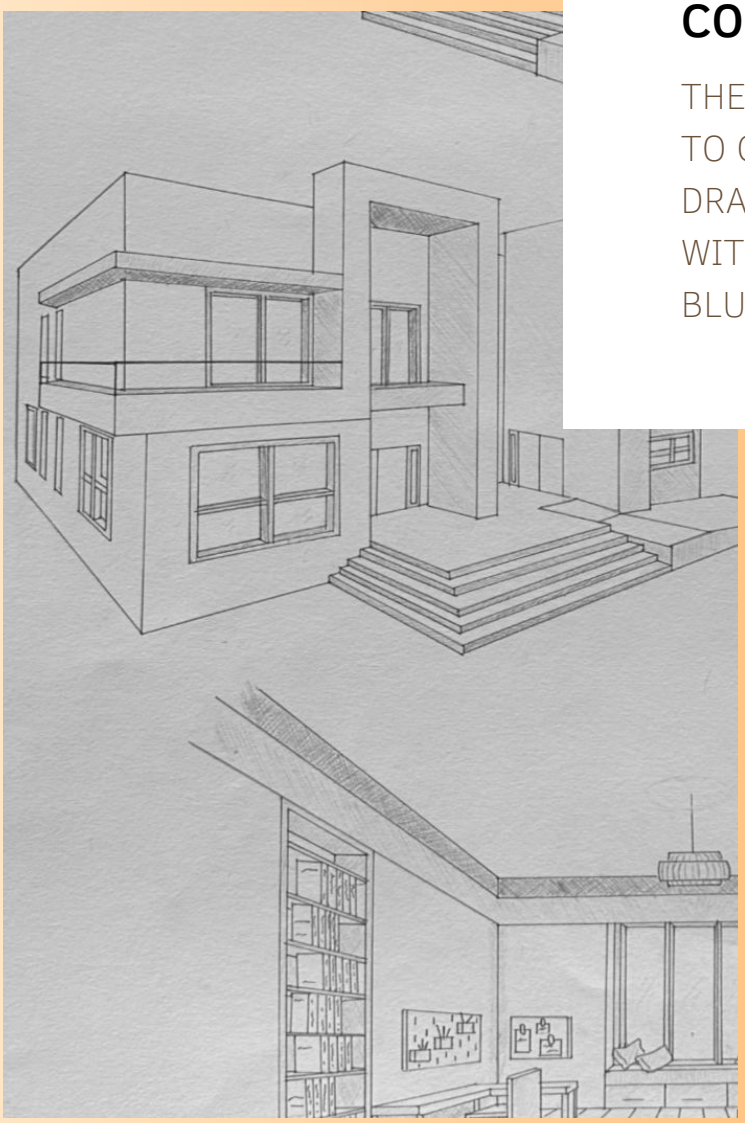
INSTRUCTOR: DR.ANWAR IBRAHIM





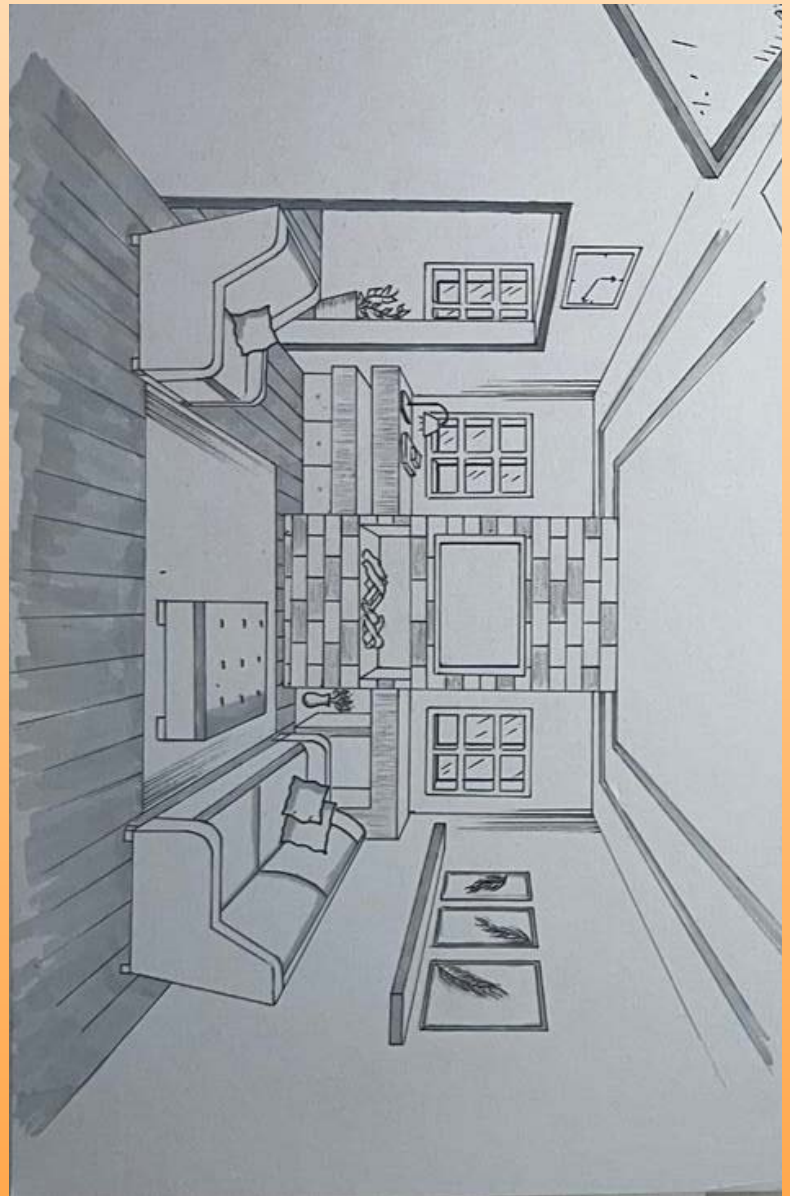
CONCEPT

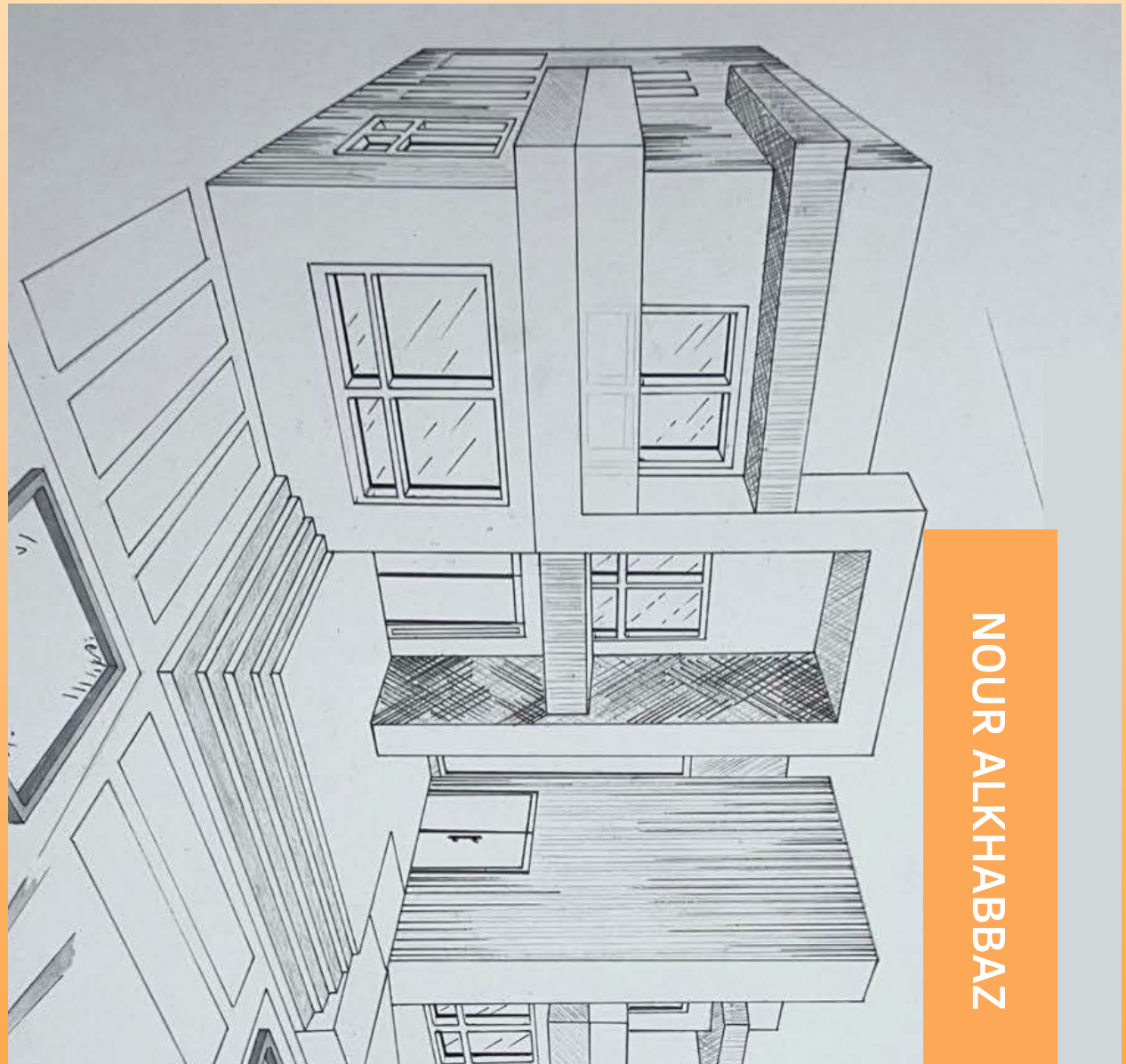
THE PERSPECTIVE TECHNIQUE WAS USED TO CREATE A VILLA WITH AN INTERIOR DRAWING, WHICH WAS THEN RENDERED WITH A BLUE PEN AND HATCHED BY A BLUE PENCIL.



ARCH 112: VILLA PROJECT

INSTRUCTOR: DR.ANWAR IBRAHIM

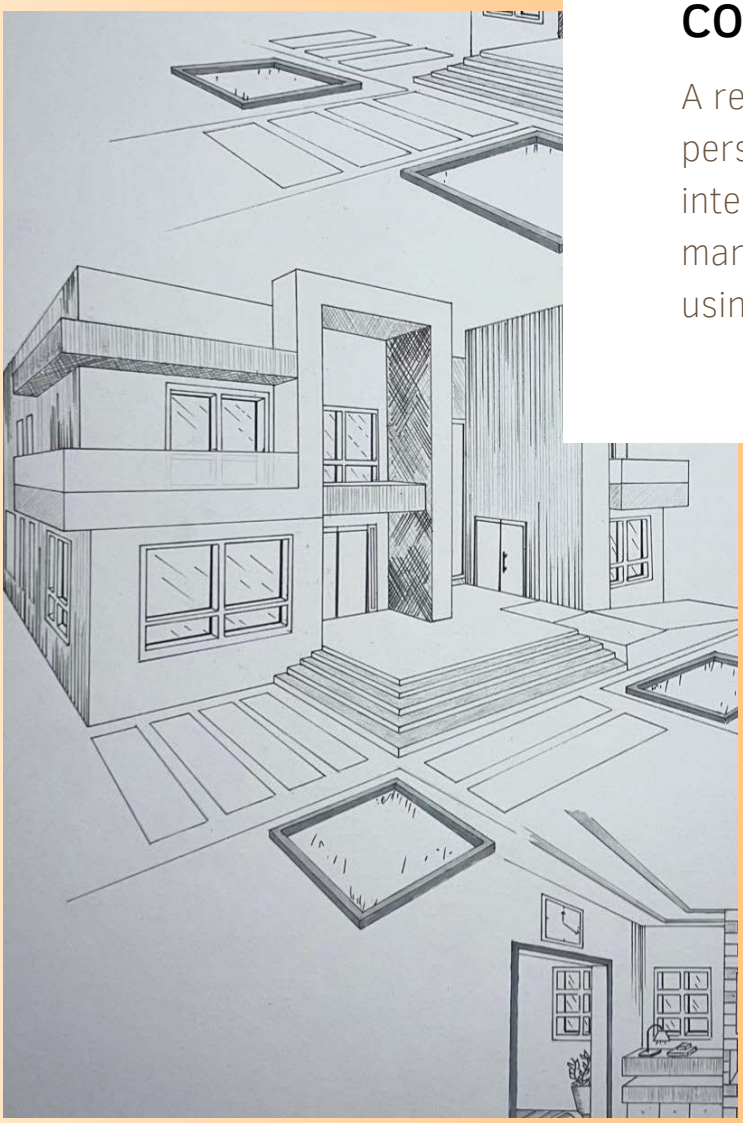




NOUR ALKHABBAZ

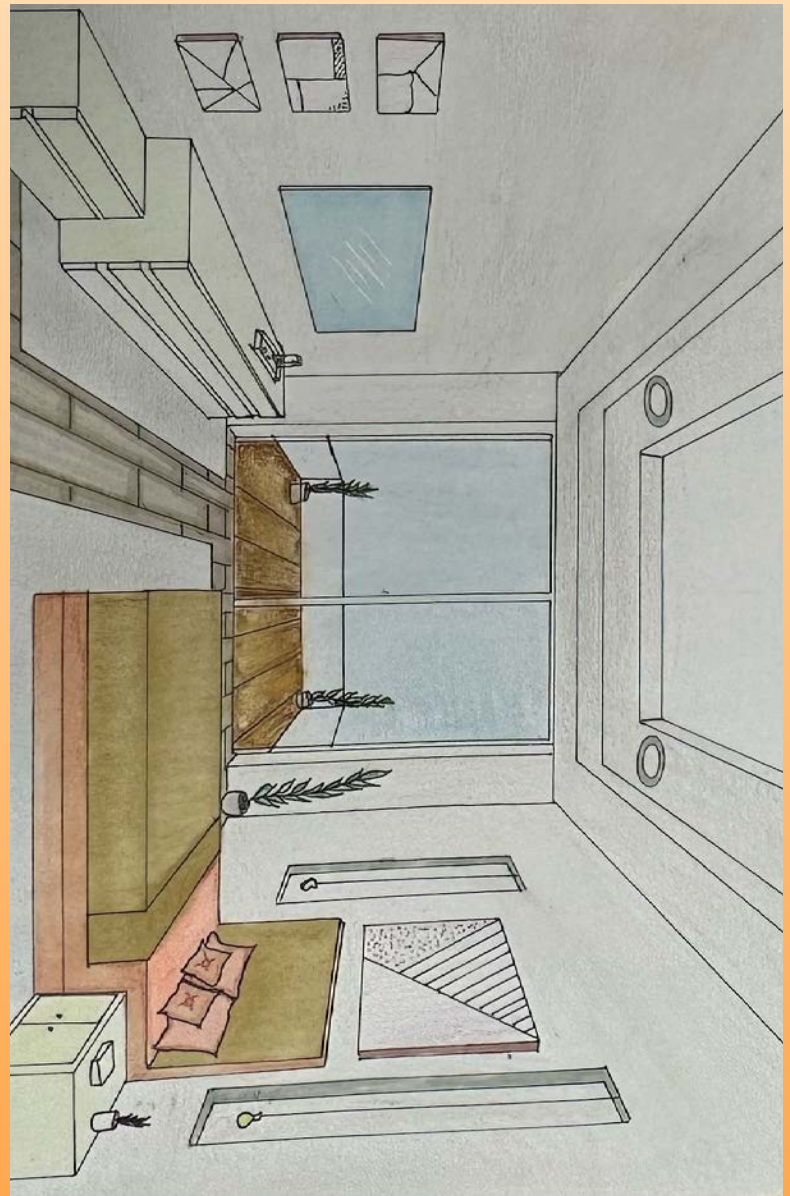
CONCEPT

A residential villa that was drawn in perspective with a drawing of one of the interior rooms of the house. Rendered manually by different hatching types using pencil and black pen

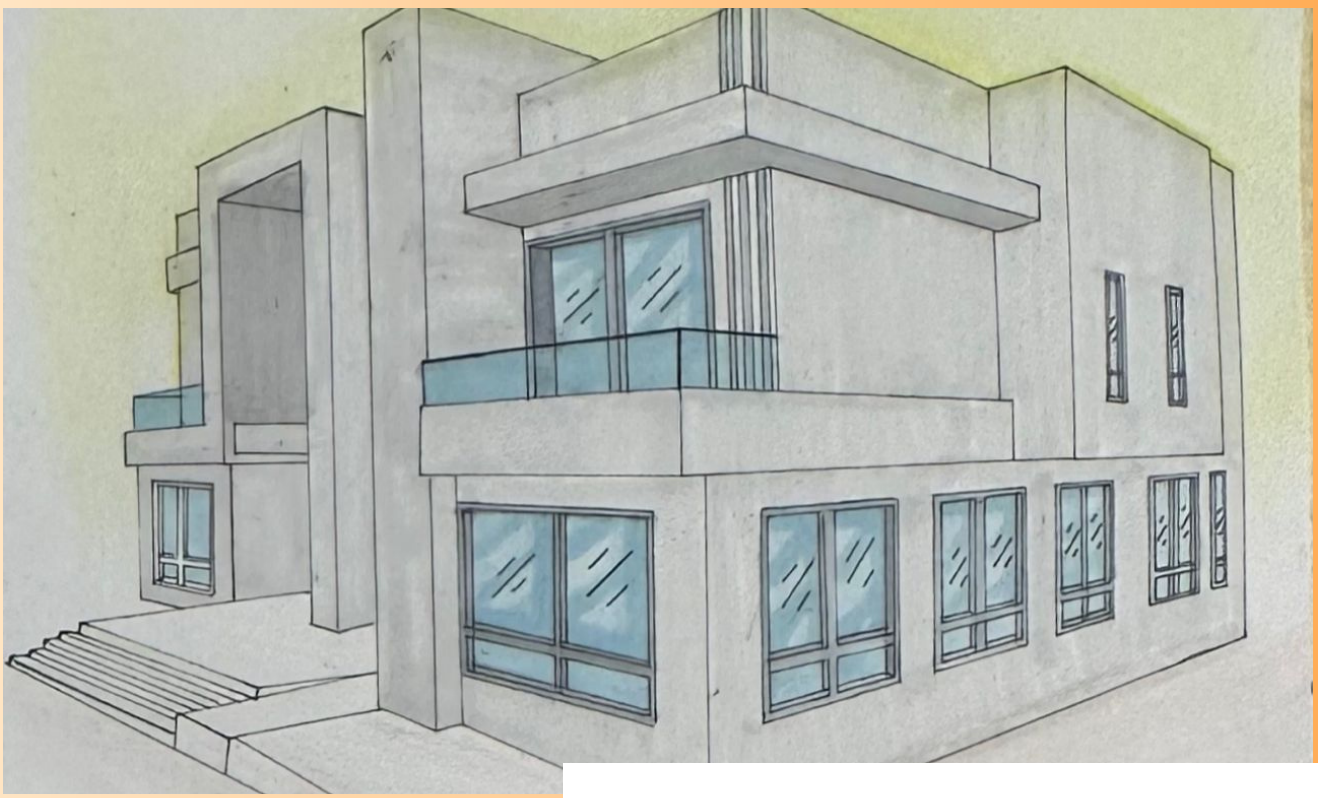


ARCH 112 : VILLA PROJECT

INSTRUCTOR: DR. ANWAR IBRAHIM

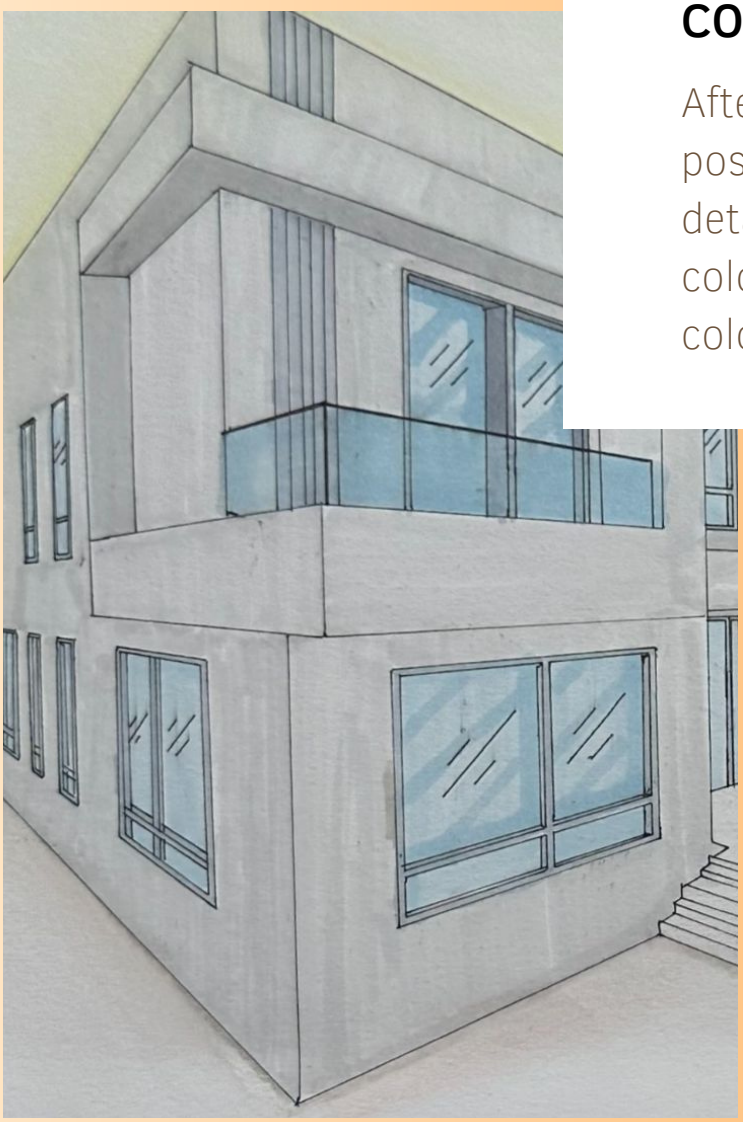


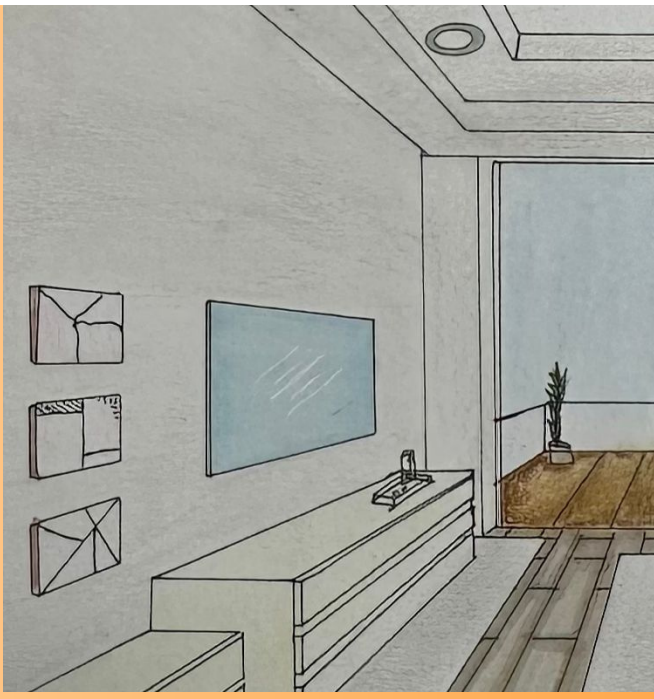
LANA ZREED



CONCEPT

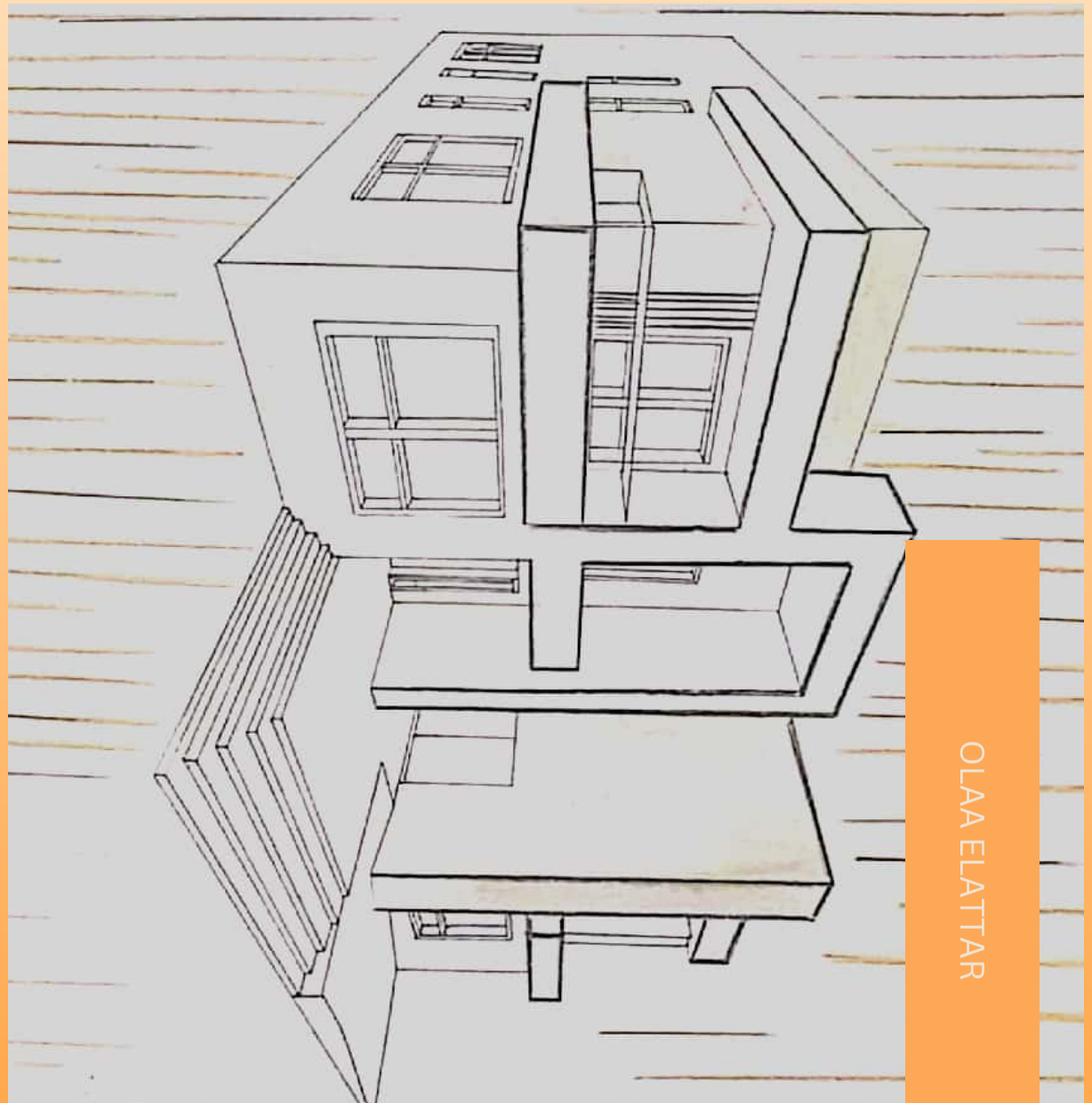
After adding the drawings on the poster, I started to add the small details. Using pastel markers I colored the villa and by using water colors i made the background



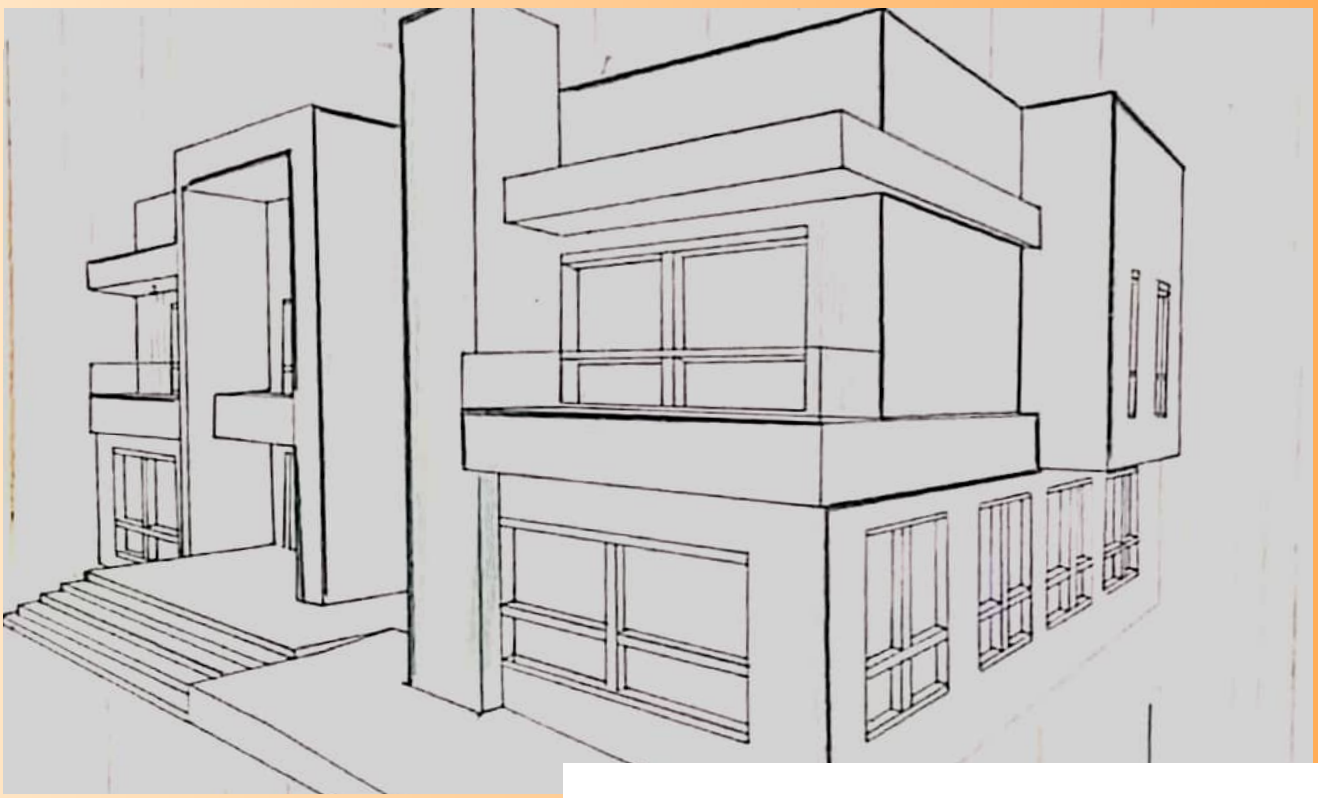


ARCH 112:VILLA PROJECT

INSTRUCTOR: DR. ANWAR IBRAHIM



OLAA ELATTAR

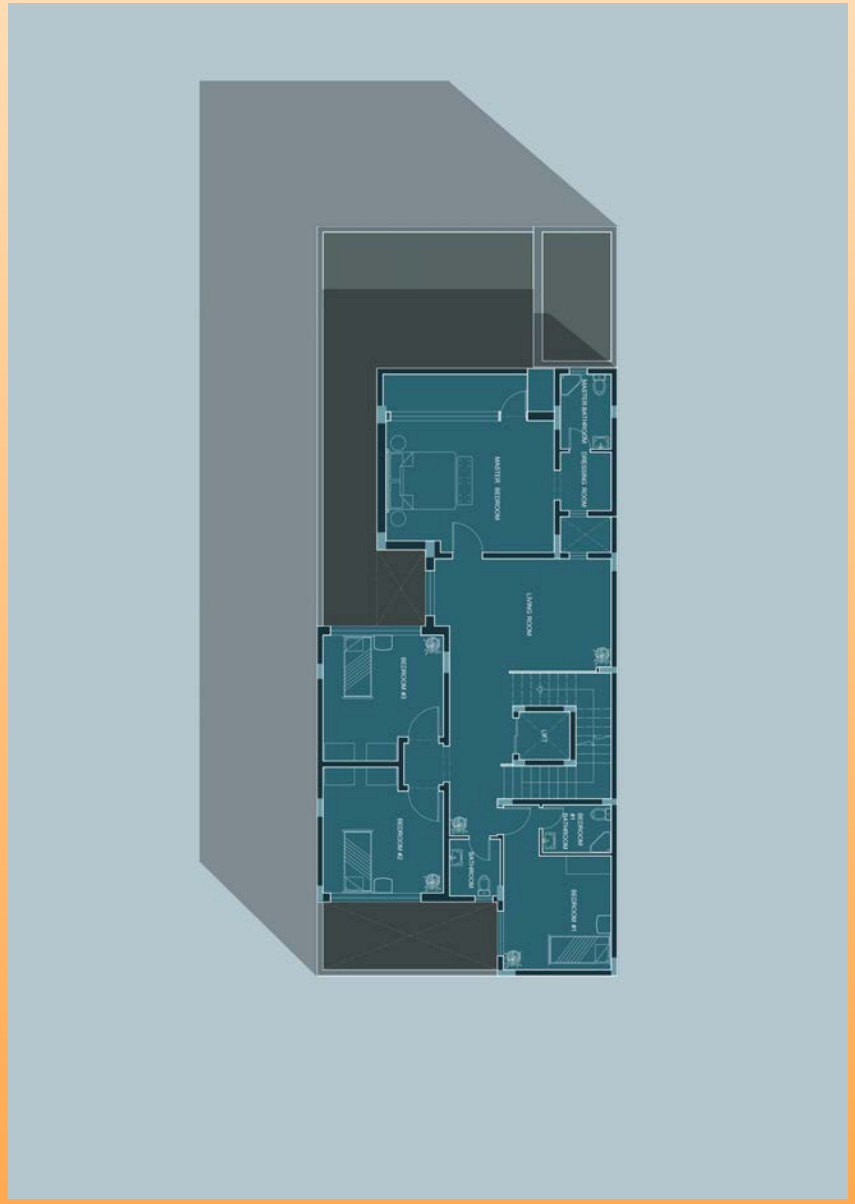


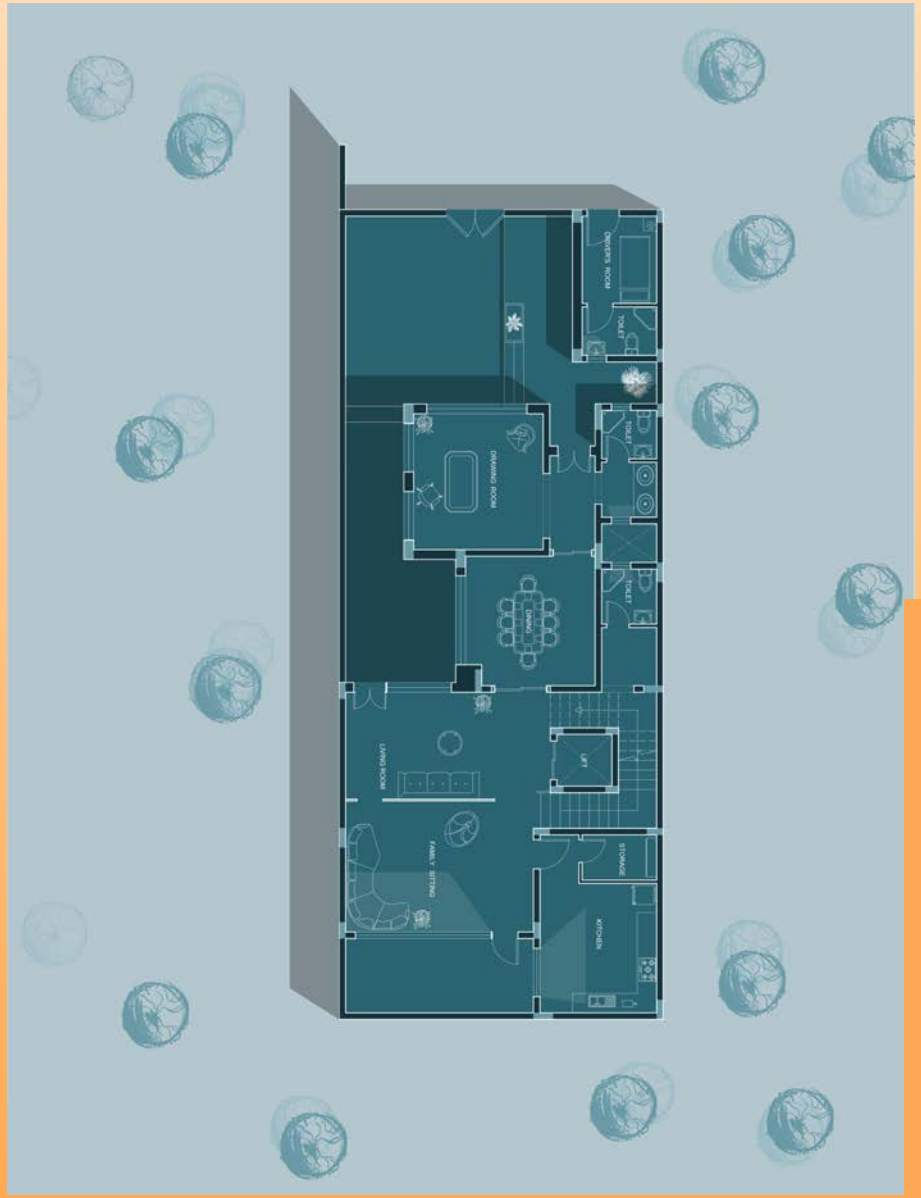
CONCEPT

THE DRAWINGS WERE DRAWN USING PRESPECTIVE TECHNIQUE. THE CONCEPT OF THIS DESIGN WAS TO OUTLINE CERTAIN PARTS OF THE BULDING

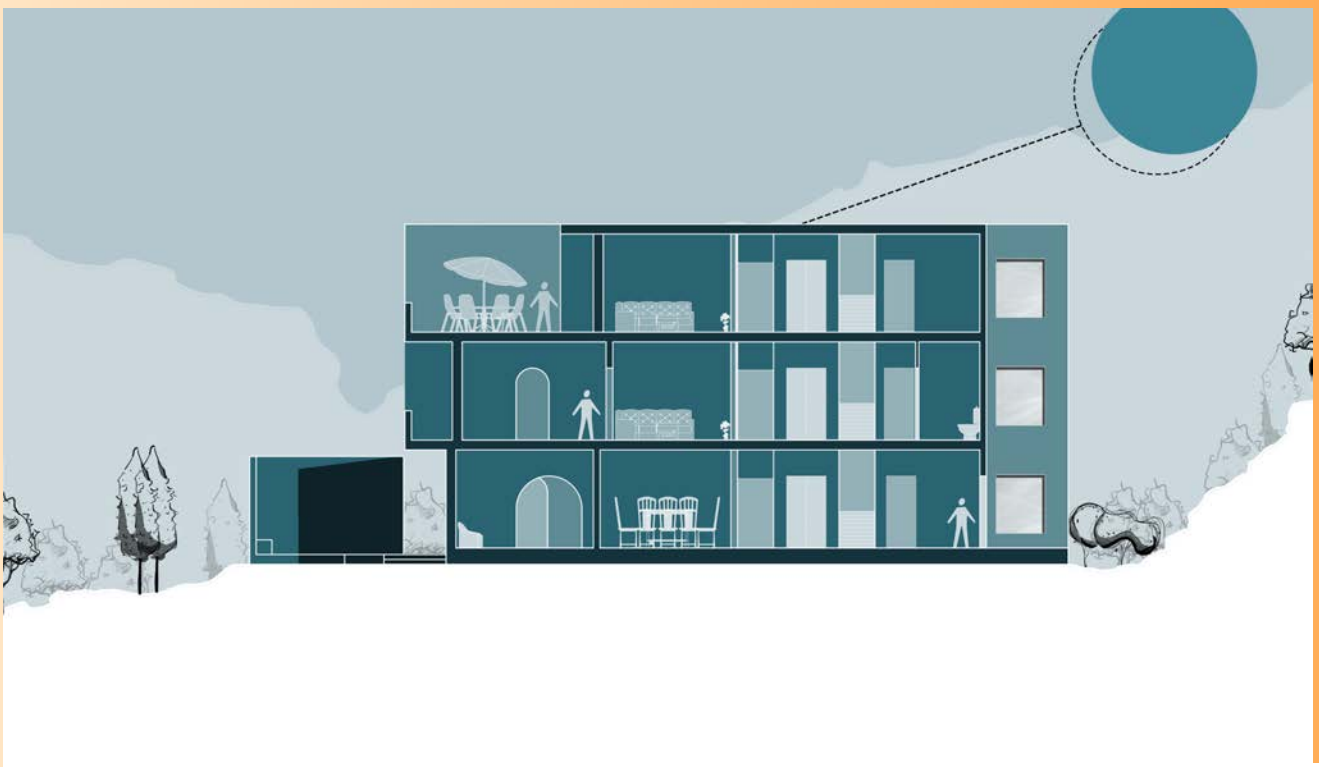
ARCH 113: RENDERING

INSTRUCTOR: MS. MAHASEN AL-QAHWAJI



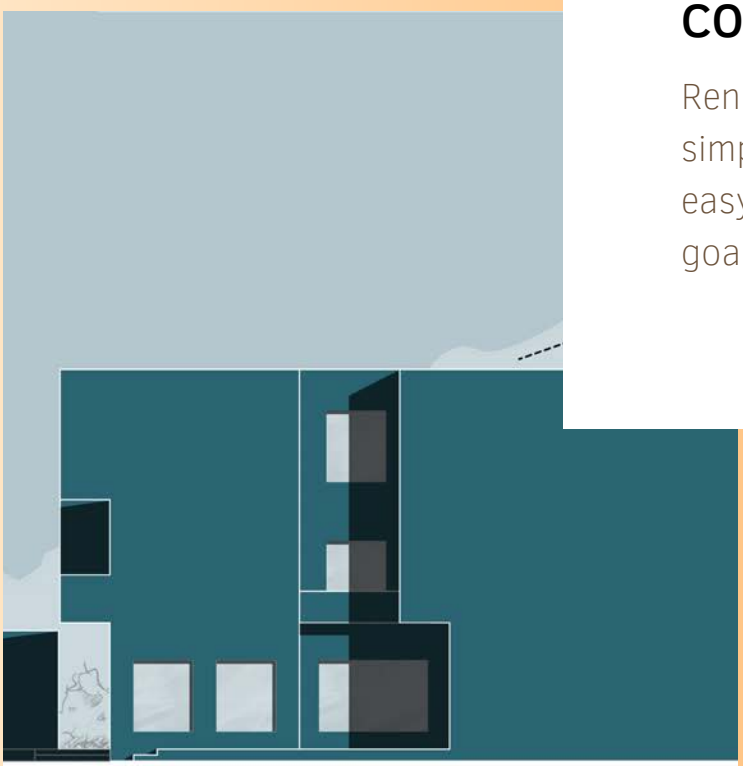


KHALID SHAAR



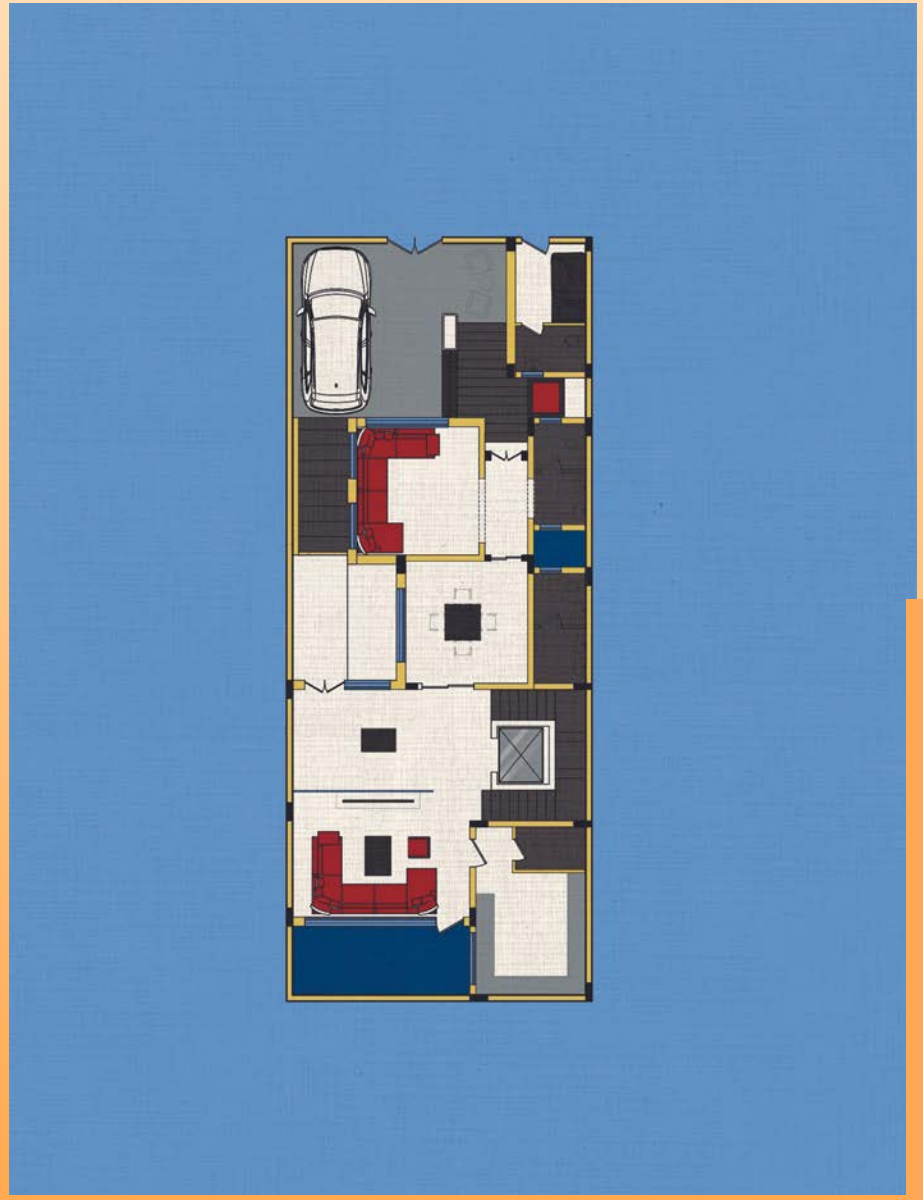
CONCEPT

Rendering this project was based on a simple and a manifest style, the design is easy to understand which is the main goal to achieve when rendering.

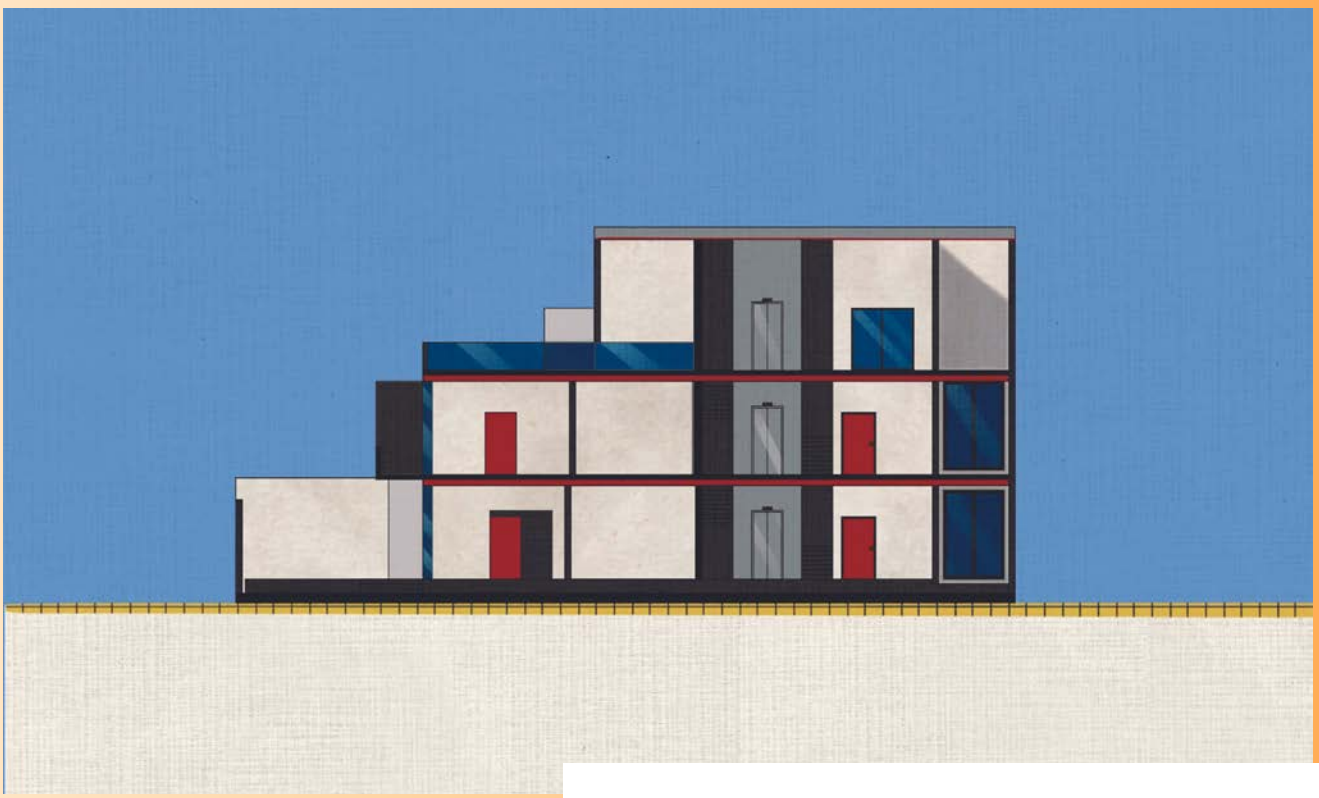


ARCH 113: RENDERING

INSTRUCTOR: MS. MAHASEN AL-QAHWAJI

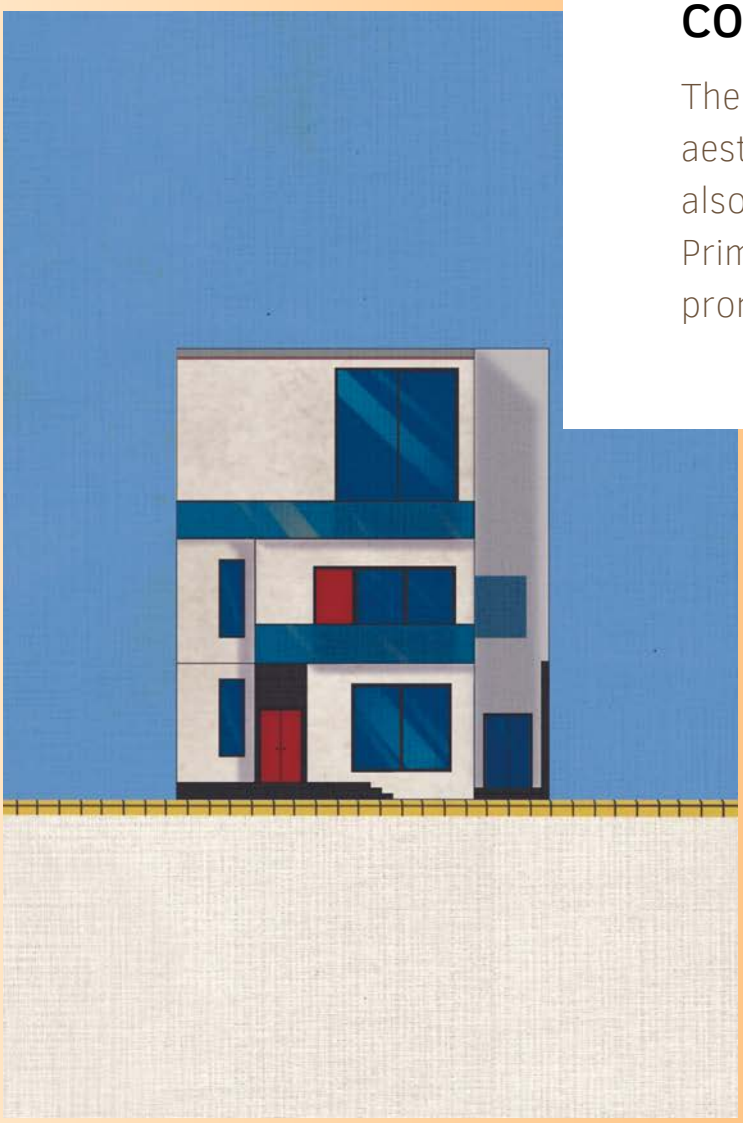


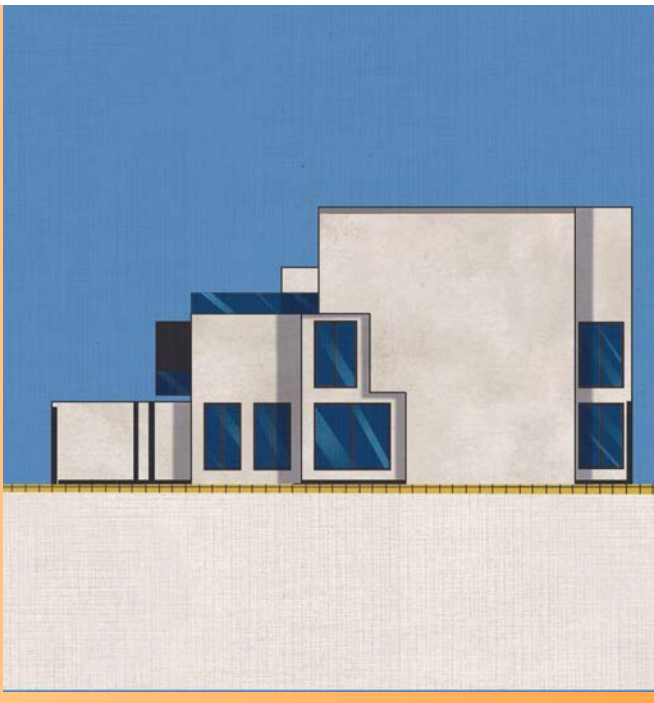
SARA BAKALKA



CONCEPT

The main goal was to provide an aesthetically pleasing rendering that was also easy to grasp and understand. Primary colors were used to emphasize prominent parts of the work.





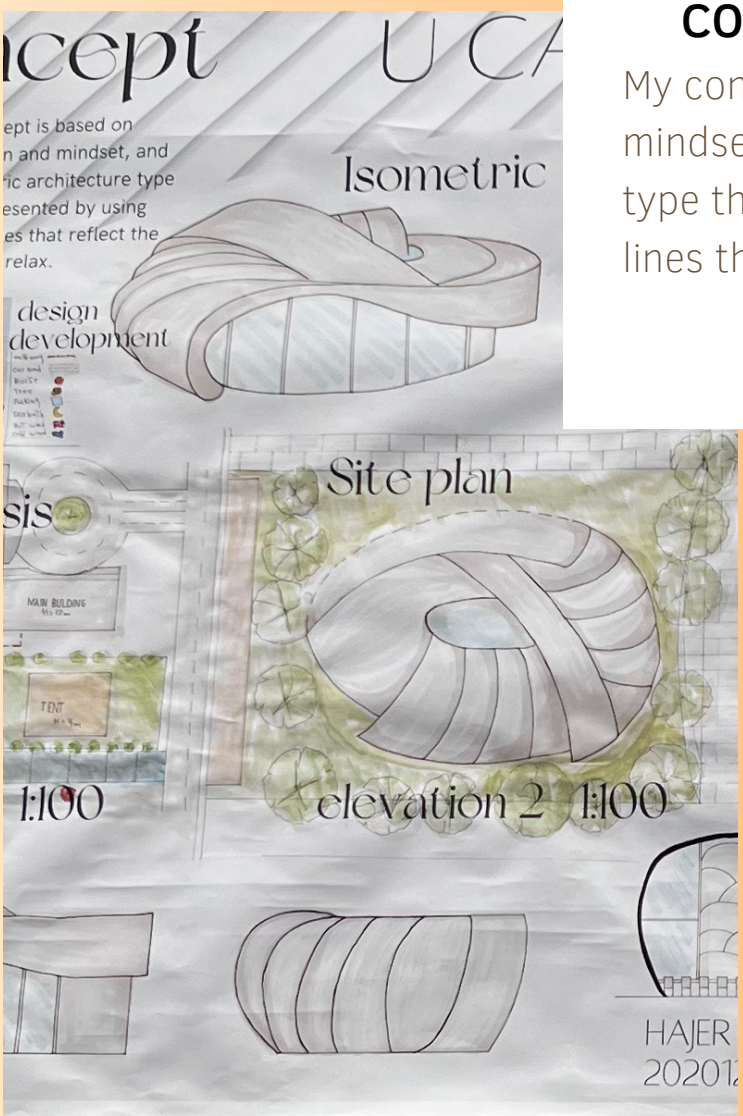
ARC201 CAFE PROJECT

INSTRUCTOR: MS. MAHASEN ALQAHWAJI

HAJER ALWABEL

CONCEPT

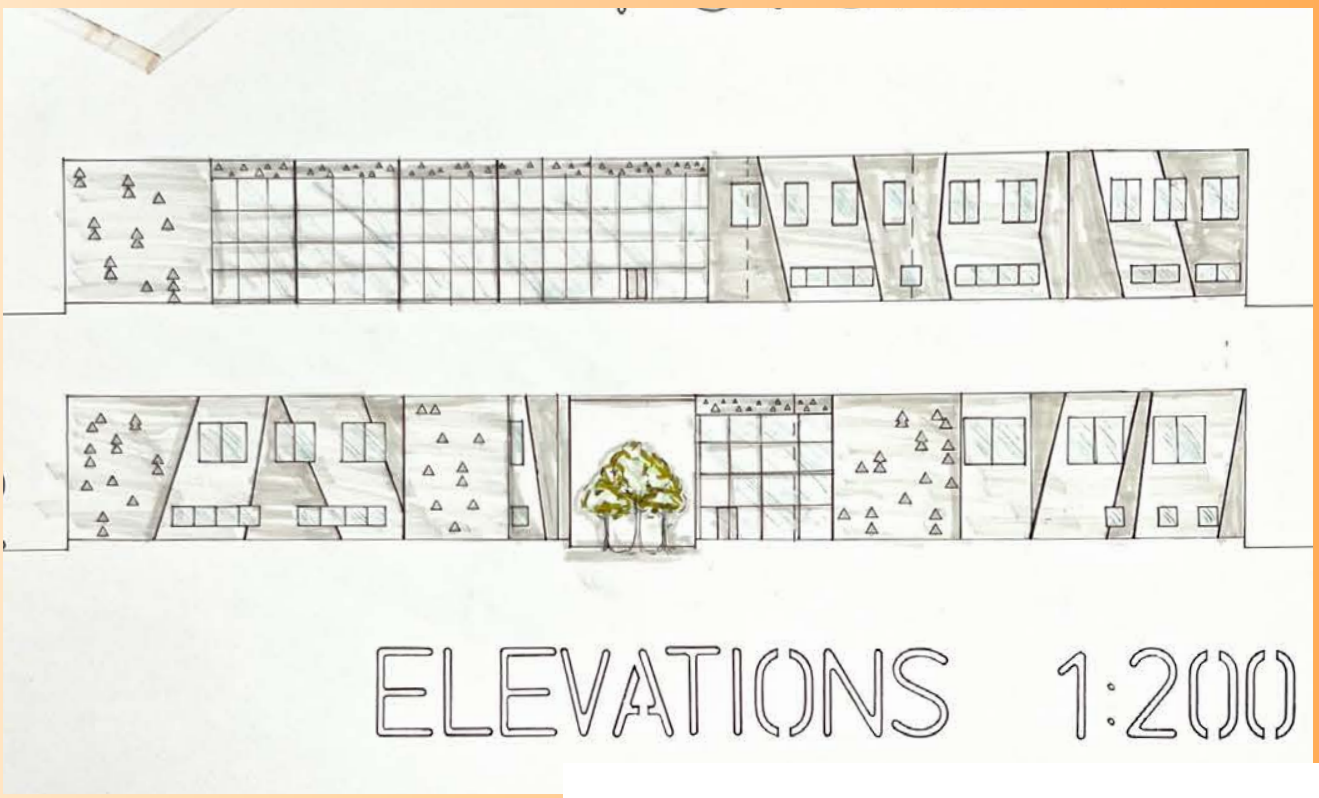
My concept is based on relaxation and mindset, and parametric architecture type that is presented by using curves lines that reflect the feeling of relax.



ARC211: MIDDLE SCHOOL

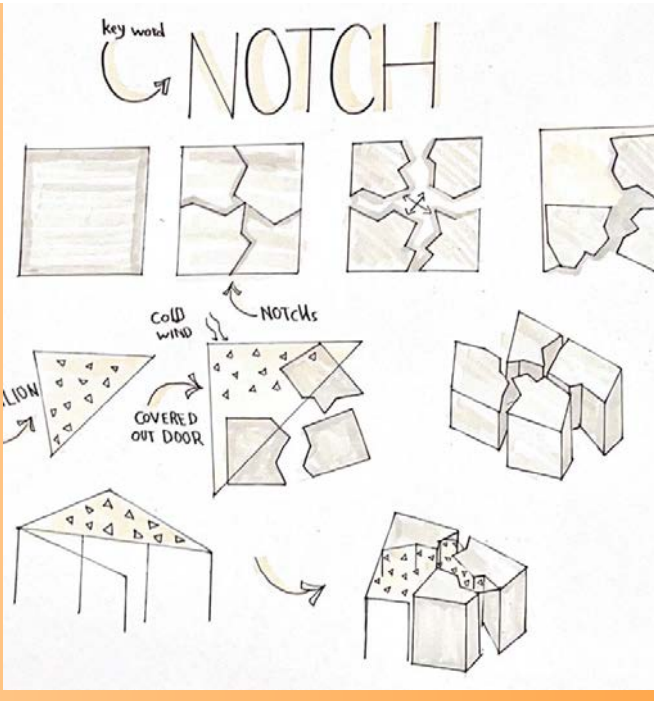
INSTRUCTOR: DR.MANSOUR ALULAYET - MR. ANAS HUSSEIN

HAJER ALWABEL



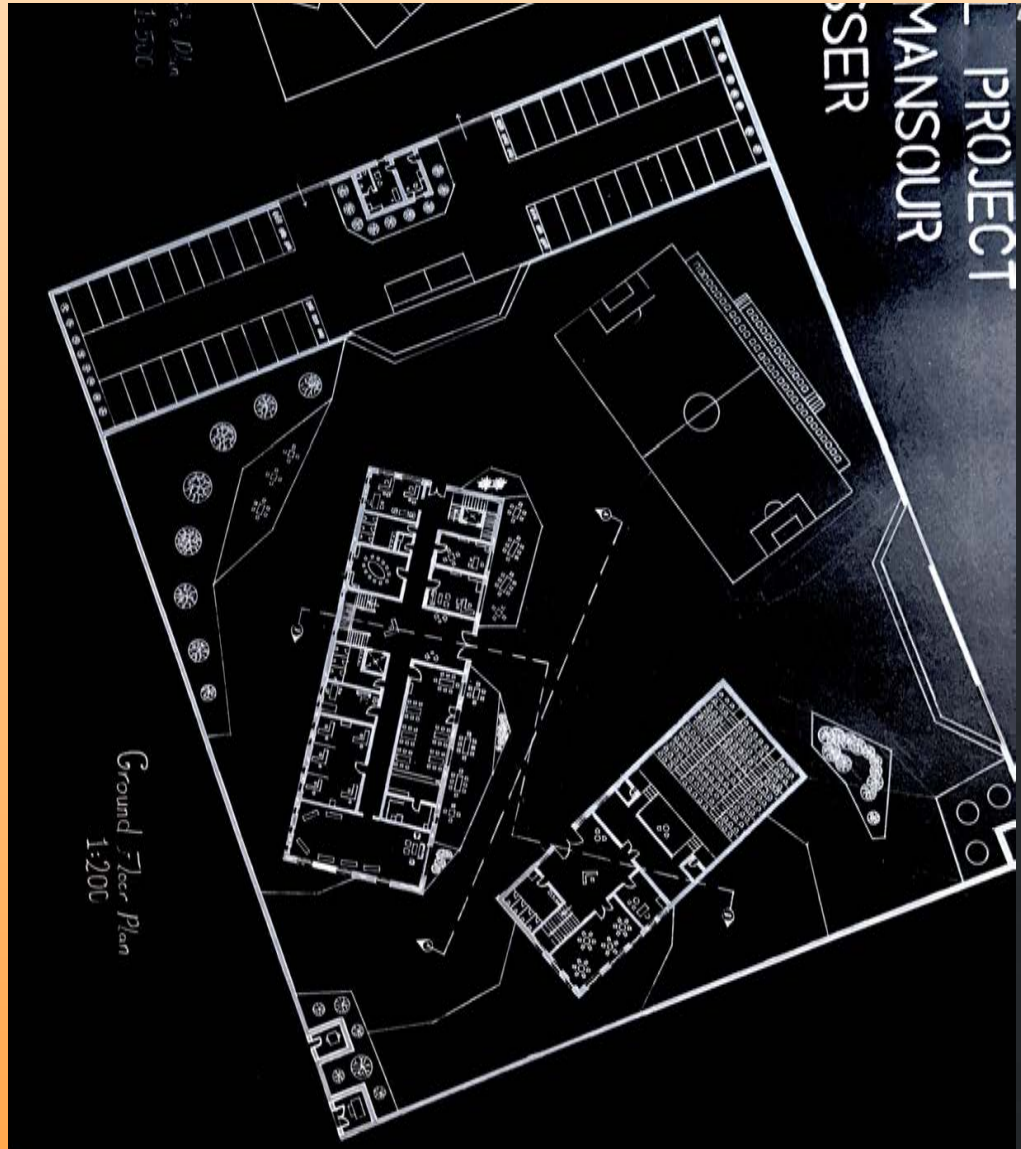
CONCEPT

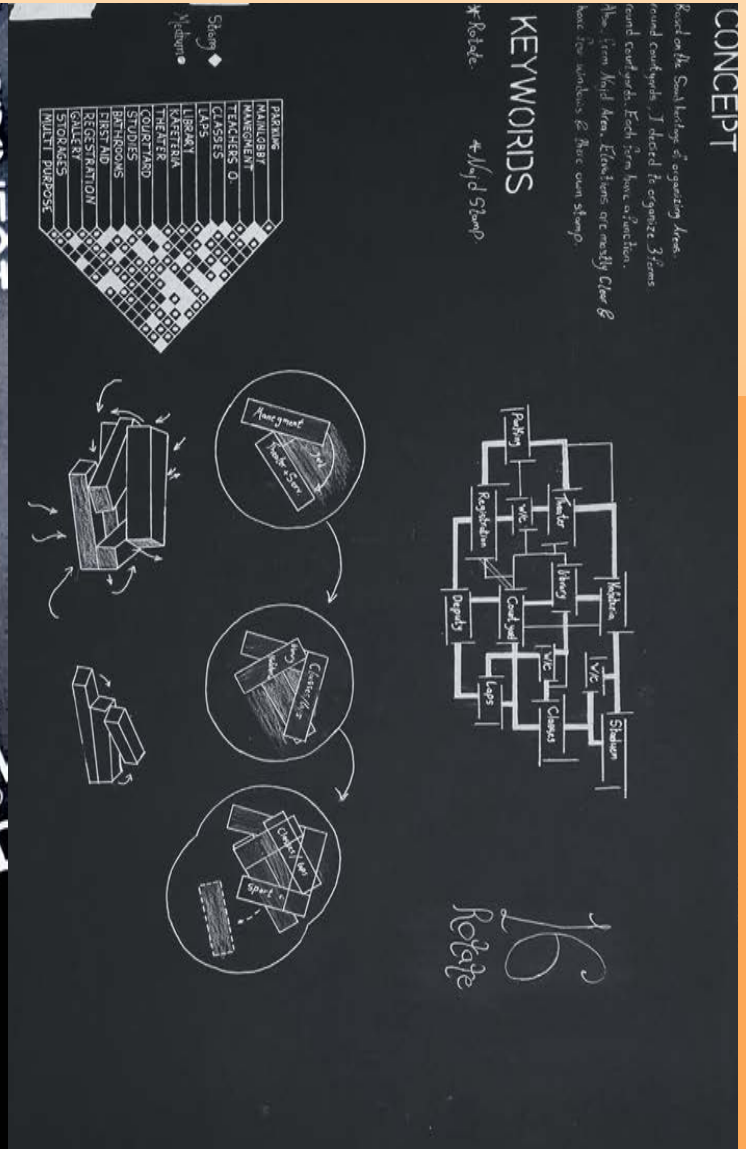
My concept depends on nature's light and getting use of the sunlight, and combining the Najdi style on the structural pavilion that connects the buildings.



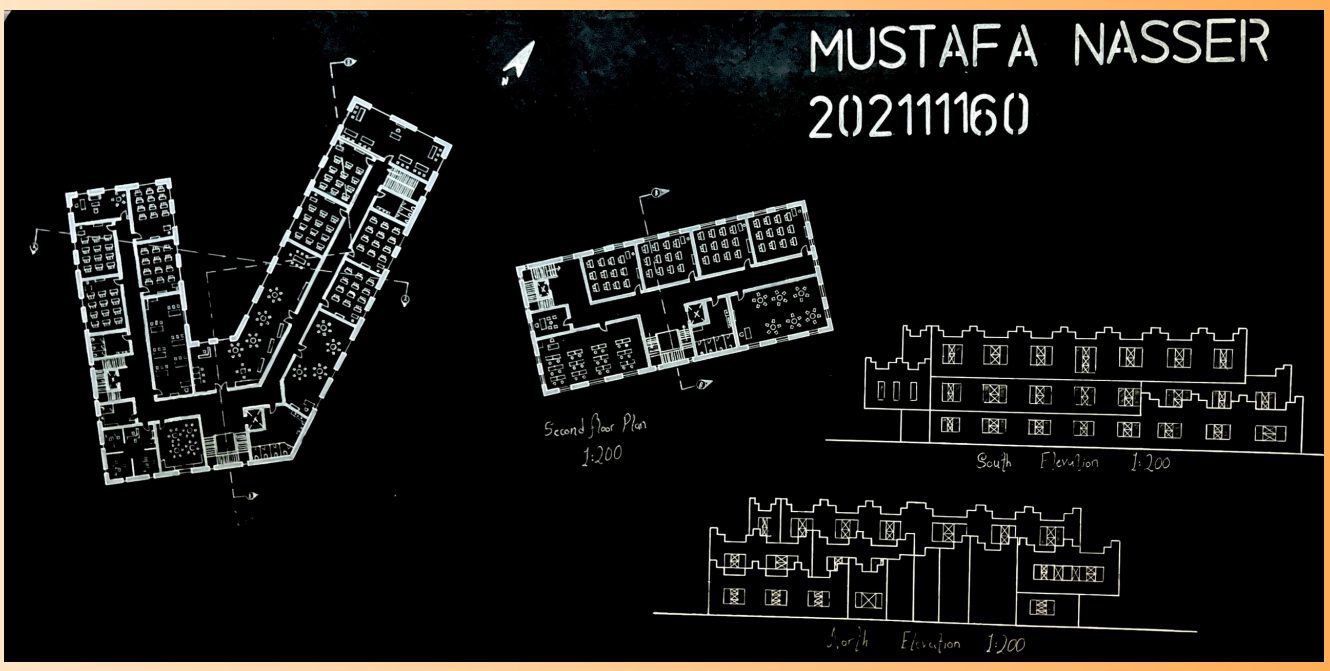
ARC 211: MIDDLE SCHOOL

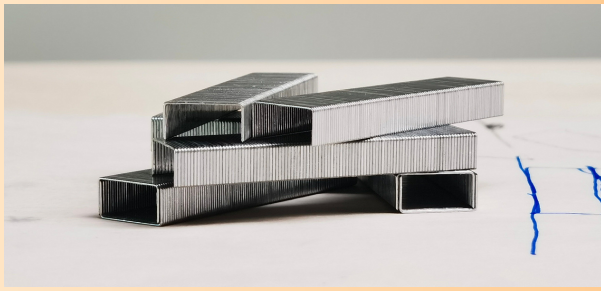
INSTRUCTOR: MR. ANAS HUSSEIN

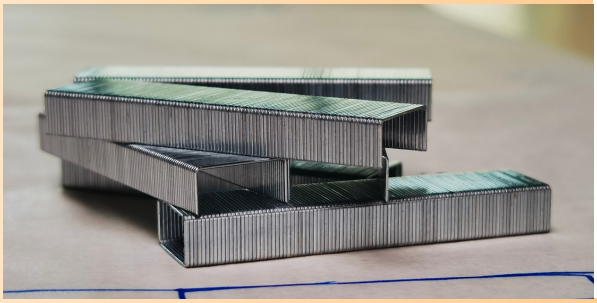




MUSTAFA ALHABASHI

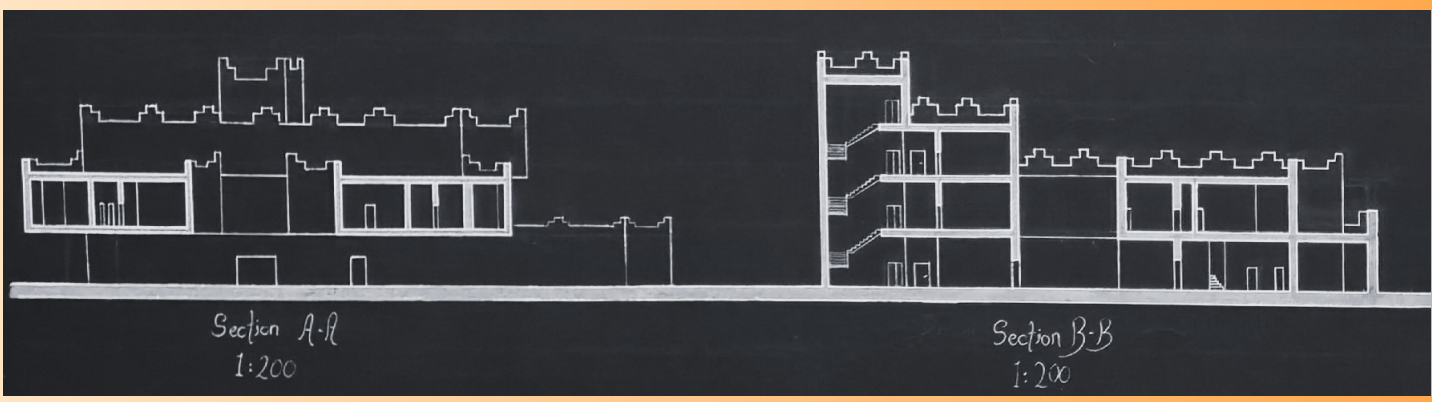






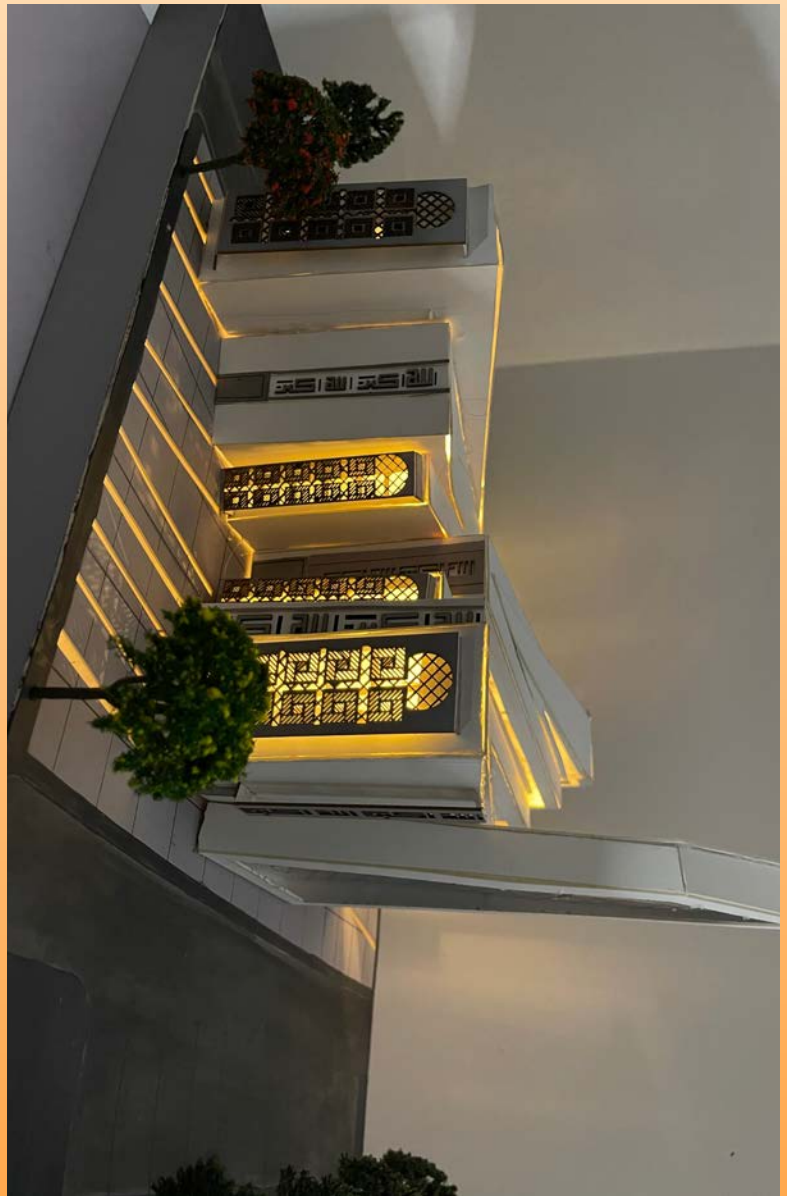
CONCEPT

Based on the Saudi heratage way of organizing areas around courtyards. I desided to organize my 3 forms around a courtyard that connect the whole form into one piece. Also, I took the Najd stamp & add it to the facade in a rotation way to emphsize the form

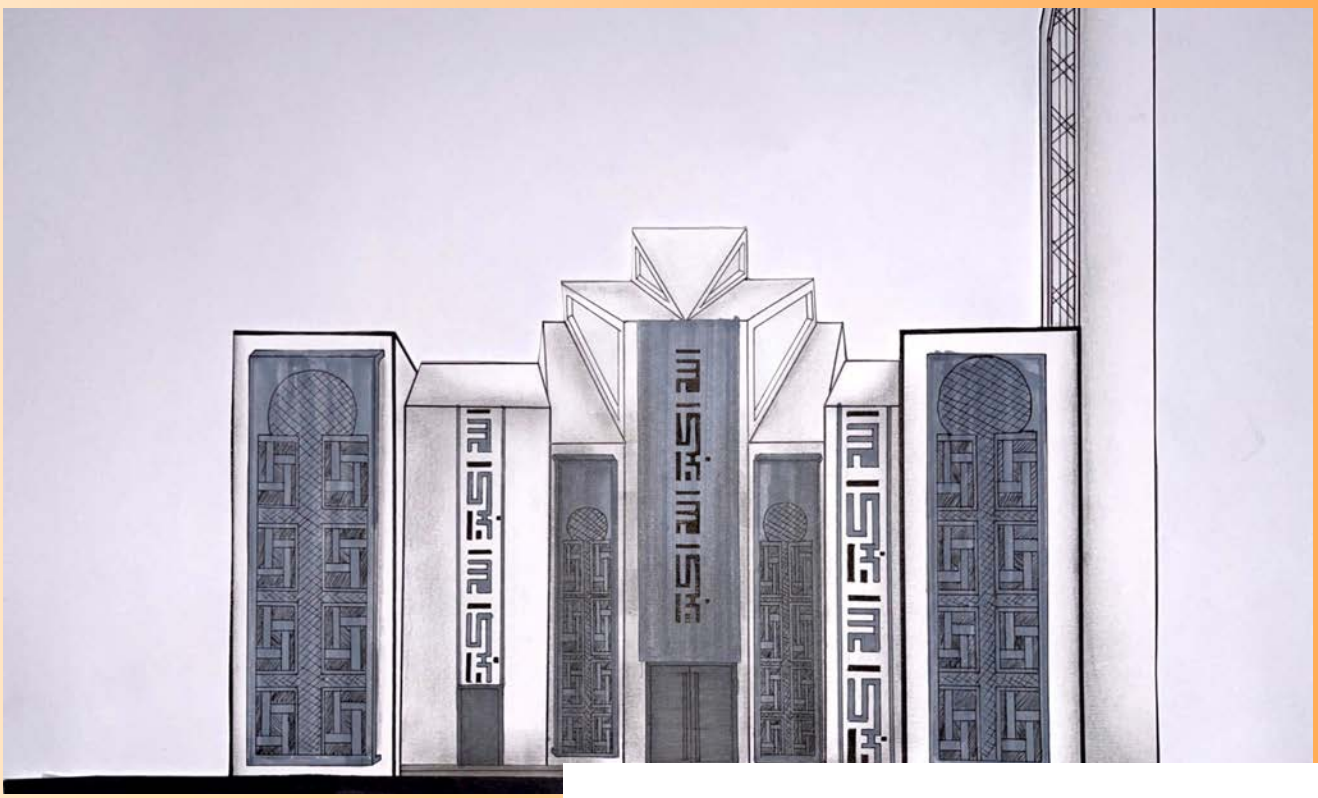


ARC 211: MOSQUE

INSTRUCTOR: MS.ESRAA SAMMAN

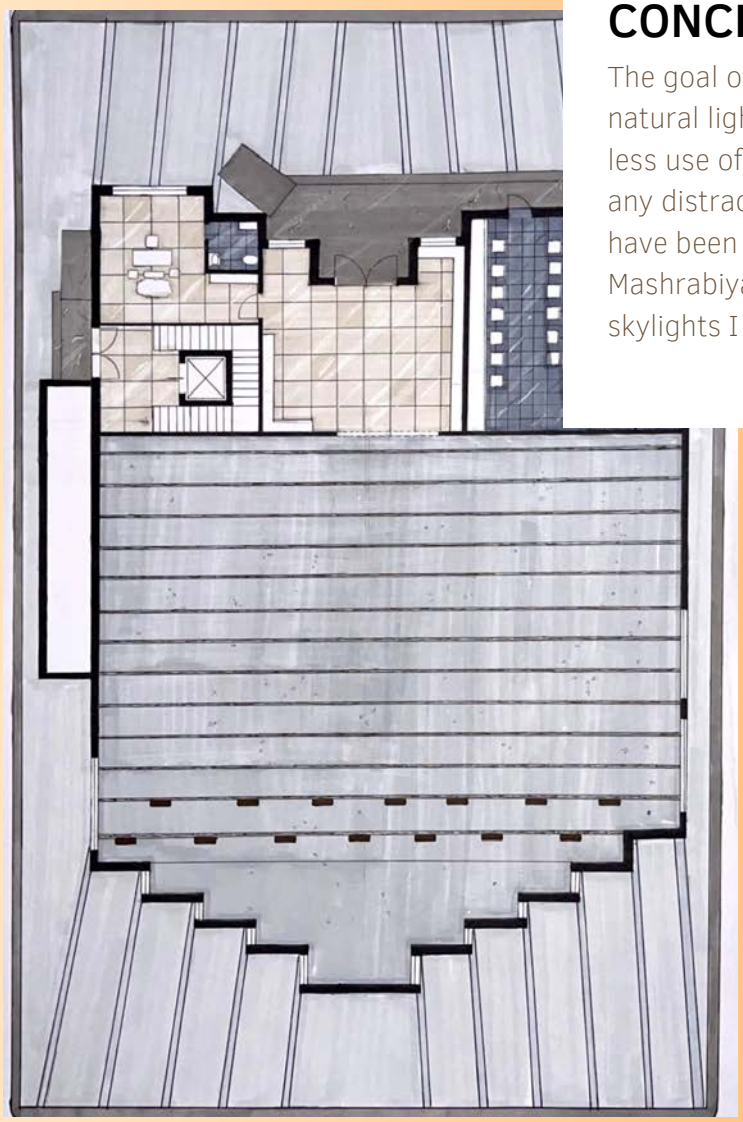


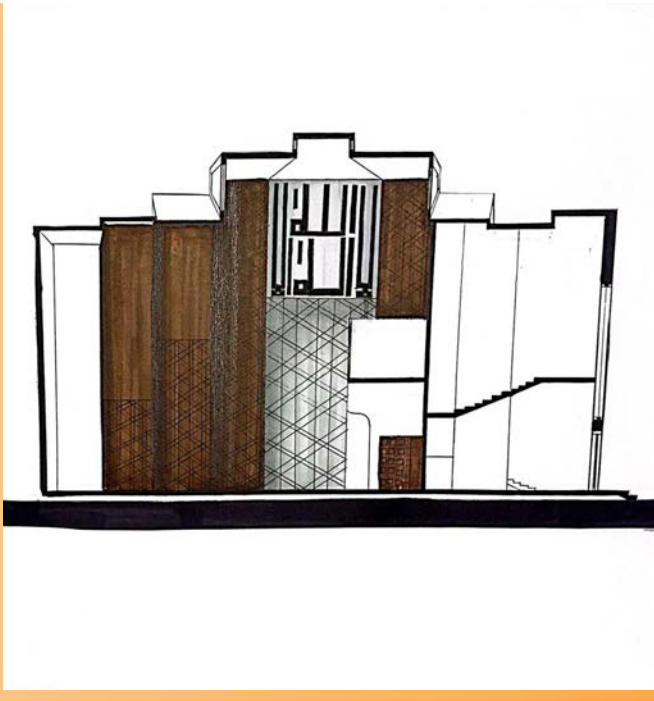
NADA BIN GUBAIR



CONCEPT

The goal of the design is to provide as much as possible of natural lighting. The perfect way was to create skylights and less use of windows in the sides of the worshippers to avoid any distractions can happen while praying. For the ones that have been added in side walls, I used the Hijazi element Mashrabiyah in order to avoid the distraction. To create the skylights I used the principle of gradation.





ARC 301: MOTEL

INSTRUCTOR: MS. NOOR TAYEH

LATIFA ALSALAMAH

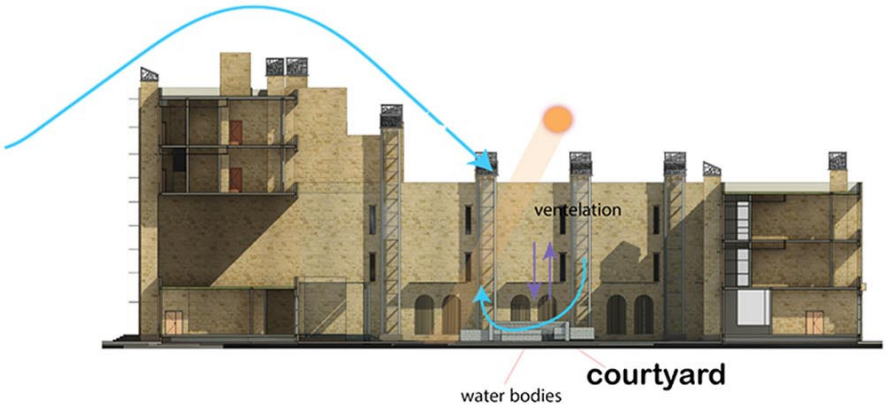
MICROCLIMATE

The ability to control site's weather conditions without the need to use external factors .. the goal has been achieved by using environmental strategies such as evaporative cooling , stack effect , shading devices, geo therma heat exchange and vegetation

ARC 301: MOTEL

INSTRUCTOR: DR.MAJDI ALKHRESHEH

AHMAD RASHWANI



MICROCLIMATE

The ability to control site's weather conditions without the need to use external factors .. the goal has been achieved by using environmental strategies such as evaporative cooling , stack effect , shading devices, geo therma heat exchange and vegetation

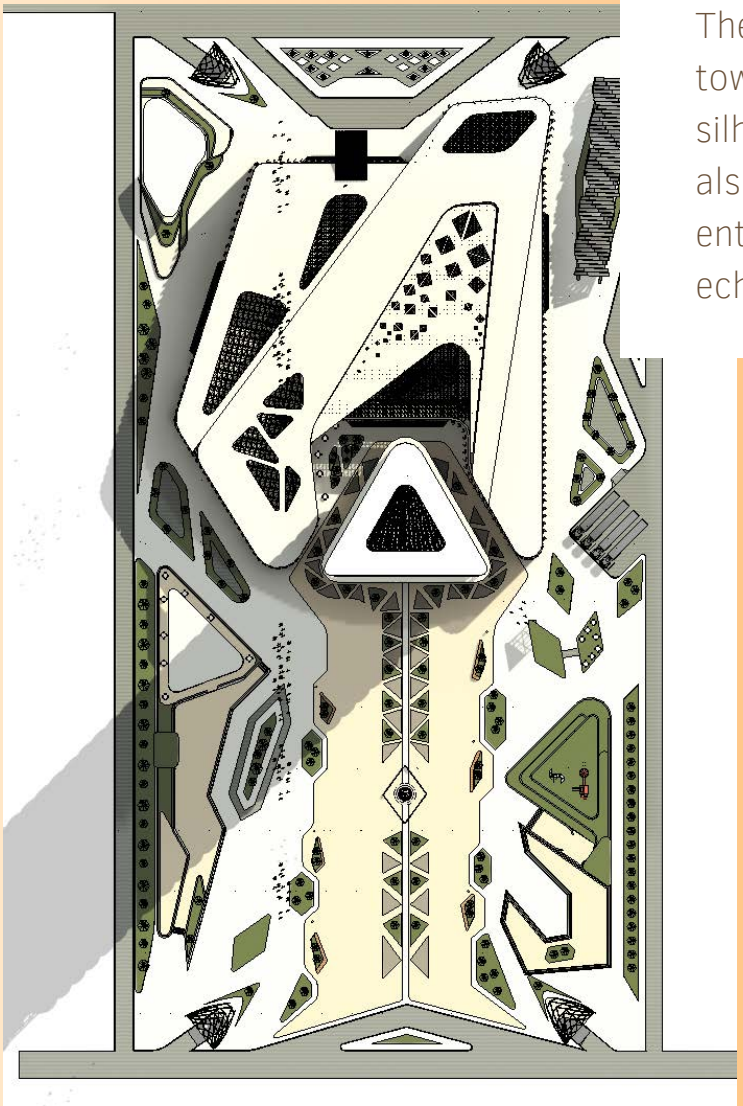
ARC 311: COMMERCIAL COMPLEX

INSTRUCTOR: DR.MAJDI ALKHRESHEH

MOHAMMED ZAWAWI

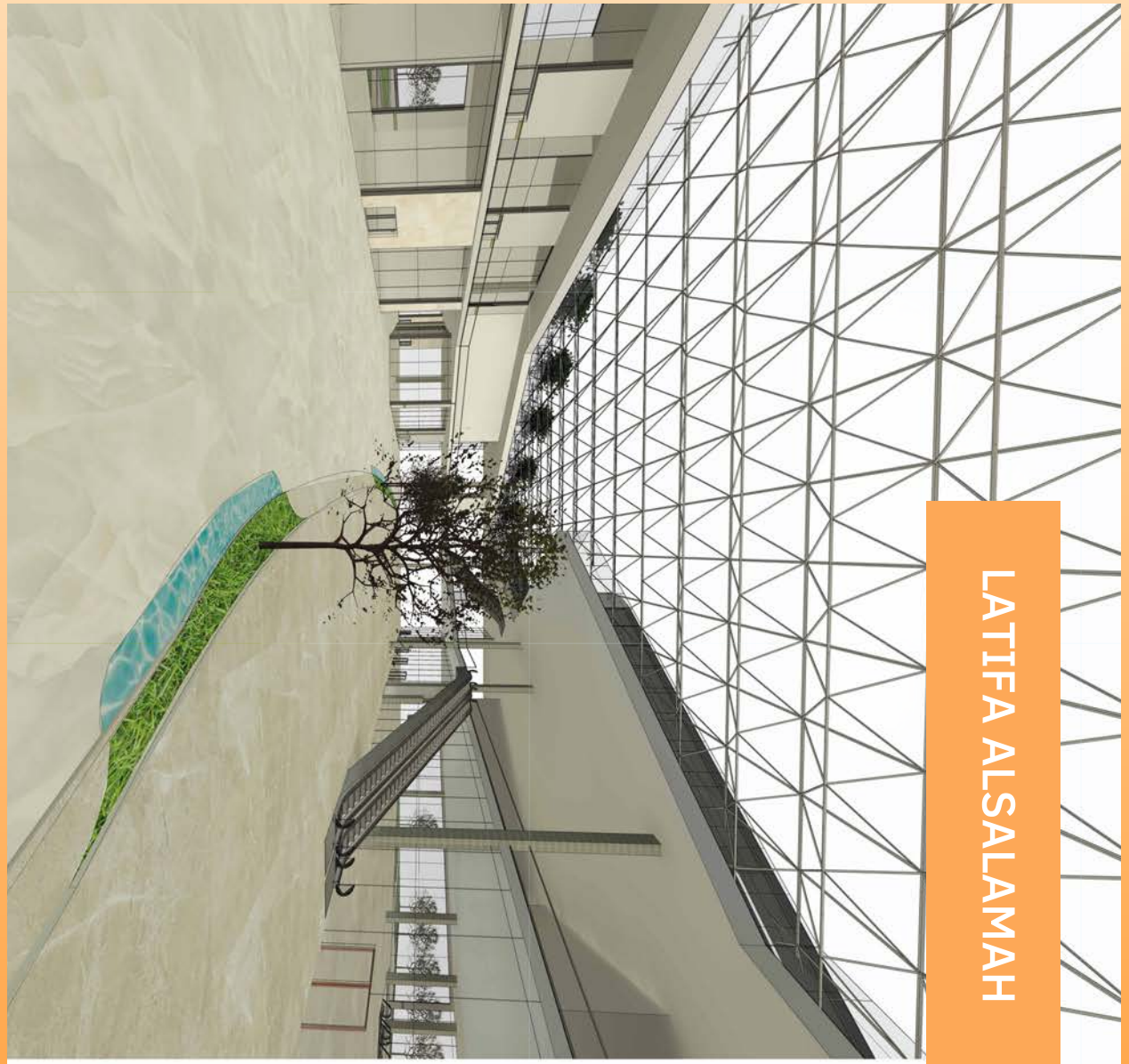
CONCEPT

The plan features an equilateral triangular tower with a slanting top that shadows silhouettes of the surrounding skyline. It also features a base curvilinear plan of entertainment and shopping spaces which echo a landscape of desert dunes.

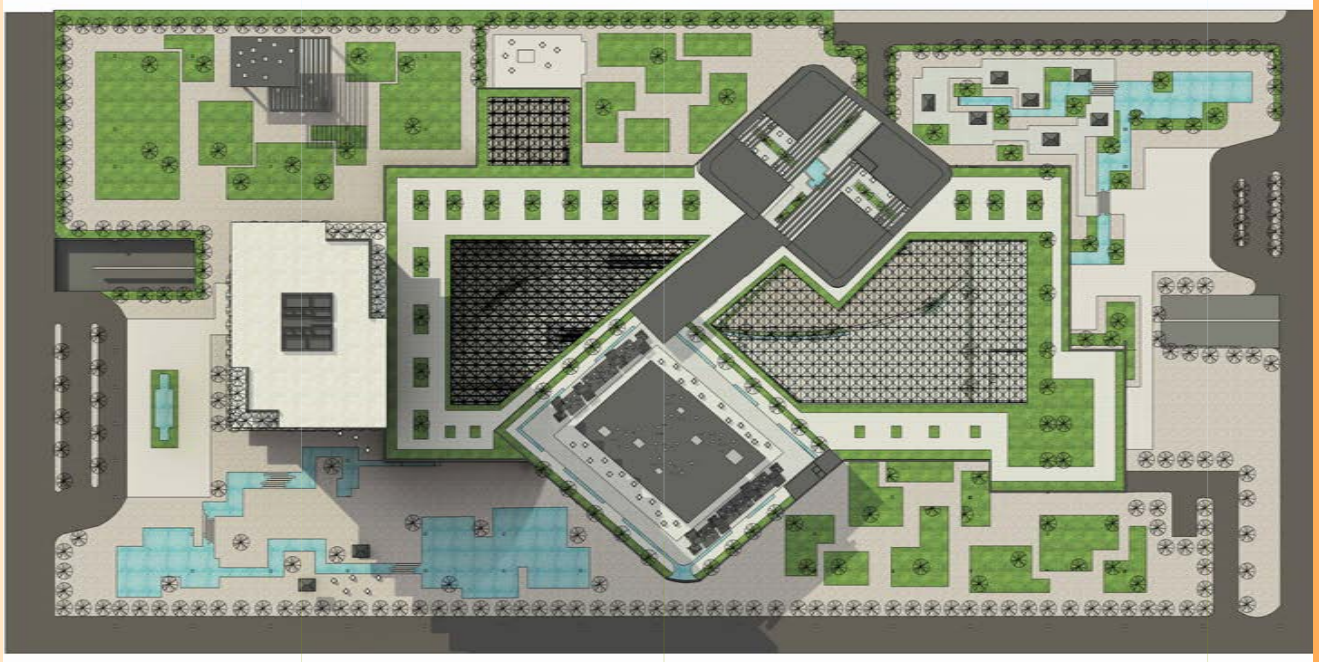


ARC 311: COMMERCIAL COMPLEX

INSTRUCTOR: ABDULLAH ELSHAFIE



LATIFA ALSALAMAH



JOURNEY AND MOVEMENT

ADDITION OF VOLUMES TO THE ORIGINAL FORM TO BREAK THE PATTERN AND CREATE CONTRAST.. MEANWHILE INTEGRATING IT WITH THE NATURE FOR A UNIQUE SPACIAL EXPERIENCE AND SUISTAINABILITY PURPOSES

ARC 401: COLLEGE OF ARCHITECTURE

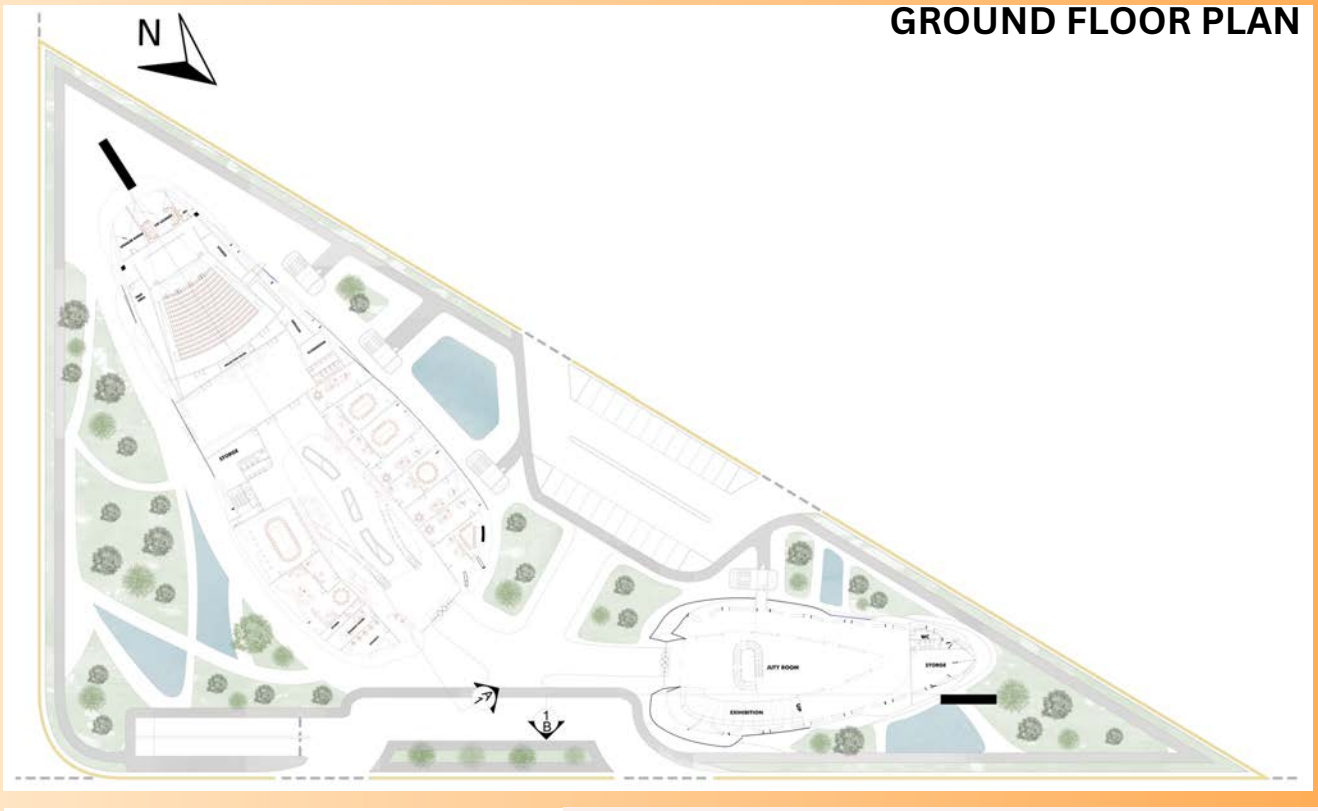
INSTRUCTOR: MR. ABDULLAH ELSHAFIE

BTOOL SAMI

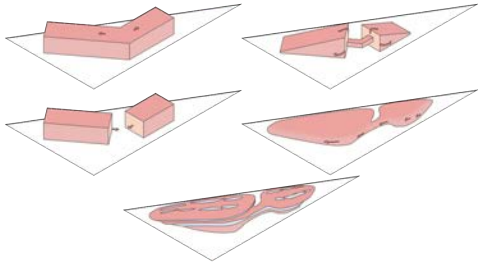
EAST ELEVATION

3D SECTION

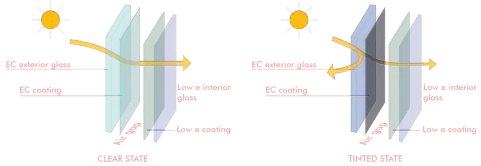
GROUND FLOOR PLAN



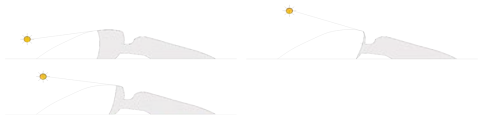
MASSING DEVELOPMENT



ENVIRONMENTAL STRATEGIES



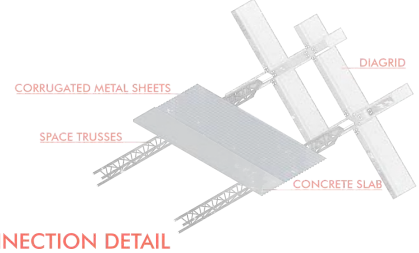
ELECTROCHROMIC GLAZING



SELF SHADING BUILDING

STRUCTURAL SYSTEM

DIAGRID STRUCTURE

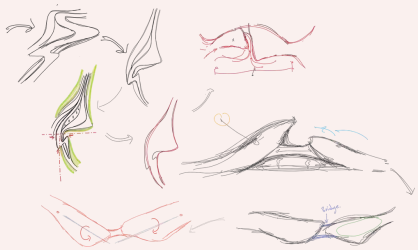


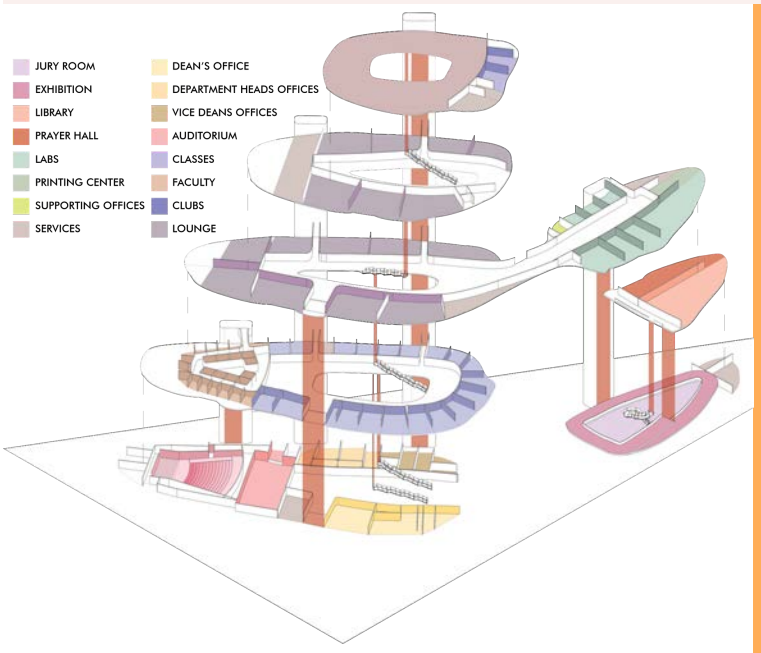
CONNECTION DETAIL

CONCEPT

The concept is inspired from the red sand dunes in Riyadh as they show resilience against prevailing winds. The project is named SIROCCO COLLEGE meaning a Mediterranean wind that comes from the Sahara. Inspired from the works of Zaha Hadid.

SKETCHES





ARC 401: COLLEGE OF ARCHITECTURE

INSTRUCTOR: DR.ANWAR IBRAHIM

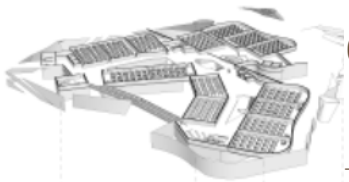
LEENA ALOOTAIBI

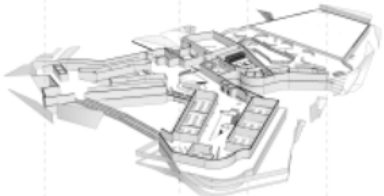
CONCEPT

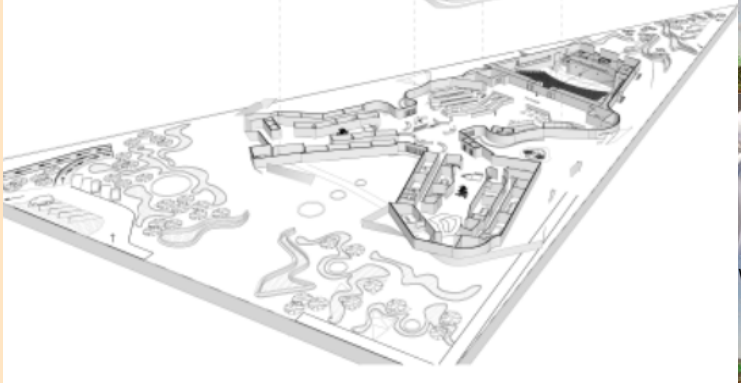
"Architecture is an endless experimentation of the future."

The mail goal of the project is:

To make users feel included to create unity and to provide an experience for the students.







3D SECTION

EAST ELEVATION

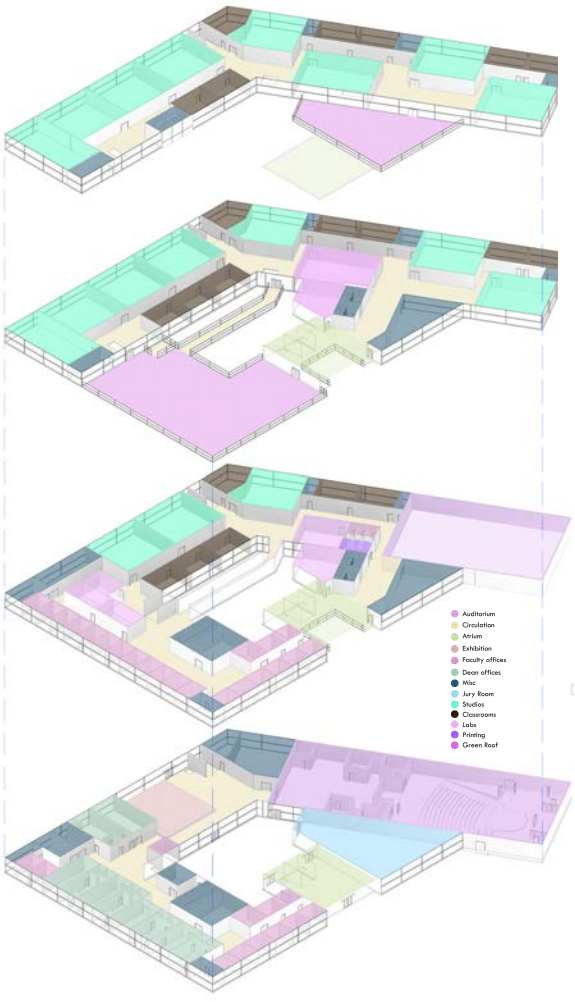
WEST ELEVATION

ARC 401: COLLEGE OF ARCHITECTURE

INSTRUCTOR: DR.ANWAR IBRAHIM

GROUND FLOOR PLAN

SEQUENTIAL PLAN

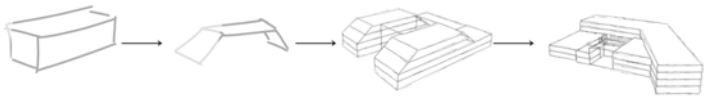


CONCEPT

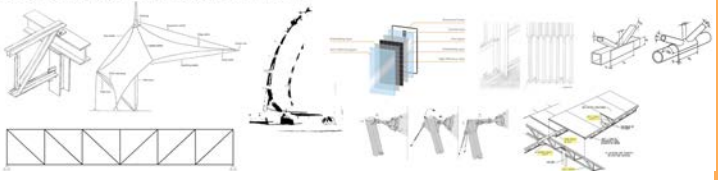
A sustainable building based on a modular plan that tells its' users what it is and how it was created and how all the integrated systems work together to create this environment using high-tech methods.

It combines art and engineering to create a building that gives to its' users by creating sophisticated and detailed structural systems that shows in the building elevations and the interior of it as well all based on the works of Sir Nicholas Grimshaw.

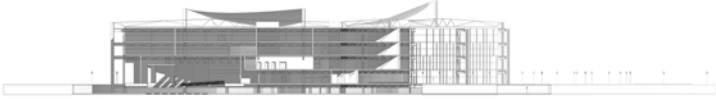
MASSING DEVELOPMENT



STRUCTURAL SYSTEMS & DETAILS

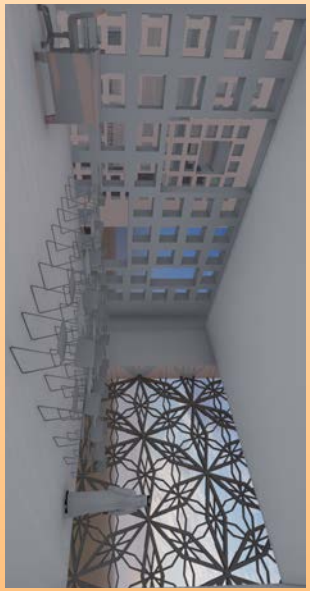


3D SECTION



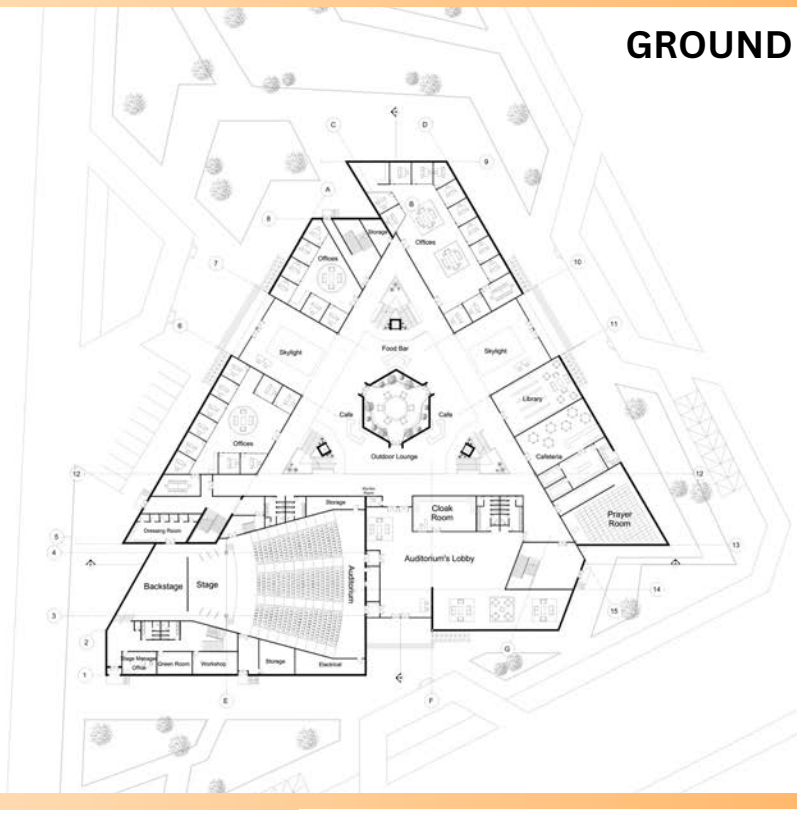
ARC 401: COLLEGE OF ARCHITECTURE

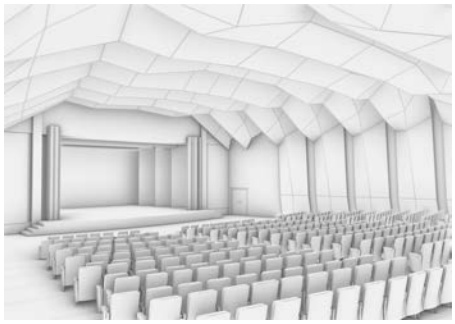
INSTRUCTOR: DR.ANWAR IBRAHIM



FAISAL AL-ALI

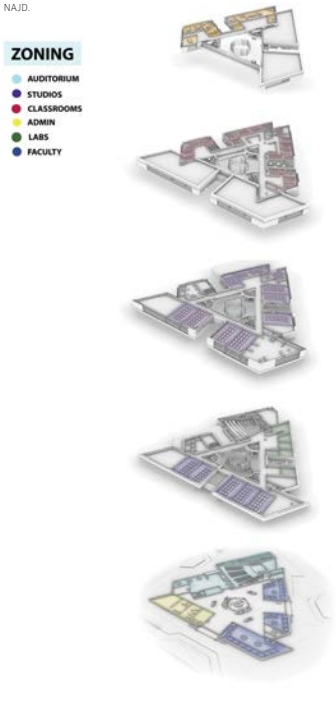
GROUND FLOOR PLAN

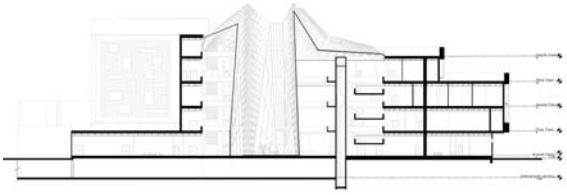




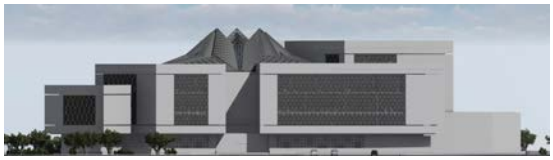
AUDITORIUM

Inspired by the Rocky Mountains of NAJD.





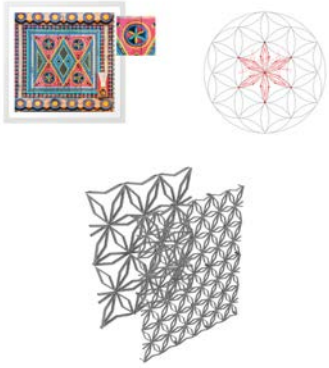
SECTION B-B



WEST ELEVATION

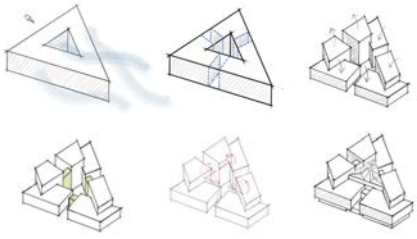
CONCEPT

An abstraction was made by using a traditional Najdi Pattern.
The element is usually found in traditional doors.
Finally, creating a copy of the original pattern but scaled-down and laying it above the original pattern.



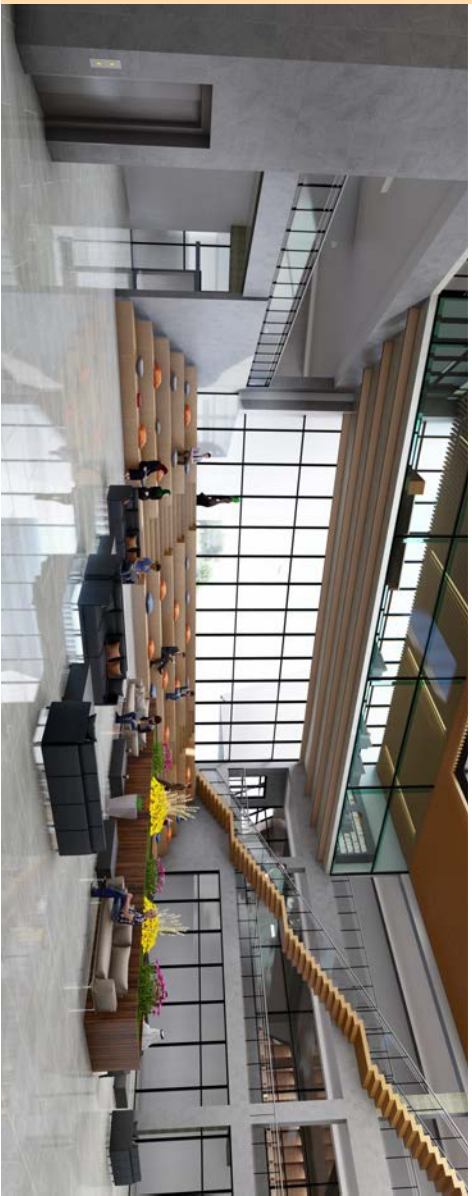
BUBBLE DIAGRAM

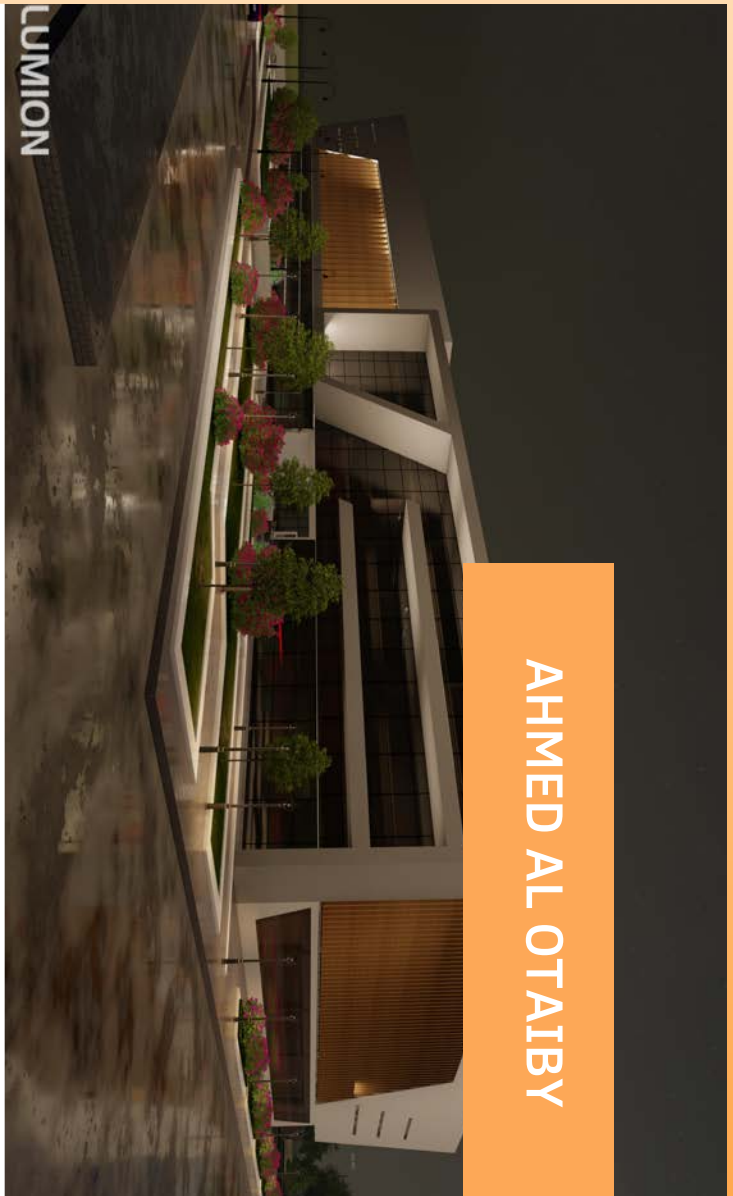
MASSING DEVELOPMENT



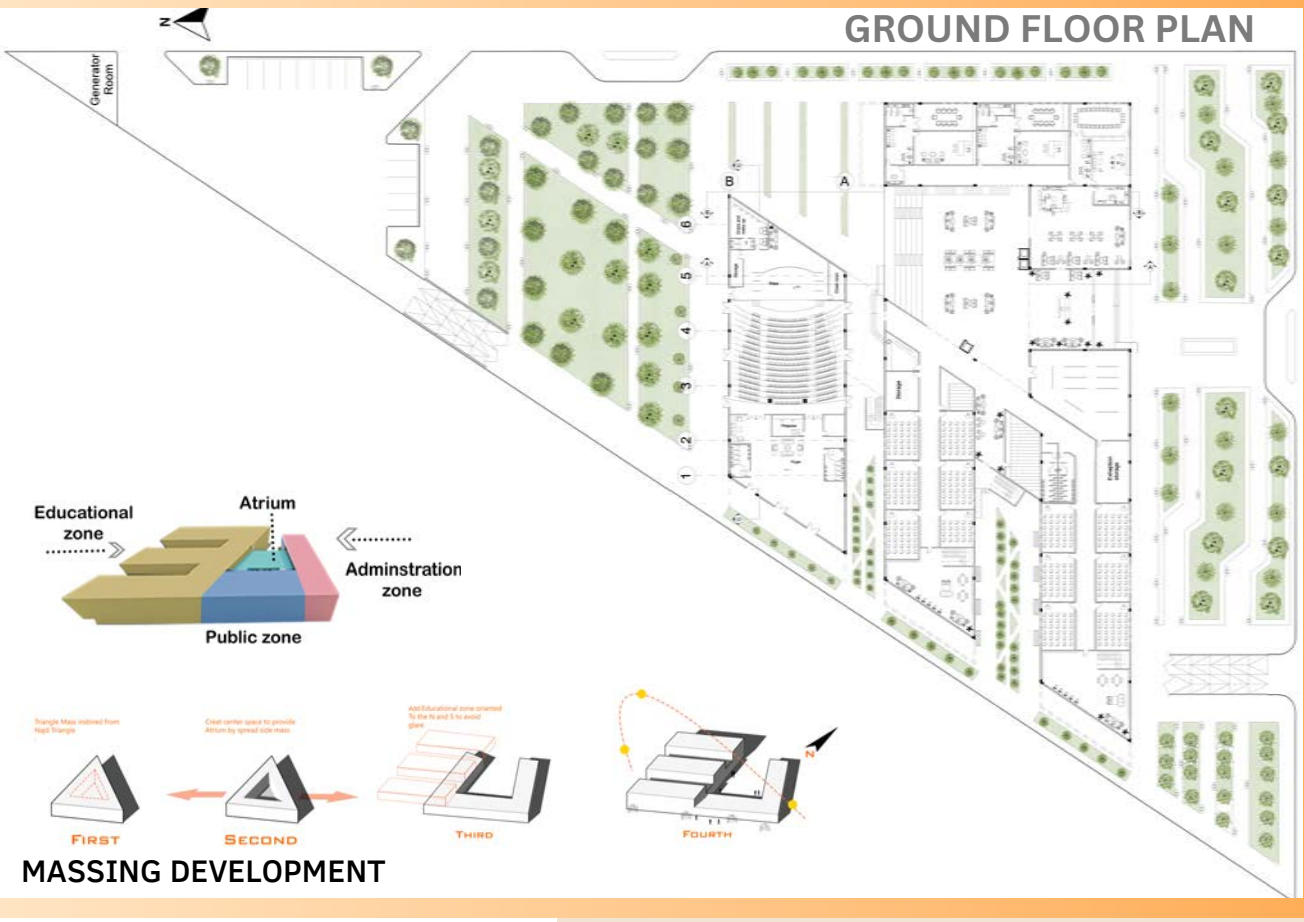
ARC 401: COLLEGE OF ARCHITECTURE

INSTRUCTOR: DR.ANWAR IBRAHIM

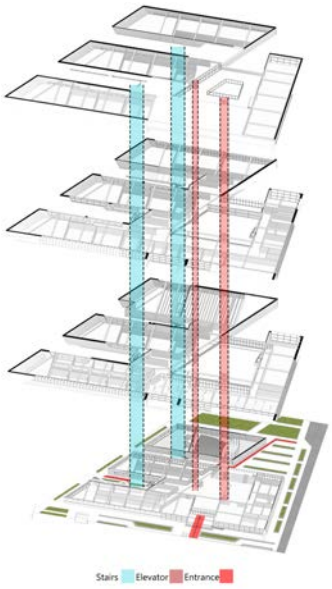




GROUND FLOOR PLAN



MASSING DEVELOPMENT



CONCEPT:

THE DESIGN AIM IS TO CREATE A GOOD EDUCATIONAL ENVIRONMENT BY CREATING A NEW EXPERIENCE WHILE MAINTAINING THE TRADITIONAL ASPECT BY USING AN ATRIUM TO CREATE A SOCIAL HUB AND MAINTAIN THE ENVIRONMENTAL ASPECT.

THE ATRIUM IS A CENTER SPACE AND A GATHERING AREA.

SECTION B-B

NORTH ELEVATION

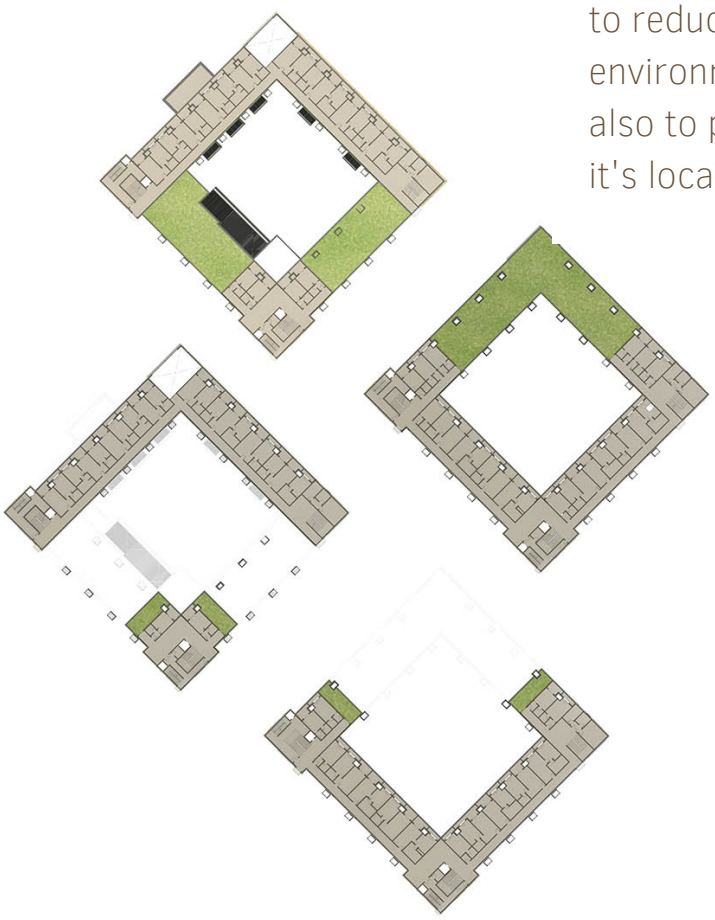
ARC 401: COLLEGE OF ARCHITECTURE

INSTRUCTOR: MR. ABDULLAH ELSHAFIE

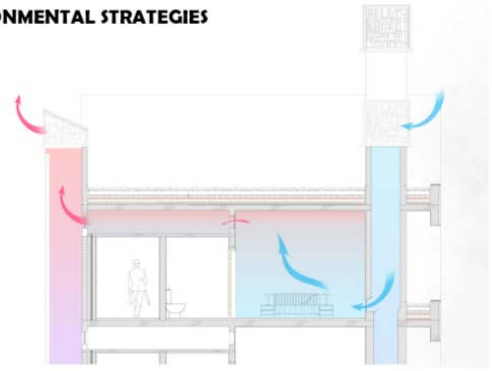
SARA AL-SIDDEEQ

CONCEPT

The design concept is mainly based on sustainability.
Designing a sustainable hotel that saves energy to reduce carbon emissions and preserve the environment
also to preserve the identity of the place in which it's located.

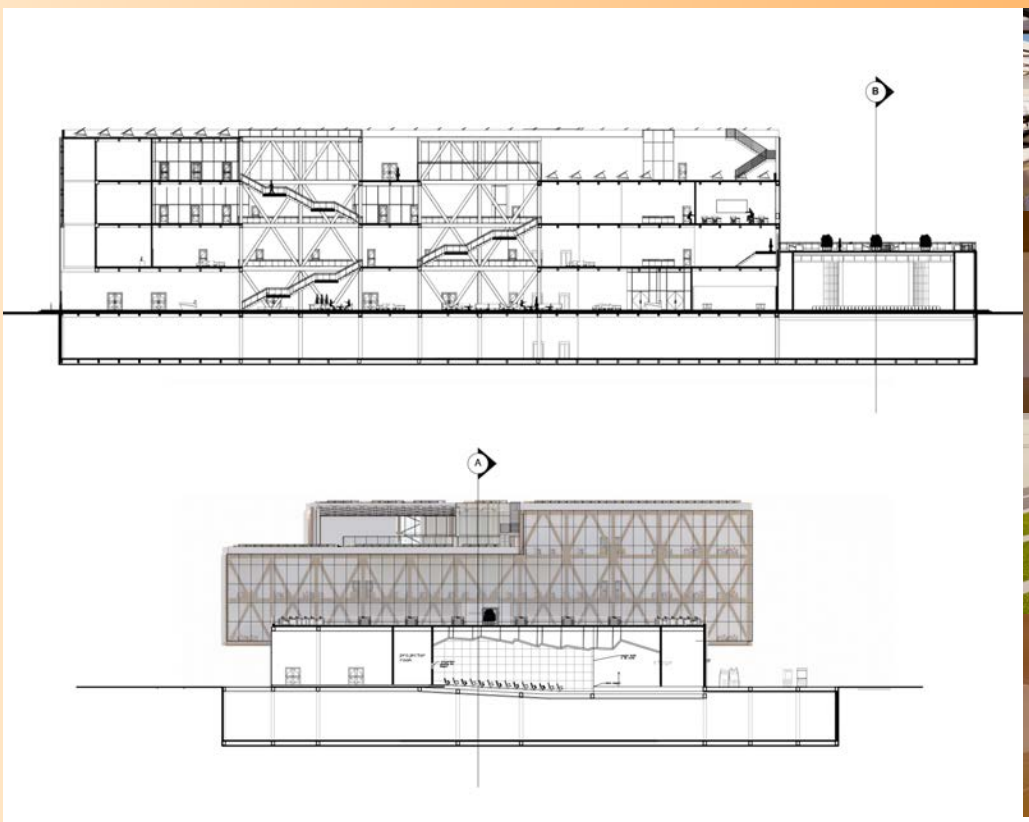


ENVIRONMENTAL STRATEGIES



Wind Catchers & Solar chimneys

Solar chimneys placed on the south and west sides are connected in the rooms
Openings were opened at the top of the room on the opposite side of the air deflector to draw hot air from the room and exchange it for cold air from the



CONCEPT

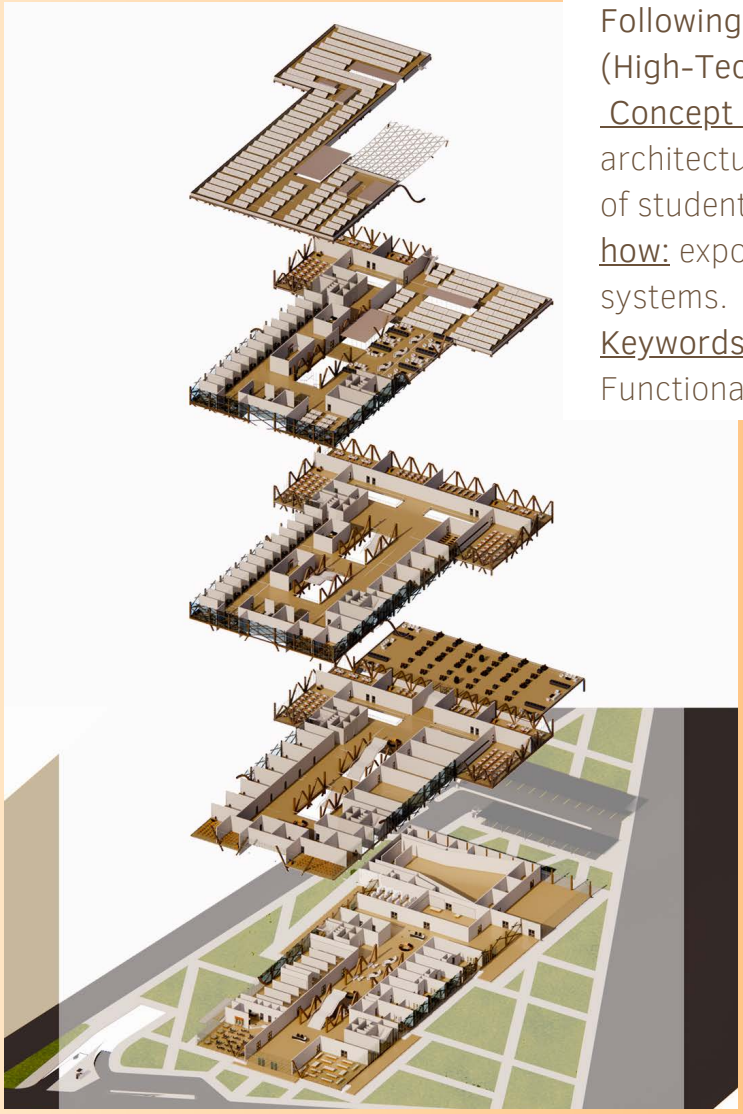
Following architectural approach Richard Rogers (High-Tech approach)

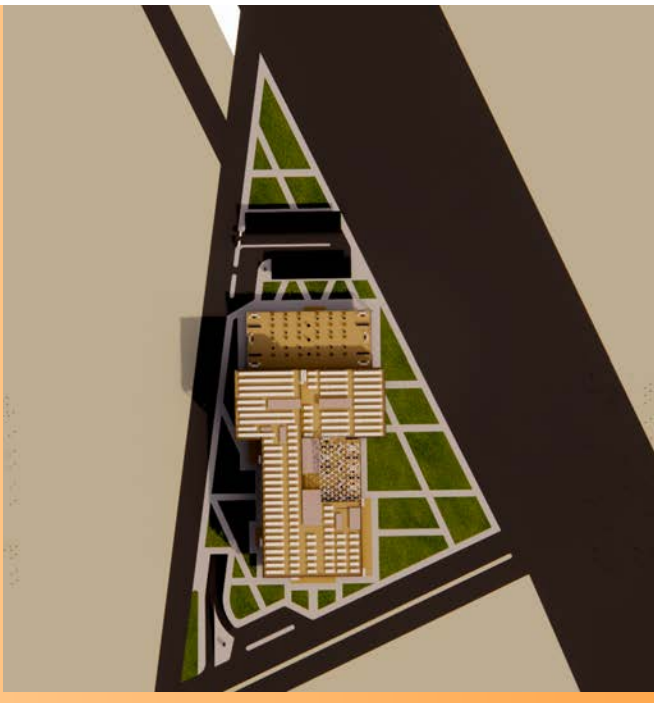
Concept statement: The beauty of functionality in architecture that enhance the quality of daily routine of student and instructors

how: expose the structure and use different structure systems.

Keywords:

Functional - Logical - Experience - Environment





ARC 411: URBAN DEVELOPMENT

INSTRUCTOR: MS. NOOR TAYEH

SARA SALAMEH
MAYAR MOHAMMED

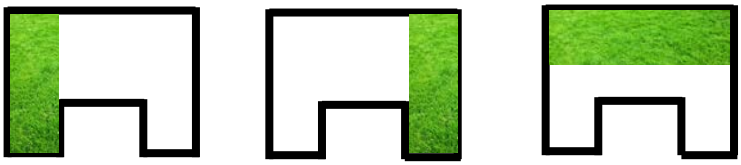
CONCEPT

Allowing the coexistence of social experience & creating zones for each group while preserving cultural identity of Medinah.

Project's designs are inspired by the use of traditional urban architecture of Madina to preserve its identity in a modern way.

CONCEPT

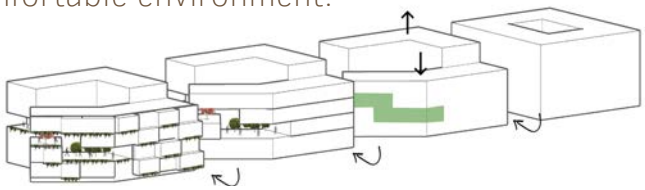
Creating an open space to allow for social interaction of the residentials using the green roof.



MIX USED BUILDING - MAYAR MOHAMMED

CONCEPT

Created public space within the building to maximize social interactions and provide a comfortable environment.



MIX USED BUILDING - SARA SALAMEH

ARC 411: URBAN DEVELOPMENT

INSTRUCTOR: DR. MAYAS TAHA

BTOOL SAMI
ZAINAB MOHAMMAD

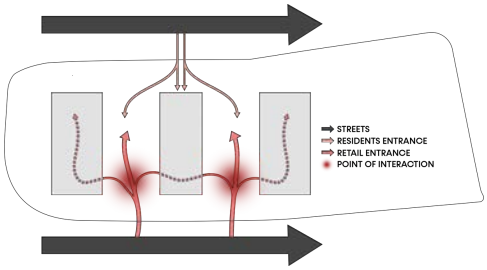
CONCEPT

Creating an active and social space that is connected to Al-Medina's landmarks and respecting it's architecture and people .
the space is walk-able, sustainable and integrated.
Four main spaces were created and connected with a pedestrian pathway connecting them, traditional market plaza, almudah plaza, bayt alsidah Fatimah plaza and Al-Usayfrian park.

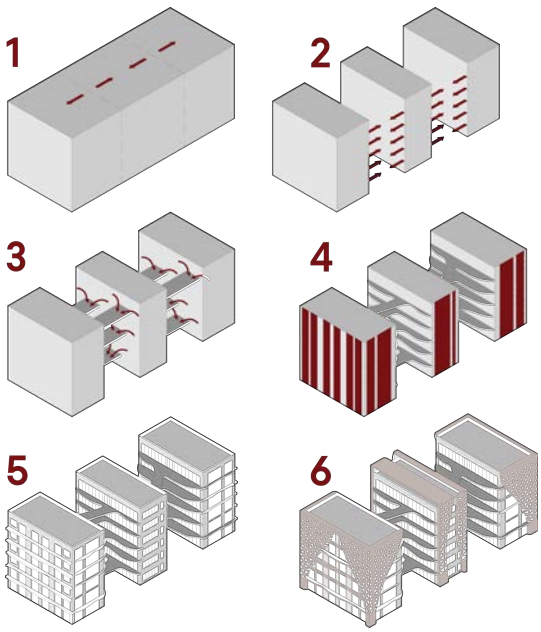
MIXED-USE BUILDING 1

CONCEPT

THE OBJECTIVE OF THE PROJECT IS CREATING A MIX-USE BUILDING BOTH RETAIL AND RESIDENTIAL BY MAKING AN ATTRACTIVE SPACE THAT CREATES CONNECTIONS BETWEEN USERS BY SPLITTING THE BUILDING AND CREATING INTERACTIVE SOCIAL SPACES AND BRIDGES CONNECTING THESE MASSES TO STIMULATE SOCIAL INTERACTIONS.

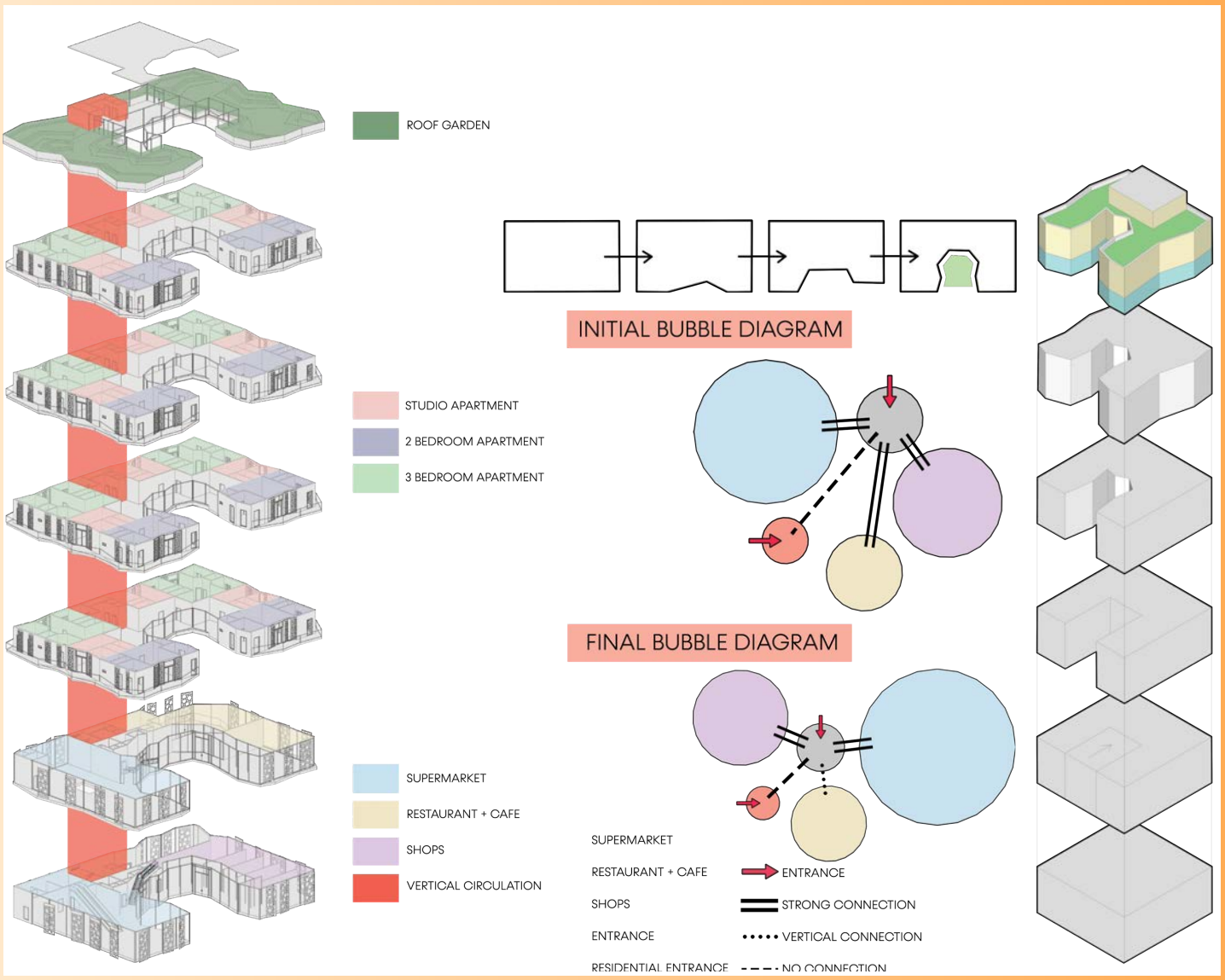


MASSING DEVELOPMENT



CONCEPT

INSPIRED FROM THE MASTERPLAN LINES AND REFLECTED IT ON THE BUILDING'S PLAN. ADDING OPEN SPACES AND OPENINGS RESPONDING TO THE CLIMATE WHILE ALSO ADDING AESTHETIC ELEMENTS.



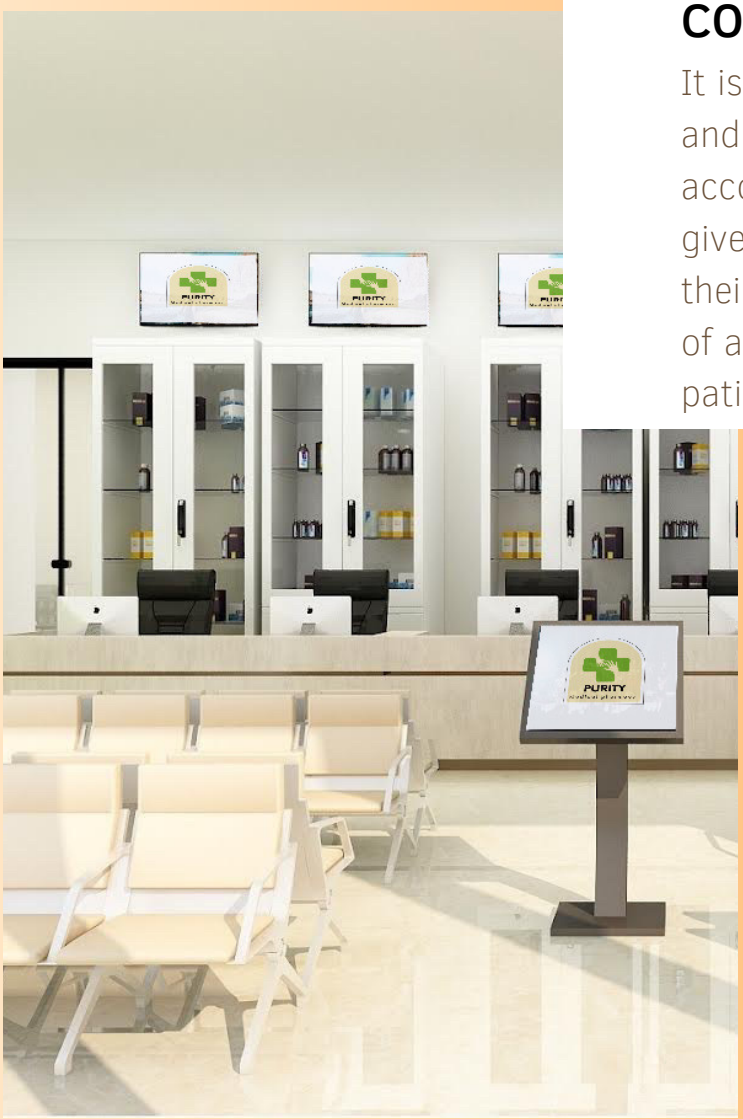
IAR422: PHARMACY DESIGN

INSTRUCTOR: MS.ESRAA SAMMAN

MAHA ALHASSOON

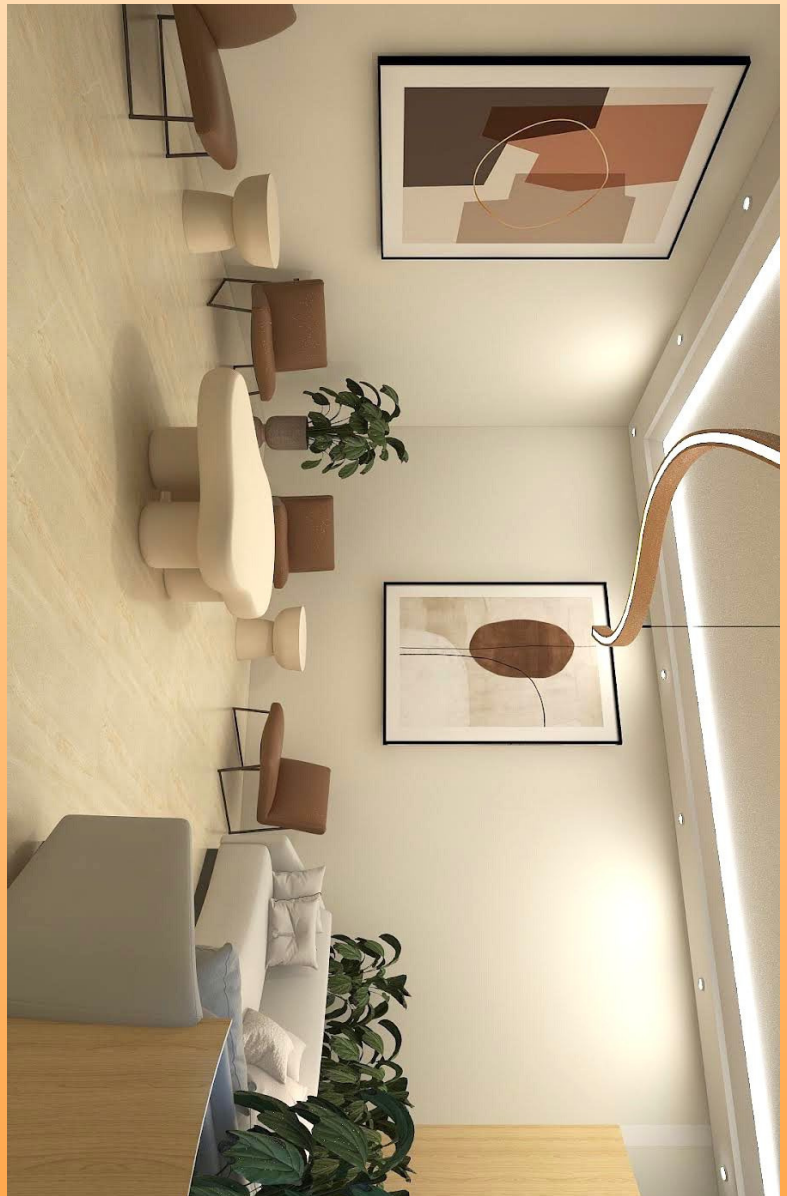
CONCEPT

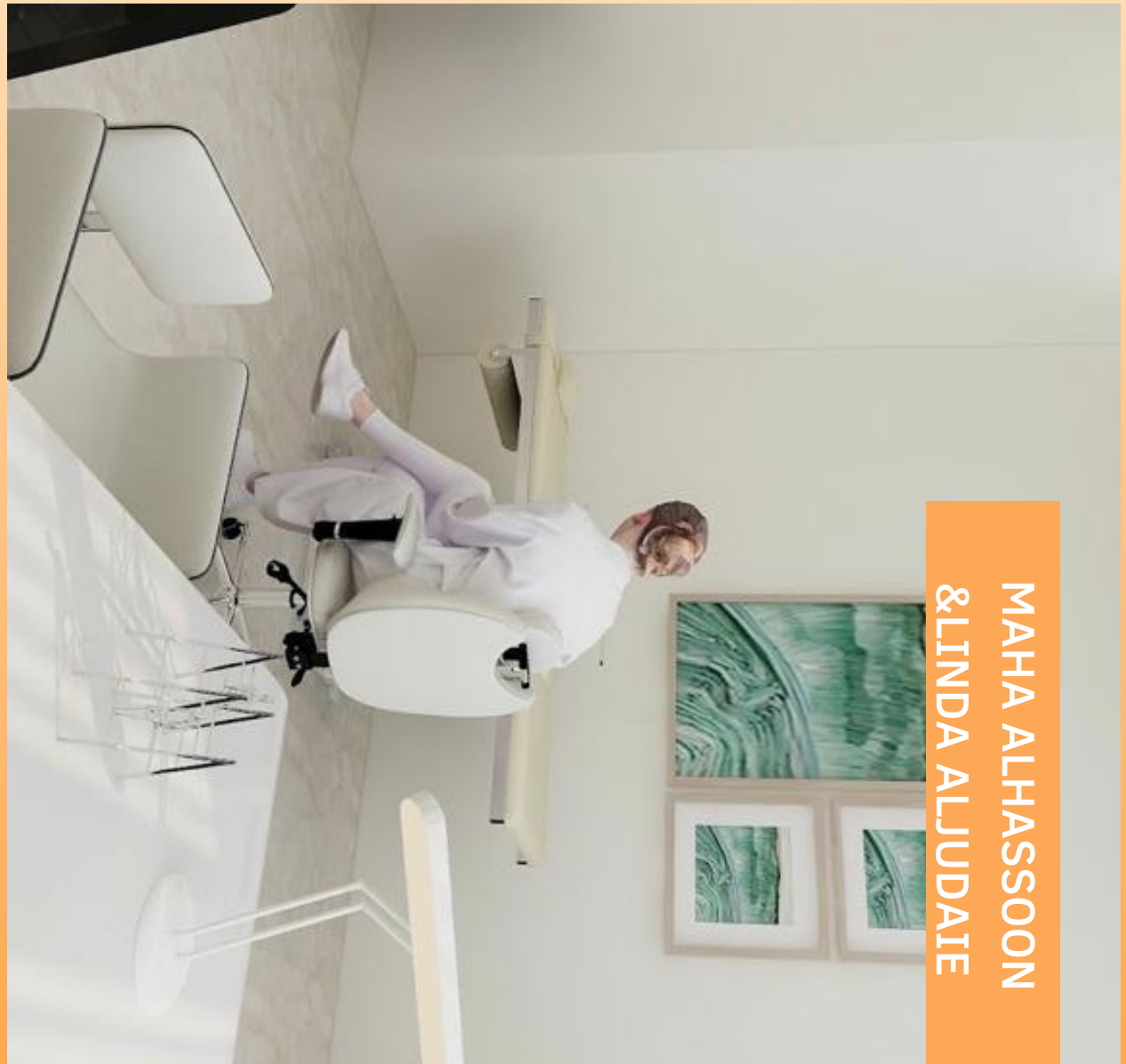
It is a pharmacy specializing in medicines and takes care of patients very accurately according to medical prescriptions and gives them the appropriate quantities for their needs according to the prescription of a doctor. Purity Pharmacy cares about patients and staff.



IAR422: HOSPITAL DESIGN

INSTRUCTOR: MS.ESRAA SAMMAN

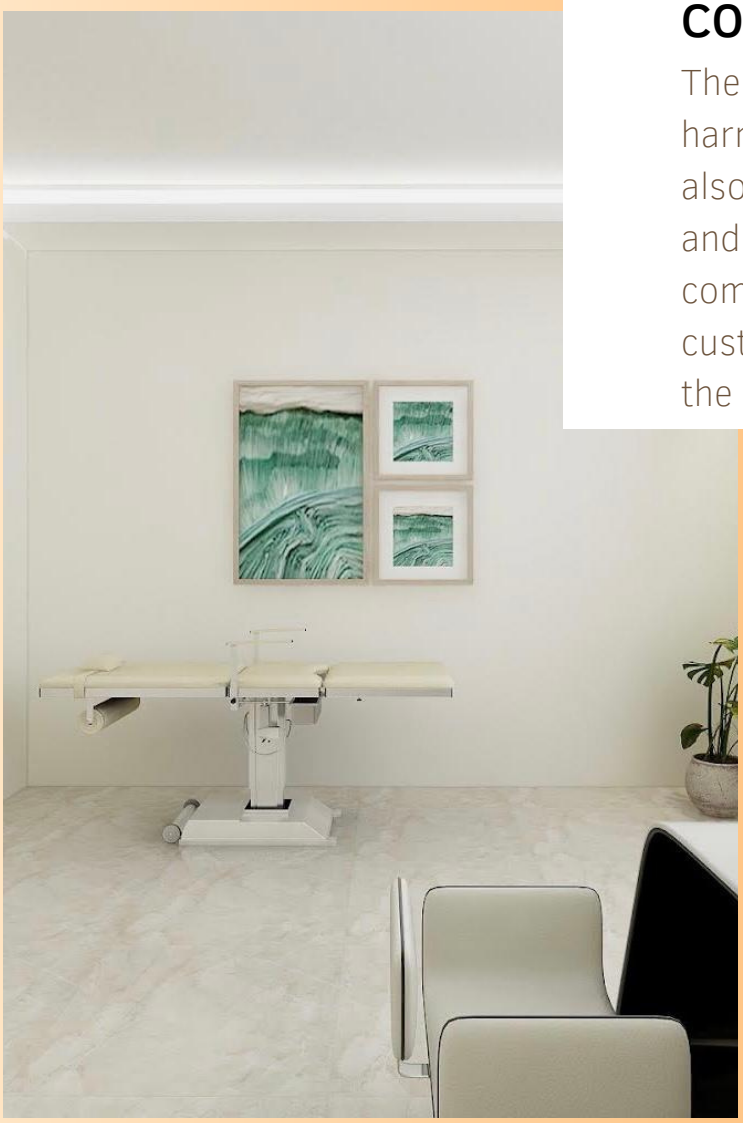




MAHA ALHASSOON
&LINDA ALJUDAIE

CONCEPT

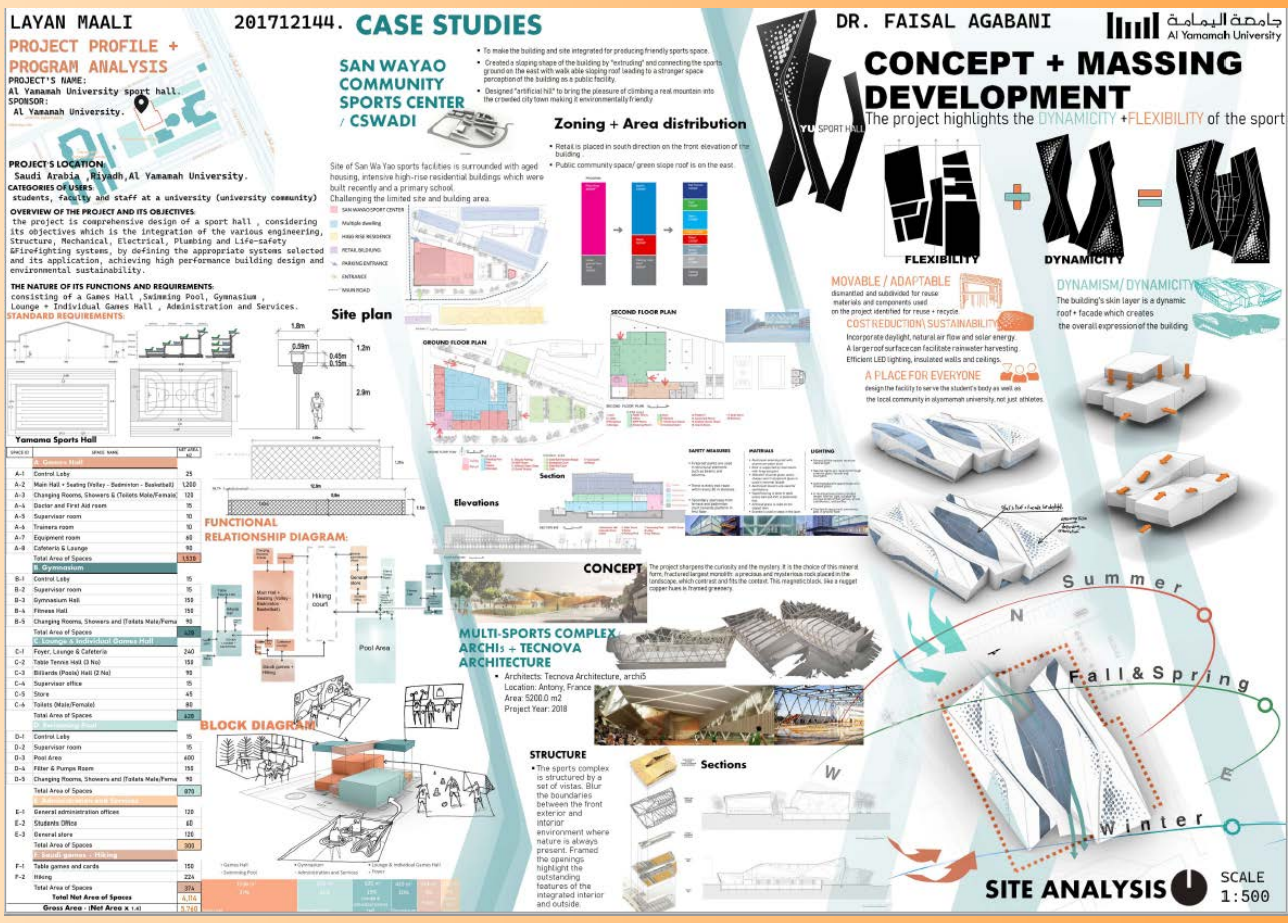
The idea of the project is to be harmonious with the colors of nature, also using natural materials such as wood and planting. That is, it gives a sense of comfort and relaxation. To make the customer feel comfortable and simple at the same time.

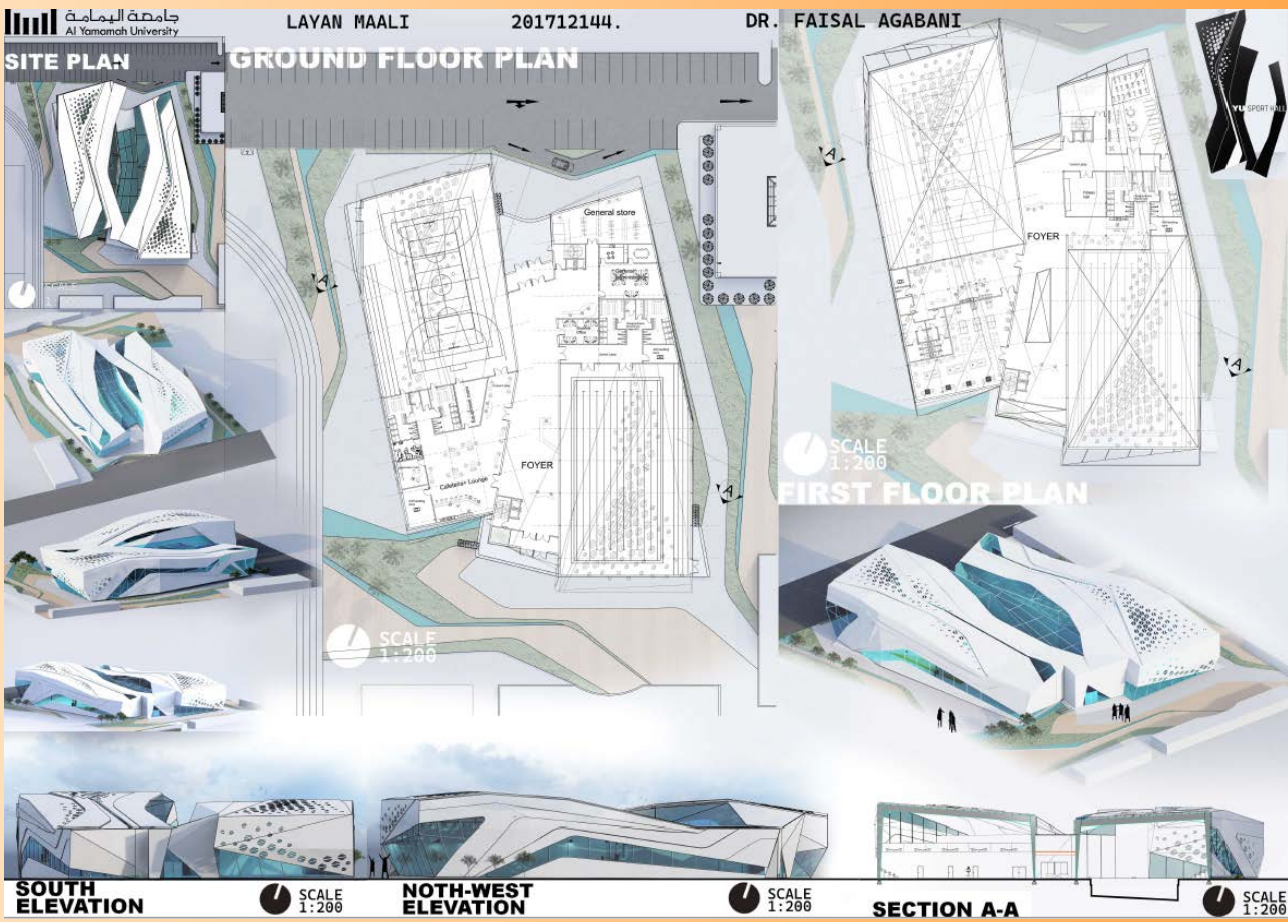


ARC501: SPORT HALL

INSTRUCTOR: DR. FAISAL AGABANI

LAYAN MAALI





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Al Yamamah University

LAYAN MAALI 201712144. DR. FAISAL AGABANI

single slope portal frame structure

The portal steel frame has the advantages of a lightweight, high rigidity, flexible design, reasonable force, and convenient construction.

- a lightweight building system. it is a solid web or lattice portal frame as the main load-bearing framework, composed of welded H-shaped steel.
- Cold-formed thin-wall steel (C -shaped) is used as purlins and wall girt, corrugated metal sheets are used for roofs and walls.
- use polystyrene foam, as heat insulation materials. A span between 15 and 50 m

steel deck floor system

metal deck is a sheet of thin profiled steel used in the formation of concrete floors in steel frame construction.

- A perfect for use in both floor and roof construction because it has a high strength-to-weight ratio. Other advantages of metal deck include uniform quality, proven durability including excellent fire performance and cost efficiency, sustainability.
- The metal deck is laid and fixed between the horizontal beams of a steel frame building. A concrete floor slab is cast on the metal deck.

SCALE 1:100 STRUCTURAL ROOF PLAN

SCALE 1:100 STRUCTURAL FLOOR PLAN

SCALE 1:100 STRUCTURAL SECTION

Portal frame Roofing system

Rainscreen Terracotta cladding system

Curtain Walling in façade

steel deck floor

C-SECTION PURLING

PORTAL FRAME

CORRUGATED SHEETS

Portal Frame Connections

Portal Frame Footing

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ENVIRONMENTAL CONTROL SYSTEM

Summer

Fall & Spring

Winter

SCALE 1:500 SITE ANALYSIS

CENTRAL CHILLED WATER HVAC SYSTEM

MAIN COMPONENTS

Supply Air Diffuser | Return Air Diffuser | Air Ducts | Air Handling Unit

A chilled water system uses water instead of air to cool the sport hall .

The water absorbs heat from the hall and disperses it outside.

The system cools the water down to a temperature of 40 degrees and then circulates it through the water coil's air handler that works to distribute the cold air into the hall.

The Benefits of a Chilled Water System

- Greater Efficiency in Large and Vertical Applications. Cost Effective: Energy Reduction and Lower Utility Bills.
- Safer Solution.
- Longer Lifespan .
- Quiet Operation and Noise Reduction.

SCALE 1:500 GROUND FLOOR PLAN

SCALE 1:500 FIRST FLOOR PLAN

REFLECTED CEILING PLAN HVAC

SCALE 1:100

SECTION HVAC

SCALE 1:100

Zone	Function	Area m2	m2/Ton Factor	RT	Height m	Height Coefficient	Adjusted RF	Air Vol cfm	AHU No	AHU Size	Duct ft2	Duct m2
A1	sport hall	947	20	47.35	14	1.2	56.82	19887	1	20000	9.9435	0.99435
A2	swimming area	929	20	46.45	12	1.2	55.74	19509	1	20000	13.006	1.3006
A3	foyer+ services	809	20	40.45	9	1.2	48.54	16989	1	17000	11.326	1.1326
A4	foyer+services 2	697	20	34.85	9	1.2	41.82	14637	1	15000	9.758	0.9758
A5	Individual Games	806	20	40.3	9	1.2	48.36	16926	1	17000	11.284	1.1284
A6	Gymnasium	762	20	38.1	9	1.2	45.72	16002	1	17000	10.668	1.0668

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LIGHTING SYSTEM

DAYLIGHTING

REFLECTED CEILING PLAN LIGHTING

SCALE 1:100

LIFE SAFETY + FIRE SYSTEM

SCALE 1:300 GROUND FLOOR PLAN

SYSTEM'S COMPONENTS

Upright Sprinkler Head

Common Path of Travel Distance

Total Travel Distance

Travel Paths

REFLECTED CEILING PLAN FIREFIGHTING

SCALE 1:100

GROUND FLOOR PLAN

SCALE 1:500

FIRST FLOOR PLAN

SCALE 1:500

SECTION LIGHTING

SCALE 1:100

SECTION FIREFIGHTING

SCALE 1:100

SCALE 1:300 FIRST FLOOR PLAN

Zone	Function	Occupancy classification	area m2	occupancy rate m2/person	occupant load	common path required	common path designed	travel distance required	travel distance designed	corridor width m2	stairs width
A1	Games hall	A Assembly	947	5	189	31	-	76.2	65	7	-
A2	pool area	A Assembly	929	10	93	31	-	76.2	-	4	-
A3	services1	A Assembly	500	3	167	31	-	76.2	-	6	-
A4	services2	A Assembly	582	3	194	31	18	76.2	63 / 24	7	-
A5	Foyer 1	A Assembly	426	3	142	31	-	76.2	-	5	-
A6	Foyer 2	A Assembly	382	2.5	153	31	-	76.2	-	6	1.2 m
A7	Individual Games	A Assembly	500	3	167	31	-	76.2	28	6	1.2 m
A8	Gymnasium	A Assembly	617	5	123	31	20	76.2	71 / 33	5	1.2 m

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SYSTEMS INTEGRATION

1 PORTAL FRAME structure
2
3 FIREFIGHTING System
4 STEEL DECK FLOOR structure
5 HVAC System

Systems Integration REFLECTED CEILING PLAN

FIREFIGHTING System
LIGHTING System
HVAC System

SCALE 1:100

Systems Integration SECTION

SCALE 1:100

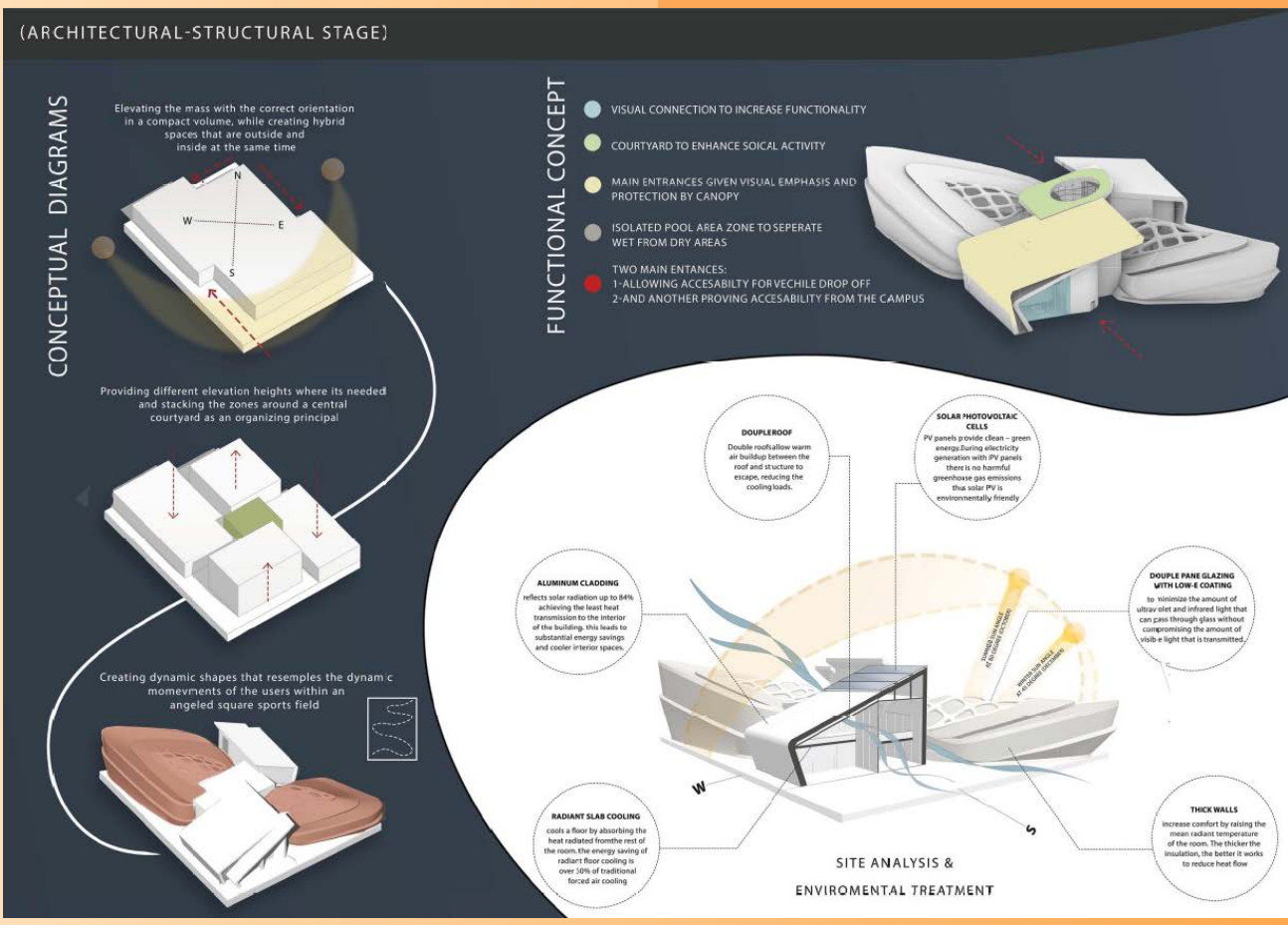
Systems Integration SECTIONAL PERSPECTIVE

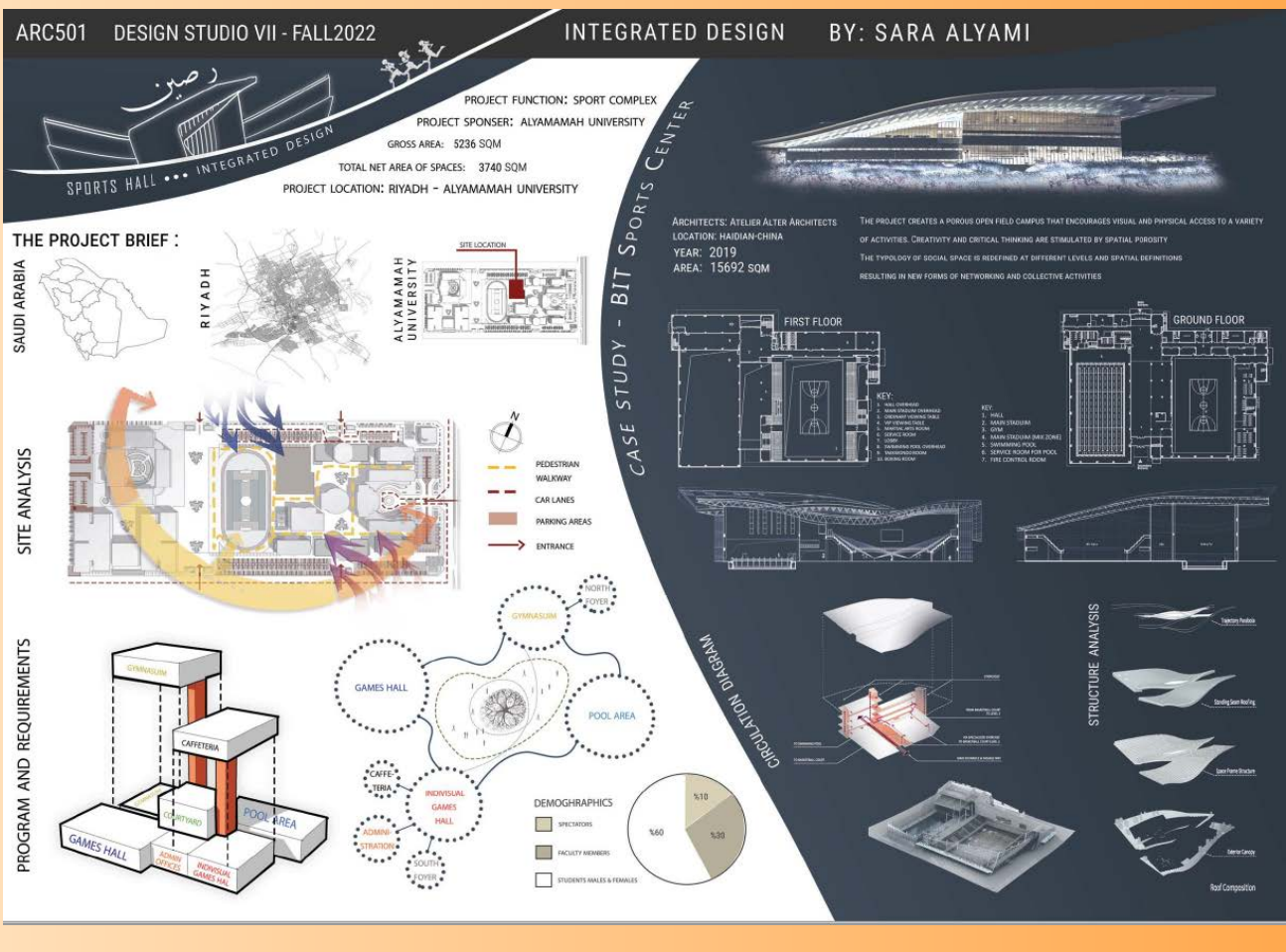
HVAC System
FIREFIGHTING System
LIGHTING System

ARC501: SPORT HALL

INSTRUCTOR: MR. ANAS HUSSEINN

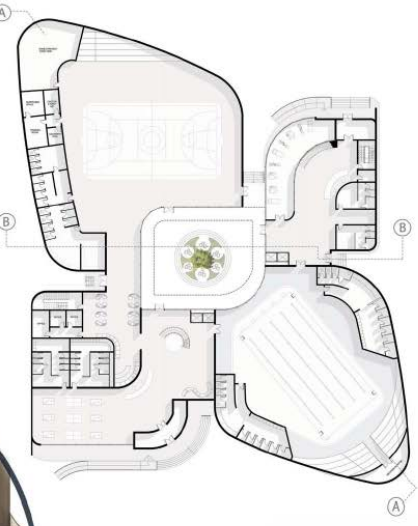
SARA ALYAMI



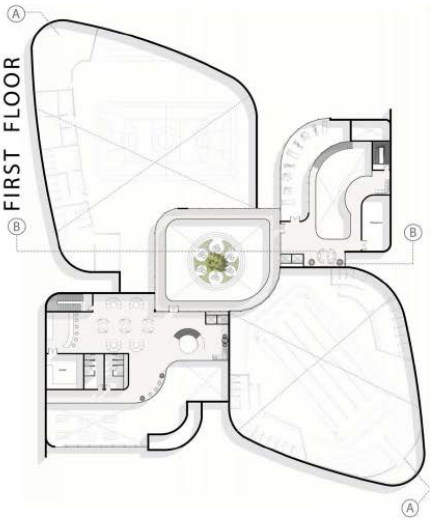


PLANS
AND
ELEVATIONS

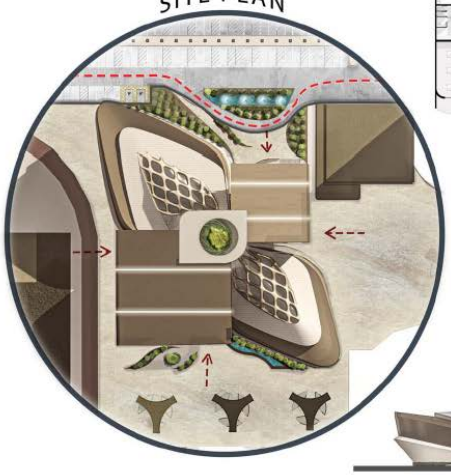
GROUNF FLOOR



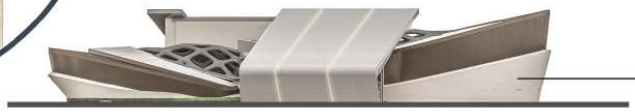
FIRST FLOOR



SITE PLAN

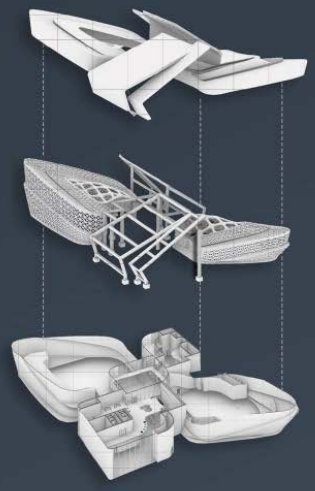


SOUTH ELEVATION



EAST ELEVATION

SECTIONS AND EXPLODED AXONOMETRIC



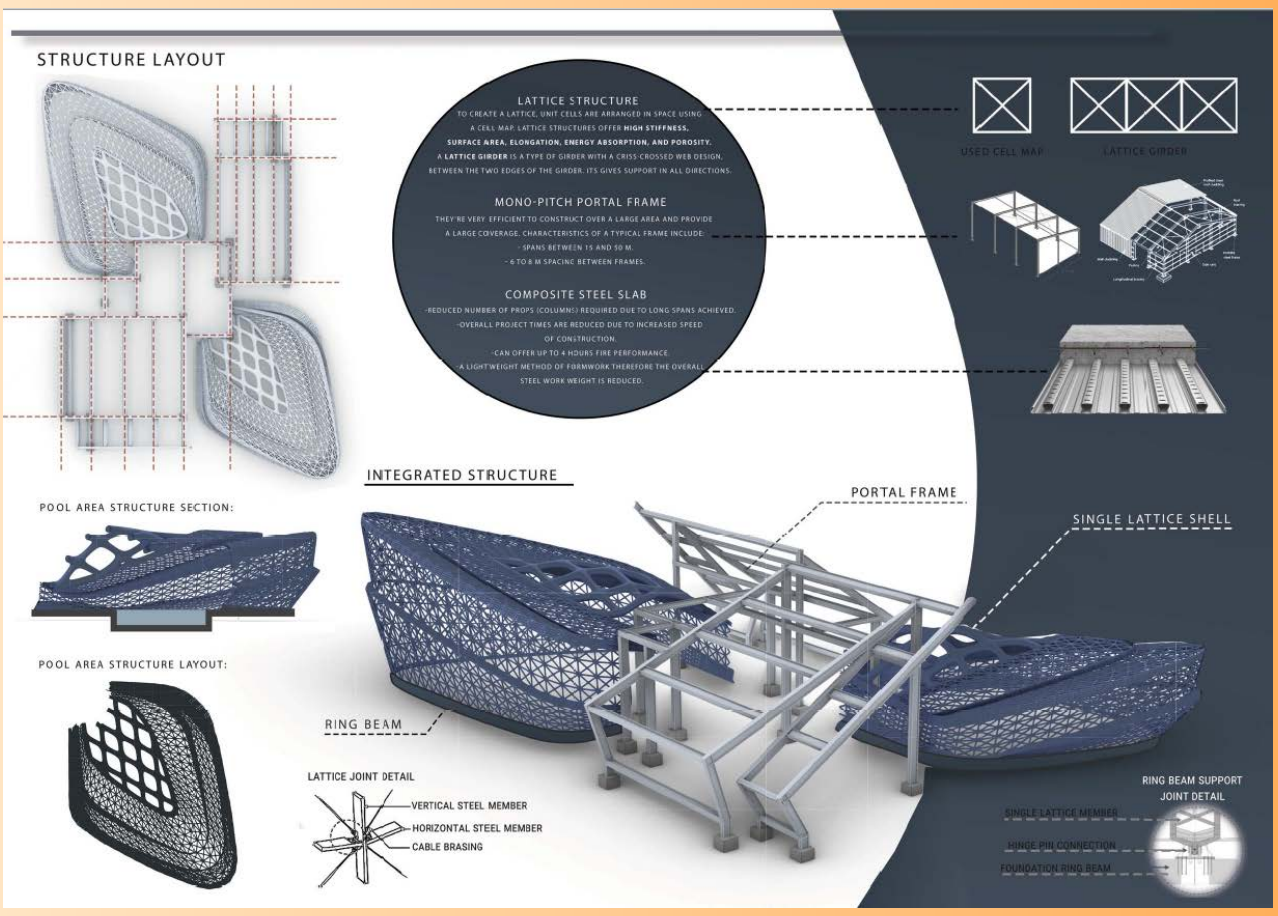
EXTERIOR CLADDING (ALIMUNUM & LIGHTWIGHT CONCRETE)

STRUCTURAL SYSTEM (SINGLE LATTICE GRID & PORTAL FRAME)

LIGHT WEIGHT CONCRETE WALLS, DOUPLE PANE LOW-E GLAZING AND
COMPOSITE STEEL SLABS

SECTION (B)

SECTION (A)


STRUCTURE LAYOUT
LATTICE STRUCTURE
TO CREATE A LATTICE, UNIT CELLS ARE ARRANGED IN SPACE USING A CELL MAP. LATTICE STRUCTURES OFFER HIGH STIFFNESS, SURFACE AREA, ELONGATION, ENERGY ABSORPTION, AND POROSITY.
A LATTICE GIRDER IS A TYPE OF GIRDER WITH A CRISS-CROSSED WEB DESIGN, BETWEEN THE TWO EDGES OF THE GIRDER. ITS GIVES SUPPORT IN ALL DIRECTIONS.
MONO-PITCH PORTAL FRAME
THEY'RE VERY EFFICIENT TO CONSTRUCT OVER A LARGE AREA AND PROVIDE A LARGE COVERAGE. CHARACTERISTICS OF A TYPICAL FRAME INCLUDE:
- SPANS BETWEEN 15 AND 50 M.
- 6 TO 8 M SPACING BETWEEN FRAMES.
COMPOSITE STEEL SLAB
-REDUCED NUMBER OF PROPS (COLUMNS) REQUIRED DUE TO LONG SPANS ACHIEVED.
-OVERALL PROJECT TIMES ARE REDUCED DUE TO INCREASED SPEED OF CONSTRUCTION.
-CAN OFFER UP TO 4 HOURS FIRE PERFORMANCE.
-A LIGHTWEIGHT METHOD OF FORMWORK THEREFORE THE OVERALL STEEL WORK WEIGHT IS REDUCED.
USED CELL MAP
LATTICE GIRDER
POOL AREA STRUCTURE SECTION:
POOL AREA STRUCTURE LAYOUT:
INTEGRATED STRUCTURE
PORTAL FRAME
SINGLE LATTICE SHELL
RING BEAM
LATTICE JOINT DETAIL
VERTICAL STEEL MEMBER
HORIZONTAL STEEL MEMBER
CABLE BRASING
RING BEAM SUPPORT JOINT DETAIL
SINGLE LATTICE MEMBER
HINGE PIN CONNECTION
FOUNDATION RING BEAM

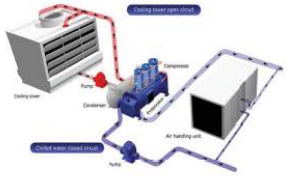

INTERIOR & EXTERIOR 3D RENDERS

HVAC SYSTEM

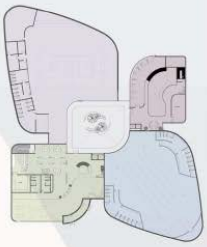
CHILLED WATER AIR CONDITIONING SYSTEMS:

CHILLED WATER AIR CONDITIONING SYSTEMS ARE COMMONLY USED IN APPLICATIONS THAT NEED LARGE COOLING CAPACITY SUCH AS HYPERMARKET, INDUSTRIAL PROCESS AND COMMERCIAL AIR CONDITIONING SUCH AS OFFICES AND FACTORIES.

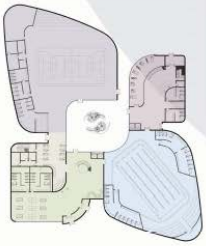
A CHILLER IS SIMPLY A FACILITATOR OF HEAT TRANSFER BETWEEN THE INSIDE AND THE OUTSIDE OF A BUILDING, AND THE CHILLED WATER SYSTEM CAN HAVE MANY DIFFERENT CONFIGURATIONS.



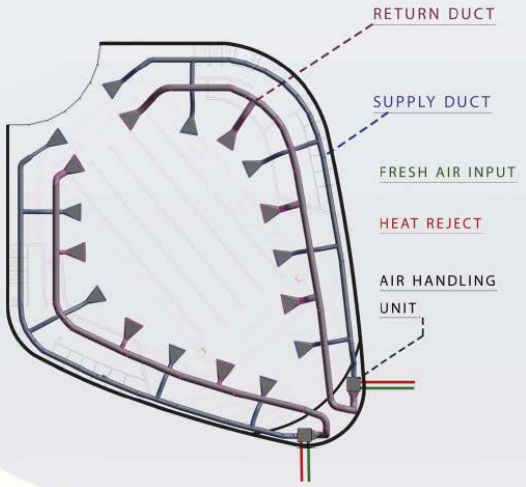
MINITURE PLAN (FIRST FLOOR)



MINITURE PLAN (GROUND FLOOR)



DUCTS LAYOUT DRAWING



CALCULATIONS SCHEDULE

zone	functions	area	m2/ppn factor	ct	height m	height coefficient	adjusted ct	air vol cfm	ahu no	ahu size cfm	duct ft2	duct m2
GROUND FLOOR												
A	Game hall	1100	20	55	11	1.2	13.2	19250	2	9625	6.416666667	0.59617784
B	GYMNASIUM (UNGUND FLOOR)	288	20	14.4	7	1	7	5040	1	5040	3.36	0.312154144
	FOYER AND LOBBY	122	20	6.1	7	1	7	2135	1	2135	1.423333333	0.132251936
C	INDIVISUAL GAMES HALL	301	20	15.05	7	1	7	5267.5	1	5267.5	3.511666667	0.326244088
	FOYER AND LOBBY	325	20	16.25	7	1	7	5687.5	1	5687.5	3.791666667	0.35225736
D	POOL AREA	845	20	42.25	8	1.2	10.8	14787.5	2	7393.75	4.929166667	0.457916568
E	ADMINISTRATION	146	20	7.3	7	1	7	2555	1	2555	1.703333333	0.158244844B
FIRST FLOOR												
zone	functions	area	m2/ppn factor	ct	height m	height coefficient	adjusted ct	air vol cfm	ahu no	ahu size cfm	duct ft2	duct m2
C	CAFETERIA	355	20	17.75	8	1	8	6212.5	1	6212.5	4.141666667	0.384771424
B	Gymnasium (FIRST FLOOR)	419	20	20.95	8	1	8	7332.5	1	7332.5	4.888333333	0.454141072

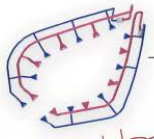
SECTION

INTEGRATED SYSTEMS

DOUBLE PANE - LOW E GLAZING SKY LIGHT EMBEDED WITH MICRO LED LIGHTING

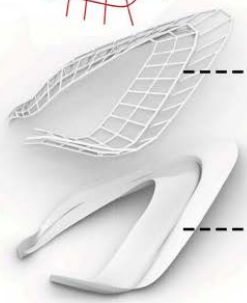
EXTERIOR CLADDING (ALIMUNUM & LIGHTWIGHT CONCRETE)

STRUCTURAL SYSTEM SINGLE LATTICE GRID WITH A RING BEAM FOUNDATION



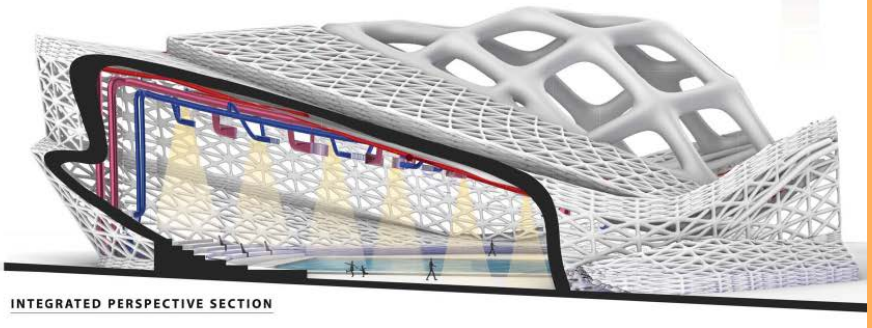
CHILLED WATER AIR CONDITIONING SYSTEM

WATER-BASED FIRE SUPPRESSION SYSTEM



GALVANIZED METAL FRAME

PREFABRICATED GRC PANEL



INTEGRATED PERSPECTIVE SECTION

INTEGRATED SYSTEM & PERSPECTIVE SECTION

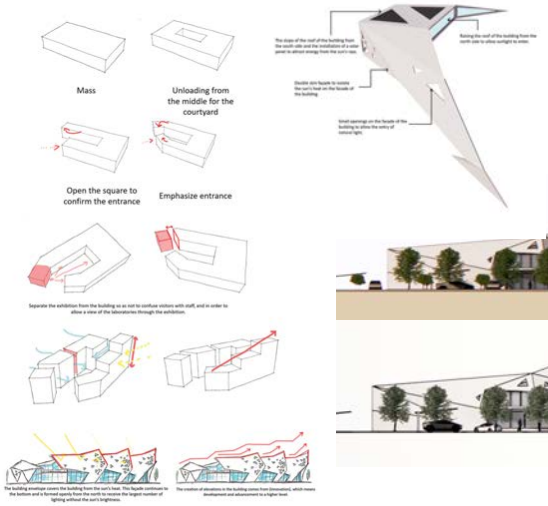
ARC 511: ARCHITECTURAL INNOVATION AND RESEARCH CENTER

INSTRUCTOR: DR.ANWAR IBRAHIM

ABDULLAH ALHARRAH

GROUND FLOOR PLAN

MASSING DEVELOPMENT

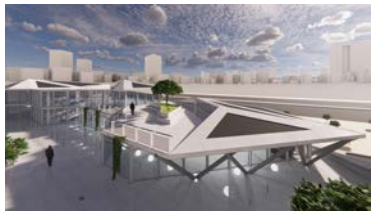


CONCEPT:

THE GREEN AREAS IN THE BUILDING ARE PLACED OUTSIDE THE BUILDING TO COOL AND ISOLATE THE SUNLIGHT AND TO ASSURE EVERYONE WHO LOOKS AT THE BUILDING FROM THE OUTSIDE THAT THE BUILDING IS ENVIRONMENTALLY FRIENDLY AND SPREADS THIS IDEA.
HIGHLIGHTING THE STRUCTURE OF THE BUILDING SO THAT IT IS VISIBLE TO EVERYONE AS WELL, TO CONFIRM THAT THE BUILDING IS FOR THE ARCHITECTS.

SOUTHEAST ELEVATION

SECTION A-A



FACULTY RESEARCH

The architecture paradigm gap between Architectural Pedagogy and professional practice in KSA

Abstract

The architecture as a paradigm, whether it is from the academic or the practice perspective, it has always been a problematic encounter. The idea of experiencing diverse challenges between the academic learning environment and the professional fields, usually encompass a sense of dis-connectivity. Architect as Danial Libeskind believes that there is a wide gap between 'what is taught and how and what is built and why'. This is not the only perspective that discusses the seclusion between academia and professional practice in architecture. Professionals around the world are of the opinion that this gap is expanding and becoming wider.

It has become crucial to investigate this pedagogy dilemma. Literature has dedicated a great deal of consideration on approaching the concrete causes of the gap between the academic learning environment and the professional practice in the architecture field.

The current study aims to implement a wide range of deductive research to unlock the dimensions causing the gap between academia and profession in Kingdom of Saudi Arabia and explore various pedagogical approaches in the field of architectural education.

The methodology is tackling qualitative and quantitative approaches, first, it utilizes the comprehensive literature review regarding the teaching methodologies and curriculums of Bachelor Architecture programs within a sample of public and private universities in Kingdom Saudi Arabia. Running across serious of multiple layers of analysis regarding the number of courses, credit hours, the various topics and disciplines covered within the program, and how it could be supporting the professional challenges and career competition.

Second, the methodology adopts the semi-structured interviews as a tool to investigate and evaluate the relevance and effectiveness of Skills and knowledge imparted by the institutes and the expectations of professional architects/firms.

The research argues its findings by highlighting the problem that faces the architectural educational process in KSA and its impact on the profession. The research concludes its outcomes by indicating the key factors that could bridge the gap, while highlighting the challenges facing academics on the educational level, the architecture firms on the managerial level, and finally, the potential architecture graduates from the career perspective. it draws attention to the outcome of this process and pave the road for further discussion.

DR.Dalia Abdel Fattah

Batoul Siwar
Raghad Aboukhater

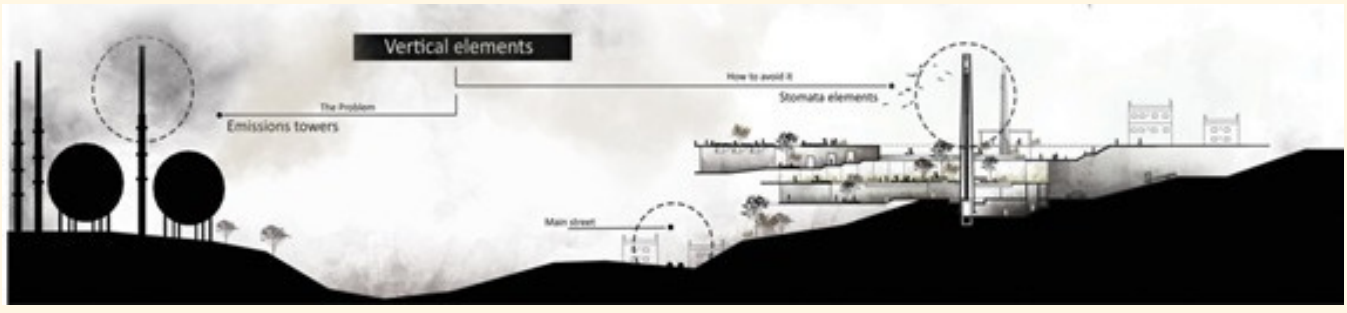
MS.Sara Alansary

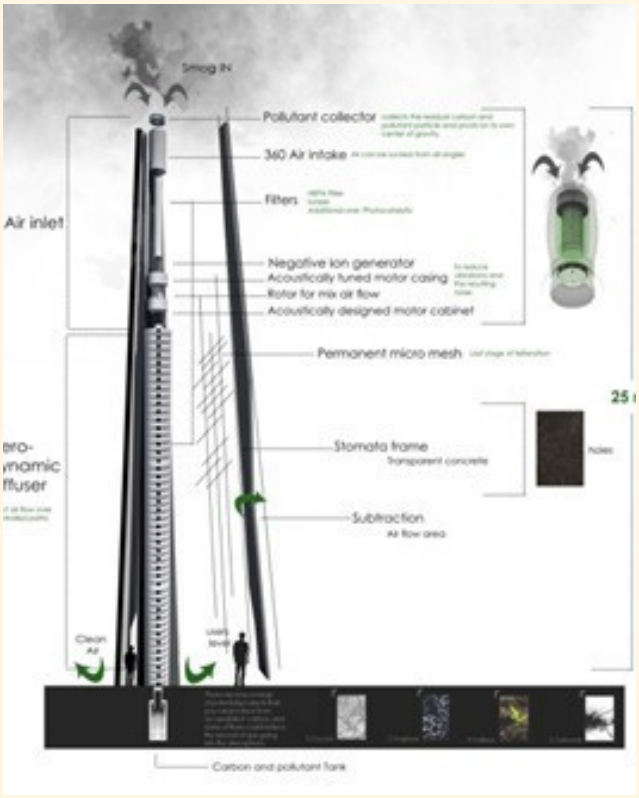
Association of Architectural Educators Conference
12-15 July 2023
Welsh School of Architecture, Cardiff University, Cardiff, UK.

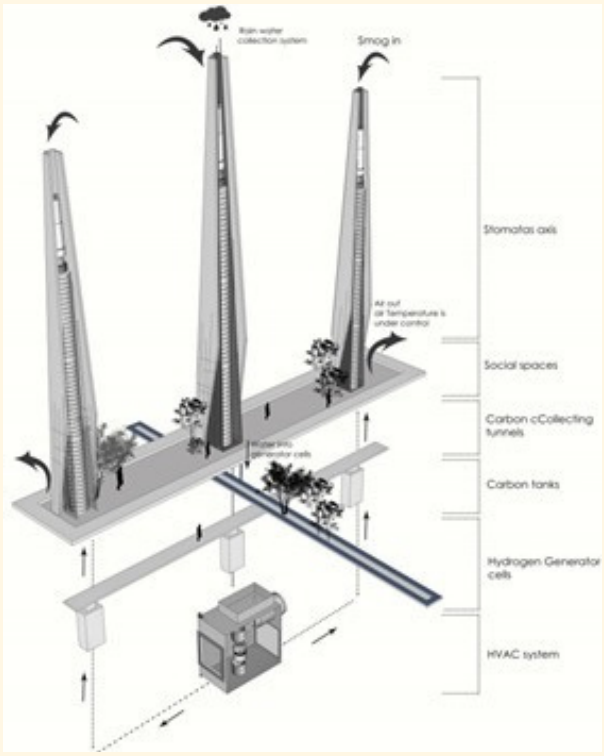
STOMATA SPACE: AIR POLLUTION AS A RESOURCE; ARCHITECTURE AS A RESPIRATORY SYSTEM

Abstract:

Air pollution is one of the greatest worldwide challenges in the recent time particularly in industrial areas. It jeopardizes humans, animals and plants' lives by causing several serious diseases. Those who live in contaminated areas are more prone to lung cancer, heart disease and many other chronic respiratory diseases. In Jordan, approximately 600 people die prematurely annually because of pollution. Therefore, looking for environmentally sustainable solutions to reduce air pollution is an urgent need. This paper aims to present a sustainable architectural proposal ‘Stomata Space’ that responds to, and interacts with the environment, by creating zero emission zones in the air-polluted areas. The proposal shows how architecture can respond to the demands of breathers in space through addressing the simple exchange of clean air and toxic gases. The proposal is designed to create a clean air zone around the residential district of Al-Hashmeyah; as the most polluted district in Jordan. The sources of pollution in the area contain a petroleum refinery, a thermal station for generating electricity and a number of industrial factories, which in sum greatly contaminate the air. The proposed design responds to the town’s industrial landscape by creating series of purification towers that act as an environmental and visual counterpart to the factory emission towers that mark the town’s periphery; to reduce, re-use, re-cycle and reverse air pollution architecturally and mechanically. In addition to purifying air, the collected remains and ashes of this process will be recycled into anti-pollution construction material that is expected to be stronger than the ordinary concrete blocks.







Authors: Dr.Anwar Ibrahim and Reem Hussein

Livable Cities conference in New York
June 14th-16th, 2023

Problems Encountered in The Assessment of Architecture Design Studio

Abstract:

The design studio is the core course in architecture education. It is the pot where all complementary courses' knowledge is integrated and implemented. The teaching and learning of the design studio are crucially influenced by the assessment process, in which the quality of the assessment affects the student's learning experience significantly. Hence, this studio-based education system requires great attention to the assessment process. The assessment of design studio projects in Architecture education has always been a dilemma for faculty and jurors due to its challenging subjective nature. Many of the problems associated with the assessment process in design studios have been discussed in publications over thirty years ago, and to this day these problems still stand. This paper is a research review of problems associated with the assessment process of Architecture design studios. This review aims to identify the problems encountered in the design studio assessment and determine the shortcoming of this assessment process. Additionally, this research sheds light on the effectiveness of student-centered teaching in improving the efficiency of the assessment and evaluation processes. Based on the review, the author identified several problems encountered in the assessment process and linked them to three factors impacting these problems. Also, the student-centered teaching approach is recommended for the successful application of assessment and evaluation.

Author: Rahma Doheim

The 6th International Conference on Research in Teaching and Education
Dec., 2022 Oxford, The United Kingdom

GRADUATES INTERNSHIP

"STAY INSPIRED.
NEVER STOPCREATING."

We are delighted to share insights on one of our alumnus Arch. Khalid Alnazaha who has been training at National Housing Company (NHS).

Type 1: I-Home Villa, Build Area = 225 m2

Type 2: Rateel Villa, Build Area = 382 m2

Type 2: Shurfa D, Build Area = 384 m2

Rendered, and 3D shots by using Revit + Lumion by our alumnus Khalid Alnazha.

Type3: Madaen Villa, Build Area = 260 m2

The idea of Al Fursan project is to design a Modern + Najdi architecture style Housing project and take in consideration to abstract the style into modern style while keeping some Najdi style element to present at the end a façade that have a combination of modern + Najdi Style.

"I would like to thank Al Yamamah University for giving me the opportunity to be a part of a big company such as National Housing Company. From the beginning of searching for a company till I start with NHC, a lot of big companies such as KAFD, Yellow Architect have contacted with me, and I did an interview with them, then I choose the right company that will fit to me and my major and to take all the benefit of the co-op training. All the thanks due to Al Yamamah University who is always trying to give their students the best opportunity and experience to be fully prepared for the work field." - Khalid

Rendered, and 3D shots by using Revit + Lumion by our alumnus Khalid Alnazha.

Al Sadan Project: As an architect team, we have assigned to design four different types of villas for Al Sadan project which is located west of Jeddah, the idea of the project was to take in consideration the architectural style and characteristics of Hejaz.

ARCH-Y

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