Starting in the Middle: A Method Trial

Erdem Ungur 🆔
Gebze Technical University, Faculty of Architecture, Department of Architecture, Kocaeli, Turkey. (Corresponding Author)
Aygen Erol Cakir 🆔
Gebze Technical University, Faculty of Architecture, Department of Architecture, Kocaeli, Turkey

Abstract: In the MIM121 Architectural Design I "Starting in the Middle" studio group, which we conducted in the 2023-2024 fall semester at Gebze Technical University, we aimed to question how architecture establishes and transforms the relations between human and non-human worlds under the theme "Umwelt: Building a World". For this, we have adopted Deleuze and Guattari's rhizomatic idea of "being in the middle/starting in the middle" as the studio's processing method and Baruch Spinoza's idea of "being the source of virtuous effects" as our way of acting. We have determined the German biologist Jakob Johann von Uexküll's concept of Umwelt as the theme, considering that the effort to understand the worlds of other living beings we share our environment with has not only a biological or architectural but also an ethical/political side. Uexküll's concept of environment-world (Umwelt), which examines the behavior of animals in the environments they live in, positions itself against the objective, homogeneous and human-centered view of space by arguing that each living thing has its own spatio-temporal understanding and meaning-making process. This concept lays the groundwork for evaluating space as a subjective, multi-agent, heterogeneous sum of pluralities. Within the scope of this article, we document and analyze the syllabus of the MIM121 Architectural Design I studio group from the specific perspective and method of the studio. In doing so, we rely on the results of the 2015 "Architecture Schools First Year Studio Meeting II" workshop. Ten years after this workshop, which revealed the problems and goals of first-year architecture studios on a national scale, we are analyzing our own studio in the context of the workshop's outputs, and we are considering making a contribution to these outputs. Thus, we hope that by discussing the limits, opportunities and threats of the proposed methodology, it will provide a basis for similar studios.

Keywords: Architectural design studio, Experimental pedagogy, Participatory pedagogy, Constructivist learning theory, Sustainability

1. Introduction

In the 21st century's era of crises, we are living in a period in which we are questioning the way we exist in the world as human beings and the relationship we have established with the earth. On the one hand, while technological changes continue, on the other hand, the traces left by humans on the earth are deepening. In addition to events that create large-scale impacts such as global warming and environmental pollution due to the climate crisis, we face problems such as increasing microplastic wastes in the seas, hazardous chemical accumulation in the soil, and loss of biodiversity. On the other hand, we face global crises such as wars, pandemics, large-scale migration movements, food insecurity and housing instability, fake news and rising digital fascism. In Turkey, an unlawful state of emergency following the coup attempt, out-of-control inflation and housing crisis, earthquakes and other man-made disasters are manifesting themselves. In the current conditions, we believe that the architectural design studio should both offer

hope by opening a safe space and undertake a mission to develop new ways of relating to the world in the age of crises by teaching critical thinking. For this reason, in the MIM121 Architectural Design I "Starting in the Middle" studio group that we conducted in the fall semester of 2023-2024; we tried to create an environment of production that seeks new ways of relating to the world by being aware of the economic, technological, sociological and political changes in the current period, and tries to discover the potential of architecture to establish relations between human and non-human worlds. In doing so, instead of presenting a linear path with precise definitions, we have followed a path that makes the beginning a continuous action, critical, experiential and moving towards the unknown. In the second section titled "Architectural Design Education and Studio Pedagogy", we dive into contemporary design education and pedagogy literature and question the place of the method we follow in this literature. In the third section, "We Have a Problem and Mapping of Mappings", we mapping the results of the workshop "Meeting of First Year Studios of Architecture Schools II" which was held in 2015 in Istanbul and attended by 31 coordinators and 10 students from different architecture schools in Turkey. The results of this workshop, which reveals the troubles, problems and goals of first-year education in Turkey's different architecture schools, create a space for us to evaluate our own studio. In the fourth section, "Starting in the Middle", we are trying to evaluate our own studio based on the seven categories that emerge from results of "Meeting of First Year Studios of Architecture Schools II" and discuss the limits, opportunities and threats of the proposed methodology. In conclusion, we briefly state the findings and mention the limitations of the study.

2. Architectural Design Education and Studio Pedagogy

In the contemporary research university the architectural design studio is an anomaly. Whereas the positive and applied sciences first theoretically transfer basic knowledge and then apply it in practical situations, fine arts and design departments have a continuous transition between theory and practice (Schön, 1988). The instructor in the design studio acts more like a coach who gives examples, gives advice, questions and criticizes rather than a teacher who conveys knowledge. Most of the time what they do is to control and adjust the duration, speed and repetition of the work according to different individuals. What is practiced or repeated here are the different tools, methods and environments of designing. The student learns by doing together with other students and facilitators. What they learn is not technical knowledge but a particular way of relating to the world. Most of the time, what they learn is unconscious and will be revealed in the future when they need to apply different aspects of design. Schön (1984) proposed to call all these means of communication reflection-in-action. The student reflects the instructor's action and the instructor reflects the student's action. These mutual reflection activities constitute the process of criticism.

First-year design studios are an important part of architectural education. In these studios, design decisions are made at a more abstract level, there are fewer constraints, and the exercises are designed to explore the potentials of design at various scales, from the human to the building and then to the city (Cenani & Aksoy, 2020). The architectural design studio is more than a place to study or listen to lectures. Here the student learns what is nowadays recognised as 'architecture', 'design' and 'the role of the architect' and is introduced to the culture of the architectural profession (Sachs, 1999). They make inferences about what design and architecture is and can be from the behavior of the executives, the terminology they use, the topics they talk about and the political positions they take. According to Aydınlı (2015), studio culture in design education overlaps with constructivist learning theory as it contributes to the learning process with the dialogue environment created by the instructor:

> According to constructivist learning theory, knowledge cannot be directly transferred from an external source to the individual; knowledge is actively constructed by the individual. In this case, the teacher

contributes to the constructivist learning process not as a teacher in the position of transferring knowledge, but as a coach who prepares environments where the learner/student will discover ways of learning and produce knowledge on their own initiative [...] As a new learning culture, the constructivist paradigm in design education teaches to nurture imagination for a constantly changing world by creating learning environments that enable the development of free and creative thinking. From this point of view, the goal of architectural education should be to create minds with a high capacity to understand the outside world and the individual themself, to train competent architects who can think critically, nurture imagination, have social responsibility and environmental sensitivity (Aydınlı, 2015:1-17).

Fundamentally, constructivist pedagogical models refer to the individual and social learning process, the involvement of mind and body in the process, so that discovery and experience are intertwined. The field of knowledge is not limited and there is no single predetermined way of accessing and transferring knowledge as in positivist scientific approaches (Masatlıoğlu & Takkeci, 2016). In line with constructivist learning theory, Kolb's experiential learning theory sees learning as a cycle that begins with experience, continues with *self-reflection*, and then leads to action that becomes a concrete experience for self-reflection. The experiential learning model has four stages. According to this cyclical process, concrete experience is followed by observation and self-reflection; this leads to the formulation of abstract concepts and generalizations, and then the effects of concepts in new situations are tested through active experiments (Demirbaş & Demirbaş, 2003). According to Kolb (1984), there are two reasons why this model is called "experiential". The first is to explicitly link experience to its intellectual origins in the work of Dewey, Lewin and Piaget. The second reason is to emphasize the central role that experience plays in the learning process. This distinguishes experiential learning theory from rationalist and other cognitive learning theories, which tend to give primary importance to the acquisition, manipulation and recall of abstract symbols, and from behavioral learning theories, which deny any role for consciousness and subjective experience in the learning process.

Freire (2014), to whom Kolb often refers, defines the educational model in which information flows unilaterally and the student is a passive repository as the 'banker' model of education and puts the 'problem-posing' model of education, in which the hierarchy is eliminated through dialogue. The role of problem-posing education is to co-create the environment required for *logos* to replace *doxa* level knowledge by student-teacher and teacher-student. According to Kolb (2015), the essence of the arguments of thinkers such as Paulo Freire and Ivan Illich is that the education system is an instrument of control that maintains an oppressive and capitalist system of class discrimination. The way to change this system is to instill in society what Freire calls "critical consciousness", the active exploration of the personal, experiential meaning of abstract concepts through dialogue between equals. hooks (1994), influenced by Paolo Freire and the Vietnamese Buddhist monk Thich Nhat Hanh, also argues that education should be a practice of freedom. According to hooks, the concept of "engaged pedagogy", which describes progressive and holistic education, is more ambitious than traditional critical or feminist pedagogy because it emphasizes that in order for the teacher to empower students, he or she must also be empowered (or happy). Aykaç (2023) uses autobiographical spatial narrative as a method to enter into this process of mutual awareness and healing that is expected to take place in the studio environment. Accordingly, with a sensitive, tolerant and emotionally aware approach, an oppositional stance can be taken against the collective masculine, oppressive, exploitative and therefore harsh and insensitive mechanisms of existing institutional structures and programmes.

According to Deamer (2020), today's 'typical' architectural design studio is still organized around a model of design mastery from the 19th

century, thus failing to meet contemporary needs, and is irresponsible for ignoring pressing issues of spatial justice. The challenge for the studio is therefore its ability to make the connection between design and the rhizomatic world in which it exists. In making this connection, the primary goal should be not to reproduce patriarchal, hierarchical, speciesist, racist and anti-social methods and environments. According to Deamer (2022), pedagogy is performative; it pushes/helps/encourages a certain type of person towards becoming a different type of person: "Currently, standard architectural pedagogy takes an optimistic person who hopes to provide meaningful spaces for society and produces a compliant architectural worker. This conformity is characterized by a striking acquiescence, whether as an employee in a large or small firm who accepts any task, or as a firm owner who succumbs to financial insecurity and social apathy" (Deamer, 2022:189).

In order to act in the intersection of constructivist experiential pedagogy and feminist/postcolonial/radical pedagogy, Spinoza's monistic philosophy that emphasizes affect and intersubjectivity formed our ethical basis for organizing joyful encounters in the studio. According to Spinoza, to act with an active affect is to act by the necessity of the being's own nature, and this contributes to the being's endeavor to exist (*conatus*) and leads to joyful encounters (Balanuye, 2017). Spinoza proposes an ethics of encountering without judgment, an affirmation of joy and the devaluation of moral law. Spinoza's ethics highlights the importance of non-human thought and the agency of bodies (de Freitas et all., 2017). Newness occurs when the body's *conatus* is determined by active affects that transform the world and an education informed by a Spinozist ethics involves both cultivating active affects and rendering the subject imperceptible (Le Grange, 2018). According to O'Donnel (2018) a truly Spinozist understanding of education emphasizes experimentation and diversity. By embracing novel teaching methods, we not only create new ways of thinking and being, but also forge fresh connections and relationships. This approach cultivates a deeper understanding of our place in the natural world, acknowledging our limitations, interdependence, and vulnerability. Therefore a Spinozist approach is in line with our aims of creating a safe learning place for production and critical thinking in the faculty of architecture.

Deleuze and Guattari's anti-capitalist/anti-oedipal approach is also connected to this ethical realm, opening up a rhizomatic space for us to bring different disciplines, tools, subjects and actors together where we can start in the middle. As Deleuze and Guattari (1987:27) suggest "the rhizome has no beginning or end; it is always in the middle". Starting in the middle means starting from the dynamic one, that is, from movement and positioning oneself into becoming. The idea of starting in the middle is based on "entering and exiting, not starting and ending", "displacing the foundation", "nullifying the beginning and the end" in order to create new forms of perception and affect (Yücefer, 2016). It offers an escape strategy to capture what happens in between, to get rid of the stasis of beginnings and endings. Said (2009) argues that "the beginning is ultimately not a simple linear realization, but an activity that fundamentally involves return and repetition". He sees the notion of beginning as "practically part of a whole network of relations" rather than an origin (Said, 2009:17). The idea of starting in the middle destroys the uniqueness of the beginning and replaces it with multiple beginnings. Therefore, the idea that knowledge is only given in a certain place and that one has to start from a certain point to reach it is transformed:

> Every beginning is divided. Just as the authorship of any book is divided, just as an act of thinking always rises on the shoulders of giants, just as an intellect is never inhabited by the individual alone but by many ghosts, everything begins in the furious center of the divided (Raunig, 2019:12).

German biologist Jakob Johann von Uexküll's concept of *Umwelt*, on the other hand, provided a content that excludes speciesism through the

disciplines of biology and ethology, where the relations between the human body and other bodies can be scrutinized. In Uexküll's biology, ticks and humans become comparable because what distinguishes one being from another is the quantity, not the quality, of the sensations it possesses. A different habitat (*Umwelt*) with spatial and structural differences creates a different sense of time and place (Uexküll, 2023). The concept of *Umwelt* opens a door to criticize the anthropocene and discuss themes about sustainability and posthumanism.

While we follow the aforementioned learning theories and pedagogies it's hard to match these theories directly with individual exercises because of the holistic nature of the syllabus. "Starting in the middle" is not just a method or slogan, but also the rhizomatic structure of the syllabus resisting taxonomic categorization and analytical divisions. However, the following table shows a possible match between these theories and our syllabus (Figure 1).

Pedagogical models and educational approaches such as "experiential learning theory," "reflection-in-action," "constructivist learning theory," "engaged pedagogy," and the "problem-posing model of education" share various affinities with the pedagogical framework of our "Starting in the Middle" studio, explored within the context of architectural design education and studio pedagogy. For instance, the "New Life Forms" work, which involves creating living spaces and forms derived from the formal, functional, kinetic, and systematic analyses of objects found along the campus route, exemplifies "experiential learning theory." In this theory, observation and self-reflection follow concrete experiences, leading to the formulation of abstract concepts and generalizations, which are then tested through active experimentation in new situations. Similarly, the travel journals, where students initially transform their somatic experiences into text and images, serve as an example of "constructivist learning theory." This approach fosters a collective discussion environment that encourages self-reflection and the creation of a learning community. The works produced in the "Starting in the Middle" studio, which are analyzed in greater detail in Chapter 4, align well with the pedagogical models mentioned in the theoretical framework. In this context, these models provide a valuable basis for discussing and evaluating the outcomes of the studio.

Figure 1: *Relation between learning theories and "Starting in the Middle" studio practices*

3. "We Have a Problem" and Mapping of Mappings

Despite the existence of numerous conference presentations and academic papers analyzing and discussing individual first-year architectural design studios in Turkey, it remains challenging to obtain a comprehensive overview of this specific habitus of architectural design education. In 2017, Aslıhan Şenel and Nizam Onur Sönmez (ITU) published the outputs of the workshop "Architecture Schools First Year Studio Meeting-II", which was held at Studio-X on 26 June 2015. This was a continuation of the "Architecture Schools First Year Studio Meeting", which was held at ITU Faculty of Architecture in 2014. The workshop, which was attended by 31 facilitators and 10 students, shared the experiences of the first-year studios of Istanbul Technical University (ITU), Mardin Artuklu University, Bolu Abant İzzet Baysal University (BAİBÜ), Fatih Sultan Mehmet Foundation University (FSMVÜ), Yıldız Technical University (YTÜ), Kadir Has University, Eastern Mediterranean University (DAÜ), Maltepe University, Istanbul Bilgi University, Uludağ University, Bahçeşehir University (BAU) and İstanbul Yeni Yüzyıl University. The outcomes of this workshop are valuable for the insight they offer into the state of architectural design education in 2015. The inclusion of students from both state and private universities in different cities allows us to gain a holistic picture of the first-year experiences of architectural design students. Consequently, we will be able to utilize categories and concepts derived from a collective and local field of experience and knowledge. Furthermore, we will have the opportunity to assess the impact of economic, technological, sociological and political changes on architectural education on a global scale over the past decade.

Starting with "declarations of distress", the workshop reveals the problems and possible solutions encountered in the first-year studio with six different mappings created by the participants and ends with a manifesto (Figure 2). Issues such as "production with constraints", "the relationship between critical thinking and creative production", "experimentation and studio as a research area", "personal differences and multiple productions", "the relationship between architectural design studio and other courses", "the relationship between architectural production and representation", "educational outputs and architect identity", "transparent, participatory and egalitarian education", which were put forward before the workshop, remain valid after about ten years. The concept that comes to the forefront in the issues put forward in the maps is "motivation". Accordingly, motivation can increase with the sense of trust between the instructor and the student, with the physical environment of the studio being under the control of the student, with the practices of making together, and with the instructor opening space for different forms of production for the student. On the other hand, unlimited possibilities (undefined task), inadequate timing, excessive hierarchy or one-way transmission can decrease motivation. The common desire that emerges from the thirty-
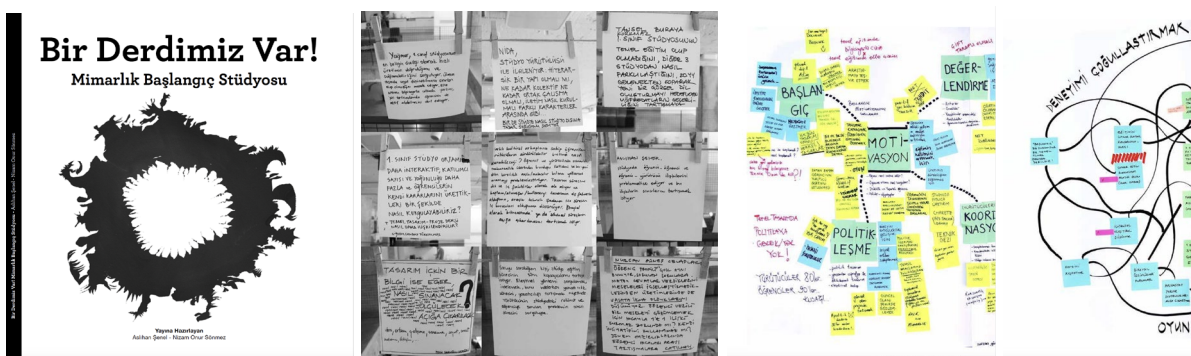
Figure 2: *"Declarations of distress" and "one of the six mappings" (Meeting of First Year Studios of Schools of Architecture-II)*

nine-point manifesto can be summarized as the creation of a free and open learning environment. Another important point emphasized here is that the first-year studio is not the 'foundation' of a specific curriculum or professional formation, but a 'starting' situation that can evolve in different directions (Şenel & Sönmez, 2017).

We analyzed six mappings generated during the discussions on studio-related issues at different tables in the "Meeting of First Year Studios of Schools of Architecture-II" workshop. These mappings sometimes converge on common themes and sometimes diverge in their focus.

Various topics emerge, including the content and structure of the studio, methods employed, representation tools, the studio environment, student motivation, and evaluation practices. When we analyze the mappings according to the prominent concepts, it is possible to identify seven categories: content, method, representation, context, motivation, hierarchy and evaluation. However, since these categories are not strictly separated from each other, it is often possible to write the actions under them in more than one category. For example, "involving the student in the process of constructing the task" was included under the category of "hierarchy" because it disrupts the

Figure 3: *Mapping of the workshop outputs of the "Meeting of First Year Studios of Schools of Architecture-II".*

hierarchy in the bank-type education system mentioned by Freire, but it is possible to put it under the category of "motivation" because the student is motivated by gaining self-confidence in this way, and under the category of "method" because the executors use it as a method to increase motivation and question esta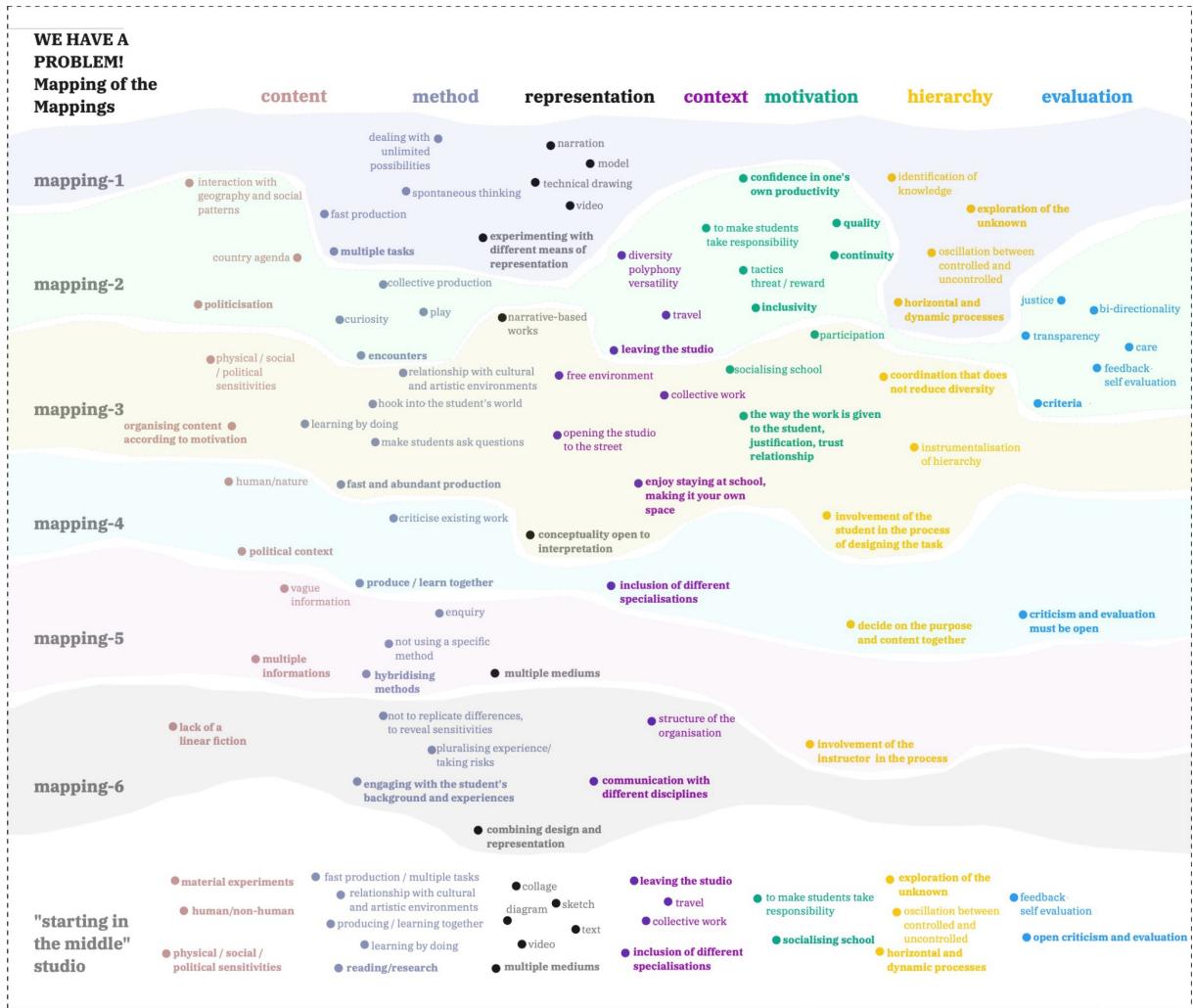blished hierarchies by going beyond the syllabus. Therefore, reading these headings as a rhizomatic network rather than as disconnected areas would be a closer representation to reality, although it would make the analysis more difficult. The diagram in Figure 3 consolidates the suggestions from the six mappings produced during the "Meeting of First Year Studios of Schools of Architecture-II" workshop and attempts a comprehensive analysis. Nearly every mapping contributes insights across the seven categories we established. After the distribution of the six mappings according to the seven categories, we tried to briefly evaluate our own studio according to these categories.

In this context, the "Starting in the Middle" studio seeks to contribute to these seven categories through its scope, way of acting, and methodology. Upon analyzing the works produced in the studio, we believe it has made contributions in the following ways: in the "content" category, through material experiments, explorations of the human/non-human interface, and its approach to physical, social, and political sensitivities; in the "method" category, through rapid production, multiple projects, engagement with cultural and artistic environments, collaborative production/learning, and its emphasis on learning by doing, reading, and research; in the "representation" category, through the use of diverse media, including collage, sketch, video, diagram, and text; in the "context" category, through projects that extend beyond the studio, field trips, and collective work; in the "motivation" category, through its emphasis on responsibility and socializing the studio; in the "hierarchy" category, through its balanced application of both horizontal and vertical hierarchies, with a controlled and uncontrolled oscillation towards the discovery of the unknown; and finally in the "evaluation" category, through its promotion of self-

evaluation and the creation of an open, critical environment. In the fourth chapter, we provide a detailed discussion of the works produced in the studio, organized according to these seven categories.

4. "Starting in the Middle"
The syllabus developed for the 2023-2024 fall semester architectural design studio, "Starting in the Middle," aimed to teach first-year architecture students critical thinking and developing new ways of relating to the world. The goal was to create a production environment that explores architecture's potential to establish connections between the human and non-human worlds while remaining conscious of the economic, technological, sociological, and political changes in their surroundings. To ensure this production environment was critical, creative, and innovative, we adopted "starting in the middle" as the studio's guiding method. This approach encourages the pursuit of the unknown, facilitates new encounters, challenges assumptions, avoids definitive conclusions, and follows an experiential path. The concept of "starting in the middle," with its philosophical underpinnings, provided a tool to challenge conventional beginnings, endings, and accepted norms. Consequently, the structure of the studio was not completely pre-determined or finalized in a single instance. The studio syllabus, first created for the 2023-2024 autumn term, has been updated a total of eight times by the tenth week of classes, with no major changes to the main structure (Figure 4). In this section, we will try to describe the operation of the studio and briefly state which work was done and how the learning outcomes were transferred to other works. We will not mention the Basic Design Studio, which we ran with the same team during the same period and which often 'mixed' with the Architectural Design Studio. Although we experienced a complex process in which the two studios supported each other and sometimes stole motivation and time from each other, it does not seem possible to address the impact of the Basic Design Studio within the confines of this article.

As mentioned before, the seven categories are the fundamental dimensions of a design studio and they are connected to each other in a rhizomatic relationship. Therefore Conrad Weddington's "epigenetic landscape" would be a good model to explain how students wander around the studio topography and start to become designer subjects. Conrad Hal Waddington, a pioneering developmental biologist, introduced the term "epigenetics" in 1942 to describe the complex interactions of genes and their expression during embryonic development. His concept of the epigenetic landscape visually represented the multitude of developmental pathways available to a cell as it differentiates. This metaphorical landscape, with its peaks and valleys guiding the cell's journey, illustrated how environmental factors and genetic predispositions converge to shape development (Baedke, 2013). The design studio is visualized in a similar manner as a landscape consisting of different layers of Content and Representation (e.g. scale, space, volume, material, texture, function, sustainability, image) which start to be formed in pre-university times and continue to be formed after graduation. The Content and Representation layers are surrounded by Context, Evaluation,
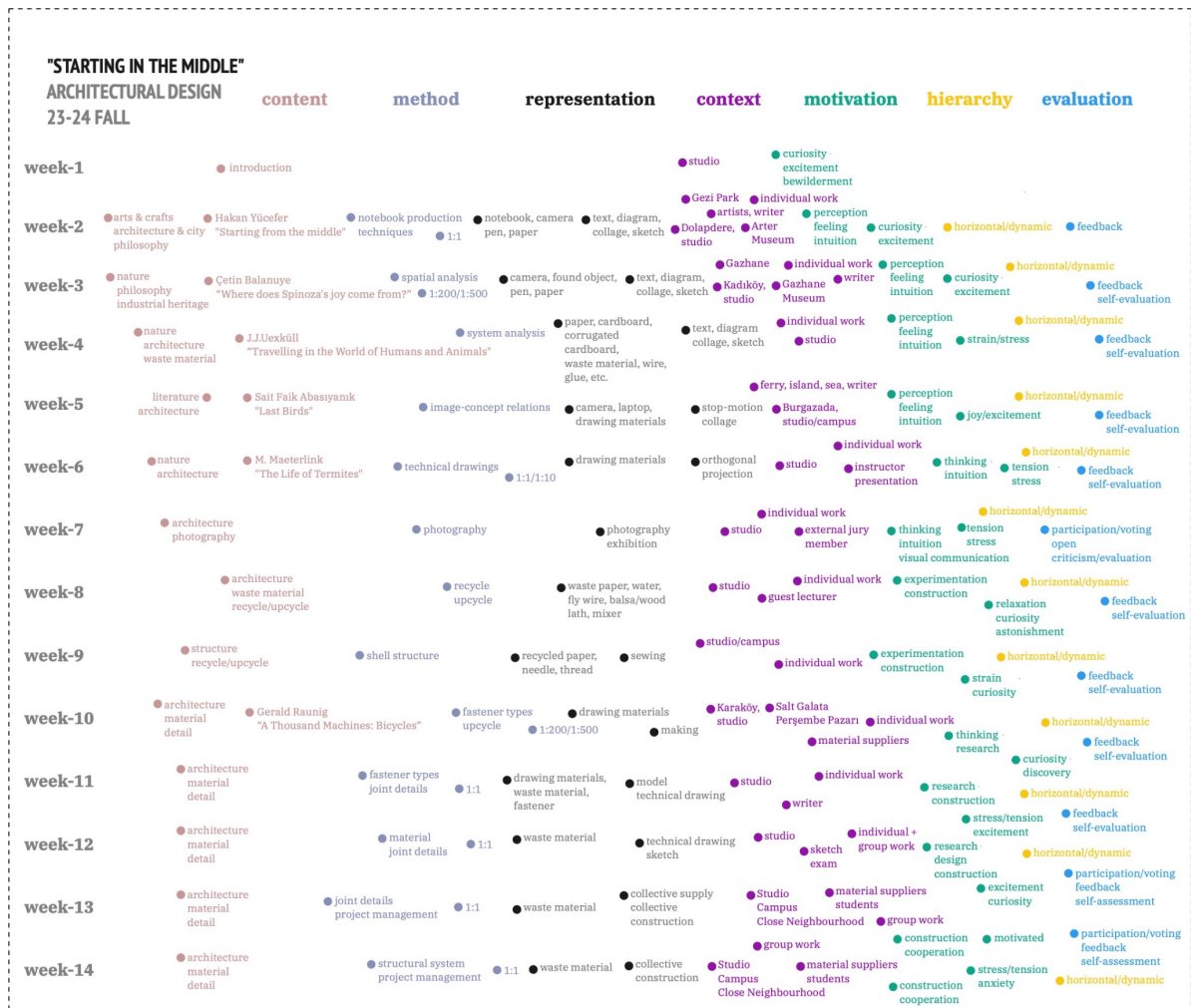

Figure 4: "Starting in the Middle" 2023-24 Fall Term Studio Syllabus in relation to the seven categories established in Figure 3
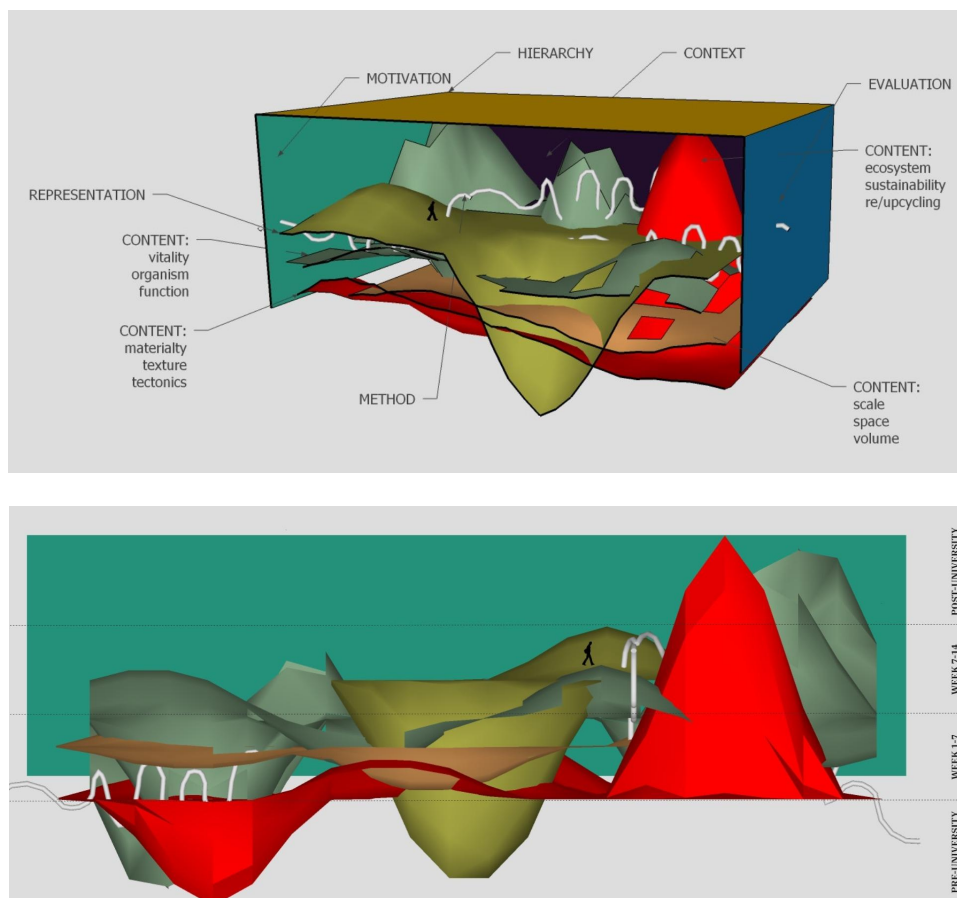
Figure 5: The Studio Topography or the Pedagogical Landscape

Hierarchy and Motivation which provide the necessary environmental conditions. The tutors provide connections between different layers and orient the student on different plateaus through the Method (Figure 5).

According to this model the layers of the topography (the Content and the Representation) are existing to some extent and are already in a process of transformation when the students enter the studio environment. These knowledge and skills related to the content and representation are hard or soft, solid or porous and they are in a constant state of change. While tutors keep adding new layers, they do it in a controlled environment which is adjusted via Motivation, Hierarchy, Evaluation and Context. By stitching different layers together, tutors create paths that did not exist before and sometimes they create paths that lead

nowhere. Let us explore this landscape starting with the content.

Content:
With the theme of "Umwelt: Building a World", the content of the studio is designed to go beyond the distinctions between culture and nature and between human and non-human, to increase our power of action and to experience joyful encounters in times of crisis (Figure 6). It is possible to say that the content is not disconnected from the national and global agenda and has a political concern, as we are curious about other living beings and different lives on the planet in the age of climate crisis, social turmoil and wars, and we are searching for ways to live together. We think that attempting to build a world should involve relational networks between beings, various temporalities and multidirectional entanglements between human and non-human
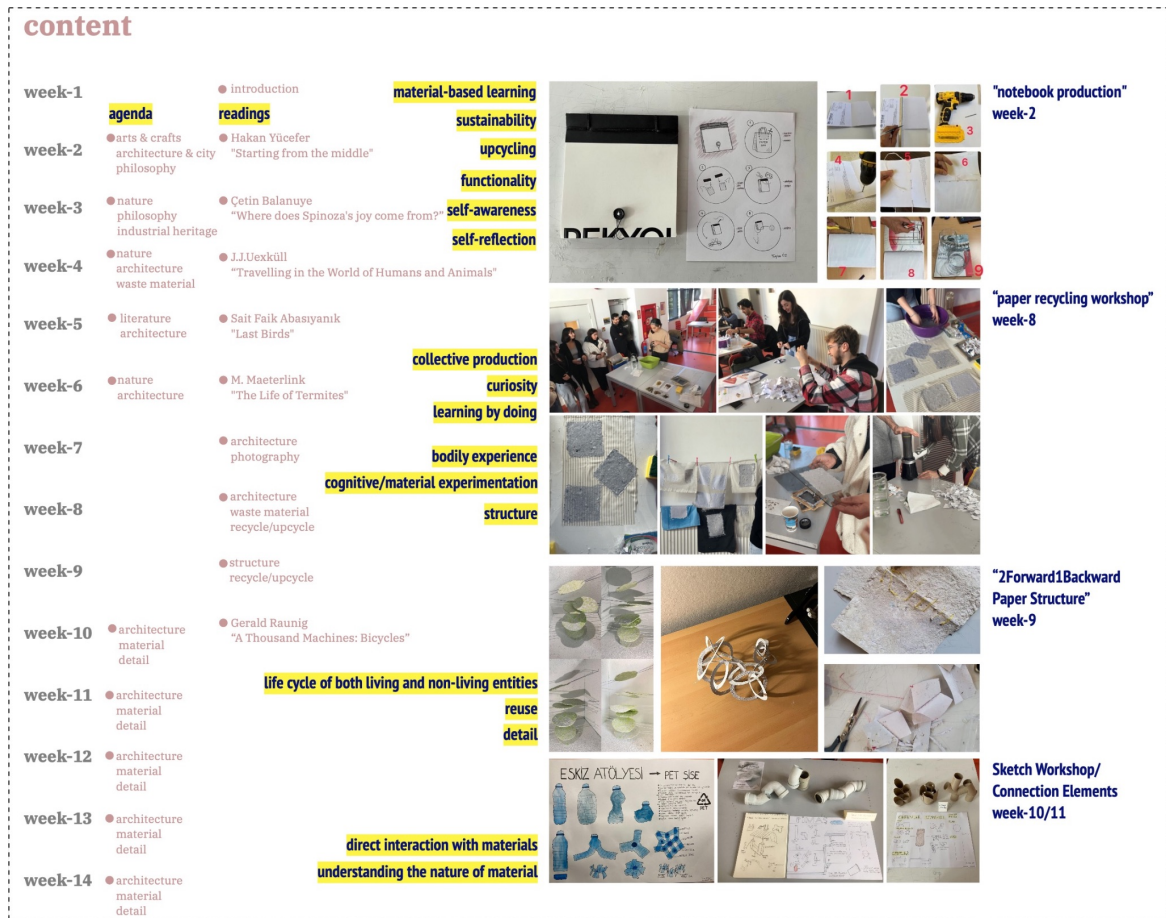
Figure 6: "Content" outputs of "Starting in the Middle" studio.

beings. We find it valuable to discuss change and transformation through the relationality of human and non-human factors, to establish and reveal these implicit connections. For this reason, we tried to examine the human-nature relationship around concepts such as sustainability, recycling/upcycling and *Umwelt* through excursions, readings and workshops. A linear structure was not created. A large number of small-scale (excursion notebooks, blind contour, photography competition, story analysis, campus cross-sectional route, campus waste map, Perşembe Pazarı inventory) and medium-scale (upcycling notebook, 2Forward1Backward paper structure, sketching workshop) and two large-scale works were designed (NLF [New Life Forms] and final project). The relationships between the works

were left implicit, but space was created for indirect connections to be made through readings, excursions and workshops.

Although it is not prominent on the maps, we tried to create content in our studio to work with waste material directly and at a scale of 1:1. The material-based learning started in the first week with "notebook production" and continued with "paper upcycling," "sketch workshop," and final projects. Before the notebook task, exemplary videos were shown, and it was highlighted that the important thing is not the 'final product' but the 'process' experienced. The aim of designing a DIY guide was also to increase self-awareness and self-reflection while working on materials. The upcycled notebooks are supposed to become places of

self-reflection again while being used during travels. To replace the doxa level of knowledge with logos, "sustainability," "upcycling," and "functionality" were defined as design problems (Figure 7). The "paper recycling workshop" and the following "2Forward1Backward Paper Structure" task involved direct interaction with materials, bringing bodily experience and cognitive/material experimentation together while discussing the concepts of sustainability and structure. The task of designing self-supporting structures using self-made recycled papers was limited to the technique of 'sewing'. This multilayered experience helped students investigate the potentials of the materials and their interaction with the environment (gravity, pressure, light, etc.). The workshop was a group effort involving collective production, curiosity, play, and learning by doing (Figures 8 and 9). The sketch workshop in week eleven was a good laboratory for the students to experiment with waste materials and connection elements on a 1:1 scale to explore different possibilities of materials. Students also experimented with different presentation techniques to visualize them in 2D (Figure 10).

As Riskiyanto (2023) points out, material is rarely the first place as the basis of a design approach, but material-based learning in architectural education and practice is important for exploring material thinking in architecture. Learning about the behavior of materials through experience, exploring the dynamics of how different materials come together, and gaining insight into the economic and ecological costs of materials are elements that develop design awareness. In order to perceive the emergence of the built environment, we think it is very important to understand how materials are extracted, transported and assembled. Edensor (2020:13) states that material analyses are "very useful in highlighting radical global inequalities in the distribution of material resources, as well as foregrounding the dominant power of those who can regulate material flows and thus shape the built environment". In this regard, we believe that understanding the nature of material and placing material in an important position in design education can be a crucial input to develop a socially and politically critical perspective.
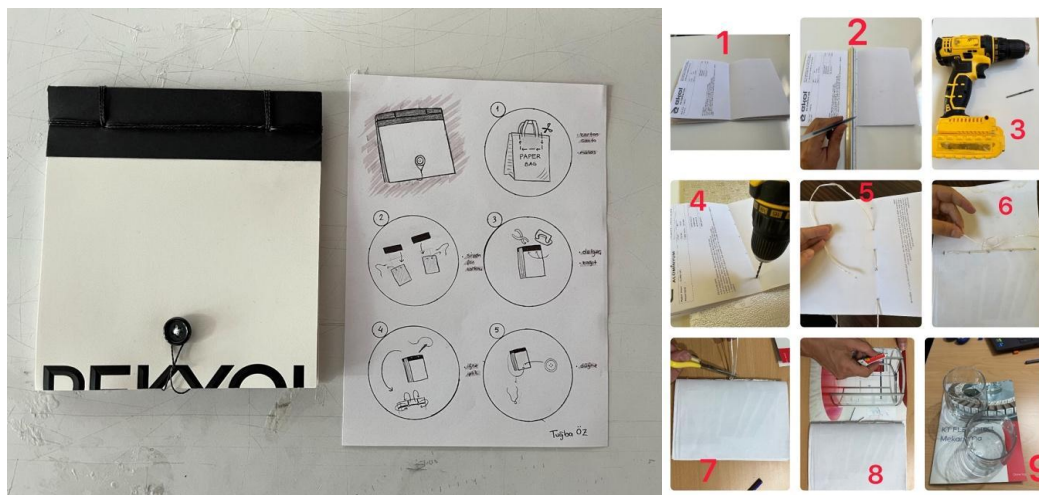

Figure 7: Notebook Production Guide and Notebook (Tuğba Öz, Emre Saridede)

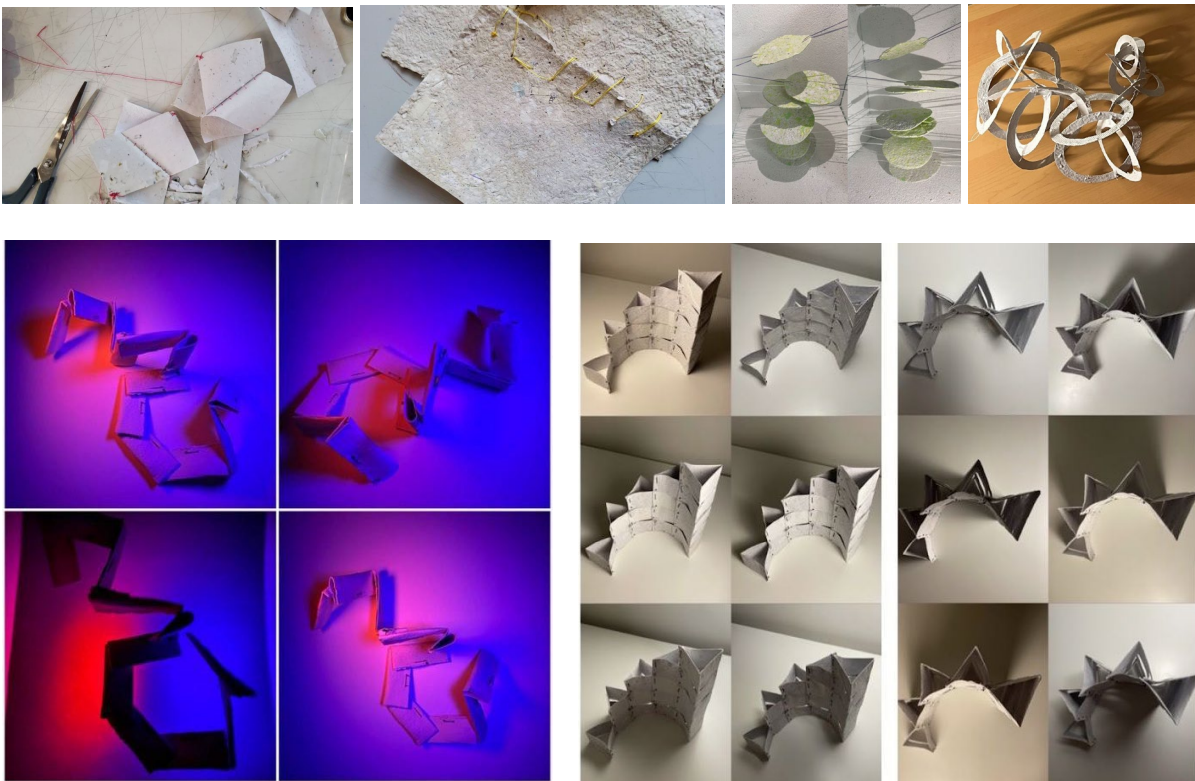**Figure 8:** *Paper Production Workshop (Executive: Gülşah Aykaç)*

Figure 9: *Structures produced by sewing from recycled waste paper*

Figure 10: Sketch Workshop/Connection Elements (Yakup Efe Karabulut, Zelal Deniz, Şule Macit, Nisanur Arslan)

Using waste materials is possible through both recycling and direct reuse. The works shown in Figure 10 formed the basis for our final group project. We began by dividing the campus map into grids, which were evenly distributed among 23 students. Each student was assigned one or two grids and tasked with analyzing the waste within their area to create a comprehensive campus waste map. Viewing the campus as a metabolic system, we considered how the materials identified on the waste map could be reintegrated into the cycle and re-evaluated. Given that our campus includes a diverse range of facilities—such as a cafeteria, stationery shop, forest, and various faculties—the waste produced was equally varied. Starting in the 10th week, we initiated a project to construct a 1:1 structure using these waste materials. The first step involved considering how the waste materials could be combined. This project allowed us to explore the life cycle of both living and nonliving entities and their participation in ecological systems.

Method:

In terms of methodology, there is a great deal of overlap with the "We Have a Problem!" mapping. Methods such as learning to cope with unlimited possibilities, spontaneous thinking, rapid production, multi-tasking, collective production, curiosity, play, learning by doing, questioning, engaging with the students' background and experiences, relationship with cultural and artistic environments were applied throughout the semester. Figure 11 analyzes the studio's outputs in terms of methodology. The studio group conducts research at various scales

and employs a range of techniques, including travel diaries, hand-eye coordination practices, system and space analyses, drawing, photography, video, and collage.

The task "Blind Contour" is an example of rapid production, which aimed to bring students physically and emotionally closer to each other in the first week of the semester. Two people sat opposite each other at a table randomly and drew each other's faces without lifting their pencils. We talked collectively about the products, emphasized hand-eye coordination
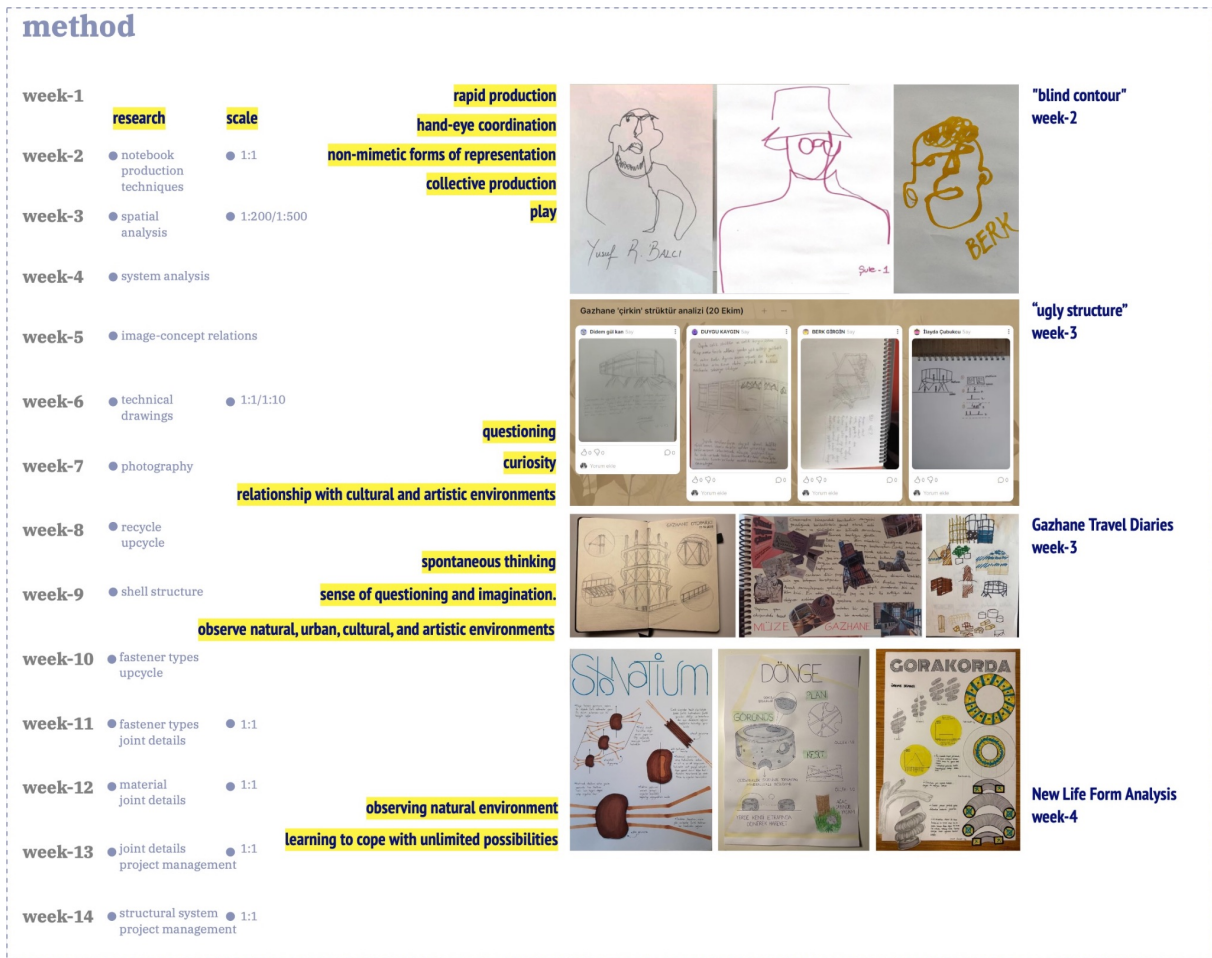

Figure 11: "Method" outputs of "Starting in the Middle" studio.

Figure 12: *Blind Contour (Yusuf by Şule Öztürk, Şule by Sude Hur, Berk by Didem Gül Kan)*

during sketching and talked about non-mimetic forms of representation (Figure 12).

"Ugly Structure" is an example of reflection-in-action where the student reflects on the instructor's action and the instructor reflects on the student's action. This assignment arose spontaneously from a student's emotional/aesthetic reaction to a structure in Gazhane. We realized that students lack a critical gaze to make aesthetic evaluations. This assignment gave us the opportunity to discuss abstract notions like "ugly", "beautiful" or "functional" (Figure 13).

Tasks such as the "Excursion Notebook," "Photography Competition," and "Perşembe Pazarı Inventory" encouraged students to
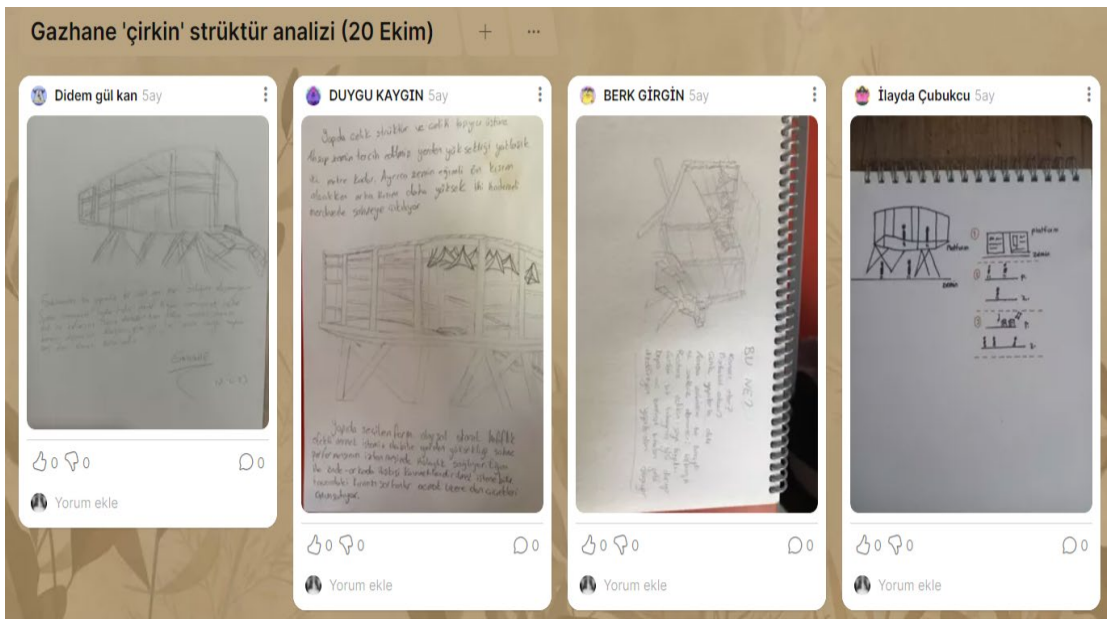

Figure 13. *'Ugly' Structure Analysis (Didem Gül Kan, Duygu Kaygın, Berk Girgin, İlayda Çubukçu)*

Figure 14: Arter Travel Diaries (Rabia Yılmaz, Nisanur Arslan, Şule Macit)
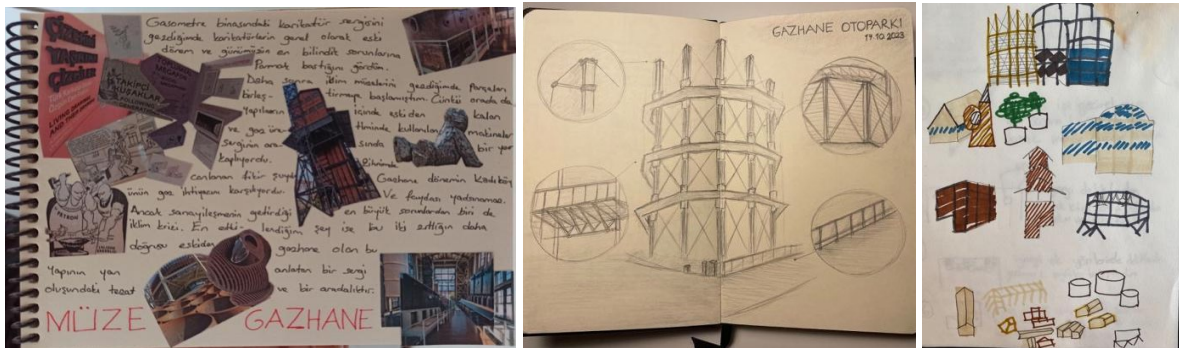

Figure 15: Gazhane Travel Diaries (Duygu Kaygın, Nisanur Arslan, Yusuf Rabbani Balcı)

observe natural, urban, cultural, and artistic environments with clarity and curiosity, fostering a sense of questioning and imagination. Following the Arter and Gazhane excursions, students conducted research on the artworks and locations, blending their reflections and impressions with analytical data in their notebooks (Figures 14 and 15). The Perşembe Pazarı trip also helped them shift their perspective from a tourist gaze to focusing on the spatial interactions between people and objects. Similarly, the Burgazada trip and

photography competition prompted students to view their surroundings with heightened awareness, merging bodily sensations with conceptual imagery.

In the NLF task, after conducting formal, functional, kinetic, and systematic analyses of objects found along the campus cross-sectional route, students were asked to design a species whose habitat and form they would determine based on the object in question, utilizing the material/form's potentials. Following careful
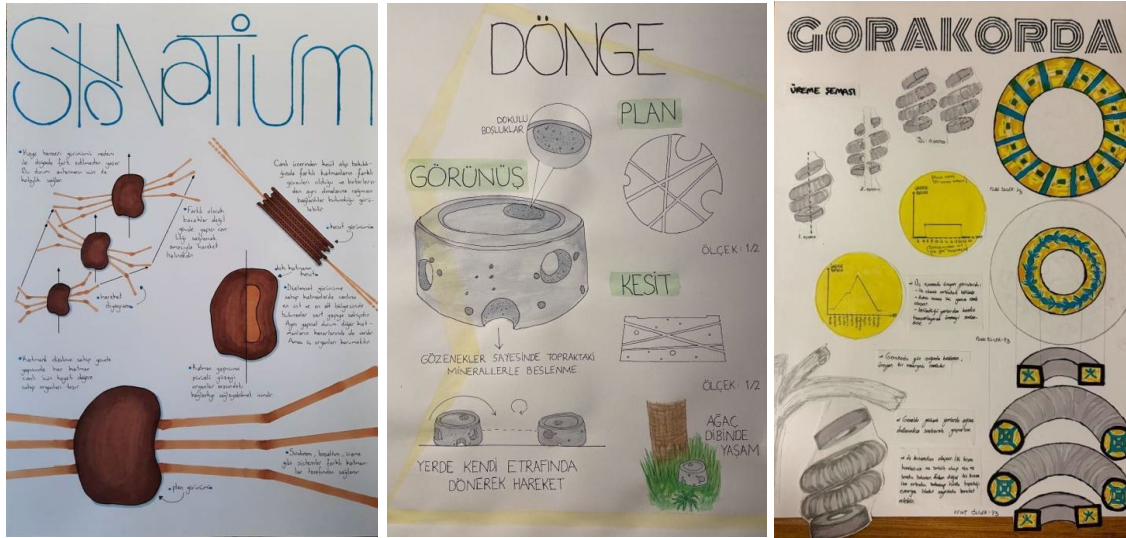
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Figure 16: NLF Posters (Zelal Deniz, Nisanur Arslan, Didem Gül Kan)

observation and drawing of the objects, students began to establish connections between abstract concepts and the material properties of the objects. They then translated this new knowledge into 2D and 3D forms in their newly designed organisms. This large-scale project allowed students to navigate unlimited possibilities within a limited timeframe while learning by doing (Figure 16).

A student who used materials from his childhood in his notebook production work, students who partially involved their families to supply of materials and tools for the final project, and a student who transferred the knowledge of the department she previously studied to some of her works can be given as examples where students transfer their previous personal experiences and habitus into their projects.

Representation:

The only warning about representation was the need to distance oneself from optical and mimetic representations that allegedly reflect the real world. For this reason, the use of different means of representation in multiple media was encouraged. In the "Starting in the Middle" studio, representation was one of the main focuses. We explored various topics, methods, and research approaches across different spectrums, which naturally led us to use a wide range of representation techniques and media (Figure 17). These included diagramming, narrative, drawing, collage, video, stop-motion, and model-making. In this respect, our approach aligns closely with the representation category that emerged from the mappings produced during the "Meeting of First Year Studios of Schools of Architecture-II."
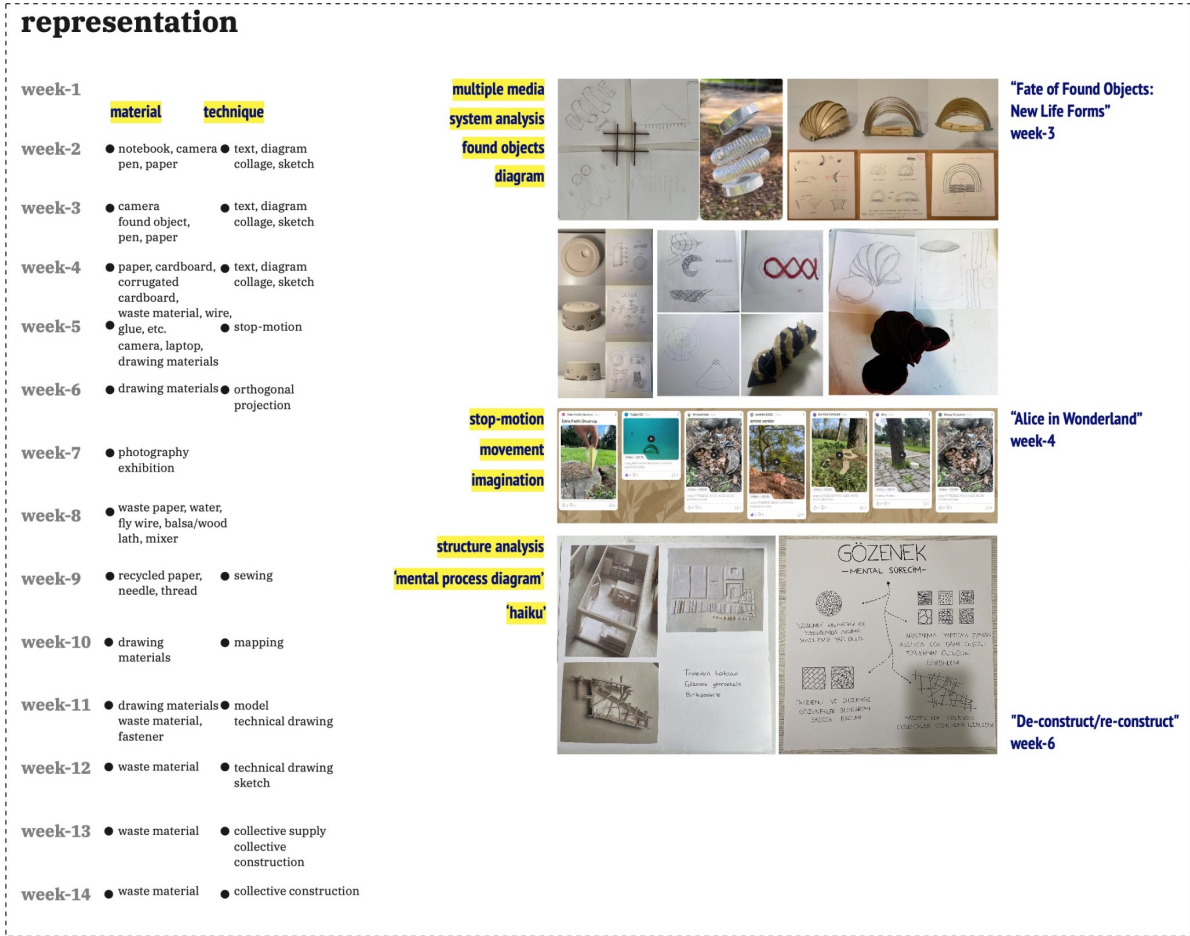
Figure 17: "Representation" outputs of "Starting in the Middle" studio.

For example, the work "Fate of Found Objects: New Life Forms" (Figure 18) involved a comprehensive and meticulous analysis of an object, whether living or nonliving, animate or inanimate, discovered along the campus section route. The primary objective was not merely to recreate or represent the object as it was found, but to delve deeply into its intrinsic characteristics and to reimagine its existence through a creative lens. This analysis encompassed a range of the object's attributes, such as its inherent movement, structural form, underlying composition, and latent potential for transformation. The process began with a series of detailed drawings that captured these qualities, which then informed the subsequent construction of a physical model. In the final phase, the object underwent a dynamic re-envisioning, transforming into an imaginative life form. This metamorphosis was captured through a stop-motion video (Figure 19), marking the culmination of the creative journey from observation to animation. Although the stop-motion technique showed improvement after several repetitions, the diagram had not yet been fully internalized at this stage.

Figure 18: Use of 3d model, sketch and diagram in the "Fate of Found Objects: New Life Forms" (Didem Gül Kan, Tuğba Öz, Simay Özayman, Nisanur Arslan, Göksu Bayraktar)
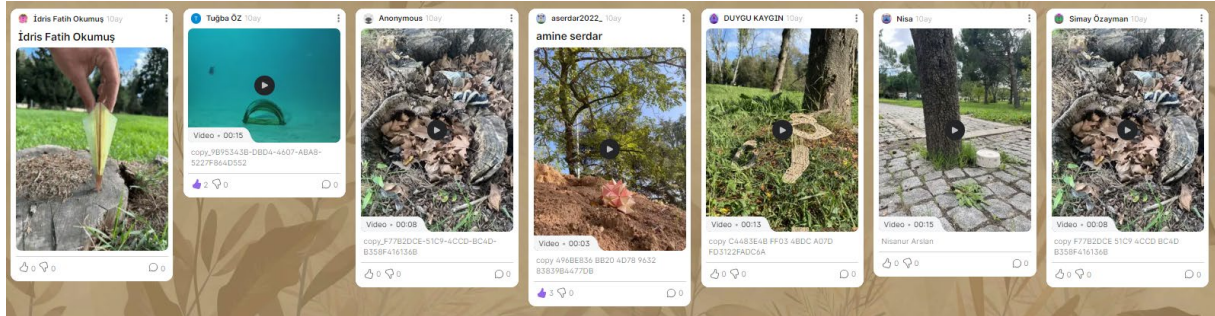

Figure 19: Use of stop-motion in "Alice in Wonderland" (İdris Fatih Okumuş, Tuğba Öz, Amine Serdar, Duygu Kaygın, Nisanur Arslan, Simay Özayman)

The technical drawing skills learned in the related compulsory course were successfully transferred to the design studio. We believe that the parallel design of the technical drawing course and the related parts of the project studio contributed to this success. The gray area between technical drawing and non-representational drawings was also explored.

For example, we aimed to produce new and subjective expressions from the physical models of their own rooms, created in the technical drawing course, by dividing them into pieces in the studio and reassembling them according to a specific rule. Additionally, students were required to explain this transformation process with a 'mental process

Figure 20: Use of 3d model, poem (haiku) and diagram in "De-construct/re-construct" (Nisanur Arslan)

diagram' and a 'haiku' (Figure 20). This approach not only strengthened their understanding of technical representation but also encouraged them to develop a personal and creative language in their designs, bridging the gap between precision and imagination.

We explored how to express our ideas about space beyond technical representation through various representation techniques. As we approached the end of the semester, some students surprised us by creating three-dimensional models using Revit and Rhino, even before taking the related courses. Although we believe that, in many respects, we align closely with the representation debates raised by the "We Have a Problem!" mappings, it may be a shortcoming of the studio that not enough examples of representation were opened to discussion.

Context:
In the "We Have a Problem!" mappings, discussions relevant to the "context" category include various actions such as leaving the studio, exploring external environments, making field trips, engaging with different disciplines, working collaboratively, and embracing pluralism and multi-environmentality. Within this framework, our studio setup demonstrates significant diversity in the context category. We incorporated various urban spaces, including Burgazada, Karaköy, and Kadıköy, into our research and studies. Additionally, our setup featured an open studio in our own building, collective projects, interdisciplinary readings, and presentations, as well as the use of digital platforms such as Teams and Padlet (Figure 21). Furthermore, we engaged with a wide range of actors and environments, both living and nonliving.

One of the factors that significantly affects the course of the studio is the physical environment. If we imagine the physical environment as a circle with the student's desk at the center, we encounter a very deterministic living space that starts with the size, location, and usability of the desk and expands to the size, lightness, and airiness of the classroom, the accessibility and opportunities of the campus, and the accessibility and opportunities of the city. This semester, we were fortunate to have the entrance part of the building with a stepped lecture theater reserved for us, instead of a classroom enclosed by walls on all four sides. This provided us with a flexible and interactive space for various activities such as film viewings, workshops, presentations, exhibitions, and colloquia (Figure 22).

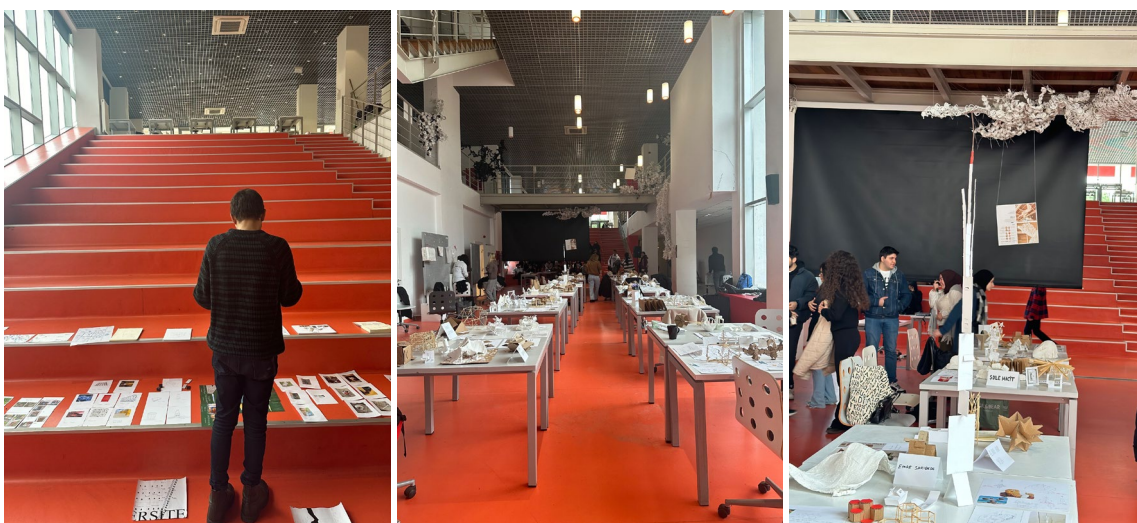*Figure 21: "Context" outputs of "Starting in the Middle" studio.*

Figure 22: A flexible and interactive studio for various activities such as film viewings, workshops, presentations, exhibitions, and colloquia

We also had the opportunity to interact frequently with students and instructors from other studios. Our campus, situated in a forested area, provided a polyphonic environment rich with diverse experiences, enhanced by trips to Arter, Gazhane, and Burgazada. These excursions facilitated closer communication among students and between students and instructors, thereby strengthening interpersonal connections. Additionally, we had the chance to engage with different disciplines indirectly through texts, reading and discussing topics from architecture, art, literature, natural sciences, and social sciences. Collective work fostered the sharing of feelings and experiences. For the final project, students traveled around the city to procure materials and engaged with various individuals. They collaboratively addressed numerous problems and responsibilities related to the project. The "Beaver Nest" team primarily worked outdoors in the forest, while the "Things" team continued their production in the faculty building until late in the evening (Figures 23 and 24).
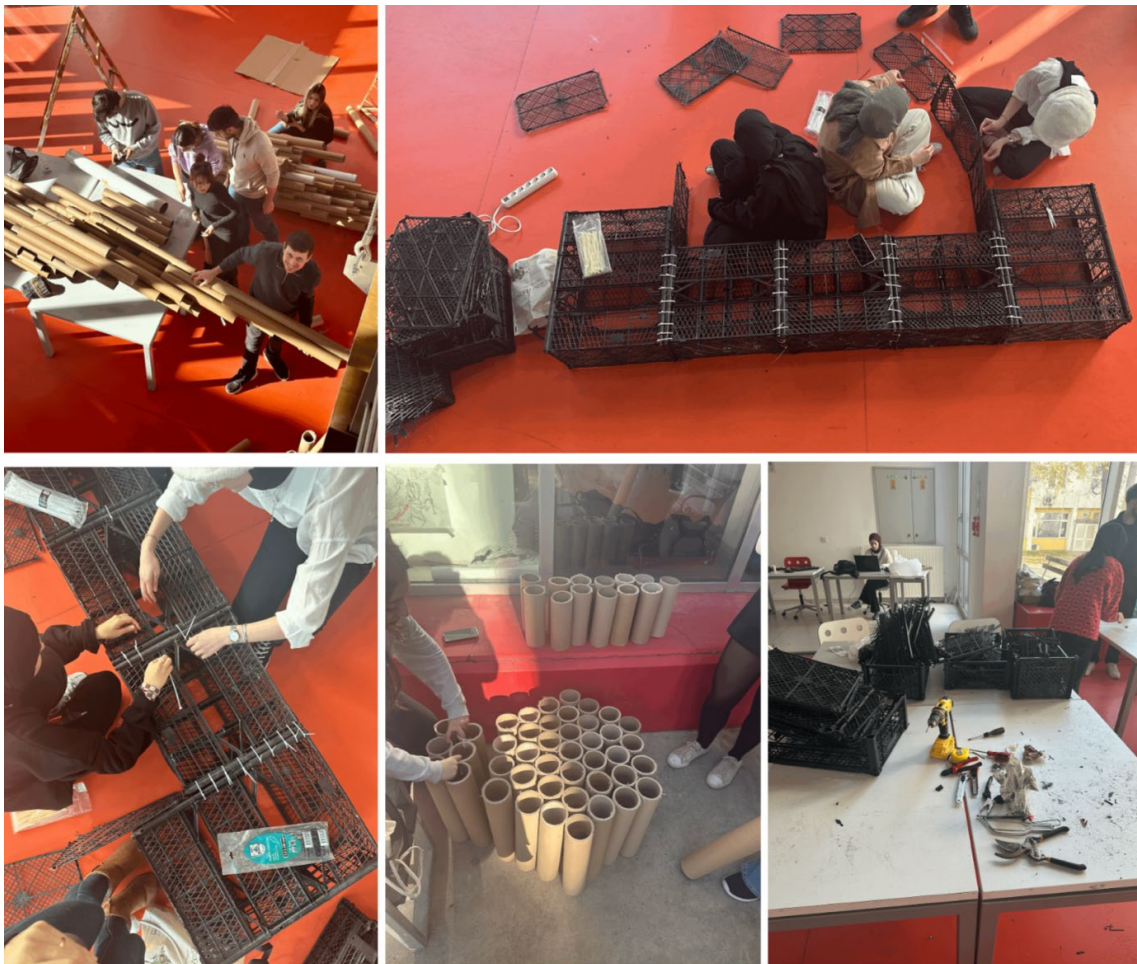
Figure 23: *Studio as a construction site. Production process of the final groups in the studio: **Open Stage** [Tuğba Öz-Hümeyra Hafif-Şule Macit-Rabia Yılmaz-Emre Saridede-Sude Hur], **Bergére** [Nisanur Arslan-Simay Özayman-Şeyma Nur Temel-Seray Yurtsever-İlayda Çubukcu-Duygu Kaygın], **Beaver's Nest** [Nur Yaşa-Şahin Tütüncü-Göksu Zeynep Bayraktar-Zelal Deniz-Berk Girgin], **Things** [Didem Gül Kan-Yakup Efe Karabulut-Yusuf Balcı-Şule Öztürk-İdris Fatih Okumuş-Amine Serdar]*

Figure 24: Work process of the teams "Beaver's Nest" and "Things. The process is uploaded by team members to the Padlet platform.

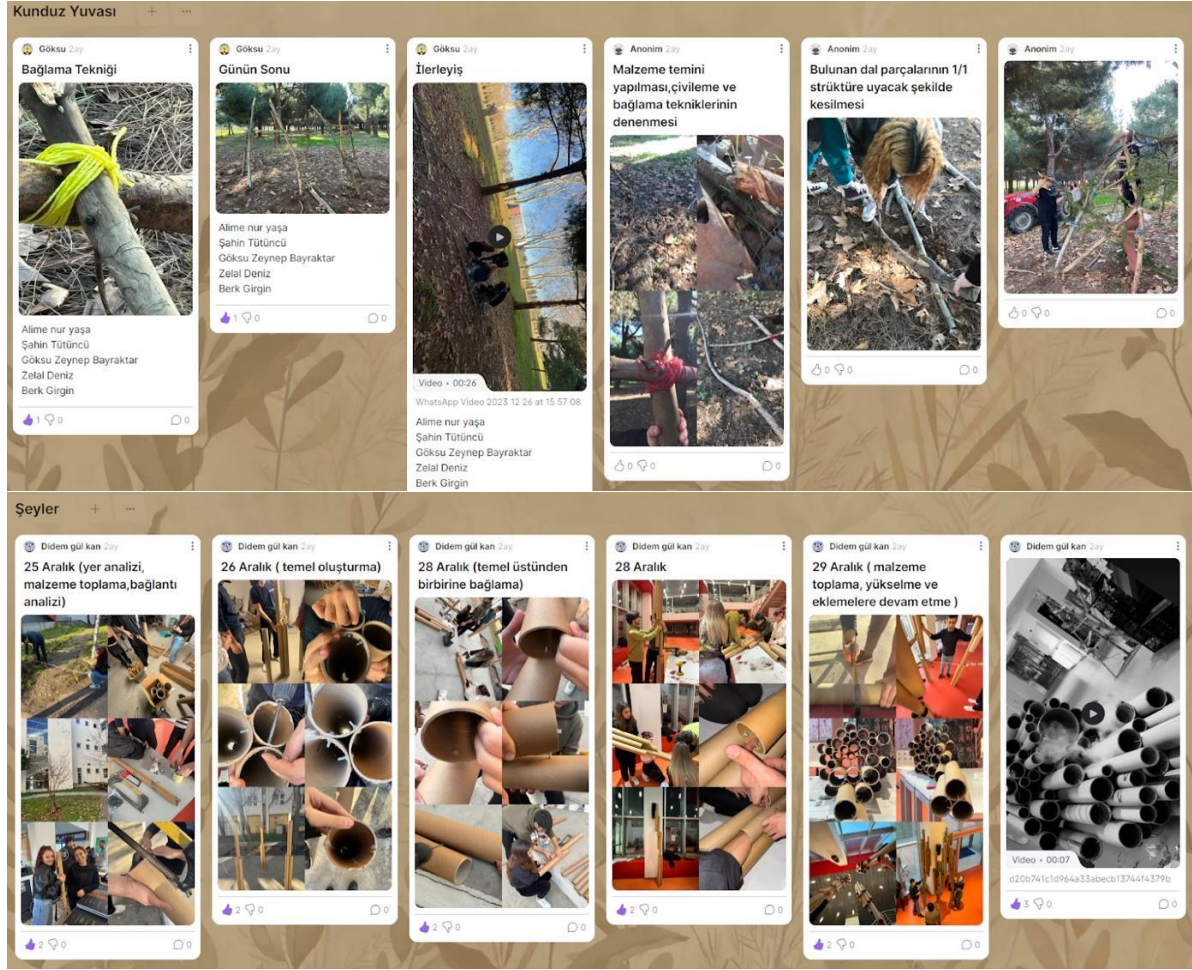Throughout the process, we effectively utilized digital platforms as extensions of our physical spaces, creating an integration between the two. All work, process documentation, and ongoing developments were consistently shared on Teams and Padlet, ensuring that every participant remained informed and engaged. Additionally, these platforms served as hubs for communication and collaboration, where event announcements, essential texts, suggested places to visit, current exhibitions, and other relevant information were shared on a common Padlet page accessible to everyone involved. The integration of these digital tools was crucial in maintaining continuity, fostering collaboration, and enriching the overall learning and creative experience.

Motivation:

It can be said that sufficient motivation was created in the studio without using any concrete threat or reward from the beginning of the semester (Figure 25). After the group introductions at the beginning of the semester, the students were placed in the group of their choice among six different first year studios that differed in terms of fiction and theme. In relation to learning styles, motivation increases in works requiring design, application, physical performance and teamwork, while general motivation decreases in text reading and discussions. Defining the tasks, limiting the time and producing them quickly had a positive effect on the students' taking responsibility. Group work and excursions had a positive effect

on motivation as they provided opportunities for socialization among peers. The fact that the whole school could see the works at the colloquium, the presence of an external lecturer in the jury, the observation of the team work by others due to the fact that the classroom was located in the entrance hall, the visibility of the working area of the "Beaver Nest" team in the forest close to one of the main pedestrian roads in the campus (they appeared on the student instagram page of the school with the structure they made) are seen as factors that increase motivation. Continuously following, photographing and sharing students' work on social media can also be a motivational factor. The fact that students do a job with high motivation and produce a qualified product increases the motivation of the instructors

directly and enables them to be better prepared for the next week's task.

Throughout the semester the 'Teams' programme was used for assignment submissions and announcements, and the 'Padlet' platform was used as a common sharing space (Figure 26). Padlet was expected to be a place for peer communication and sharing experience. However most of the students have not commented on others' works and just a few students posted interesting stuff. This may be attributed to the fact that they have already established communication channels on alternative platforms -such as Snapchat, TikTok, Telegram, or Whatsapp- which renders Padlet unnecessary to communicate with each other.
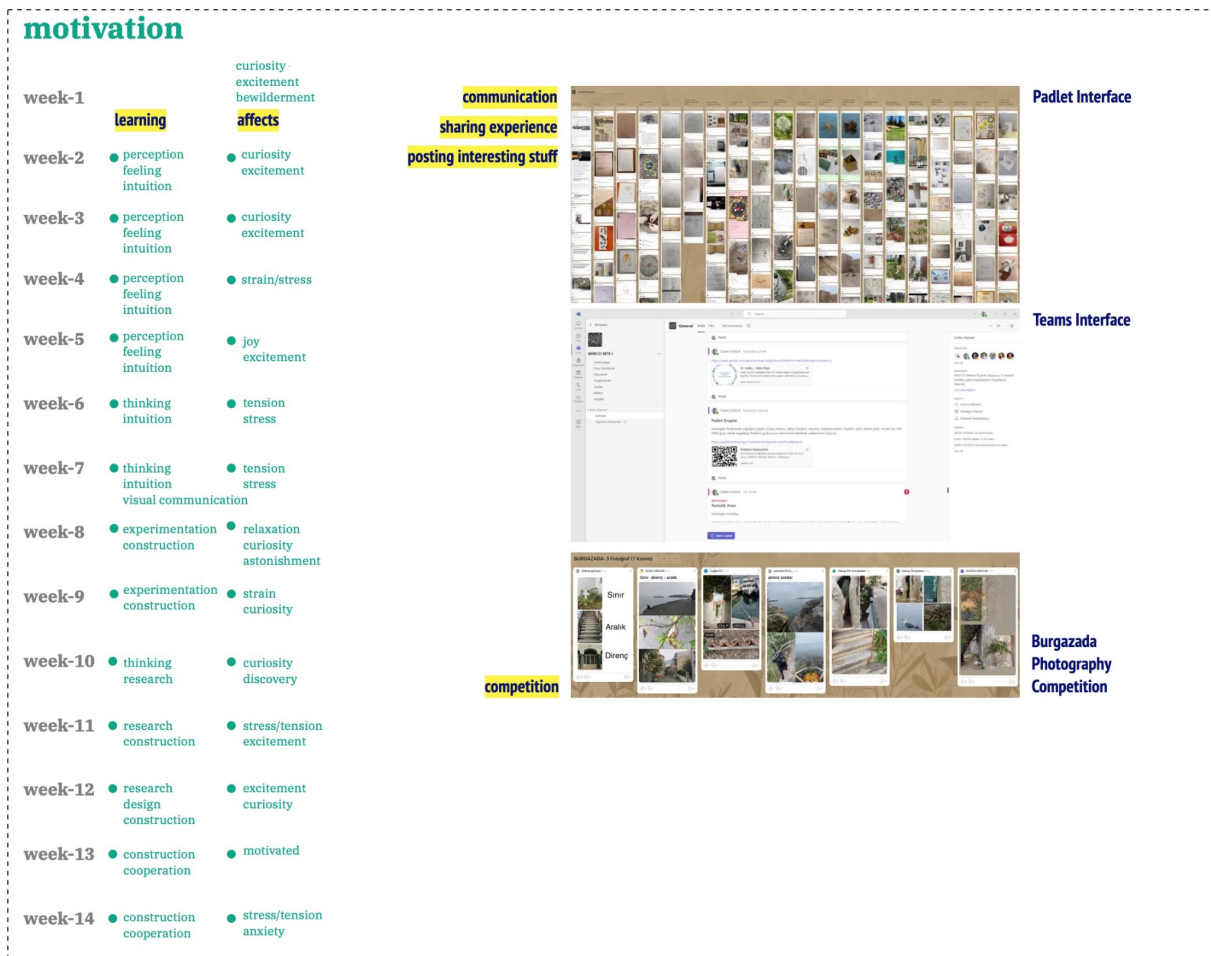

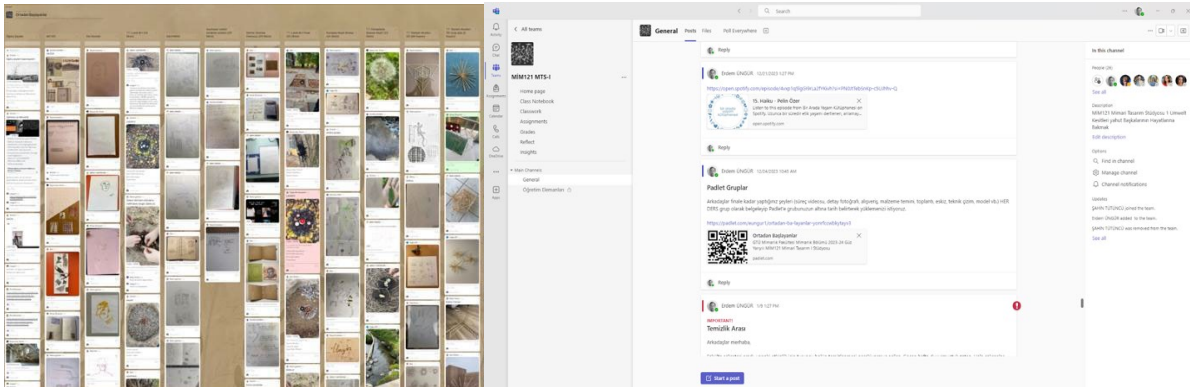*Figure 25: "Motivation" outputs of "Starting in the Middle" studio.*

Figure 26: Padlet Interface (left) and Teams Interface (right)

The photography competition was designed to increase motivation but because of not having a clear selection criteria and voting mechanism students were not as enthusiastic as expected. Also a problem with the projector forced students to view the photos from their cell phones. However, because of their curiosity and commitment we were able to discuss the relationship between concepts and visual images in the context of Burgazada (Figure 27).

Hierarchy
In order to break the expectation of the "knowing subject" that rightly comes from the student, we tried to point out the dark spots in the epistemology of architecture indirectly. For this, it is enough to bring different perspectives and interpretations into play, but we also tried to oscillate between controlled and uncontrolled areas in order to prevent the student from getting lost in a nihilistic and unlimited world of subjectivity. For instance, we tried to connect

the forms of representation with historical and social events by talking about abstraction, collage, reverse perspective and miniature against mimetic/figurative representations. In this respect, we can say that we endeavored to provide guidance indirectly, if not directly, at some points. On the other hand, since we did not impose a template in the poster submissions, we also prevented them from gaining the habit of working in graphically "correct" proportions. However, when we came across a poster with "correct" proportions, we tried to explain why it was "good" in the collective evaluation. We can also claim that we were lucky in breaking the hierarchy, as there were students in the studio who were sociable and critical, and participated in discussions with original comments. This participatory attitude, in which everyone, including us, had equal voting rights, especially when determining the projects to be worked and produced as a group in the final project, was an important step in establishing the horizontal and
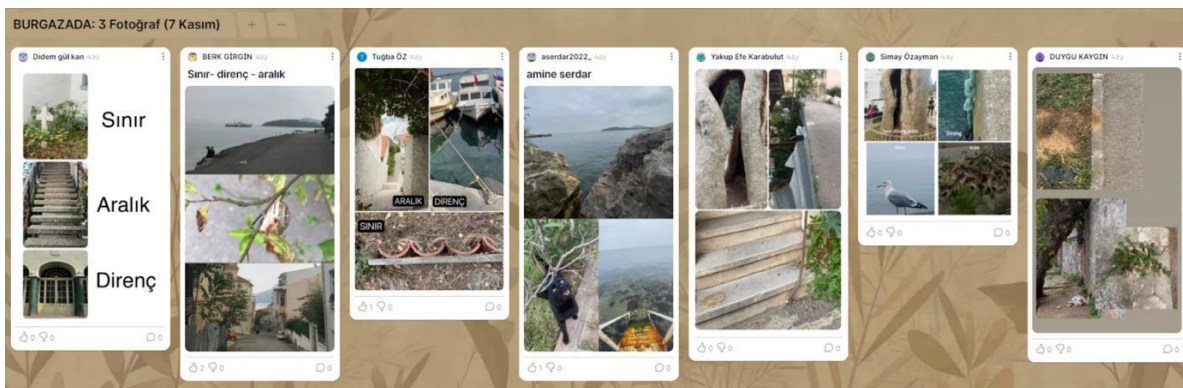

Figure 27: Burgazada Photography Competition

dynamic relationship in the studio. Since the first year works usually reveal the root problems in architecture, most of the times we were left unanswered, other "student-teachers" covered our gaps with their answers.

Evaluation:

Although the grading of work is a task that executives hate, students often (probably out of habit from secondary and high school) expect their work to be evaluated numerically. The rational/analytical criteria for numerical evaluation often lead to the invisibility of achievements that cannot be measured quantitatively. During the semester, after the works were delivered, we gathered and collectively evaluated them by thinking out loud. We discussed how we evaluated them, and why we did it this way. We tried to create common criteria for evaluation. Here, we tried to create a suitable atmosphere for students to criticize each other as well as opening a self-

evaluation space for students. Therefore, we realized that we were not creating a hierarchical community of minds, but a single common mind together. In addition to collective evaluation, we gave one-to-one feedback to students during production. Since we were two coordinators, we managed to stay on a common ground by giving feedback to each other about our feedback. We encouraged students to make self-evaluation. We announced numerical grades twice in total [colloquium and final grade] during the semester. Since we did not encounter any complaints when we announced the grades, we can conclude that our justifications were accepted. Finally, twice during the semester we held a vote in which everyone had equal voting rights. The voting may have been effective in increasing motivation by making students trust their own decision-making abilities and by introducing play into the studio environment (Figure 28).
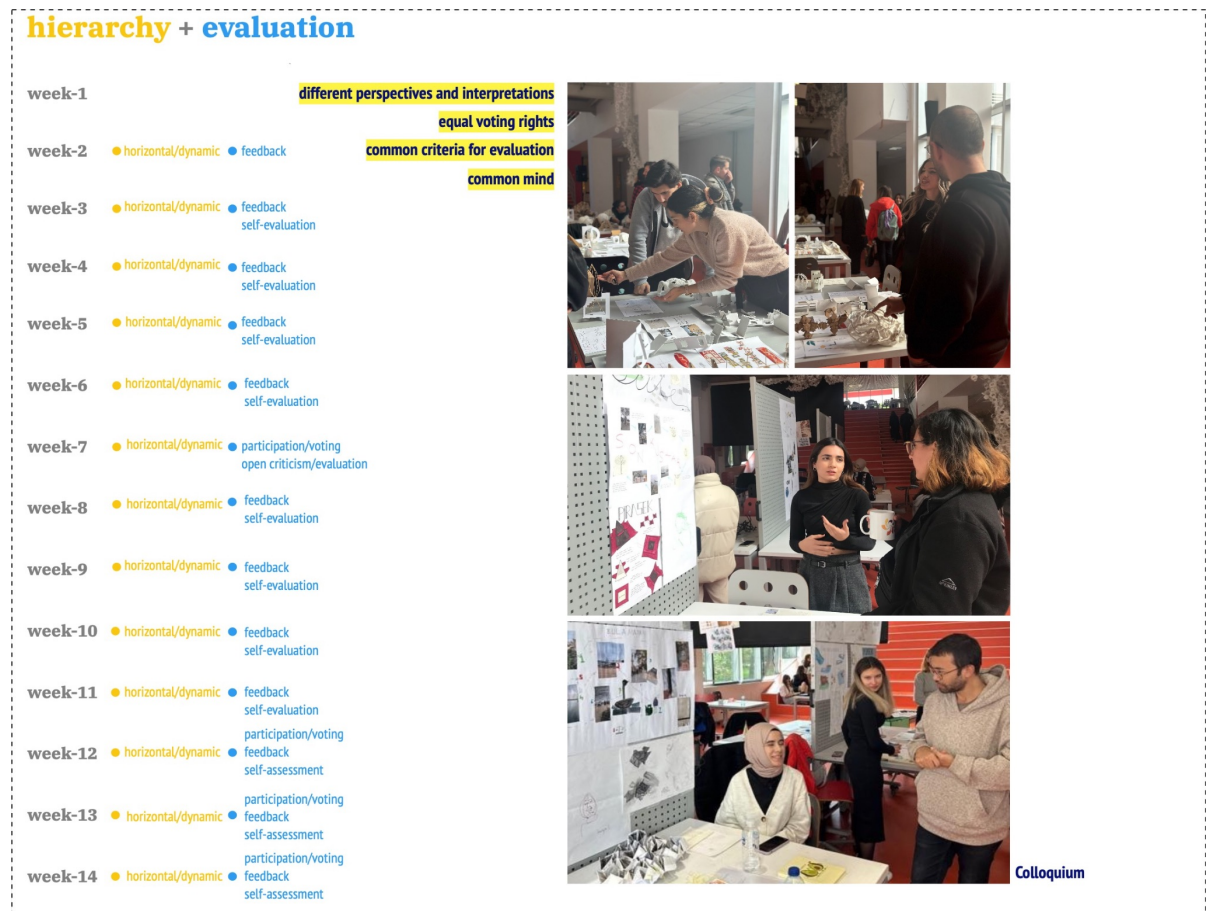

Figure 28: "Hierarchy" and "Evaluation" outputs of "Starting in the Middle" studio.

5. Conclusion

In the studio group MIM121 Architectural Design I "Starting in the Middle", which we conducted in the autumn semester of 2023-2024 at Gebze Technical University, Faculty of Architecture, Department of Architecture, we aimed to question how architecture establishes and transforms the relationships between the human and non-human worlds under the theme "Umwelt: Building a World". To this end, we sought to apply a constructivist and experiential studio pedagogy, defining Deleuze and Guattari's rhizomatic idea of "being in the middle/starting in the middle" as the studio's method of working, and Baruch Spinoza's idea of "being the source of virtuous effects" as our way of acting. Around themes such as New Materialism, Actor-Network Theory, Anthropocene, Circular Economy, Sustainability, Fair Design - without directly reflecting the theoretical background - we tried to include discussions and practices that we believe will create responsible and critical designers. Throughout the semester we explored different ways of working with waste materials. We have emphasized that in everything we do we are connected to each other and to the world around us, to other species, micro-organisms, soil, water, and that our primary duty as designers is to protect and maintain the urban metabolism as part of this.

The main limitation of our study is the lack of personal experience of the students. As tutors, we were only able to discuss our personal observations, particularly under the headings of 'motivation' and 'hierarchy' in section four. In future studies this limitation could be overcome through surveys and in-depth interviews with students. Another limitation related to the first one is the difficulty in measuring the level of skills acquired and the difficulty in determining the degree of relationship between different learning outcomes. As the impact of the first year of architectural design education is fundamental and lasting, long-term measurement techniques may be required. Finally, the Basic Design Studio syllabus was directly related to the Architectural Design Studio in terms of learning outcomes, but we couldn't address this relationship within the confines of this article.

Our concerns overlap to a large extent with the 'concerns' raised by the first-year architecture studios of twelve universities in Turkey about ten years ago. During this period, the precariousness of both students and instructors has increased with the rise of crises both in the world and in our country. With the rise of populist authoritarian governments and the Covid-19 pandemic in the world, the attempted coup in Turkey, the unlawful practices of the state of emergency, out-of-control inflation and the housing crisis, earthquakes and other man-made disasters, our expectations and responsibilities for the future have changed significantly. Today, when the need for university education and the existence of many architecture departments are being questioned, we believe that the first year studio is still relevant in the education of critical and creative thinkers. In our current environment, the most important role of the studio should be to create a safe space to breathe. The studio provides us with this experimental space to heal ourselves and others. We hope that the findings of this study will contribute to, or at least inspire, future first year design studio practice, both in terms of content and methodology.

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