

Ontological Approaches in Architectural Education: Phenomenology and Object-Oriented Design in Practice

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Abstract

This research adopts an ontology-based approach to theorizing the pedagogical dimensions of ontology that emerge through the architectural curriculum via the thing-tool-object framework. Architectural design, in this context, encompasses the mental, logical, and intuitive aspects related to processes of knowledge, production, and creation. Ontological approaches that prioritize holistic understanding beyond isolated parts challenge representational production processes and focus on the relational structure of knowledge. In architectural education, the MSFAU Introduction to Architectural Design course problematizes the pedagogical formation of architectural epistemology by integrating phenomenological and object-oriented approaches. These approaches examine how scaled drawings and modeling represent the formal knowledge of architectural objects and how this relates to the phenomenal reception of spatio-temporal experiences. The research aims to identify the transformation of the ontological status of formal architectural knowledge within its pedagogical context through practical applications. The study addresses key issues in architectural education: the representation of spatial awareness, design as intervention, interventions and phenomenal conditions in design processes, the rationalization of anthropometric data, scaling, modeling, and the relational distances between things, tools, beings, and objects in design.

Keywords: Ontological approach, architectural education, phenomenology, object-oriented design.

Mimarlık Eğitiminde Ontolojik Yaklaşımlar: Fenomenoloji ve Nesne-Yönelimli Tasarım Pratiği

Öz

Bu araştırma, mimarlık müfredatında ortaya çıkan ontoloji temelli pedagojik boyutları, şey-araç-nesne çerçevesi üzerinden kurumsallaştıran bir yaklaşım benimsemektedir. Mimari tasarım bu bağlamda bilgi, üretim ve yaratım süreçleriyle ilişkili zihinsel, mantıksal ve sezgisel yönleri kapsar. Bütünsel kavrayışı parçaların ötesine koyan ontolojik yaklaşımlar, temsili üretim süreçlerini sorgular ve bilginin ilişkisel yapısına odaklanır. Mimarlık eğitiminde MSGSÜ Mimari Tasarıma Giriş dersi, fenomenolojik ve nesne yönelimli yaklaşımları birleştirerek mimarlık epistemolojisinin tasarimsal pedagojisini sorunsallaştırır. Bu yaklaşımlar, ölçekli çizimlerin ve modellemenin mimari nesnelerin biçimsel bilgisini nasıl temsil ettiğini ve mekânsal-zamansal deneyimlerin fenomenal alımlanışıyla nasıl ilişkili olduğunu inceler. Araştırma, pratikte formal mimarlık bilgisinin pedagojik bağlamdaki ontolojik statüsünün dönüşümünü belirlemeyi amaçlamaktadır. Çalışma; mekânsal farkındalığın temsili, tasarıma müdahale, müdahale olarak tasarım, tasarımda fenomenal durumlar, antropometrik verilerin rasyonelleştirilmesi, ölçekleme, modelleme ve tasarımdaki şeyler, araçlar, varlıklar ve nesneler arasındaki ilişkisel mesafeleri ele alır.

Anahtar kelimeler: Ontolojik yaklaşım, mimarlık eğitimi, fenomenoloji, nesne-yönelimli tasarım.

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1. Introduction

In architectural education, the prescriptive nature of instructional methods restricts the pedagogical, environmental, and inclusive dimensions of the approach, along with the potential awareness it can foster in learners. While standardizing representative knowledge is necessary for developing useful and professional adaptations in pedagogical formations, the descriptive and explanatory structures of such formations can, ontologically, only partially reveal existing aspects.

This research adopts an ontology-based approach to theorizing the pedagogical dimensions of ontology that emerge through the architectural curriculum via the thing-tool-object framework. Within the phenomenological and object-oriented ontological approaches that shape the design process under study, the tension between epistemological and representational relationships constitutes an ontological problem. These relationships reflect both the construction process of architectural design and the design process inherent in the thing with which the student interacts. This tension generates entities that transcend the subject-object dichotomy and instead function as relational components. Despite the apparent objectivity and instrumentality of architectural knowledge, the uncertainty that emerges from interaction with the designed object remains a significant topic of pedagogical inquiry.

In an ontological context, design encompasses mental, logical, and intuitive dimensions related to knowledge, production, and creation. Since Descartes's Cartesian separation of mind and body, external things have been represented as existing within the mind as a distinct self. From a design perspective, this separation allows the claim that the design process can be sustained entirely within the mind by assuming that knowledge of things is represented completely and flawlessly. According to Kant, the production of knowledge in the mind occurs through the transformation of the manifold of sensory data—given naturally to the faculty of sensibility—into unity (synthesis) with the faculty of understanding, mediated by concepts and intuition. Conversely, thinkers such as Wittgenstein, Heidegger, and Dewey argue that representing the world should not be limited to constructive and systematic processes but should also involve forms of questioning that incorporate therapeutic and educational dimensions (Günsoy, 2022, pp. 26–27).

Ontological approaches that question the reflectivity, accuracy, systematicity, and correlationality of the mind for the sake of pedagogical wholeness—and that account for non-representational processes of production and creation—prioritize depicting the whole (holon) over its constituent parts. The parts that constitute the whole cannot be fully understood without reference to that whole. The external accuracy and truth of a whole's representation depend on what is represented, how it is represented, whether it carries an implicit essence, and whether it is self-referential or non-representational. The relativity of the part-whole relationship—grounded in belief or hypothesis—exceeds the boundaries of purely scientific reasoning. It reveals that the connections between parts are not merely descriptive—whether organic, synthetic, animate, or inanimate—and that the relational transitions between parts operate independently of the subject-object dichotomy.

Architectural culture produces artifacts of interest that have historically manifested as structural and built architectural objects. These artifacts construct truth and reality (technology) through technical knowledge. As tectonic formations, they have been historically defined and rendered legible through consensual techniques. These artifacts are meaningfully integrated into epistemological collective formations characterized by aesthetic coherence and part-whole consistency. As Frampton (2001) argues, the structural logic that constitutes the essence of architecture encompasses a poetic, creative, linguistic, and semantic field of expression that extends beyond the technical and structural dimensions of material use and construction processes. Since the Renaissance, architectural design has become an autonomous discipline, translating construction knowledge onto paper and thereby recording a "tectonic culture." This shift has transformed architectural representation into a standardized tool for production in modern times.

Unlike a language game, which operates within a broad social context, architectural production—whether professional or educational—is expected to demonstrate an awareness of the relationship between meaning and value in interpreting what is produced, particularly in relation to its exchange

value. This relationship pertains to the invention of new languages or language games, or to developing new ways of seeing and critically reading philosophical and historical backgrounds. Otherwise, architectural formalism—when detached from its social and cultural contexts—risks producing alienation and reification in learners. From a pedagogical perspective, this process should be therapeutic, critical, and reflective, while also creative and transformative when projected onto external reality or internalized by learners with intuitive awareness of paradigmatic shifts. From the research perspective, the curriculum is shaped by phenomenological and object-oriented ontological approaches.

Since the Renaissance, architectural design has evolved into an autonomous discipline through the transfer of construction knowledge to paper, the documentation of tectonic culture, and its transformation into a means of representation for standardization and production in the modern era. With the emergence of new forms of expression in the 1970s, technical drawings representing construction knowledge began to be regarded as artistic equivalents of non-structural (a-tectonic) expressions beyond structural architectural isomorphisms. Thus, the field of representation has become a new area of research. Rather than using standard language (technical drawing) that reflects construction knowledge in tectonic culture, technical drawing has become an activity that produces and discovers original artistic expressions of architectural form.

Technical drawing, while primarily concerned with the measurement and manufacturing knowledge of construction, also implicitly conveys the anthropometric dimensions of architecture. Human scale functions as a transmitter of architectural proportions across generations, linking tectonic culture (Frampton, 2001) to material practices within diverse geographical contexts, and transforming abstract measurements into embodied knowledge of craft. For centuries, architects and designers have sought to articulate the relationship between materiality and perception, often striving to create forms that transcend immediate sensory experience (Arapacıoğlu & Özgünler, 2018). In the modern era, the tacit knowledge traditionally passed through master-apprentice relationships has been reconfigured into a semiotic and linguistic system—an intellectual framework that underpins both technical drawing and design thinking. This evolution has positioned technical drawing not only as a tool for documenting the formal and functional characteristics of architectural and urban elements, but also as a site of experimental inquiry. Through the incorporation of diverse expressive modes, architectural drawing has expanded into a field of research, enabling the exploration of alternative formal grammar and the conceptualization of speculative design practices that transcend conventional construction paradigms.

To what extent can the relationship between conventions and structure—central to the definition of architectural tectonics—open architecture to pre-linguistic, ungrammatical, or symbolic modes of intellectual and imaginative expression? Likewise, to what degree can the interplay between representational media and architectural practice expand the discipline's boundaries without causing a tectonic rupture within architectural design education? These questions become particularly pressing in the context of foundational pedagogy: How might new forms of relational thinking, along with critical and creative strategies that challenge doctrinal and professional norms, be integrated into design research from the very outset of architectural education? At Mimar Sinan Fine Arts University (MSFAU), such inquiries are actively explored in the *Introduction to Architectural Design* course, where the pedagogical approach foregrounds the distinction between the technical language of drawing and more spatial, expressive modes of architectural representation. This curricular framework seeks to interrogate and reconceptualize the foundations of design education through the lens of both professional rigor and artistic inquiry.

Within a historical framework, the evolution of drawing—from expressive gesture to technical instrument and ultimately to a broader form of architectural representation—has positioned architectural design as a mode of research. This mode is understood as being equivalent to the formal, structural, material, and constructive dimensions of architecture that constitute what is recognized as tectonic culture. The alignment of construction practices with the architectural profession reinforces the conventionality of architectural knowledge and delineates the boundaries—or comfort zones—of professional practice. In response to the critical questions previously posed, an introductory approach to architectural design education seeks to modulate new forms of sensibility and cultivate alternative

modes of perception. This is achieved through a critical interrogation of the structures and linguistic totalities that have been standardized and reified by tectonic tradition. By doing so, the pedagogical framework aims to challenge normative assumptions and open space for speculative and reflective design inquiry at the very outset of architectural education.

Architectural design education can be understood through two distinct yet complementary approaches: the phenomenological and the object-oriented. Both approaches engage with scaled and rational drawing techniques, where technical drawing functions as a medium for representing the formal knowledge of architectural objects, as well as the aesthetics of spatio-temporal experiences and their phenomenal reception as design knowledge. The concept of *being in-between*, which encapsulates the potential for hybrid forms in architectural design ethics, emerges both literally and phenomenally through the interplay of intuitive and logical processes inherent in architectural consciousness, spatial sensitivity, and creativity. The organic development of manual labor in the craft of bodily construction knowledge (praxis), combined with mental and experimental research methods, establishes the dynamic relationship between diachronic and synchronic dimensions of theory and practice. This relationship, often manifesting as a disjunction between theory and practice in contemporary architectural design research, underscores the tension between conceptual frameworks and practical application within the discipline.

The forces that shape architectural production through the mediation of representation—ranging from mental constructs and projections to their realization within socio-cultural contexts—are situated within an ontological framework designed to provoke transformation within, outside, and through the discipline. In this way, the field of architectural research engages with the representational and temporal continuities of design, moving from literal and logical modes of expression to more phenomenal and intuitive sensibilities and modes of perception. Architects, as practitioners, acknowledge the essential role of theory within architectural culture (Schön, 1986; 2001). In modern architectural practice, the design projection is grounded in the drawing of construction knowledge, reflecting the embedded know-how of the discipline's craft and material practice.

1.1. Consciousness and the Phenomenological Approach in Architectural Design

Architectural practice often revolves around solving immediate, partial problems tied to daily routines and socio-economic conditions, contexts in which architectural knowledge tends to be more static. Under the guise of realism, architectural design in these cases becomes an ideological exercise, offering reductive solutions that are driven by short-term interests and imperatives. In contrast, pedagogical approaches to architectural design that aim to foster critical consciousness and a holistic worldview view design as a spatio-temporal problem rooted in the present moment. This perspective opens the field to critical, emancipatory possibilities. As a projection that encompasses the past, present, and future, architectural design serves as the representational space for actualization. In this sense, what is being designed is not merely an architectural object, but the manifestation of a holistic awareness that integrates subjectivity and objectivity, both of which are shaped by the socio-cultural environment and geography. However, this level of consciousness is often transcendental and challenging to grasp, especially for students at the beginning stages of architectural education. As Yazicioğlu (2022, p.16) suggests, "Consciousness is a field of activity where reality is established in a flow, but it does not establish reality by itself and does not transform it into acquired fixed contents". To facilitate this understanding, architectural design studios employ techniques rooted in existential phenomenology, enabling novice students to conceptualize design conditions at a more accessible level.

As an indication of the exteriority of approaches to the object of architecture in architectural design, the disciplines considered to accompany architecture tend to see architecture as an object of knowledge. Furthermore, based on the distinction between the discourse of architecture as a doctrinal discourse aimed at practice and the discourse of architecture as a discourse aimed at theoretical knowledge, the distinction between research for knowledge and research for the benefit of methodology or doctrine is the pursuit of a practical activity characterized as "design studies". Doctrine can hinder theoretical production by trying to find solutions without posing problems. On the other hand, theory is doctrinal because it seeks to be useful in the most general sense and can therefore abandon the path that leads

to theory (Boudon, 2015, p.11).

Although the methodization of the design process in the 1960s and 1970s sought to frame design thinking as a structured and scientific problem-solving process, often described as a *wicked problem* (Ritter & Webber, 1973), design knowledge is more accurately understood as situation-specific tacit knowledge (Polanyi, 1967). Design thinking, in this context, is recognized as a complex and non-linear process, deeply embedded in subjective experience and difficult to theorize through the conventional methods of logical or artistic disciplines. The epistemological driving force behind design thinking lies in the externalization of individual experience through spatio-temporal interventions, which are then transformed into information. In terms of its ontology, architectural design is phenomenological, emerging from the doctrinal discourse of tectonic culture and the spatial consciousness of the relationship between architecture and place. Since the 1970s, phenomenology in architecture has emphasized human experience, perception, and sensory engagement with space (Norberg-Schultz, 1967; Pallasmaa, 1996).

The term 'phenomenology' refers to Edmund Husserl's focus on phenomena as they appear to consciousness, rather than on things-in-themselves that lie hidden behind appearances. Rather than developing theories about the world in terms of atoms, electromagnetic flux, or psychological motives, the phenomenologist's task is to describe the world as it is experienced. When Husserl calls for a return to "the things themselves," he refers to things as they are presented in consciousness, not independent entities concealed from view in an external reality (Harman, 2010, p. 18).

As architectural practices and design processes are repeatedly experienced, they gradually become habitual and evolve into standardized, ready-made solutions. Tradition, in this sense, consists of a set of conservative vocabularies, terminologies, and usages that reinforce these established norms. However, reducing the vast possibilities inherent in the phenomenon of design—by adopting an unnatural approach that negates presuppositions or metaphors—serves to make prior knowledge explicit within the experience of the design event. In doing so, the spatialities of pre-thought and pre-verbal appearances are revealed, where the act of seeing is actualized independently of the cognitive processes involved in interpreting what is seen, along with the analogical and original preconceptions of the observer. On the one hand, architectural experience, in its infinite openness to interpretation and the inherent incomprehensibility of the whole, transcends any singular subjectivity.

Phenomenological approaches affirm the artistic manifestations of design projections, which are realized through transcendental consciousness within a critical framework that challenges conventional perspectives. In this context, the *Introduction to Architectural Design* course serves as a medium for fostering openness to the "other," transcending the literal conditions imposed by instructional guidelines. It transforms the learning environment into one of autonomy and originality at the phenomenal level. Consequently, the *Introduction to Architectural Design* course can be described and analyzed as an artistic critique of both the potential and limitations of design tools, as well as the scope of what can be projected. This critique is embedded in the immanence of problematization, engaging with the dynamics of design consciousness and human experience—rather than offering fixed solutions to predefined problems.

According to Heidegger (1962), human beings, or *Dasein*, must be understood as beings-in-the-world, fundamentally constituted by our relationships to the practical and social contexts that imbue our actions with meaning. His analysis of *Dasein* formed the basis for his critique of post-Cartesian views that consider human beings as isolated subjects in an objective world. In *Being and Time* (1962), Heidegger identified three modes of Being: *presence-at-hand* (the mode of Being of objects or substances), *readiness-to-hand* (*zuhandenheit*, the mode of Being of equipment), and *existence* (the mode of Being of *Dasein*, i.e., human beings)

1.1.1. The thing and the phenomenological approach

In the phenomenological approach, authenticity emerges from the immediacy of the design experience and the environment shaped by reduction. Within this reduced environment, the tools and material elements involved in the experience of subjectivity are not mediated through abstract systems but are

encountered as direct data of perception. By generating representational impressions of sensory and perceptual information—particularly regarding the bodily engagement with tools and selected materials—the process fosters the transformation of sensory input into design knowledge.

In the construction of the phenomenon, what is fundamentally experienced is the embodied sensation of spatial reality, its inscription into memory as an image, and its later recollection (retention). The phenomenological method of *bracketing* (*epoché*), as articulated by Husserl (1999), seeks to capture this experience by suspending prejudices and presuppositions, allowing the essence of the lived experience to be conveyed in its original form through linguistic expression.

However, the existential condition of being-in-the-world, in which experience is inevitably shaped by prior assumptions and prejudices, also affirms that the essence of things cannot be directly apprehended by the mind. What we commonly refer to as “things” often appears close to us, yet the nearness of things is not something that can be immediately or objectively experienced. Heidegger (1975) conceptualizes *things* in relation to the idea of nearness—not as a measurable physical proximity, but as a mode of being that is significant to human concern.

For Heidegger, distance and nearness are not spatial absolutes but are defined by existential relevance. Even so, nearness defined by concern does not equate to *true* nearness. For example, Heidegger argues that a time-lapse film of plant growth does not provide genuine nearness to the phenomenon it depicts. Whether we refer to something as “near” because it is physically close or because it is an object of immediate concern, both interpretations make the same ontological error: they reduce the *thing* to mere *presence-at-hand*—a concept critiqued by Heidegger for overlooking the deeper relational essence of being (Harman, 2010, p. 21)

For example, according to Heidegger (1975), we grasp a jug standing near us as a “thing.” The jug has been manufactured and is in front of us (object). It is not a cup because it is produced; it is produced because it is something experienced as a cup. The purpose-built (*eidos*) object (*Gegenstand*) becomes a thing in relation to something else (it comes close and becomes here-standing—*Herstand*). The thingness of the jug lies in the emptiness inside it, which, during the action of filling, is experienced as not belonging to the jug itself—making the jug an encompassing vessel. In this context, science deals only with what the form of design has already identified as an object suitable for scientific treatment. Science therefore views the jug filled with wine as an empty space to be filled with liquid (objectification), and in doing so transforms the jug-thing into something it is not (the nihilism of science). In contrast, the experienced jug is never articulated as a “thing,” and its essence does not come to light (*a-letheia*). For the emptiness of the jug to be itself, it must receive, hold, preserve what is poured into it, and overflow. The old usage of the word “thing” (*Ding*) as gathering refers to the essence of the jug. In this sense, a thing is not merely a design or form of being. In Old High German, the Romans used the term *res* to refer to that which is the subject of a relation or correspondence, something attributed to people, something that concerned them and became a topic of dialogue. Contextually, it indicates both a relation and a state of contention (Heidegger, 1975).

Phenomenal problematisation is a choice, and each choice is a process of making decisions. This choice is always partial, weak and insufficient; the open-endedness of the consciousness of insolubility in problematising is a dynamic strength and self-confidence. While this expectation, linguistic expression and proposed solution, which is not a natural attitude, transforms a unique description of the consciousness of something into a problematic expression; every conceptualisation and description affirms the natural expression of what the phenomenon is; at the same time, by covering what it is not, it opens consciousness to the other. Every representation is fundamentally an accentuation of the weakness of the representation of the existing totality.

The novice architecture student possesses a unique advantage in phenomenological research: their unfamiliarity with the disciplinary frameworks of architecture—such as tectonic culture, construction knowledge, and the codified theory-practice dichotomy—allows for an unmediated, authentic engagement with the architectural environment. This absence of preconceived knowledge enables an encounter with space and materiality that is relatively free from disciplinary assumptions, fostering an

original mode of perception and awareness. At the same time, this state of unawareness—this conscious ignorance—can be regarded as a form of authentic primitiveness, which, rather than signifying deficiency, constitutes a fertile ground for artistic and critical exploration.

Such an affirmative and open artistic stance cultivates a resilient and confident psychological disposition toward the architectural problematisation of the design event. In this context, the reinterpretation of a thing beyond its everyday utilitarian function—as more than just a piece of equipment—reflects its transformation into a tool of inquiry and expression. This reconfiguration suggests a shift wherein the object evolves not merely as a means to an end, but into a *tool-being*—a medium through which design consciousness and phenomenological awareness are enacted and embodied.

1.2. Object-Oriented Ontology and Equipment

As Martin Heidegger famously observes, our primary mode of engaging with objects is not through explicit awareness, but through their tacit integration into the everyday flow of activity. We do not constantly reflect upon the objects we use; rather, they recede into the background, becoming part of a seamless web of functional relations. As Graham Harman (2010, p. 18) articulates, even when we consciously attend to an object—such as a table—we rely on a vast network of “invisible things” that remain in the periphery of awareness yet structure the experience. This idea resonates with Heidegger’s notion of *equipmentality*, wherein a thing is understood in terms of its referential totality—its contextual relation to other things: “ink-stand, pen, ink, paper, blotting pad, table, lamp, furniture, windows, doors, room” (Heidegger, 1962). Within this referential system, equipment is not merely a passive object, but a node in a relational field, activated and defined through use, purpose, and interconnection.

Heidegger argues that science reduces entities to their measurable, present-at-hand features, observing that “science is never deep enough” to grasp the full depth of being. In his critique of technology, Heidegger identifies it as part of the same tendency: like the history of philosophy, technology inaugurates the reign of a boundless presence-at-hand, thereby stripping being of its essential mystery. He describes the entities found in nature as exemplifying presence-at-hand, whereas readiness-to-hand belongs to a system of references — a network of interconnected tools and purposes — that operates in relation to human goals. However, according to Harman (2010, p. 20), this traditional interpretation rests on a double misunderstanding: presence-at-hand is never truly independent, while readiness-to-hand always is — paradoxical as that may initially seem.

According to Harman (2010, p. 21), “by means of the tool analysis, Heidegger counters the boundless reign of presence-at-hand and paves the way to his question of being. For being withdraws from all access just as the tool does.” In this respect, tool-beings are “good” in Heidegger’s eyes, because they hint at a layer of reality deeper than what is immediately accessible. In contrast, technology is seen as problematic, as it strips all mystery from the world and reduces entities to a stockpiled presence-at-hand. Here, belonging to a system is no longer a liberating feature; rather, it drags things into a colossal gridwork, reducing them to calculable and manipulable surfaces. This process of ordering “is only directed toward one thing, namely: to establish [stellen] the single whole of that which is present [Bestellen] as standing reserve.” Ordering (Bestellen) is, in itself, universal. Heidegger terms this universal system of ordering *Ge-stell*, often translated as en-framing — a technical term that refers not merely to everyday frames, racks, or structures, but to the deeper technological enframing of beings as mere resources (Harman, 2010, p. 22).

Harman’s (1999), object-oriented philosophy, drawing on Heideggerian inspiration, presents a novel theory of substances characterized by several key features. First, substance is not a particular kind of entity, but rather a property shared by all entities. Second, tool-beings lie outside the “world” of *Dasein*, situated within a not-yet-determined metaphysical vacuum. Third, due to the absence of direct causality between entities, a “local” version of occasional causality must be developed. From this foundation, Harman identifies a series of four paradoxes that emerge from this new approach to the philosophy of objects: (1) the object is both free of all relations and yet seems created by relations; (2) the provocative question arises, “Where is presence?” (Harman, 2002, p. 287), particularly in a world

saturated with tool-beings; (3) an “indefinite regress” within being must be posited to avoid falling back either into traditional substantialism or slipping into mere relationalism; (4) since a relation itself creates a new entity, the being of an entity can only exist within another entity, leading toward a non-theistic, “local” conception of occasional causality. In short, this approach suggests another kind of regress — a descent inside the entity itself (Harman, 2002; Smith, 2004).

Heidegger critiques the conception of geometric-objective space, which treats space as an abstract, isotropic, and homogeneous measurable entity. Instead, he endeavors to explain the phenomenon of space through the concept of possibility. While phenomenological approaches position the sensuous object of experience as subordinate to the subject's dominance, object-oriented ontology suggests that objects (particularly architectural design objects) recede into a network of relations when not actively engaged. In the imaginable and sensible world, there is no strict duality between things-in-themselves and knowable things; rather, there are continuous transitions. Objects exist within dynamic and evolving relational fields, interacting and transforming through their interconnections.

2. Material and Methods

As stated in the introduction, a curriculum grounded in pedagogical integrity relates to the external accuracy and truth of representation, what it represents, how it represents, and whether it has an implicit essence or is self-referential or non-representational. In this context, the phenomenological approach aims to perceive, sequence, reflect on, and describe representations from a subjective perspective in terms of meaning and value. From an ontological perspective, any form or content created by the externalization and objectification of internal mental processes will exist somewhere on the spectrum between representational and non-representational. From a subjective perspective or phenomenological essentialism towards an objective thing, in the Heideggerian sense, “a thing that has its essence hidden within itself” is liberated from mental correlation, moving from being representational to being itself or a thing in itself. Conversely, an object reduced to our perception or utility represents the very opposite of this. In a pedagogical context, there are two primary ways to explain what something is. One is by clarifying why it is made and what it is used for, which involves practical and technical knowledge. But, as Harman (2020, pp. 60–62) explains, in object-oriented ontology, an object is “anything that cannot be reduced either downward or upward,” meaning anything that possesses a surplus both beyond its constituent parts and beneath the totality of its effects on the world.

Architectural design practices require the rational relationship between parts and wholes to be represented through specific measurements, fixed rules (scaling), interpretative techniques, and clear instructions. The purpose of these instructions is to reveal the potential inherent in the concept of “potentiality,” which, despite its dynamic etymological roots, remains insufficient for fully explaining processes of transformation. Tectonic culture, by contrast, is inherently dynamic and open to innovation. The “thing” at the heart of tectonic culture is not composed of predetermined components or fixed combinations of a designed whole.

The introduction section emphasizes the necessity of learning existing representative architectural knowledge—defined here as contemporary tectonic culture—through design practices. Aware of the distinction it draws between nature and culture within its pedagogical framework, this curriculum theorizes the natural and creative processes shaped by cultural codes between the mind, representation, and the world through two primary ontological approaches: phenomenological and object-oriented. Methodologically, the curriculum adopts a hybrid structure in its pedagogical context. While object-oriented ontology argues that things are composed of either cultural or natural components, rather than existing as hybrids (Harman, 2020, p. 65), architectural components, over time, naturally mediate between the mind and the world, structuring culture itself. As tectonics emerges as an artifact of this process, it becomes possible to speak of essential and nonessential thing-based hybridity within a pedagogical framework.

In the introduction section, phenomenological and object-oriented ontologies are framed through their interactions with things, tools, and objects. Within a pedagogical framework, these ontological

approaches define certain conditions necessary for achieving targeted materiality and modes of expression. The instructional modules are structured in accordance with these identified conditions:

- 1) The representability and objectification of entities can be materialized through specific design instructions.
- 2) The continuity of openness to change regarding the knowledge of what a thing is—including its components and combinations—must be maintained throughout the application of these instructions.
- 3) The aesthetic sensitivity of knowledge is directly shaped by the contextual relevance of the instructional framework.

Based on these conditions, the architectural education curriculum has been structured accordingly. Within the Introduction to Architectural Design course, this design research provides a foundation for scientific inquiry through design practices. The program conceptualizes an aesthetics-oriented pedagogical methodology.

The *Introduction to Architectural Design* course is a 12-week, semester-long program offered during the first term of architectural education at MSFAU. It comprises three sequential design modules, each spanning four weeks, with five hours of instruction per week. This course provides novice architecture students with opportunities to engage with various dimensions of the design process. Culminating in a portfolio, the course emphasizes developing skills to express architectural and urban design phenomena through representational tools. It facilitates the embodiment of architectural knowledge by focusing on the interplay of movement, action, and spatio-temporal relationships, all framed within the concept of scale. The course authenticates the design studio environment through interventions in the modeling of the experienced architectural space (module 1), topography (module 2) and the city (module 3).

The modules and their respective approaches to design are outlined as follows:

Module 1 (Weeks 1–4): Body–Space Intervention Practices

In the Introduction to Architectural Design course at MSFAU, students begin by expressing the physical spaces they encounter through direct sensory experience, later transforming these impressions into design interventions. This initial descriptive phase unfolds at a pre-linguistic level, emphasizing perceptual immediacy over verbal articulation. By the end of the first week, students document these embodied experiences through sketches, photographs, and short video presentations. Starting in the second week, the course progresses toward designing spatial relationships formed by the shifting intersections of perception, sensation, imagination, and memory—phenomenal dimensions of space and time—and their somatic effects. Space, as phenomenon, is encountered in its unmediated immediacy through the body. The MSFAU Findıklı Campus serves as the site for this phenomenological inquiry. Here, students critically engage with the interplay between body, perception, and scale, developing spatial transformations based on bodily movement, form, and presence in direct interaction with the material environment.

The goal of Module 1 is to develop an awareness of the physical and sensory conditions and possibilities of space, and to intervene through design in ways that imagine how an architectural presence within everyday life can influence human action and behavior. The module seeks to cultivate a direct phenomenological experience of the rational origins of architecture, particularly emphasizing the proportional relationship between body and space. To this end, students engage in mapping exercises that trace how a narrative or scenario is constructed through changes conveyed in successive images and sequences. Various media techniques — including video, photography, collage, sketching, and model-making — are employed, creating a communicative environment in which design thinking is built through the interplay between perceived real images, moving images, and static images transferred onto and represented on surfaces.

Week 1 Instruction: Students are required to digitally submit a sorted compilation of photographs and hand-drawn sketches derived from those photographs. All materials should be scanned or photographed in high quality before submission.

Weeks 2–4 Instruction: Students will continue to observe, experience, and reflect upon the spatial environment identified in Week 1. Design interventions will be introduced into the selected space or place—targeting elements such as walls, openings, surfaces, enclosures, voids, textures, and auditory conditions. These interventions aim to explore the sensory and psychological responses elicited through simple architectural components, particularly surfaces and boundaries (see figure 1).



Figure 1. Examples of interventions (Created and photographed by the Author, 2023)

Through design actions, students will investigate and evaluate spatial conditions and physical qualities—such as above/below, inside/under, enclosed/nested, open/closed, and fast/slow—as well as material attributes like permeability, texture, temperature, and tactility (e.g., soft, hard, repulsive, cold, hot). Scale models will be constructed in proportion to human figures to analyze the spatial experience and relational dynamics (see Figure 2).



Figure 2. Selected examples from Module 1 student studies (2023-2024 Fall Semester Exhibition), Illustrating spatial interventions and models (Created by the students, Photos by the Author, 2023)

Module 2 (Weeks 5–8): Body–Representation–Spatialization Practices While phenomenology begins with bodily and sensory experience, architectural design also necessitates engagement with representational space—involving abstract, schematic, and intellectual constructs at the imaginary level. This phase introduces students to these representational dimensions as essential components of architectural thinking. However, unlike experienced professionals, novice students lack the technical knowledge required for the structural realization of architectural form. As Kenneth Frampton (2001) suggests, the production of tectonic culture relies on shared professional knowledge, posing a challenge for beginners not yet equipped to engage in such discourse.

Accordingly, this module focuses on cultivating the ability to design environments that students cannot yet physically experience or construct within professional contexts. To bridge this gap, students use 1:50 scale human figures within representational exercises, allowing them to better grasp and reproduce spatial proportions. A fictional topography is introduced as the project site, systematically divided into a grid system, with each student assigned a specific grid section to develop their interventions (see Figure 3).

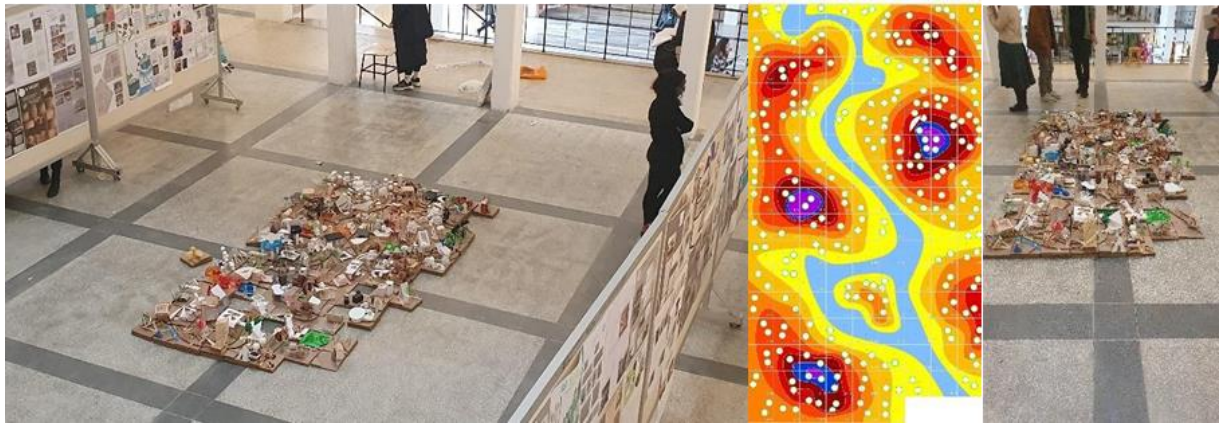


Figure 3. Diagram of the topographic base (Designed by the author) used in Module 2 and the assembled topographic model, illustrating the grid-based division and student interventions (2023-2024 Fall Semester Exhibition at Mongeri Hall, Photos by the Author, 2023)

The objective of Module 2 is to explore the relationship between nature, the human body, and the architectural object within a representational design environment, and to develop design proposals through research-based inquiry. Building upon the proportional awareness emphasized in Module 1, this phase shifts toward cultivating an intuitive understanding of scale. Within the studio, it becomes essential to recognize the representational reality of architecture—how it is constructed through the depiction and abstraction of both natural and lived environments.

This module underscores the interactive and environmental nature of design, focusing on the dimensional and surface relationships among nature, the architectural object, and the human body. A central theme is the inside–outside relationship, encouraging students to observe, think, and represent how the human body perceives, senses, and behaves within both natural and artificial contexts.

Rather than relying solely on quantitative measures or standard scaling through human figures, the module promotes an intuitive grasp of spatial dynamics—such as proportion, perception, and perspective—to better understand the analogy (or ratio) between body, architecture, and nature.

Weeks 5-8 Instruction: A transitional, fluid, open–closed space or spatial fiction is to be designed, considering human actions such as sitting, lying down, resting, watching, and lighting a fire. This space should function as a transit point for temporary shelter within a natural context, integrating potential formations, juxtapositions, and articulations of the selected model material. The design should explore the scale relationship between the shelter and the human body and investigate how the space might accommodate various physical actions, drawing from the scenario of movement through nature.

In order to highlight the perceptual realism of the design, students are required to capture scale photographs of human figures within the designed spaces, emphasizing how the design engages with human perception. This exercise aims to deepen the understanding of how spatial interventions shape the experiential reality of users.

Each project will have a conceptual name—a title derived directly from the design’s form, effect, or interaction with the space and its users. The name must be immanent to the design experience, reflecting the space’s relationship with the actions and experiences of the users, without relying on personal or external associations. The conceptual name can be accompanied by a font and logo created by the student, offering a personalized representation of the design concept.

For the technical submission, students will provide orthographic sections, elevations, and a site plan. These drawings should align with and be derived directly from the physical model, ensuring that they are drawn to the same scale. Additional materials to be submitted include experimental preliminary model studies, photographs of the final model, perspectives, photomontages, collages, sketches, AI-generated model experiments, and initial conceptual proposals.

Work Area in the Topography Model In this module, each student will design within a fictional natural environment defined by a 20 cm x 20 cm section of topography (representing 100 m² at a 1:50 scale).

Each section is assigned a unique identifying number in the common site plan. Students will work within their designated grid section, which includes topographical features such as natural slopes, trees, and a water element, all to be incorporated into their design.

The base material for the topography model is 20 cm x 20 cm corrugated cardboard, with the slope lines representing changes in elevation at a 1:50 scale (where each 50 cm line corresponds to a 10 mm thickness in the material). The representation and abstraction of trees will vary according to individual student interpretations, allowing for creative flexibility. The material choice for representing the water element will be determined collectively by the class. At the conclusion of the module, all individual models will be integrated to form a comprehensive site plan (see Figure 4).



Figure 4. Examples of Module 2 student studies (2023-2024 Fall Semester Exhibition) and presentations, design models, sketches, and visual representations (Created by the students, Photo by the author, 2024)

Module 3 (Weeks 9–12): Body–Urban Intervention Practices The objective of Module 3 is to foster an awareness of urban scale through direct observation of urban life in the field. The module emphasizes the relationship between the city, the architectural object, and the body relationship that unfolds in the context of structure, infrastructure, urban form, surface, and size.

Students begin by experiencing the Kadıköy Bazaar, observing it across different time periods. During these field visits, they record spatial configurations, human flows, and photograph the facades. A key concept explored in this module is the distinction between public and private spaces, which is essential for understanding how intersubjective relations and movement in the city are influenced by urban open spaces. Students learn to navigate the transitions between urban structure, open spaces, landscape elements, and closed/controlled private spaces. They also explore perception, visibility, and permeability—understanding these concepts through direct experience of the urban environment.

In groups of 4–5, students will collaborate to design a defined urban intervention. However, the focus is not on precise measurements or dimensions. Instead of emphasizing quantitative aspects of scale, the design process encourages students to explore the phenomenological interactions of the body–architecture–object–city relationship, paying attention to proportion, perception, and perspective.

This study explores the relationship between the body and the architectural object within the artificial and constructed urban environment—specifically focusing on the man-made artifacts that shape cities. The goal is to observe, think, perceive, and represent how human movement and behavior manifest within the urban environment, and how people experience and interact with the spaces around them. Through this process, students gain insights into public and private space boundaries, conceptual design, urban blocks, and the city as a whole.

Additionally, the module emphasizes the development of tacit knowledge related to the ontological

differences between the anthropometric (proportional and scaled) structure of the designed context and the urban model—a concept grounded in the phenomenological approach. It also examines how the interface between material choices and their potential in the studio leads students to intuitively recognize how these materials orient themselves toward objects and things—reflecting an object-oriented approach.

Weeks 9-12 Instruction: Throughout the week, students are expected to spend time at the Kadıköy Bazaar, making detailed observations of the space. Based on these observations and photographs, each group will create an urban model of their selected area. The street facades of the site will be drawn using orthographic drawing techniques at a 1:200 scale (students will be provided with plan templates). These drawings should be proportioned and based on the existing photographs taken during the site visits.

In their groups, students will focus on scaled spatial design, considering elements such as movement, function, meaning, and the beginning-to-end progression of the space. The individual works should be spatially connected, contributing to the overall narrative of the area. Students will produce sections, views, site plan layouts, and scenario narratives as part of the design process. Each student will design a specific part of the urban fragment, which will then be integrated into a collective spatial model at either 1/100 or 1/50 scale.

Each student will submit sections and elevations of their proposal, which will be situated within the urban fiction of the site plan. The submission should include perspectives, photomontages, collages, sketches, and other conceptual studies. Each project will be assigned a conceptual name, which should be immanent to the design—derived from the design's form, effect, and interaction with the space, as previously done in Module 2. The project should also feature a font and logo of the student's own creation, reflecting the conceptual identity of the design.

In addition to the main design work, the sheets should include facade drawings (silhouettes), experimental preliminary studies, sectional alternatives, perspectives, photomontages, collages, sketches, and mapping (see Figure 5).



Figure 5. Examples of Module 3 student studies and presentations, urban design models, facade drawings, perspectives, and conceptual representations (2024-2025 Fall Semester Exhibition, Created by the students, Photo by the author, 2025)

3. Findings and Discussion

Within the scope of the research, the methodological aims are discussed in the context of two ontological approaches. According to the conditions for achieving the targeted materiality and expressions in the instructions of the pedagogical context, modules are theorized in the two ontological approaches aimed at methodological aims.

1) The representability and objectification of entities can be materialized through specific design instructions:

The discussion of materiality in two ontological approaches to architectural education—phenomenological and object-oriented—begins with the problem of expressing a design object. Phenomenology aims to be aware of and conscious of something beyond merely noticing it. The exploratory structure of the modules' instruction is at the level of expression and representation of the imaginary. Therefore, it presents appearances rather than linguistic descriptions of consciousness.

Phenomenology seeks to understand and articulate the world as it is experienced by humans—naturally and bodily—by bracketing (or distancing) these experiences from the natural attitude. This process, known as phenomenological reduction through epoché, involves reducing the experience to the consciousness of something. Through this reduction, a series of externalizations emerge, moving from the perceptual and imaginative levels to understanding, linguistic expression, speech, and communication, ultimately leading to the emergence of the essence of each phenomenon through language.

Husserl (2015, p. 15) posits that the starting point of phenomenology is the discovery of the essence of linguistic expressions that emerge from the immediate consciousness of phenomena—those that are not given but are intentional. This happens within the context of the "immanent time" of the stream of consciousness, where there are no pre-existing assumptions, determinations, or convictions about time. This approach underscores the fundamental role of language in revealing the essence of experiences, even those that remain beyond direct or empirical access

However, the expressive challenges inherent in the representational and mediational nature of design often present phenomena that are non-linguistic and inarticulable—pre-linguistic or pre-verbal appearances that resist direct articulation. These initial, unstructured phenomena lie outside the systematized domains of syntax and semantics, which are not yet organized in a semiotic sense. Despite this, they hold material potential and possibilities that can be explored in the primordial endeavors of pragmatics. The fact that novice students may struggle to directly apply or transform theoretical knowledge—such as understanding linguistic structures, essences, or the foundations of tectonic culture—into tangible practice does not preclude their ability to design spatially for the course.

Each module of the course addresses the "suspension" of phenomena, framing them as problems of consciousness. It challenges students to recognize how prejudices and presuppositions guide their design decisions and the selections they make. However, the real opportunity lies in the rethinking of the design event within the studio environment. This occurs "during the time that appears as such" (Husserl, 2015, p. 15)—as a performance prior to the externalization of thinking and the articulation of a priori knowledge. In this way, the object-oriented perspective of the course seeks to promote design through research, encouraging students to explore design not just as a finished product but as a process of continuous inquiry

Rather than aiming to explain, analyze, or reveal the phenomena of experience—which are inherently inexhaustible—description or expression is sensual in nature. Phenomenological reduction does not strive for a linguistic purification of description or a conceptualization that experiencers might attempt to achieve collectively. Instead, the assignment of the modules in the course is articulated through the conceptualization of the unmediated affect produced by what emerges after the experience. Each expression, then, becomes embodied as a new phenomenon—one that goes beyond mere linguistic description and touches upon the possibility of architectural spatialization.

2) The continuity of openness to change regarding the knowledge of what a thing is—including its components and combinations—must be maintained throughout the application of these instructions:

The emphasis of phenomenological reduction on linguistic description is thus transformed into a problem of expression that expands into the artistic and imaginary realms. In this expanded field, focused on the design event, the modules are not a search for a predefined or a priori design or logical form based on a linguistically given and delimited conceptual unity. Rather, the performativity of seeing while experiencing is not about discovering what the seen object is or what it resembles. Instead, it is

about uncovering the agency and movement created through spatialization—the new possibilities for space that emerge through design.

This movement represents the consciousness of seeing the material “as something or structure” (Harman, 2002, pp. 68-80) within a practice that is both mental (design thinking) and physical (experimental design) in a phenomenological context. However, the aim of the modules is not to performatize the know-how or technology of the representational codes related to construction knowledge. Instead, it is crucial to recognize that what is seen in the design experience as a work (ta pragmata) is what is directly presented—an object-oriented approach. By postponing the poetics of tectonic culture, the course redirects the aim (teleology) of design—from representations that lead towards construction—into an experimental field of pre-representational creations.

If the experimental field of the module can be understood by the design student as a manifestation of non-phenomenological experience, one that opens to non-logical phenomenalities prior to the act of “seeing as something,” then ontic integrity emerges. The goal is to enhance the student’s sensory capacity (empathy) by facilitating their ability to “substitute (using Aristotle’s metaphor) the scaled figure—the ability to perceive oneself as a figure within the architectural object of research (the sensible object).

Within this framework, the inquiry through phenomenological reduction—raising awareness of the experience by asking reflective questions—becomes secondary. What takes precedence is the direct tangibility of expression through drawing and modeling, which transcends the linguistic mediation of thought. In this sense, any phenomenological research that challenges the logic of the part-whole (gestalt) relationship is postponed in favor of infinite openness. This approach introduces a kind of feedback or evaluation, arising from the notion that “the whole is other (not more) than the sum of its parts.”

3) The aesthetic sensitivity of knowledge is directly shaped by the contextual relevance of the instructional framework:

Of course, in any phenomenological research, as the design phenomenon is expressed and discussed, speech is laterally intersected by the speech of others (Merleau-Ponty, 1973, p. 142). In the process of conceptualizing what is seen, what is spoken becomes the field of expression for the design event, where the phenomenon appears in the act of speech. Within the framework of the course, the motivations that support the design force—which triggers hermeneutic reflections—orient the learner-learner (not learner-teacher) relationship, and the dialogues continue to unfold.

In the modules, there are no predetermined images, textures, or examples to trigger design motivation. Instead, the immanent structure of bodily experience persists through the directions, internalizations, and orientations of the chance encounters that occur in the design event itself, or in the experienced space.

However, when object-oriented ontology eliminates the subject-object dichotomy and redirects the design event from the phenomenality of the subject’s design experience to the objects and relationalities inherent in the structure of the thing, the irreducibility of the thing comes back into focus. Object-oriented ontology or philosophy is more concerned with what a thing means, rather than how much it can be reduced to its parts (Harman, 2020, p. 19). In contrast, a reductionist approach that assumes there is nothing beyond the parts and effects of things (as in positivist approaches) involves experiencing the thing from a categorical point of view that determines its parts and effects, which in turn leads to conditioning and correlation.

According to Harman (2016, p. 10), a materialist approach undermines its object by reducing it to a mere bundle of qualities, relations, or discernible actions. In this view, an object is constantly modified, transformed, disturbed, or created. Materialism fails to distinguish between an object itself and how it behaves or manifests in the world at any given moment. However, an architectural design object is “other” than the sum of its components, and cannot be adequately understood through downward reduction. For example, the materiality of an architectural object in design is closely related to its formalism, which transcends the tectonic structure of a building’s surface. This formalism has the

potential to produce surplus value, excess, or otherness in perceptual experiences, transforming the material perception of surface or facade tectonics (Sayın, 2022; Arpacioğlu & Özgünler, 2018).

The object produced by design, which gives form to matter, is formless before it appears. The design object is dematerialized (Sayın, 2016, 2022) and immaterial in the process of becoming. It is not just the material from which it is made, but rather an emergent form in the design process that defies simple reduction to its components.

On the other hand, Harman (2016, p.16-17) argues that immaterialism recognizes entities at every scale of existence without dissolving them into any ultimate constitutive layer. Substances or nouns take priority over actions or verbs, meaning that not everything is contingent. Every entity possesses an autonomous essence, one that is directly knowable and capable of generating frequent surprises. What a thing is, in this view, becomes more interesting than what it does. Objects are singular, rather than multiple, and while they may affect and be affected by others, their essence remains distinct. Object-oriented realism asserts that reality exists outside the mind and is something we can never fully know.

On one hand, the knowledge of an object cannot be directly compared to the object itself. When a real object is observed, the knowledge produced by that observation differs from the object as it truly is. In the phenomenological approach, experience may convey less knowledge than the object itself, presenting it with an essential or poetic purity. Qualitative features of the object can be brought to mind in sequence, yet this mental reconstruction is limited by cognitive constraints. In the experience of the object, the external form of the object and the form of knowledge it generates in the mind are both related, yet distinct. The form that is attached to matter in the world (external form) is an immaterial, or "left behind," version of that object in the mind (internal form). This is akin to how a linguistic translation of a concept or word does not capture the full essence of the original meaning (Harman, 2020, p.21).

The external form of a natural object is revealed in the object itself and is subsequently transferred to the mind, albeit in a distorted form. A formless substance, which cannot be seen as a defined object, might remain incomprehensible. Thus, while the knowledge of a thing is not limited to its material properties, it is always linked to a unified form. The form, as understood in the mind, cannot be fully separated from its material manifestation; both exist in a tension that defines our perception.

In any work of design, therefore, a model cannot be seen as a translation of something or as a partial substitute for an entity. In the working model of design, an architectural tectonic form (handicraft natural and given) is a thing independent of its material (in this context, its constructive material, for example, a wooden staircase). Moreover, according to the analysis of a natural tool, the characteristics of the ready-at-hand model material are a composite form of the model itself and not yet an architectural object defined by technical drawings to be constructed.

The return to the phenomenal experience of the designer-model relationship is facilitated by the inclusion of scaled human figures, which provide anthropometric data to help conceptualize the notion of scale. This begins the anthropocentric correlation, wherein the human figure is seen not only as an abstraction but as a body in the space being designed, marking the intersection of the designer's experience and the material form being studied.

In architectural design research, students use the design process itself as a means of exploring architectural ideas rather than relying solely on theoretical study. The creation of object-oriented models suggests an experimental approach, where students engage in testing spatial, formal, or conceptual ideas through design. This active engagement allows them to generate new knowledge and contribute to the architectural understanding, as opposed to merely analyzing existing buildings or ideas.

However, depending on the research focus, the classification of design can shift. For instance, students might focus on formal qualities (structure, proportions, materiality), or on functional aspects (spatial usage, circulation patterns), or they may prioritize phenomenological aspects (how the space feels, how it influences behavior). Each shift in focus reflects a different approach to design inquiry, adapting to the specific goals of the architectural research or experiment.

In general, ontology is regarded as the study of the formation or manifestation of beings, independent of subject, object, or subject-object relations. In this context, the representation and perception of beings in flux and motion—central to this study—constitute a form of intervention in the whole through the phenomenon of design. Accordingly, the modules developed within the curriculum function as practical interventions mediated by the thing-tool-object framework across the interconnected domains of mind, body, space, architecture, and the city—all of which are intrinsic to the concept of the whole.

Based on the findings, the curriculum program addresses key pedagogical conditions summarized as applicability (representability), transformation, motion, and sensation. These conditions are problematized and thematized through two methodological ontological approaches. The thematic analysis also reveals distinctions between phenomenological and object-oriented ontologies concerning how these pedagogical modules are conditioned and conceptualized.

3.1. Interrupting the Flow, Perception, and En-framing

Phenomenological descriptions are not meant to be explanatory in the traditional sense. Instead, they aim to capture the qualitative essence of an experience, which can differ each time due to varying atmospheric conditions surrounding the experience. These descriptions are rooted in partial appearances—images, framings, and perceptual expressions of form, color, proportion, and texture—as they unfold in memory during the flow of experience. The goal is not to explain the phenomenon but to preserve its immediacy and originality as it exists in consciousness.

In Module 1 Body-space intervention practices (week1-4), the photographs and sketches serve as a way to transfer the original perspectives of the space experienced during Findıklı practices. These visual representations act as a form of documentation and reflection, allowing the observer to engage with the space in a deeper way. The motivation behind using photographs and sketches is to capture the raw, unmediated experience of space as it is perceived by the body and mind, allowing students to explore their personal sensory experiences with the space.

In Module 3 Body-urban intervention practices (week-9-12), street silhouettes are drawn using photographs as a tool for representing the stasis that exists within the dynamic flow of life in the urban environment. This concept contrasts the idea of movement (life in flow) with the static and enduring architectural forms (buildings, facades) that frame and contain the dynamic movement of people and events. These silhouettes function as representations of momentary stillness within a larger, ongoing process of change.

The gestalt relationships of the facades come into play here. In these relationships, openings, rhythmic arrangements, color, shape, texture, proportion, composition, and variation all act as motifs that create design movement within the static environment. These elements are not random but intentional, shaping how individuals perceive and experience the urban landscape. The intentionality behind these design choices is realized through the motifs embedded in the architectural composition—each choice contributing to the experience of motion and stillness.

This framing of space and perception highlights the idea that design is not merely an aesthetic exercise, but a way of shaping experience. By interrupting the flow of life in the urban environment through the intentional design of space, students can explore how the constructed environment interacts with the movement of bodies through it, creating a dialogue between the two.

3.2. Stages and Thresholds: Body-Mind Relations

Perceptual selectivity and the production of value and meaning concern the identification, emphasis, and presentation of elements that are effective in architecture. In Module 2 body-representation-spatialization practices (week 5-8), each student is encouraged to recognize and articulate their own unique point of view. Within the designer-user relationship, developing an empathetic attitude is crucial. Learners are tasked with perceiving space from the perspective of another—potentially even an animal. They are encouraged to imagine and direct the actions and behaviors of users or others within the spaces they design, thereby recognizing the potential of design to influence movement, behavior, and experience through mechanisms of conditioning, such as controlling, halting, or accelerating

movement. Movement traces, sensations, and effects are mapped accordingly. Students are expected to critically examine the environmental impact of their designs by discovering liberating or restrictive spatial conditions through questioning. Design inquiries such as "For whom?", "For what purpose?", "How?", "When?", and "Under what conditions?" serve to guide the direction, staging, and narration of user behaviors within the design process.

3.3. Spatial Interventions

Spatial boundaries are perceived through multiple senses, including sight, touch, smell, and hearing. Existing flows within spaces—such as those observed in Mimar Sinan Hall—are carefully studied. These spatial conditions are characterized using descriptive adjectives such as transitive, permeable, dark, cold, high, airy, strong, white, and formal. Schematic sections, plans, and perspectives are produced to support this analysis. The primary objective is to cultivate an awareness of both permanent, tectonic, strong, and solid spatial conditions and temporary, mobile, weak, and fluid spatial conditions through Module 1, Body-Space intervention practices and Module 3, Body-Urban intervention practices (week 9-12) bodily and mental experience. Spatial interventions focus on the transformation, modification, and, at times, disruption of existing spatial flows. Within this framework, the balance between the liberating potential of design and the constraints of common sense is critically evaluated through speculative thinking.

3.4. Design by Modeling and the Object-Oriented Approach

Phenomenological ontology, which asserts that an object has no independent status without a knowing subject and that objects are mere manifestations of a deeper underlying substance, denies the autonomy of objects either by undermining their reality or by overmining them through external decision-making. In contrast, object-oriented ontology posits that objects exist independently and maintain their own reality. Accordingly, the architectural design objects produced in the modules—particularly the models—exhibit their own correlations, flows, and patterns, independent of the relationships they form with the city (Module 3, Body-urban intervention practices in Kadıköy Bazaar), regarded as the largest human-made artifact. This approach, interpreted as a move away from anthropocentrism, considers the modeling of urban artifacts as the zero point of object-oriented thinking, particularly in architectural education. In this context, the anthropocentric understanding of the tectonic status of architectural form is critically reexamined. In modeling, archetypes and examples of tectonic culture, traditionally shaped by human perception of nature, are no longer seen as fundamental. Instead, the relationship between the chosen model material and the human body is conceptualized as part of a broader network of agents, akin to Bruno Latour's (1988) Actors-network theory.

However, the phenomenal intimacy that architectural design establishes with the human body and actions is experienced through the materiality or immateriality and human figures in the model. In the interaction between the potential characteristics of the model material and the actions and capabilities of the human body (tool-being), there is a regression to the conditioning and dynamics of materialities and entities are *ready-at-hand* in the design experience. Consequently, the conflicts and hierarchies of entities created by the heterogeneous structures arising from each encounter—the body-figures, their spatial actions, the materials they interact with, and the designer—become signifiers of the pragmatics of the experience.

In Module 2 (body-representation-spatialisation practices) and Module 3 (body-urban intervention practices), the transition between object-oriented and phenomenological approaches serves as a precondition for creating themes such as movement, function, meaning, beginning, and purpose within a scenario situated in the built environment. Scaled spatial design studies, as well as sectional, plan, and elevation drawing experiments, are conducted. In these models, only surface, texture, and color are defined, while structural concerns of architectural knowledge are not addressed at this stage. The relationship between the perception of the abstract qualitative properties of the model material—such as form, transparency, and load-bearing capacity—and reality is established. In this context, the qualitative properties of the model material, such as texture and transparency, are scaled through

techniques like collage, montage, photography, and perspective manipulation (e.g., drawing perspectives on photographs or layering in a digital environment), with the real material and color properties being abstracted and animated. Photographs of the model are taken, and collages, texture experiments, as well as light and shadow experiments and videos, are created to establish the identity-difference relationship between the experienced object (model) and the representation of the architectural object.

Subsequent themes reveal tension between epistemological approaches in architectural design, including representational, technical, reflective, and correlational frameworks; aesthetic and ontological approaches and knowledge and skill-focused design practices.

3.5. The Problematics of Representation, Expression, and Technical Drawing: Scale, Measure, and Ratio

The description of a phenomenon constitutes a problem of representation. The field of information from which an approach to design education, directly linked to pre-language or pre-speech, can be drawn, lies at the level of imagination and model production. The necessity of teaching the symbolic relations of expressive forms in advanced design approaches as design knowledge within theory-practice courses (e.g., technical drawing rules) inhibits the development of skills within the intuitive and liberated environment of design. Addressing the problematic of expression at the level of perception, vision, form, imagery, and graphic expression—without progressing to symbolic language and communication—supports the enhancement of creative and associative skills in design.

Through technical drawing, rather than presenting the ordinary image of a designed architectural object, a measurable architectural knowledge object is created in a scientific and literal sense. In this context, the part-whole relationship in design, which serves as a knowledge object for building, can only be seen and analyzed once the synthesized final product (the constructed building) emerges or materializes. In design/representation or technical drawing, if the size and definition of the parts can be epistemologically provided from the outset, the whole is already scaled and rational—i.e., geometric—even if it does not yet exist or has not yet been physically constructed. In technical drawing, measurement serves as the guarantee of scale.

An architectural design, however, begins with the design of space and problematizes representation within the spatialities and possibilities of the design environment. While space appears as it is experienced daily, it is the representation of the secondary space that is established in order to understand this space. The representation of the designed space (the secondary) goes beyond the materiality of the future construction, as it is literally recorded and projected through drawing. In this way, the immediacy and shallowness of the opacity and superficiality inherent in the literal or scientific are dissociated and permeated by the concept of "spacing." The poetics of transparency and immediacy become layered and metaphorical, providing a linguistic or expressive openness or possibility. Thus, spatial design expands diagrammatically, from what is conceived, schematized, and imagined in the mind to the drawing, image, and materiality of what is built.

The linearity of designing, representing, and constructing what is thought and imagined presents a problematic. In terms of object-oriented ontology, what is experienced and what is conceived are not substitutive or hierarchical/topographical; they exist in a flat relationship. In flat ontology, primary and secondary space, or the perceiving (human), perceived (represented object), and experienced (everyday life) space, or design space, all become actants (see Latour's Actor-Network Theory, ANT). Measure, scale, or ratio are therefore not anthropometric or merely representational. Since the relation of the human body, scale, and movement as actants to the design space creates its own reality in object-oriented ontology, in modeling, correlation and contingency are subordinated to the aesthetics of the model.

In the phenomenological approach of the Introduction to Architectural Design course, the problematics of measurement and scale in the transfer of symbolic knowledge create a challenge in the skillful communication of design information through technical drawing in the representation of design that is directly physically experienced. The "distancing" between experience and representation, created by the

representational techniques of orthographic drawing, which objectify experience on the flat paper plane, also prevents the "seeing as-structure" that could potentially occur in the direct manifestation mentioned above. It is problematic that orthographic drawing techniques can represent measurement, but they do so by alienating the subject in the design experience through unnatural ways of seeing (e.g., axonometric perspective). To mitigate this distancing and the alienation it creates, measurement is transferred to scaling. The technical drawing stage represents the "approximate" drawing that is transferred from the modeled design to paper by seeing and aligning, drawn by measuring over the scaled model. The alienating structure of technical drawing in its symbolic and precise aspects of construction, in the epuric plane of determining and measuring knowledge production, is mediated through the blunt drawing created by the imaginary shortcut between the produced model and the drawing. In this way, the rational and analogical nature of drawing what one sees, a natural skill for a beginner, becomes a facilitating starting point.

Ratio, as a concept inherited from mathematics, refers to epistemological rather than aesthetic problems in architectural design that measures space. Through analogical reasoning, the human body rationalizes the entire design object. In this context, a typological and archetypal categorization emerges. The typological architectural object can be enlarged according to the fixed average human scale (modulor) and vice versa. Architectural size can be in ratio to the scale of human movements, actions, and numbers without altering its geometry. Scale determines ratio. In architectural design, geometry shapes the design without the requirement of measurement (for example, we can perceive a triangle without measuring it), primarily as a constellation of mental and representational relations.

According to Boudon (2015, p. 30), "the idea of thinking of scale as the place where the difference between geometry and architectural space is located depends on the scientificity of architectural knowledge."

In design studies, scale is intertwined with aesthetics, which constitutes both a doctrinal concern and the design of knowledge. The challenge lies in producing both architectural theory (which in common usage refers to the doctrinal) and design theory that can address the question of how the architect measures space. In this process, which appears as an access to a "black box," the disjunction between what the scale will be and a study of architectural knowledge positions scale in an epistemological role, as the point of difference between geometry (mental space) and architecture (real space). Aesthetics and epistemology should not be conflated in the construction of the concept of architectural-epistemological scale. If they are not confused, the architectural scale that emerges in the aesthetic field ceases to be a trajectory adopted when thinking about perception and instead becomes an architectural constant. As a result, no problems arise in architectural design due to the complexity of architectural scale (Boudon, 2015, pp. 13-14).

3.6. From the Thing to the Problem of Reification

In advanced design processes, experienced architects organize technical, historical, geographical, and socio-political information into an architectural projection, shaping design knowledge within the context of tectonic culture. Therefore, the commonalities and limitations of the shared understanding of architectural tectonics, where each cultural work takes into account the others, define the comfort zone in design. The heterogeneity created by diversity and emergence is homogenized by universalities and instrumentalizations within this comfort zone.

The exploration of design through phenomenological approaches in introductory architectural design education opens up new possibilities and ways of seeing, which can be characterized as liberating, creative, and original. The goal of phenomenological reduction—to linguistically describe a radical field of subjectivity and to reveal the linguistic essence in expression—is to ground experience on a geometric and logocentric foundation. The fact that experience emphasizes the reflection and consciousness of a thing changes logically each time it returns to the thing itself, according to the essence's point of view within the thing. In this case, the representational expression in language of any part-whole relationship to be constructed in architectural design corresponds to some essence in tectonic culture. In architecture, archetypes, precedents, standardizations, and other system-building elements or essences

become short-circuited prescriptions within the professional comfort zone of practice and reification. Reification refers to the perception and treatment of the world, which is a human product, as though it were not a human product. In the context of architectural design, if the products of architectural knowledge perceive the abstraction of the linguistic and symbolic structures of architectural tectonics as alienation, the pre-linguistic or pre-speech appearances of architectural design pedagogy are distanced as something external, and their authenticity disappears.

Reification, etymologically derived from the Latin *re-* (from the stem of *res*, meaning "thing"), refers to "the mental act of materializing (a person or concept), objectifying, or treating an idea as a thing." In object-oriented ontology, an independently existing thing (whether physical or conceptual) or an abstract entity is considered an object of design in research. The concretization of design as a modeled object can make the complexity of the intangible design phenomenon seem tangible and, in doing so, reify the design phenomenon itself.

On the other hand, in the pragmatics of a natural, inferential, and primordial contact—free from the danger of reification—the subject-object coexistence in experience initially appears as a curiosity of the material world that has not yet been objectified or investigated. In the phenomenological approach, the fact that prejudices and presuppositions prevent the phenomenon from being isolated in the mind (*epoché*) and authentically described, alongside the notion that information brings the given relations of previous experiences into the present experience (*retention*), becomes a habitual act of "seeing as" for every learner in the Introduction to Architectural Design course. The inability of phenomenological reduction to prevent this natural function of recollection is addressed in representation through the mediation of sensible objects in the transition between modules within the course.

Module 1 aims to visually describe the experienced space and transform it through intervention and design. In this sense, design is always conceived as the intellectual force that regulates movement and behavior, involving both the designer and those engaged in the designed space.

In Module 2, the actions of scaled figures within a fictional topography, and in Module 3, the actions of scaled figures in the public and private spaces of the urban landscape, are designed by scaling the deformations appropriate to the forming qualities of the chosen model material. In both modules, to the extent that the empathic relationship established with the figures can be perceived by the learners, the authenticity of seeing the representation as something present in the natural and urban environment prevents alienation in the sense of being in a place where one is not physically present. Otherwise, the aesthetic illusion that emerges through the objectification of the representation becomes an artificial/artistic activity, reifying the bodily experienced reality (*embodiment*).

For Heidegger, within the danger of being lies the possibility of a turn away from the forgetting of being into the truth of being itself (Harman, 2010, p. 23). In this case, interrupting the flow of becoming and examining it through design with an ontological approach of *en-framing* (*Gestell*) leads to the destruction and fragmentation of the ontic integrity of the design-object.

In design, the artistic/artificial transformation of reality in representation dissociates architectural production from its tectonic reality, thereby clarifying the difference in the causal relationship between craft and art. The material transformed in the model is not something that represents a material imitating the tectonics of architecture as craft. Rather, the modeled material presents a superficiality that does not imitate the tectonics and technology of architecture but signifies the architectural form according to its material qualities (e.g., bendable, cuttable, twistable, transparent, semi-transparent, etc.).

"[W]ord and image are not mere imitative illustrations but allow what they present to be for the first time fully what it is" (Gadamer, 2004, p. 137). Thus, while structural relations can be determined by abstracting the material in the model, in application projects, an introduction to design is experienced where the knowledge of constructive technologies learned in advanced design approaches is not yet decisive. In this phenomenal situation, within a primordial encounter with the material used in the model, there arises the danger of entering into a formal production- consumption cycle in design through alienation by means of reification. The moment at which the possible formations of the

material are fixed into a scaled rationality is determined through the descriptions and conceptualizations that emerge in the dialogues during the course.

"For something independent can become an object when we represent it to ourselves... what is thingly in the thing [does not] consist in the fact that a thing becomes the object of a representation...". Any entity can be perceived either as a thing or as an object, just as any entity can appear invisibly ready-to-hand or explicitly present-at-hand. The thing is irreducible to what we represent of it. In short, science reduces the thing to a present-at-hand caricature by replacing it with a set of tangible properties through which it is modeled (Harman, 2010, p. 23).

4. Conclusion and Suggestions

The phenomenological approach seeks to describe the essence and truth of things by turning consciousness back toward what emerges in the present moment within the inner experience of time, independent of prejudices and presuppositions. The consciousness of things that arises in the "nearness" established between the subject and its environment on earth is expressed through the atmosphere manifested in each encounter. The ability to describe an existing architectural or urban space constitutes the starting point of the introductory architectural design course (Module 1), with various media techniques employed to cultivate these skills.

The phenomenological approach regards body and mind as a non-Cartesian unity. It treats spatio-temporal experience as the convergence of direct relations with objects, environmental artifacts, and means, resulting in an authentic presentation characterized by a non-representable originality (manifestation). In the production of space, architectural design projects the constructive knowledge of tectonic culture and conveys the qualities of the architectural object to be experienced through techniques of representation. The notions of "thing" and "equipment" bring into focus both the ontology of embodied presence in space and the ontology of constructing and transforming space through lived experience, thus shaping the agenda of architectural design education.

However, when design transforms space into an object of research or labor for architectural knowledge through the act of scaling within the field of representation, representation itself becomes a tool of inquiry. Consequently, the being-equipment (Dasein) distances itself from the thing and becomes a tool. In this context, the concept of scale—being doctrinal—provides the practical relational framework between the experienced and the designed space within this distance.

In architectural design education, the doctrinal discourse oriented toward practice is phenomenological and ontological, whereas the discourse oriented toward theoretical knowledge is epistemological. Since architectural design education is grounded in both discourses, Heidegger's (1962) three modes of being—presence-at-hand (the mode of being of objects or substances), readiness-to-hand (the mode of being of equipment), and existence (the mode of being of Dasein, i.e., human beings)—can be considered within the context of the course.

When the architectural design object is epistemologically reduced to the measurable properties of presence-at-hand in technical drawing, it loses its transparency and mystery, becoming standardized within an existentially limitless framework of presence-at-hand. By contrast, authentic precedents that emerge as archetypes within tectonic culture—naturally generated through poetic language—carry implicit knowledge. Archetypes serve as architectural fundamentals, belonging to a system of references that are interconnected within a larger system tied to human purposes. Therefore, referring to Harman's (2010) argument, an archetypal approach to architectural design is never independent or conventional in the manner of a mere presence-at-hand.

In the notion of readiness-to-hand, the efforts undertaken in instructional and representational studies within the studio environment—where modeling and representational tools offer perspectives on human perception—seek to return the design process from representation back to the "thing" itself by fostering the necessary distancing. In this context, within the studio design environment, a tool-being transforms into a "thing" through the readiness-to-hand of a piece of equipment. The thingness of equipment lies in the "gathering" of its essence into tool-being; it is not merely the instrumentalization or mediation of something external. In the conclusion, Heidegger's etymological inquiry into the concept

of the *thing* is revisited to emphasize how the meaning he attributes to *thingness* enables a broader conceptualization of the object within the object-tool-thing relationship of object-oriented ontology. What Heidegger ontologizes as the “mode of being of the thing” does not concern the *what* of its essence, but rather “gathering” its *how*—its manner or modality of being. This *how* constitutes the ontological ground of relationality. Within this framework of relationality, the perspectival approach of the study is framed not merely in terms of spatial prepositions such as *through*, *within*, *beside*, or *near*, but rather as a mode of engaging with a more fundamental ontological relation “*through*” design.

This ontological emphasis on *thingness* resonates with Graham Harman’s reinterpretation of Heidegger’s *ready-to-hand* in his development of *tool-being*. While Heidegger frames the *ready-to-hand* as a withdrawn mode of being in practical engagement, Harman radicalizes this by asserting that all objects withdraw from access—not just in use, but in their very existence (not presence). Thus, *tool-being* extends Heidegger’s analysis beyond human-world relations, suggesting that objects possess an autonomous reality irreducible to their utility or appearance. In this context, the study’s relational approach to design does not reduce objects to functional instruments but instead acknowledges their ontological surplus and the withdrawn depth of their being within relational and contextual fields.

Tool-being thus describes an object-oriented ontology in which the subject approaches the object of design and actualizes itself through engagement (assemblage) with the object. Consequently, the experience of design does not aim to discover the form of a phenomenological essence or an archetypal, presuppositional object as presence-at-hand. In Harman’s reading of Heidegger’s analysis of the tool, it becomes evident that presence-at-hand directs the mode of making toward a geometric and archetypal object that can be measured, calculated, and produced through the standardized use of equipment, whereas readiness-to-hand describes how equipment shapes design according to its own material qualities and the conditions within which it operates, thus articulating a materialist ontology.

Within the object-oriented approach, the essence of movement, action, and things in architectural design is not attributed to a particular kind of entity but is a characteristic of all entities. In the early stages of the course modules, Dasein is neither fully determined nor clearly described; thus, direct causality is absent, and instead, a module-specific, “local” version of occasional causality is developed. The architectural design object thus appears both independent of all relations and simultaneously constituted by relations (Harman, 2002; Smith, 2004).

Within the framework of the course, architectural and urban spatiality is realized through phenomenological descriptions and expressions that sense and make sense of space. Simultaneously, an object-oriented approach is experienced, wherein the equipment of architectural design is perceived as a network of relations among entities, operating fluidly or ideationally through a local causality that emerges from an intimate relationship with things. This allows for an autonomous engagement with the architectural object as ready-to-hand.

However, it is crucial to acknowledge the risk of reification inherent in the object-oriented dimension of this hybrid, modulated approach to introductory architectural design. Given the complexity of socio-economic, geographical, and cultural determinants in advanced design processes and professional practice, the curriculum emphasizes skill-based representation, formalization, and intuitive design thinking over the purely technical, knowledge-based aspects of architecture. While design processes involve many abstract relations, the object-oriented approach’s tendency to render subjects physical, concrete, and tangible properties—combined with a skill-focused pedagogy—risks encouraging students to perceive architectural design as detached from its broader social, geographical, economic, and political realities, thus echoing the phenomenon of reification. Similarly, object-oriented design may lead to perceiving inherent properties of objects (e.g., model materials, scaled human figures) as isolated facts rather than as products of dynamic human-object interactions, as emphasized in Marxist theory. Therefore, the phenomenological and object-oriented ontological approaches employed in design research through design must be supported by scientific methods and rigorous epistemological inquiry in architectural design education.

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