

Concept and Scale Focus in Interior Design Education: An Adaptive Reuse Museum Project

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Abstract

This study concentrates on the value of the interior design profession and how a concept and scale approach can enable a holistic professional approach. The emphasis of the paper is on interior design education, particularly the second-year studio where the interior design process is learned. The adaptive reuse project building was in Çeşme, Turkey and designed as a museum for a chosen artist. The method involved understanding the design process as a whole, beginning from a larger scale that includes landscape, leading to the detailing scale. While the first semester emphasized abstract issues, the second semester focused on materialization of ideas into applicable decisions. The project process was divided into four stages within each semester. The resulting projects drawings and models represented advanced levels of knowledge regarding the stages and process of interior design, its components, as well as an understanding of larger and smaller scales inherently connected to the profession.

Keywords: Interior design education, adaptive reuse, design concept, scale, museum design

İçmimarlık Eğitiminde Kavram ve Ölçek Odağı: Bir Yeniden İşlevlendirme Müze Projesi

Öz

Bu çalışma, içmimarlık mesleğinin değeri ve bir akademik yıl süresince kullanılan konsept ve ölçek yaklaşımının bütüncül bir profesyonel yaklaşımı sağlamasına odaklanmaktadır. Çalışmanın ana fikri, özellikle iç mekan tasarım sürecinin öğrenildiği ikinci yıl stüdyosu olmak üzere, içmimarlık eğitimi üzerinedir. Yeniden işlevlendirme proje binası Türkiye'de İzmir'in Çeşme ilçesinde bulunmaktadır ve seçilmiş bir sanatçı için müze olarak tasarlanmıştır. Yöntemde, peyzaj içeren en büyük ölçekten detay ölçeğine kadar tasarım sürecini bir bütün olarak anlamayı hedeflenmiştir. İlk dönem soyut konular vurgulanırken, ikinci dönem fikirlerin uygulanabilir kararlara dönüştürülmesine odaklanılmıştır. Proje süreci her dönem içinde dört aşamaya ayrılmıştır. Proje çizim ve maketleri, iç mekan tasarım aşamaları ve süreci, bileşenleri ve doğası gereği meslekle bağlantılı daha büyük ve küçük ölçeklerin anlaşılmasıyla ilgili ileri düzeyde bilgiyi yansıtmaktadır.

Anahtar kelimeler: İçmimarlık eğitimi, yeniden işlevlendirme, tasarım konsepti, ölçek, müze tasarımı

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1. Introduction

One of the main challenges in the field of interior design today converges around the value of the profession and distinction from the simple practical arrangement of interior components. Although freshman and senior years are mostly focused in literature (Hasirci & Demirkan, 2007). Demirkan & Afacan (2012), the second year of interior architecture or interior design programs is one of the most comprehensive and significant years of the four year education. Although there are studies that focus on the sophomore year of design education (Zuo & MaloneBeach, 2010), the focus is less on the significance of this year being a basis, and more on educational tools and methods, and more in number focusing on architecture (Broadfoot & Bennett, 2003; Demirkan & Hasirci, 2009; Erdman & Weddle, 2002; Okeil, 2010; Oxman, 2008), and except for some prior ones such as, Harwood's (2008, 2013) studies that investigated interior design education and practice, few recent studies survey all years or ideas being carried to upper years.

The students facing a more concrete interior design problem for the first time, and transitioning from more abstract concepts to feasible ones can be stated as the main reasons for this. This transition also lays the foundation in terms of understanding the interior design process; a step by step comprehension of the development from the getting the brief, to concept development, materializing, budgeting, leading to the finalization and realization stage. The development of this skill is significant not only for the upper years of interior design higher education, but also to develop a systematic approach for graduates' professional lives (Abercrombie, 1990; Afacan, 2016; Alawad, 2021; Konkel, 2014). This enables a deeper approach to interior design, creating more meaningful spaces that enhance the life quality of users.

The paper focuses on the interior design approach adopted in the second year of the Interior Architecture and Environmental design program at Izmir University of Economics, with a focus on a yearly project completed in the 2021-2022 year. The specific studio concentrates on understanding and development of an abstract "concept" and how it can be materialized in a successive manner. Designing an art museum by choosing an artist and aiming to reflect the artistic approaches to an interior space, starting from the larger scale including landscape to the smallest detail was the main challenge regarding the project.

Another major challenge was regarding the worldwide COVID-19 pandemic that was still prevalent during this academic year. Although vaccinations were being administered and thus universities in the world as well as Turkey began to transition into face-to-face education that was still partly hybrid posed a challenge not only for students, but for instructors as well (Ahmad, Sosa & Musfy, 2020; Bhattacharjee, 2019). In March 2020, the World Health Organization officially announced the COVID-19 outbreak as global Pandemic (WHO, 2020). This situation caused particular difficulties in education and caused it to continue as a hybrid education. In line with these constraints, a project in which two people could work as a team was presented to the students. The first semester emphasized abstract issues like a concept, the atmosphere of the space, interior-exterior connection and the beginning for the details. The second semester emphasized on materialization of ideas into applicable decisions.

Additionally, in order to gain experience on design collaboration, teams consisting of two students were formed. Teamwork enabled a more elaborate project and awareness of students regarding their strengths and weaknesses, as well as development of collaboration methods. The studio was enhanced by expert lectures on restoration, adaptive reuse, art, curation, design language, detailing, landscape design, lighting, graphics, and textiles. Museum visits, expert lectures on particular topics such as curation, textiles, and lighting took place.

Special emphasis was placed on carrying a conceptual idea throughout different scales, from the unconventional scale of 1/200 to 1/1. Thus, a full academic year enabled working within the varying scales at deeper levels. 35 projects by 70 students were produced at the end of the year for the same building, which was a historical one in Çeşme, İzmir-Turkey. The adaptive reuse project was undertaken by an architectural restoration firm that delivered rich demonstrations of how to approach similar projects that interior designers often come across. Each project was unique and the average quality,

success, and feasibility of the projects were quite high, and were supported with a comprehensive understanding of the interior design process. The skill of working together with architects, landscape designers, industrial designers, lighting and textile designers may be improved with a more advanced understanding of the means by which they work, and this was the aim of this studio. The paper presents examples from projects with an aim to showcase an approach to interior design studio education that is stretched over a larger period of time than is generally applied that enables an in-depth analysis of the brief in question, as well as a framework that not only includes the interior scale, but also larger and smaller scales that involve overlapping fields of design. The approach is believed to be helpful for interior design educators and professionals alike.

2. Material and Method: Experiential Interior Design Studio

Design studios are assumed to be the core of the curriculum in interior design education, where designing is a matter of analysing, synthesising, evaluating and presenting ideas for a creative solution (Crowther, 2013; Demirkan & Afacan, 2012).

The experiential aspect of interior design is an essential part of the profession. This can be defined as the practice of employing human-centered, experiential values in interior design (Ahmad, Sosa & Musfy, 2020; Iranmanesh & Onur, 2021). The approach is based on environment-behavior studies (EBS) / environment-behavior research (EBR), and involves sensorial, emotional, intellectual, pragmatic, social, and cultural experiences. Therefore, the process of including experiential values in interior design requires understanding the users and/or visitors and involves the related fields to interior design such as; architecture, industrial design, product design, landscape design, graphic design including corporate identity and wayfinding, and brand experience design.

2.1. Turning Spaces into “Places”

Regarding experiential design, a model that can be particularly useful as an educational tool, especially because of its simplicity, was Don Norman’s Three Levels of Design. Although the model does not particularly focus on interiors; the concepts Norman discusses can be applied to a variety of areas of design. Norman has written countless articles and books on experiential design, interaction design, and emotional design, some of which are, *Emotional Design: Why We Love (or Hate) Everyday Things* (2005) and *The Design of Everyday Things* (2013). In his model that presents the Three Levels of Design, Norman talks about the areas in people’s minds that are responsible for emotion, shaping the emotional system (2005).

For Norman (2005, 2013), the system is made up of three different and interconnected levels which are; the Visceral, Behavioral, and the Reflective. Briefly, the Visceral Level is about the automatic response we have towards a designed artifact or environment, the Behavioral Level is more controlled and is about how one interacts with the design, and the Reflective, as the name suggests, is the reflective assessment of one’s interaction and experience with the design after coming into contact with it. When one applies this to interiors, one can imagine the first and immediate reaction to a space, the body’s movement within it, and one’s reflections about a space before, during, and after use and all three levels form a complete interior experience (Norman, 2005, 2013). This approach that prioritizes experience over professional boundaries, can be likened to the concept of “placemaking” (Deasy & Laswell, 1985; Kent, 2016), where created individual and collective meanings are significant and are the main focus (Tuan, 2001). For Tuan (2001), place represents attachment and security and space represents longing and freedom, and only place comes with connotations, passage of time, as well as experience. This experiential focus of turning an objective space into a meaningful place is thus at the core of the need for a holistic approach to interior design.

2.2. Holistic Interior Design Education

“Gesamtkunstwerk”, meaning a total work of art, has often been used in reference to architecture. Although the term in this context goes back to the late 20th century, the understanding of a complete and comprehensive work where engineering, architecture, interior design, art (including painting and sculpture), may be found in artists such as Michelangelo’s work during the Renaissance (Finger &

Follett, 2011; Roberts, 2011). The need for a more holistic approach that involves the “aesthetic”, “political”, and “metaphysical”, that refers to utilizing mixed media, combining art and life, and an inclination towards spiritual, non-physical aspiration referring to creation of meaning that comes from experience (Finger & Follett, 2011). For interior design, this approach gains particular significance as the profession relies on creation of space that users inhabit realizing their lives, creating meaning with a sense of attachment and belonging. Therefore, an experiential space can only be created and is valid with this holistic approach that necessitates the working together of different design disciplines under a meaningful story the concept.

In the interior design studio, and specifically the second year when an understanding of what the concept is and how it works can be achieved in a stretched period of time, discussing several aspects of the project; abstract and concrete; in various scales, and through working with others in teams and as part of the larger interiors community (Hennessy & Murphy, 1999). The following project aims to explain how these characteristics have been applied in the second year interior design studio.

2.3. Interior Design Studio Case: Experiential Museum Project

The project explained as an example for the mentioned concepts is elaborated below in terms of project brief, method, and approach.

2.3.1. Interior design project brief: “*experiential interior design of a museum for the senses*”

The focus of the second year in this particular program is to learn to develop a **conceptual idea or concept** that defines and guides designer’s decisions. Within this context, this semester, in the studio, students were expected to design an “**experiential museum for the senses**” which would house permanent and temporary exhibitions. Students were expected to do research on museums around the world, choose a topic for the exhibition, and design an interior that presents the topic through the senses. In this sense, the following steps were undertaken; Finding an artist, artworks or conceptual topic that was engaging for students and moved students emotionally and that stimulates a sensory experience under one overarching theme. This was followed by; defining a framework that would guide the artworks conceptually, which later became the “concept”. Then, artworks were selected according to this concept. The requirements then included displaying the artworks within the given interior in a way that engaged all senses.

Another additional and current issue to consider was that interiors have gained specific significance during the COVID-19 pandemic. Therefore, additional research was necessary in terms of possible ways in which the pandemic may affect our lives, appreciation of artwork, and museums in the future. Moreover, in this era, *security* is a crucial issue, so this aspect was included in the projects as well. This year students delved into the interior, designing every aspect of the project space and environment. This is the time in which students experienced the core of the profession, when they designed and selected textures, colors, furniture, lighting fixtures and got to reflect the concept to each decision related to the projects. This is when they also explored the possibilities in terms of defining themselves as a designer (as part of a team) and creating a *design language* for their spaces.

2.3.2. A four stage interior design process

The four stage interior design process approach was refined over a time period of 14 years, and began to be used in this particular format for five years. It is observed that the clarity of the stages is helpful for the students progress within the semester as a skill they can carry to upper years and to their professional lives. The structure has been useful to the instructors as well as there is less intermediate grading and assessment, and more a focus design. The assessment at the end of each stage is successive, in that one stage is conclusive within itself however, builds up upon the previous stage. Therefore, at the finalization stage, all stages can be observed as complete entities as well as how they advance during the process. Both semesters had four stages within themselves; differing in their focus, but similar in terms of the abstraction and realization level required at each interval. This is detailed below as individual semesters.

2.3.2.1. First semester focus

Within the aforementioned framework, the stages of the first semester followed as;

Concept: Research and elaboration of the concept; with examples on what this means for the countless decisions to be made inside the space. Developing moodboards to reflect the atmosphere of the space through interior elements.

Interior-Exterior Connection: Design of the close surroundings (landscape, flags, seating elements, open-air exhibitions, various plants), leading into the interior, also connected visually by users of the building, developing alongside the interior.

Detailing of the Interior: All interior decisions from abstract to concrete, large to small, such as, all materials, furniture, natural and artificial lighting, daylight control, equipment and devices, all the way to doorknobs and artwork, integrated within the interior.

Finalization: Completion of the whole volumetric space from the concept stage to detailing stage.

Within the project scope, the following issues were discussed;

- The complex relationships between the senses and interior design remain elusive. We need to take the five senses (sight, touch, smell, taste, and hearing) into consideration to create original spaces.
- The five senses are key in the experience and expression of the interior decisions.
- Sensory experiences.
- The complex relationship between the senses and the interior from all anthropological, historical, geographical, political, and social points of view.
- Original forms of knowledge about the senses and interior practices.
- Sensory schemes for planned effects.
- Relations between senses, memory, and the interior.
- The means by which interior space invites the senses.
- Furniture, colors, materials, lighting, fabrics, technologies that heighten the sensory experiences of the interior.
- Pedagogical aspects of the museum and spaces that might enhance them like performance, collaboration, discussion, gathering spaces.

Levent and Pascual-Leone's (2014) book on multisensory museums provided insight into the project as they discussed the changing definition of the museums of today. They state that;

"Today's museums are much more than repositories of ancient artifacts to be preserved for the future, although collection care remains a critical function in any museum. They are centers of learning, community centers, social hubs, even places of healing and contemplation. Museums reach out to their communities by facilitating important and relevant conversations through their collections and exhibits, and by making the objects in their collections accessible and meaningful to a wide variety of visitors. Many exhibits focus on the materiality of a single object and help visitors connect with the sensory properties of historic artifacts, their context, and the stories behind them." (Levent & Pascual-Leone, 2014).

The authors discuss the role of museums today as mere collections of ancient artifacts, although this is undoubtedly still significant. The museums of today carry the active function of being social centers of learning, healing, and contemplation that spill over their boundaries reaching to the public. Museums need to adapt to the current needs, helping visitors connect with the sensory aspects of the collection, creating meaning and multilayered immersive, relaxing, educational, social learning experiences through stories and representation, aiming to become knowledge-based memories of significance that enable shaping visions and predictions (Levent & Pascual-Leone, 2014). Empathy,

physical and physiological responses, identification, feelings of a fellow human being, exploration, curiosity filled emotions (Koppen & Meinel, 2015; Zingoni, 2019) were discussed within the semester and the means by which they extended into spatial decisions. Among examples of engaging and experiential artwork; Erwin Wurm, *One Minute Sculptures* at Tate Modern, 1997; artwork at the Yellow Brick Road Gallery; UNIQLO Tate Play: Ei Arakawa's *Mega Please Draw Freely Picnic* at Tate Modern; Anthony Gormley, *One and Another*, 2009, when 2400 people stand on the 4th plinth in Trafalgar Square, becoming a living sculpture; and Richard Serra's work such as *The Matter of Time*, Guggenheim Museum, Bilbao, 1994-2005, can be mentioned. Similar works were discussed in detail in the studio.

2.3.2.2. Second semester focus

Within the same framework, in the second semester, students were expected to continue with the same project, however, with a more distinct focus on realization of the concept chosen for the project and detailing of the decisions. Students who were irregular having not taken the first semester and students who were not able to continue working with the same team member due to one of them dropping the course were few and these issues were covered by providing additional support to the students to bring them up to date. In this semester, students were expected to bring to life the concept they had created for the experiential museum in the Fall semester. Students needed to make several decisions at a variety of scales in their projects, starting from the largest (close surrounding, landscape decisions), to the smallest (furniture, accessories, equipment, lighting and details).

While the focus of the first semester was to create a conceptual idea connected to the chosen artist and museum function and use of the building, in the semester that followed, students delved into the interior, designing every aspect of the project space and environment. The second semester is equally important as the preceding one, because this is the time in which students experience the core of the interior design profession, when they design and select textures, colors, furniture, lighting fixtures and get to reflect the concept to each decision related to their projects. This is also a time when they explore the possibilities in terms of defining themselves as a designer, as well as part of a team, and creating a design language through detailing and application for the space. The stages of the first semester followed as;

The First Impression, Entrance: Elaborating on the concept from the previous semester; with examples on what this means for the countless decisions to be made inside the space, students were expected to realize their previous selections. Students had already presented their initial ideas for the surrounding of the building. However, the connection to the interior had not been designed in detail. This meant; the area leading up to the door, security, wind barriers, welcoming area, lockers etc. Therefore, in the first stage, students prepared their Scheduling: Preparing Gantt Charts, defined the Entry threshold (interior-exterior), and designed the Security area (personnel and security space), wind barriers, welcoming area, locker selections.

Conceptual Development and Representation of Exact Artwork: In the second stage, students were required to select the **exact artwork** that will be exhibited in this space and design the atmosphere accordingly. They developed perspectives and moodboards to reflect the atmosphere of the space through interior elements. They first needed to design the experience through the artwork, then they detailed the design of the exhibition route and the necessary atmosphere (including general lighting), and lastly, they included all definitions in the 1/50 models.

Detail Connections of the Interior: The third stage involved, making all interior decisions from abstract to concrete, large to small, such as, all materials, furniture, natural and artificial lighting, daylight control, equipment and devices, textiles, all the way to doorknobs and artwork, integrated within the interior. Moreover, real material choices (starting with floor, wall, and ceiling relations) needed to be made. Lastly, the real connection details related to exhibition display (through system sections; 1/20, 1/10, 1/5, 1/2, 1/1).

Finalization: In the final stage of the semester as well as the academic year, the completion of the whole volumetric space from the concept stage to detailing stage needed to be realized.

Within this context, students were expected to do research on; the senses; scale and proportion; landscape elements, outdoor uses, and plants; all design decisions individually, based on their concept;

various artists, art works, art museums, curatorial practices, and exhibitions around the world; the chosen concept and spatial reflections on characteristics; the existing building, surrounding, and its characteristics; public events, meetings, gatherings that may be held at the museum; interior functions and related design decisions; and user and target profile.

Students then analyzed the existing building and its entrance area (design principles, architectural structure and spatial quality) and presented their interpretations of the space fully with models, photographs, sketches, inspiration and concept boards, research, material choices and specifications, details, and a fully detailed and rendered drawing set in the required scales. Moreover, they responded to public and private space and program requirements. Regarding the public requirements; students were responsible for planning of the whole sensory museum for its guests, part-time personnel, and events, starting from the approach to the building, to the exterior-interior connection, and interior spaces.

Furthermore, since the public welcoming area was the space for reception of visitors coming for a variety of cultural events and activities, and acted as the place that created a “first impression”, the physical characteristics of this area may easily reflect on how the museum is perceived, and therefore carries great significance. This area was designed including the Entry area/ Security, Reception area, Resting-meeting areas, Waiting areas, Exhibition or other specialized areas, Library, Office area, Kitchen(s), Restroom(s), Storage for personal belongings of visitors, Various storage spaces, Other specific needs according to students’ scenario, as well as all related interior elements. Regarding the private requirements; the Entry area/ Security, Offices and other working spaces, Storage for personal belongings of visitors, Various storage spaces for artwork, maintenance supplies etc., Other specific needs according to their scenarios, and all related interior elements were expected.

When students were writing their scenarios for interior programming purposes, they considered; Privacy issues (Visual, Audial, and other), Exterior-interior connection and planting solutions, Approach to the building and facade expression/ characterization, Wayfinding-circulation, Understanding the function of an experiential art museum, Creation of an identity, Planning and Programming, Connections between spaces, Scenario (according to the user profile), Whole volumetric space, Artwork, Lighting (Artificial lighting and Daylight), Surfaces including the floor, the walls, the ceiling (new boundaries could be defined by the proposal), Furniture, Materials and Textures, Color, Connection details, as well as HVAC, plumbing, acoustics.

The project building was located in Çeşme-İzmir, Turkey and was a historical building by the coastal city center. The building had additions to it constructed at different times (Figure 1). It was used previously as a dock, storage, and more recently as a restaurant. Students were expected to visit the building and survey it fully. In addition, they were expected to visit the building repeatedly, as it was believed that they would realize that they would learn something new every time. They were warned to make sure to take their tape measure, camera, drawing pad, masks, and disinfectant with them and due to the pandemic, they also needed to get a health code to visit any public building, so they were expected to get this beforehand.



Figure 1. Adaptive reuse of historic building in Çeşme, restored by Umart (Authors, 2022)

The project began by doing research on artwork and a museum that is engaging to students as a team and that influenced the senses. Students first researched and selected a museum. Then they analyzed

the history, location, design, layout, and collection of the museum. Students used keywords and necessary descriptive text. The keywords should have meaning in terms of developing the choices. They needed to help students describe, define, and decide. Furthermore, a collection of inspirational photographs of museums, exhibitions, and interior elements (not spatial ones that include large portions of an interior including several elements, but details, objects...) were required. This was followed by research and selection of artworks under a defined concept.

The projects were evaluated according to the; Elaboration of the concept and reflection on all decisions of the project, Definition of the scenario that is parallel to the design decisions, Understanding the senses and interaction with interior design, Depth of analysis and research on the chosen artist and artwork, Understanding of the workings of a museum, Success in use of design principles and spatial knowledge, Innovation, Functionality, Feasibility, Aesthetic Values, Presentation, and following the scheduled program.

3. Results and Discussion

3.1. Project 1

First semester:

The first project is a public museum with a minimalism concept and inspired by Ellsworth Kelly. Inside the museum, there are examples of Ellsworth Kelly's artworks as well as other minimalist works inspired by his works. The purpose of these exhibitions is to introduce people to minimalism and the works of one of the leading artists of this movement, such as Ellsworth Kelly. After analyzing the history, location, design, layout, and the collection of the museum, the students designed bubble diagrams and the site plan.

In this project, the interior-exterior connection was continuous in accordance with the concept. Colored panels inspired by the artist's works exhibited indoors were also used on the exterior of the building. In the bubble diagram prepared according to the concept, the ground floor consists of the entrance (info desk), three exhibition areas, video room and presentation area, museum shop, stairs and wet areas and the mezzanine floor consists of an office, staff room and security room. After completing the two stages, students started to design details of the interior.

The cross and the longitudinal sections and ground and mezzanine floor plans are designed in the 1/50 scale. The material board was prepared according to lecture in class, using actual materials. In the Finalization stage of the project, students were asked to 1/50 scaled and dimensioned plan and sections, complete 1/50 scaled model, material board, isometric drawings draw by hand (1/50 scale), and perspectives (Figure 2).

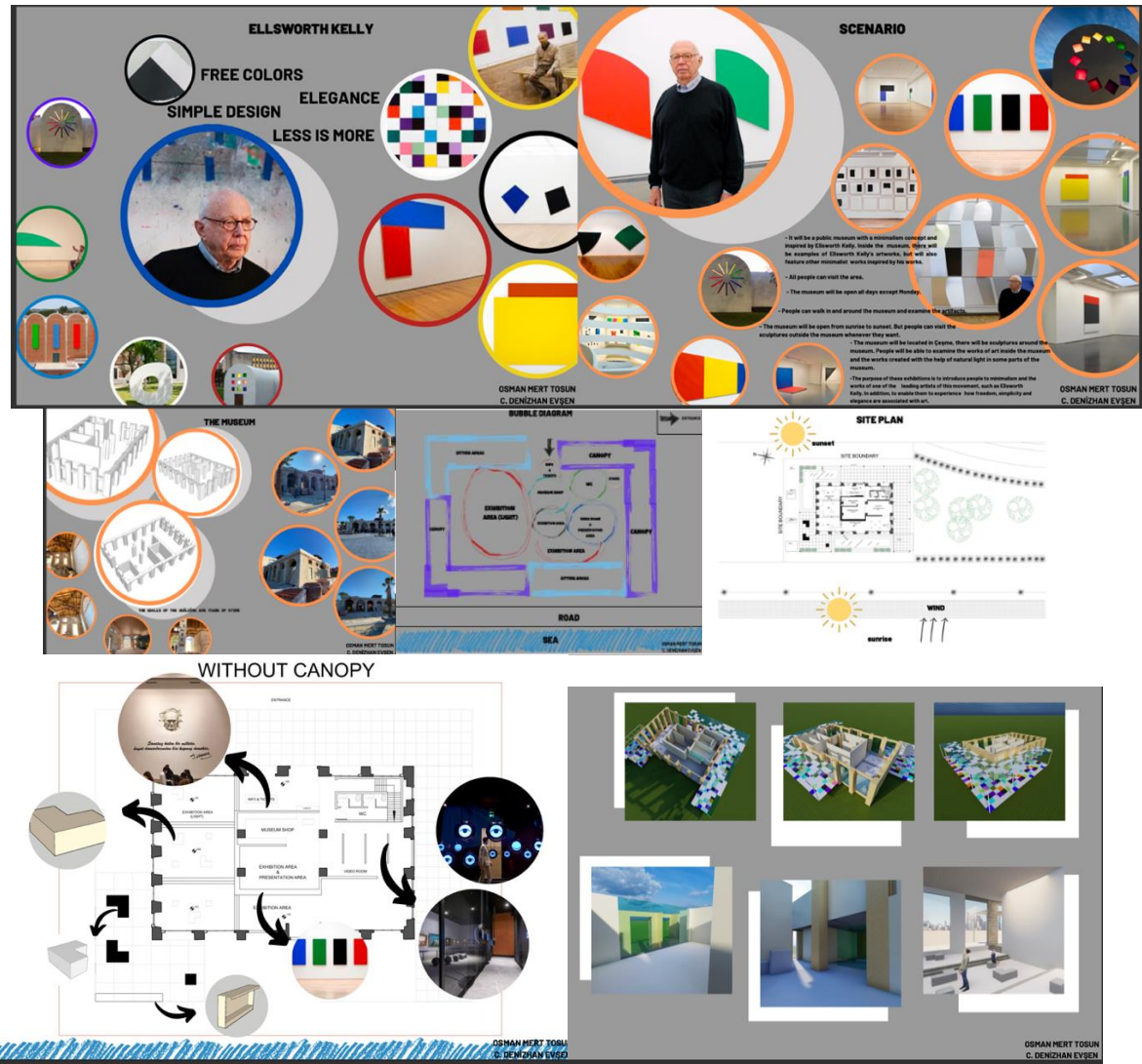


Figure 2. Project 1 Conceptual Research and Drawings

Second Semester:

The first stage started with a first impression and the detail of the entrance. The main entrance consists of info desk and the area where the works will be exhibited on the walls. Security take place also there. It is aimed to provide the starting point of the circulation. Entrance was designed with the colorful grid glazing to present first impression to the visitors and reflect the concept. In addition, models, plans and sections continued to be developed. A Gantt Chart was prepared for scheduling. In the second stage, the students selected the exact artwork that would be exhibited in the museum, which were both paintings and sculptures of Kelly. This necessitated research into exhibiting both two and three-dimensional artwork, and how this might be a basis for decisions within the space, such as a grid layout and cubic furniture pieces. Solving the detail connections of the interior is the third stage, and the students reflected their modular and systematic layout to the info desk and staircase details, and lighting scenarios. The project allowed for visual connections within the various zones both horizontally and vertically. This enabled the interpretation of the concept, resulting in a variety of experiences. While the mezzanine floor was designed for staff, the ground floor was designed as the exhibition areas for ease of access and control. Beginning from the abstract to the smallest detail, and including landscape and façade design, this project represented a thorough understanding of the approach to the professional network of the design process and the role of interior design within this framework by the students (Figures 3 and 4).

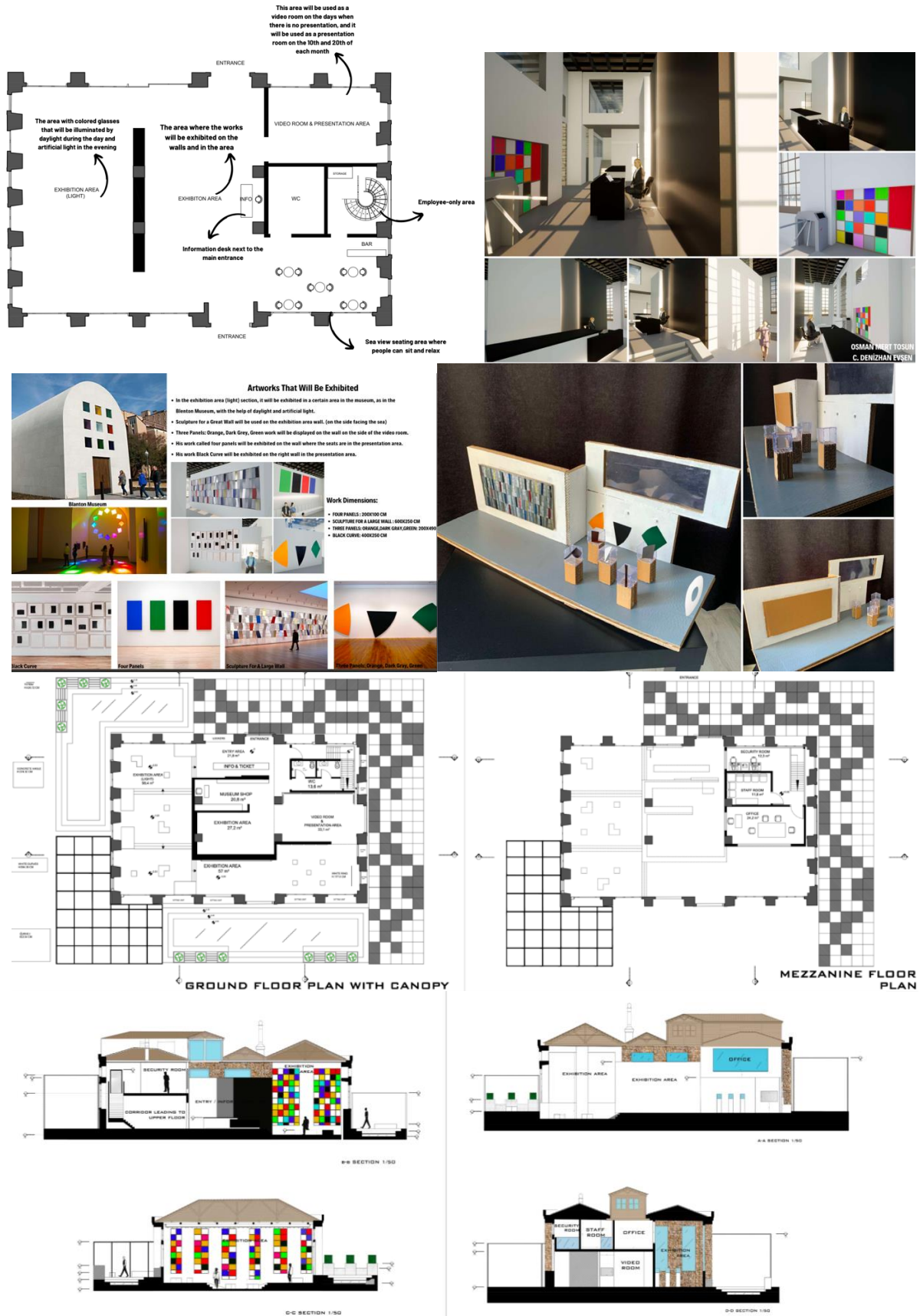


Figure 3. Detailed rendering drawings, plans and sections, and 1/20 model

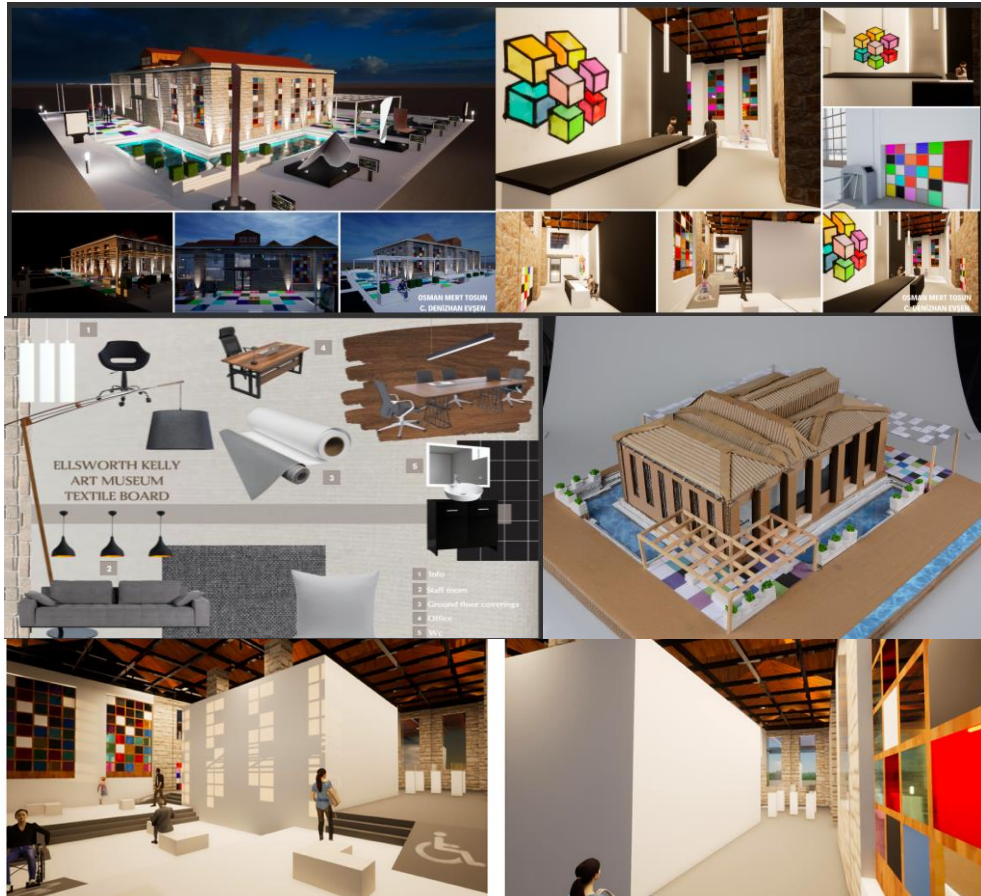


Figure 4. Detailed rendering drawings, material board, and model

3.2. Project 2

First Semester:

Project 2 is a Salvador Dali Museum inspired by Surrealism. In the concept stage, the students were asked to prepare the keywords, scenario, and concept statement. The project keywords were defined as; bold, contrasting, texture, dynamic, innovative, and transparency. The concept behind the students' design was to create a contrast between the used materials, which are already in use in the structure. The moodboard reflected common features of Dali's artwork and museums. They realized from looking at the existing museums that, the exterior-interior connection was specifically significant in their case. Natural and organic forms, represented through fluid lines and shapes could be observed from the initial idea to the realization in the landscape as well as the interior.

Linen curtains were used for the exhibition areas. In the final stage, it can be observed that the students consistently maintained the Surrealism and Dali effect in every stage and detail of the project, from the plans to the sections, from the details to the materials. In the plan, the lower floor plan consists of entrance, info desk, projection space, exhibition space, café and souvenir, wet areas, and storage spaces. The mezzanine was designed for more specialized use; the café, workshop and staff office were on this level with visual access (Figure 5).

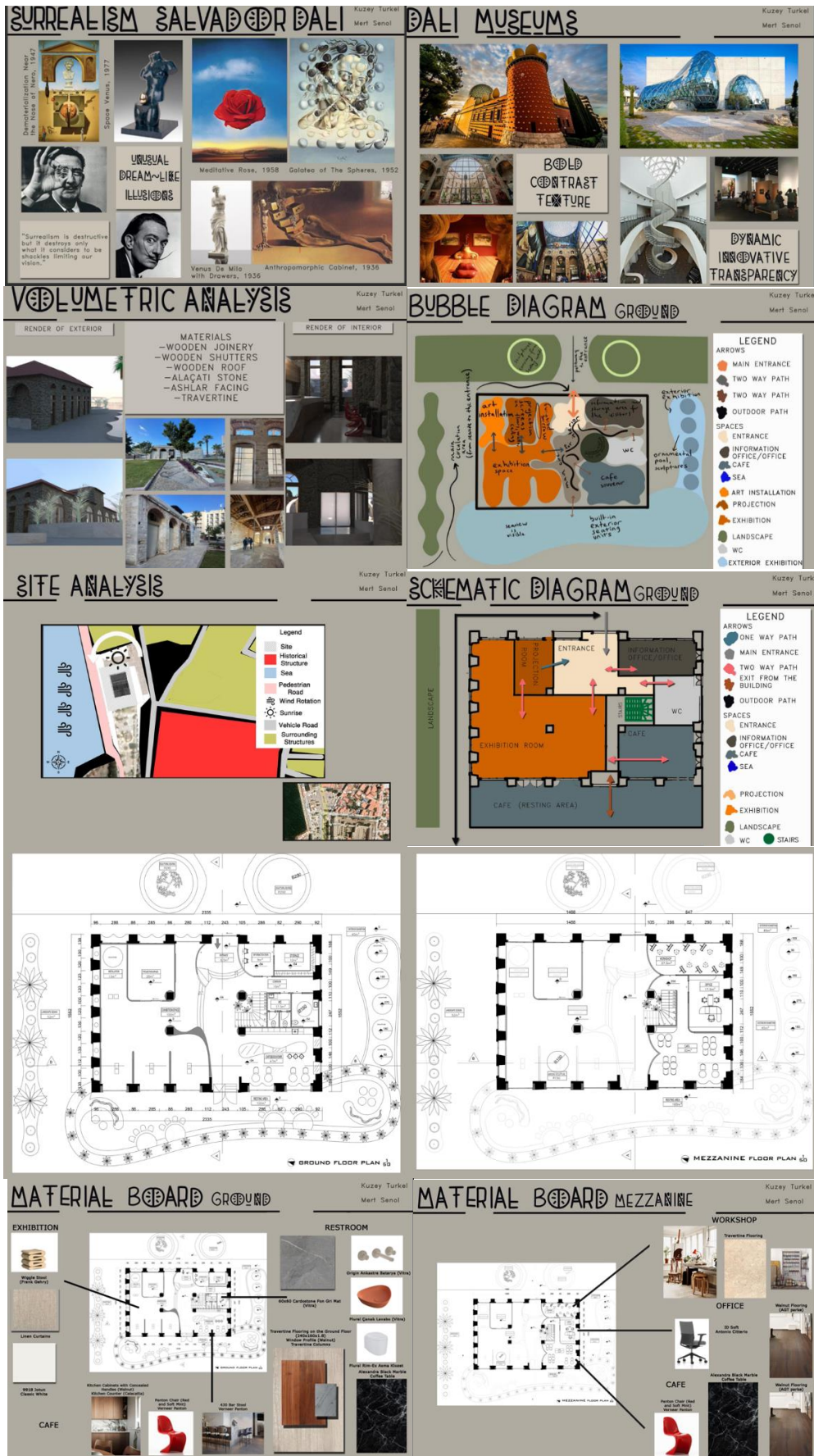


Figure 5. Conceptual research and plan development from abstract to concrete

Second Semester:

In the second semester of the studio, the first stage began with the first impression and the detail of the entrance, where the fluidity connected the exterior to the interior, beginning with the landscape and continuing with the flowing lines of the separator walls. In the second stage, the exact artworks that were chosen were located for impact and visitor experience. For the detailing stage, the information desk, stairs, exhibition details were given in a 1/20 scale. Students planned the lighting scenario and created museum lighting fixtures inspired by Dali's paintings, as well as creating the special details and the textile board. In the finalization stage, the students comprehensively finalized, all of the previous stages, focusing on reaching a harmonious language that represented their initial keywords and decided Surrealist concept in all outputs of the project, beginning from the impact and identity of the building from a distance, with drawings (plans, sections, elevations), details, renderings and model. The holistic approach of the studio could be seen in their awareness to the design process (Figure 6).



Figure 6. Final boards, details, lighting scenarios, and model

3.3. Project 3

First Semester:

Project 3 is a minimalist design museum containing Robert Morris' works. This group gave specific care to the harmony and identity of the design of their boards and other project outputs, which was a core requirement of the project brief. In the concept stage, the students designed moodboards representing the minimalist approach in Morris' works and represented these in the concept and scenario. The main concept behind the design of the project is absolute harmony that adds value and meaning to our lives, removes unnecessary things and makes the space feel elegant and relaxing with clean, simple lines. Second, they created a 3D sketch and model of the project. It was clear from the beginning that they would be working with the type of geometric shapes that was prevalent in the

artist's own work, such as L-shapes and massive three dimensional elements, making all decisions such as landscape, layout, spatial configurations, furniture selections, as well as detail solutions accordingly. In the Interior-exterior connection stage of the project, the students researched the site analysis of the building and according to the site conditions of the building they designed the bubble diagram. After the bubble diagrams, the schematic diagrams are shaped in line with the concept statement and the scenario of the museum, which represented the initial chosen geometries both on the ground and mezzanine floors. The ground floor consists of entrance, welcoming area, information desk, exhibition areas, workshop area, corridors, wet areas and the mezzanine floor consists of offices, a special exhibition area and personal wet area. The isometric perspective was drawn by hand and the renders were created (Figure 7).



Figure 7. Conceptual research, scenario, site analysis, and initial layouts

Second Semester:

The museum plan was prepared based on the L-shaped works of Robert Morris. In the first stage of the second semester, as a first impression and entrance area, there is a welcome and information area and stairs to the mezzanine floor. The doors of the museum open to the welcoming area. The information desk and the vertical wooden pieces painted white on the wall behind it have the name of the museum written in LED lighting. The exterior façade was drawn also in this stage reflecting the old identity of the building combined with a pure approach with subtle lighting and smooth white surfaces. The exact artwork was chosen and route was designed with a strong connection between the inherently spatial artwork and the history of the building. In the third stage, the details are decided were drawn as the characteristic detail connections of the interior (suspended ceiling, step detail, steel joint detail and L-shaped column detail). According to lighting scenario, the lighting was a special focus in this project, creating the calm atmosphere that was related to the concept. In the Finalization stage of the project, students completed the plan and sections, complete 1/50 scaled model, material board, isometric drawings (1/50 scale) and perspectives, overseeing the whole design process and extending their initial idea to each decision. Plans, sections and model were finalized, balancing the massive forms with linear elements connecting the exterior to the interior. This project represented a comprehension of the holistic approach which was the aim of the studio (Figures 8 and 9).

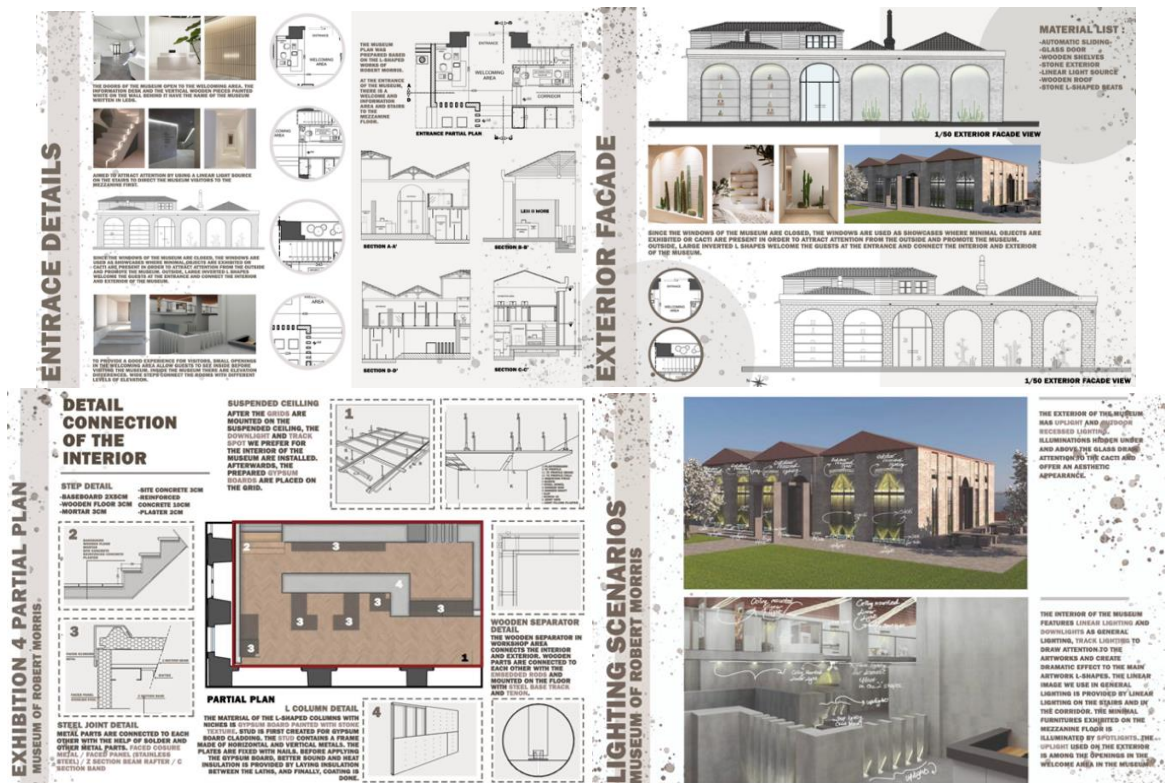


Figure 8. Details and lighting scenarios

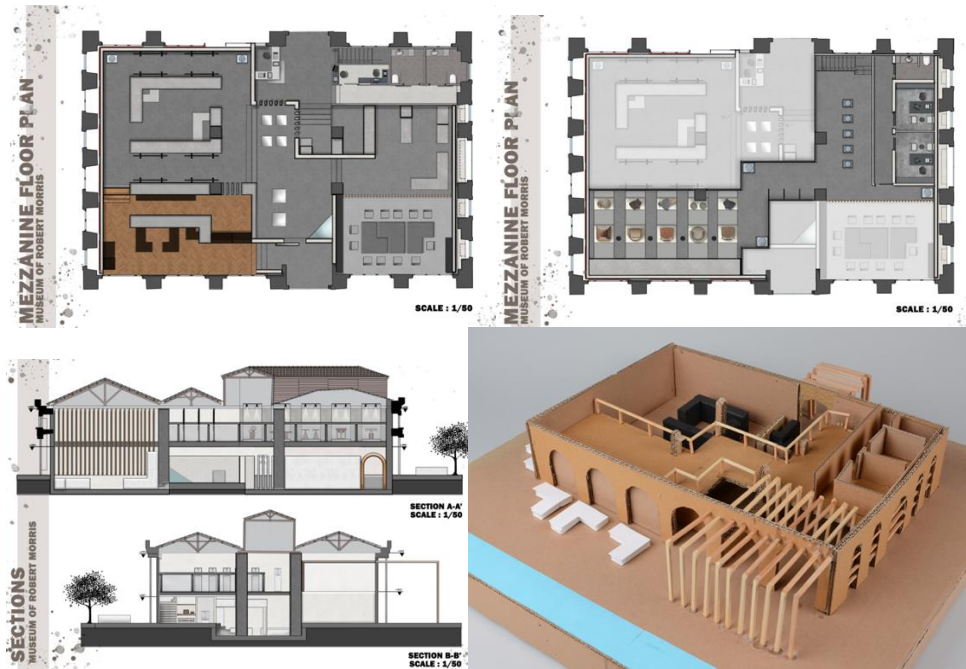


Figure 9. Plans, sections, and model

3.4. Project 4

First Semester:

Project 4 is an art museum for Ernesto Neto's works, inspired by nature. In the first stage, the aim was to immerse visitors to an experience of intense sensory stimuli and visual, tactile and olfactory suggestions and inviting them to escape from the everyday and experience the art with all senses. The first stage reflected the students' wish to create focal points in the interior that was inspired by Neto's works formed of colorful and organic nets formed within the space. The main focal point was decided to be at the center of the building and other decisions in an surrounding the building also echoed this decision. The research stage showed that the artwork of Neto was usually exhibited in spacious interiors devoid of obstacles and color, so that the works would stand out. In the detailing stage, the students researched materials, created material board according to their concept and scenario, which consisted of decisions derived from the artist's works, involving color and texture. In the Finalization stage of the project, the students represented their ideas in full color, depicting the atmosphere of the envisioned space through the boards. Special care was given by this group to the involvement of the visitors as the artist's works are quite tactile and absorbed through tactile experience. All students were encouraged to use initiative and produce more than the requirements and this group was one that realized that in the most productive way (Figures 10 and 11).



Figure 10. Conceptual research and site analysis



Figure 11. Plan development, sections, material board, and rendering drawings

Second Semester:

The first stage focused on the entry which included a transition from a more orderly exterior to the textured and colorful interior. Students placed the largest artwork at the center, becoming the focal point and placing a ramp around it so that it could be experienced from different angles and viewpoints. The Gantt chart prepared was detailed enough to include both the design and imagined construction processes, and was checked throughout the semester. The second stage included the selection of the exact artworks to be exhibited in the space, and the artwork display area partial plans and sections were drawn accordingly. All decisions included curvilinear lines, including the detail connections, which comprised the third stage. The details connection of the interior (door and window) was drawn and the lighting scenarios and ceiling plan were designed and according to lighting scenario, the lighting fixture material board was prepared. The final stage showed a pure and flowing space that connects from one zone to another in an organic yet hierarchical manner. The students were able to grasp the necessary requirements of the project and represent them in a creative way (Figures 12 and 13).

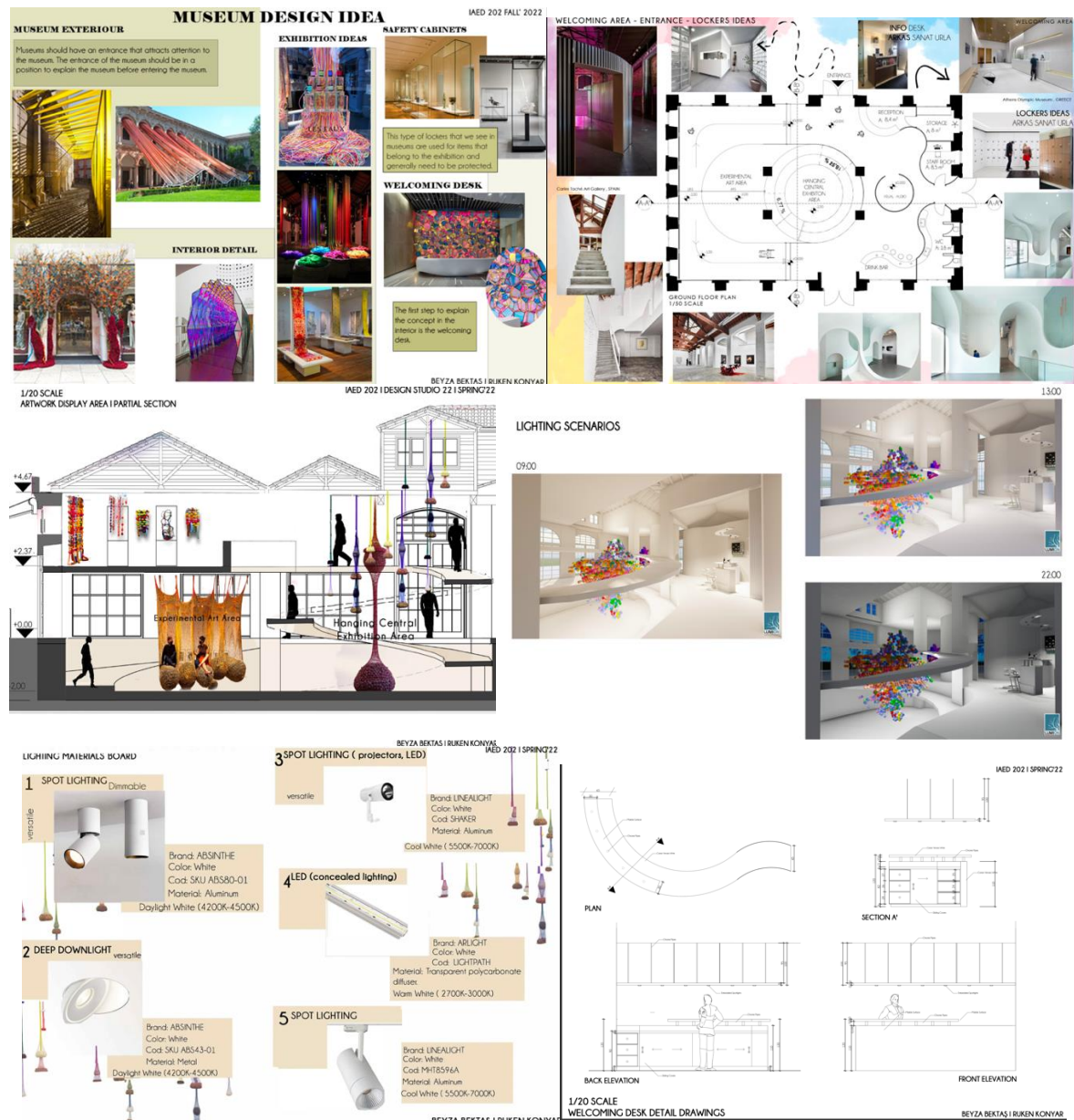


Figure 12. Visitor experience routes, details, and lighting scenarios

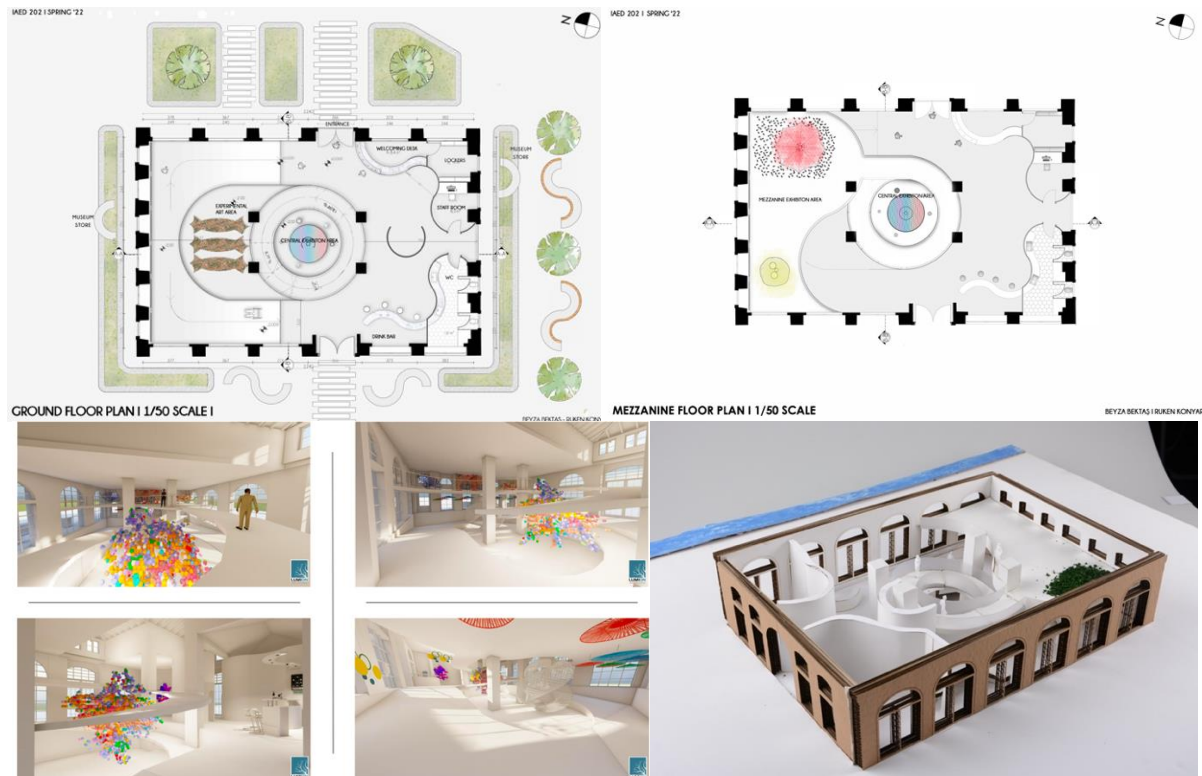


Figure 13. Interior perspectives and model

4. Conclusion and Suggestions

The four projects briefly depicted in the confines of the paper highlight the relevance of the scale in interior architecture education and the importance of defining and applying a concept to an interior architectural project. The way that the course was structured has guided students to pace the phases of the design and to give them the tools to achieve the requirements of each stage. Indeed, the students were able to approach the project vertically, from a conceptual to a concrete point of view. This is crucial for sophomore students, who are asked to design a complex interior project for the first time. This was found to be an effective way to set a frame of mind. Indeed, students from the following years confirmed that this method has been beneficial and they tended to retrace it autonomously during the third and fourth-year studios. Therefore, this method was very fruitful in setting the foundation of the design process. Students were encouraged to revisit the building, engage in continuous research, and use initiative to bring additional project outputs like drawings and models of varying scales. The aim here was to stress that design was an ongoing process that was enriched with curiosity, knowledge, and creativity.

The first stage, during which the students were asked to create mood boards to envision the characteristics of the future space, gave the opportunity to not focus only on a feasible layout solution, but to create a vision for the space that is capable of carrying meanings and speak for itself. This was essential to design meaningful spaces and to encourage the students to plan and think at multiple scales before actually starting to design the space. In fact, at this stage, the students were not asked to deal with the architectural scale or to come up with a layout. With this method, the students were guided toward a richer understanding of the project, and a more in-depth analysis that set the path for the upcoming stages. Creativity was enhanced with the ideation of the concept and the way it was applied during the design of the interior spaces. A successful interior project needs to set strong connections with the surroundings. Therefore, during the second stage, it was ensured that the students had a good understanding of the elements that exist and installed a connection with the project. In addition, the students got accustomed to the large scale and started drawing a first proposal according to their initial concept. This stage enabled the students not only to design the wayfinding but also to interpret the surroundings and take decisions according to their concept.

In the following stages, the project was developed at smaller scales and interior architectural details started to be designed by the students. One of the main challenges for the students was to understand the importance of the details and to include such design decisions in the projects. Although the students could understand and research existing detail, they had difficulties in applying this knowledge in their project as their understanding of construction and materials was still superficial. In order to overcome this limitation, in the second semester, they were asked to produce a detailed model of a particular part of their project. This was beneficial to making students understand how structure and the materials come together. It emerged that the greater obstacle for most of the students is the lack of skills in the orthographic representation of the details. Having a model in front of them helped students to transfer the information into technical drawings.

Throughout the year, the students have worked with several representation techniques to accommodate the project requirements. Working in teams helped the students to understand their strengths and weaknesses and promoted collaboration among the team members. Working together with another student was a very effective way to create a positive peer-learning environment in class – not only among the team members but also among students. This aspect is important as interior architecture is a discipline that interconnects several fields and the ability of the architect to collaborate with a colleague or an expert is something that is often experienced after education.

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Author Contribution and Conflict of Interest Declaration Information

All authors contributed equally to the creation of the projects and there is no conflict of interest.

References

- Abercrombie, S. (1990). *Philosophy of Interior Design*. Oxford: Westview
- Ahmad, L., Sosa, M. & Musfy, K. (2020). "Interior design teaching methodology during the global COVID-19 pandemic" *All Works*. 2067.
- Afacan, Y. (2016). Exploring the effectiveness of blended learning in interior design education, *Innovations in Education and Teaching International*, 53:5, 508-518.
- Alawad, A. (2021). Evaluating online learning practice in the interior design studio. *International Journal of Art & Design Education*. 10.1111/jade.12365.
- Bhattacharjee, S. (2019). Using a hybrid pedagogical method in undergraduate interior design education. *Design and Technology Education: an International Journal*, [S.l.], v. 24, n. 2, p. 93-109, July 2019.
- Broadfoot, O. & Bennett, R. (2003). Design studios: online? Comparing traditional face-to-face design studio education with modern internet-based design studios, *Apple University Consortium Academic and Developers Conference Proceedings*, s. 9-21.
- Crowther, P. (2013). Understanding the signature pedagogy of the design studio and the opportunities for its technological enhancement. *Journal of Learning Design*, 6(3), 18–28.

- Deasy, C. M. & Laswell, T. E. (1985). *Designing Places for People: A Handbook on Human Behavior for Architects, Designers and Facility Managers*. Broadway, New York.
- Demirkan, H. & Hasirci, D. (2009). Hidden dimensions of creativity elements in design process. *Creativity Research Journal*, Vol. 21, No. 2-3, 294-301.
- Demirkan, H. & Afacan, Y. (2012). Assessing creativity in design education: Analysis of the creativity factors in the first year design studio. *Design Studies*, 33, 262–278.
- Erdman, J. & Weddle, R. (2002). Designing/building/learning. *Journal of Architectural Education*, 55(3), 174– 179.
- Finger, A. & Follett, D. (eds.) (2011). *The Aesthetics of the Total Artwork: On Borders and Fragments*, *The Johns Hopkins University Press*.
- Harwood, B. (2013). NCIDQ's Early history: important developments from 1970 to 1990, *Journal of Interior Design*, 10.1111/joid.12006, 38, 2, (15-33).
- Harwood, B. (2008). An interior design experience program, Part II: Developing the Experiences, *Journal of Interior Design*, 10.1111/j.1939-1668.1996.tb00223.x, 22, 1, (15-31).
- Hasirci, D. & Demirkan, H. (2007). Understanding the effects of cognition in creative decision making: A creativity model for enhancing the design studio process. *Creativity Research Journal*, 19(2-3), 259–271.
- Hennessy, S. & Murphy, P. (1999). The potential for collaborative problem solving in design and technology. *International Journal of Technology and Design Education*. 9. 1-36. 10.1023/A:1008855526312.
- Iranmanesh, A. & Onur, Z. (2021). Mandatory virtual design studio for all: exploring the transformations of architectural education amidst the global pandemic. *International Journal of Art & Design Education*. 40. 10.1111/jade.12350.
- Kent, F. (2016). *Placemaking: What if we built our cities around places?* *The Project for Public Places*. www.pps.org.
- Konkel, M. T. (2014). Build-to-learn: An examination of pedagogical practices in interior design education. *Journal of Interior Design* Volume 39, Issue 2 p. 1-16.
- Koppen, E. & Meinel, C. (2015). "Empathy via Design Thinking: Creation of Sense and Knowledge." In *Design Thinking Research: Building Innovators*, edited by H. Plattner, C. Meinel, and L. Leifer, 15–28. Cham, Switzerland: Springer International Publishing.
- Levent, N. & Pascual-Leone, A. (Eds.) (2014). *The Multisensory Museum Cross-Disciplinary Perspectives on Touch, Sound, Smell, Memory, and Space*. Lanham, MD: Rowman & Littlefield.
- Norman, D. A. (2005). *Emotional design: Why we love (or hate) everyday things*. New York: Basic Books.
- Norman, D. A. (2013). *The design of everyday things*. MIT Press.
- Okeil, A. (2010). Hybrid design environments: Immersive and non-immersive architectural design. *ITcon*, 15(2010), 202– 216.
- Oxman, R. (2008). Digital architecture as a challenge for design pedagogy: Theory, knowledge, models and medium. *Design Studies*, 29(2), 99– 120.
- Roberts, D. (2011) "The Total Work of Art in European Modernism", *New York: Cornell University Press, Ithaca*.
- Tuan, Yi-Fu. (2001). *Space and Place: The Perspective*. Mn: The University of Minnesota Press.
- WHO World Health Organization. (2020). *Guidelines on physical activity and sedentary behaviour*. Geneva: World Health Organization.
- Zingoni, M. (2019). Beyond aesthetics, empathy first, *The Design Journal*, 22: 3, 351-370.

Zuo, Q. & MaloneBeach, E. E. (2010). A comparison of learning experience, workload, and outcomes in interior design education using a hand or hybrid approach. *Family and Consumer Sciences Research Journal Volume 39, Issue 1 p. 90-106.*

