# A Phenomenological *Epoché* for Beginning Design

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## Abstract

This paper presents introductory drawing and design works that seek to expand students' understanding and conceptualization of space. Within the context of first year undergraduate design and drawing coursework, a series of phenomenologically driven assignments disrupts and enriches the traditional, and arguably necessary, curriculum of orthogonal and orthographic conceptions and projections of space. The paper argues that while the abstraction of 'rational,' Cartesian spatial language, thoroughly embedded in the theories and practices of art and architecture, is a necessary and productive convention; it is nonetheless imperative that the beginning student also discover space as a profoundly subjective construct, continuously emergent and contingent, able to advance one's understanding, agency, and engagement with the larger, intersubjective world.

## Introduction

The design and drawing briefs under discussion intersect and coordinate two 100-level courses: introductory architectural graphics and multi-disciplinary design-drawing. The curriculum takes seriously Robert McLeod's statement, "The immediacy and accessibility of the nine-square [..] is essential to creating a place to begin making architectural decisions."[1] The student works presented here function as a phenomenological *epoché* within a nine-square and cubic design curriculum; that is, the assignments require a temporary suspension of judgement and certainty, a bracketing of belief in the 'known' attributes of an orthogonal spatial order. Students are introduced to phenomena-generated, drawing procedures. Practitioners such as Max Ernst (pendulum generated forms), Rebecca Horn (drawing and painting machines), John Cage (tidal marks) and others, provide conceptual precedents and a range of material and methods for students to engage. Speculative two- and three-dimensional studies analyzing the results of these 'drawings' encourage the student to discover a logic or genealogy of their drawings and to develop the potential 'depth' of an alternative spatial construct. Finally, the students are requested to return to the known form-language of their previous assignments, but now to significantly inflect or entirely transform a Cartesian order with their phenomenological discoveries.

The paper illustrates a brief sequence of study that engages the beginning design student with the discourse of spatiality by way of the unknown. The phenomenological *epoché* within the introductory curricular context introduces the student to the spatial and form-language possibilities of the subjective encounter with the local phenomena of place, a process that proposes personal perception and the suspension of known, 'rational,' orders can reveal the production of space and place as manifold and emergent processes, continuously unfolding in time.

## Contingent Autonomies

John Hejduk writes in *The Education of an Architect* that the nine-square problem is a "pedagogical tool," one which allows the beginning student to "discover and understand the elements of architecture;" he lists, "grid, frame, post, beam, panel, center, periphery, field, edge, line, plane, volume, extension, compression, tension, shear, etc." [2] Note the list graduates from material elements, to spatial conditions, to physical performance but begins first, and singularly, with form: the grid. Hejduk's primacy of the grid, and particularly of the nine-square, is explained by Alexander Cargonne as the result of a crucial encounter with Colin Rowe at the University of Texas Austin in the early 1950s. Cargonne's historical account of the development of the architectural design curriculum at Texas argues that the collective search for essential, introductory principles and elements among Hejduk, Rowe, Robert Slutzky, Bernhard Hoesli, Harwood Hamilton Harris and others, was a response and reaction to the prevailing traditional Beaux-Arts curriculum at Texas as well as to the anti-historical Bauhaus curriculum well underway in the U.S. at the Harvard Graduate School of Design and elsewhere.[3]

It is Colin Rowe's 1947 essay, "The Mathematics of the Ideal Villa," that likely provides the clearest underpinning to Hejduk's nine-square pedagogy. In his comparison of Palladio's Villa Malcontenta (ca. 1560) with Le Corbusier's Villa Stein at Garches (1927), Rowe discusses the two works in terms of their plan and façade geometries and their characteristic "tripartite distribution of lines of support," both subdividing a "single block."[4] For Rowe, the geometric repetitions of this plan-form across time accounts toward a "Platonic archetype" as well as the continuity of an historical type-form.[5] The essay resuscitates architectural history via typology, providing an alternative reading of continuity between classical composition and modernist 'ahistorical' abstraction. For the purposes of the pedagogical goals at Texas, Rowe's Mathematics essay provides a specific formation of the 'elements of architecture,' a bridge between Beaux-Arts parti and Bauhaus "abstract elementarism"[6] by way of purified, historical form.

Joining the Cooper Union School of Art and Architecture in 1964, Hejduk established the nine-square problem as a decades-long mainstay of the introductory curriculum. It, along with abstract, 'cubic' compositions, both emphasizing plan and axonometric projection, provide the principal form-language of architectural instruction at Cooper Union. The nine-square is the initial field of architectural inquiry and discovery. Understood as a reactivated type-form in service of continuity with the historical avant-garde, its exercises are directed toward the form-language of "Cubism and Neo-plasticism, the very discoveries from which Le Corbusier and other Paris-oriented masters constructed their plastic and spatial language."[7] Procedurally, design is enacted by division, repetition, and rotation of planar elements. Robert Slutzky characterizes the procedure as an investigation of "binary architectonic relationships;" he states, "an insistence upon rules of organization is maintained with the notion that 'concept' and 'percept' not only co-exist but become in fact inseparable."[8] Augmenting this disposition, Hejduk speculates on the Cube Problem, "given an object, perhaps a program can emerge."[9] Concept, percept, as well as program, are understood as emergent from form; and form, as we have seen, is generated almost solely within and from a particular geometric type.

## Surface Effects

Given that the grid is thoroughly embedded within the theories, discourses, and methods of art and architecture is inarguable, the accessibility of the nine-square to the beginning design student as an introductory form-language is easy enough to accept; Robert Slutzky's attendant phenomenology of 'transparency,' devoted to the visual structures of Cubism, is perhaps more difficult. Commenting on his collage and color course at Cooper Union, Slutzky's states that his "pictorial problems" of "pure plastic composition" are contained by the picture plane's field of inquiry, "hermetically bound" and "distinct from its physical surround," but are first and foremost intended to "substantiate the concept of relativity."[10] Slutzky's transparency project, an extension of this endeavor, is most clearly outlined in his influential essays, "Transparency: Literal and Phenomenal" and its sequel of the same title, subtitled "Part 2," both co-authored with Colin Rowe.[11] In the first essay, transparency is demonstrated in its analyses of works by Gris and Le Corbusier wherein "suppression of depth, […] oblique and rectilinear grids, and propensities toward peripheric development" are highlighted as the adamantly "shallow" surface attributes of a self-reflexive "phenomenal transparency."[12] Eight years later, in Part 2 of the essay, Rowe and Slutzky temper their claims for shallow space instead focusing on the patterns and fluctuations of figure-ground and "figure-field" effects in 20th century and Mannerist, Neo-classical architecture. Again, historical precedent is enlisted to bridge the discursive and autonomous concerns of the 20th century.[13]

Both the nine-square and its visual percepts of the picture plane inscribe precise, 'hermetically bound' fields of inquiry for the beginning architecture student, and both claim explicit links to the Mannerist-Neo-classical and 20th century avant-garde. These twin limits helped establish a principled, if self-reflexive, pedagogical discourse and curriculum that continues today. In 2022, Wouter Van Acker writes, "Since 1954 the nine-square grid has become an essential figure in both studio language and art historical language."[14] For Van Acker, the nine-square has become an icon without content; it is no longer generative, but simply one more figure in the "flux of imagery" of contemporary architectural culture.[15] The 'content' of the nine-square, however, has always been in question, whether by Rowe trying to fill it or Hejduk attempting to empty it out. Accordingly, Raphael Moneo poses the following question, "does the formal structure of architecture come as a result of making an abstract, modular division of space or does it, on the contrary, arise as an independent assertion making use of elementary images and figures?"[16]

## *Epoché*

The exercises presented below seek to both embrace and inflect the nine-square pedagogy, its form-language, and its particular emphasis upon a phenomenology of autonomous, visual effects. 'Automatic drawings' are the primary tool to instantiate these transformations. The drawings here, are a specific type of automatism; they are made without the human hand. Automatism, in this case, are marks made by simple machines or 'natural' processes such as rain, wind, evaporation, et cetera. This effectively brackets inwardly directed or self-reflexive methods such as 'blind contour' and dissociative markings from the process; by contrast, the intent is to propel the students' perceptions outward and into the world.

Just as a wind or rain drawing is a visual marking of a naturally occurring phenomenon, so too is a machine drawing, such as one made by a pendulum or simple configuration of gears, for it records the effects of gravity, force, and inertia. These automatically produced images initiate the student into the possibility of an "imminent visibility," wherein the "'invisible is the secret counterpart of the visible'".[17] That these images are not produced by the student's hand is key. The production of a complex image that records 'invisible' processes points to the possibility of discovering a possible inner-framework or form-language of a phenomenon.

Through the drawings students are made aware that it is possible to make an image that is not just a representation

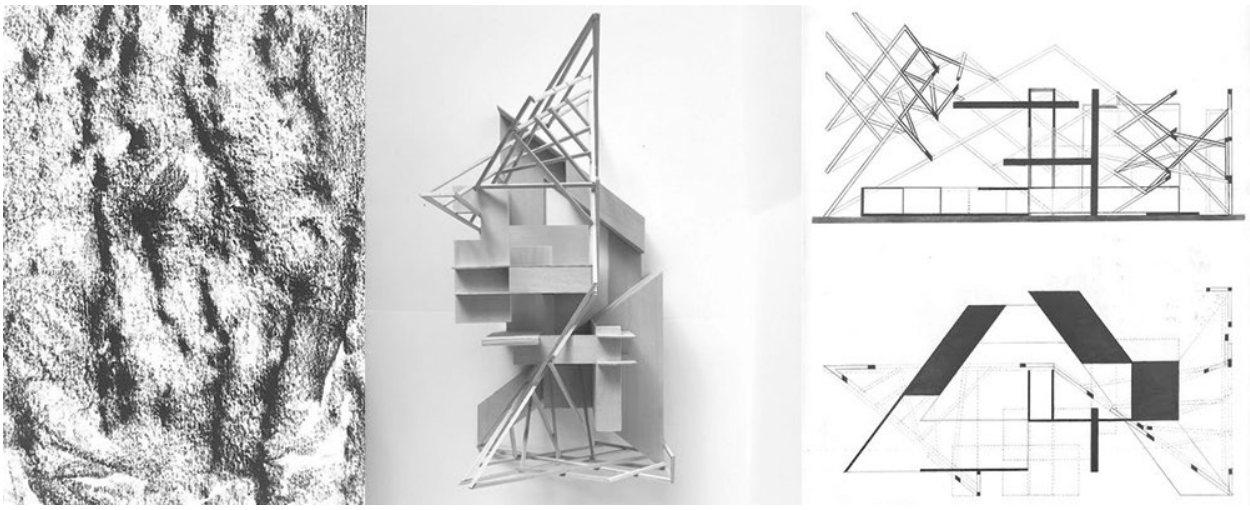

Fig. 1 *Student 1: tree drawing; synthesis model; synthesis plan and section*

but is rather an 'enactment.' By initiating visual works that interact with the environment, the student discovers a means by which to engage the world to produce knowledge; a technique wherein the "the learner is ultimately the one defining what is pertinent or significant".[18] From the point of view of Merleau-Ponty's 'incarnated subject,' the body and the world, the student and the phenomenon, are "reciprocally intertwined;" the "sensing subject cannot be separated from the sensed material, and the viewer cannot be separated from the viewed".[19] Enacted drawings, then, are not representations in the usual sense but closer to demonstrations or recordings of a particular interaction between the student and the environment. (See Figures 1. 2. and 3. tree; wind; and rain drawings.)

The entwinement of the subject and the world allows for the development of depth. According to Glen Mazis, "depth as understood by Merleau-Ponty is not one dimension of space, but rather the *dimension of dimensions*."[20] This is to say that space is a 'bodily space,' one captured within the interrelations of the world. The manifestation of depth is beyond subject-object dualisms and is therefore properly the first, or primordial dimension. It is a fundamental critique of a "neutral and universalizing space being the foundation of existence."[21]

Similarly, Michael Schreyach identifies "pre-objective depth" as a key concept for breaking the 'objective and familiar' attitudes of perception and representation. He states, "the pre-objective world can be understood as an attempt to critique the natural attitude and to establish a "genetic phenomenology" that explains the ways in which embodied perception operates in the world before it is measured."[22] Temporarily rejecting 'objective,' Cartesian structures of perception, the intent of the automatic drawings is to capture any latent order or logic within the phenomenon and to

Fig. 2 *Student 2: wind drawing; translation model; synthesis model*

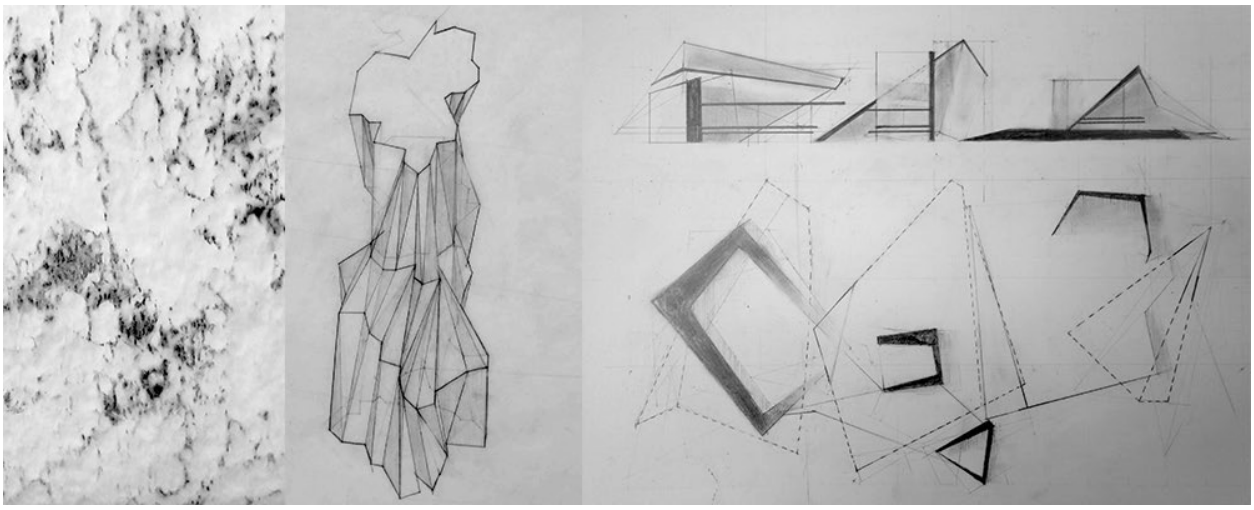

Fig. 3 *Student 3: rain drawing; translation drawing; synthesis plan and section*

"comprehend the genesis of meaning in and through a subject's embodied perception."[23]

Automatic drawings also provoke the idea that images can exert a vital, "quasi-presence;" that images are "beings that are not of the in-itself and that are not nothing."[24] This is to say, an alternative ontology of the image is evoked through the confrontation of the perceiving subject and the image. As Trevor Perri writes, the appearance of the image is "somehow both present and absent, real and unreal, and visible and invisible at the same time."[25] Again, it is the imminent visibility contained within the image that portends a possible knowledge for the viewer. This is evident in Alberto Giacometti's statement, quoted by Merleau-Ponty, "'What resemblance is for me: something that makes me discover the external world a little.'"[26]

The phenomenological e*poché* continues from the production of the automatic drawings with a brief series of assignments designed to discover the potential 'depths' of their image. First, students engage their automatic drawings heuristically, interrogating the image for possible orders of logic or emergent form. Instructed to create precise, measured drawings of the image, students are limited to plan, elevation and isometric projections of the automatic marks. This procedure allows for an analytical 'translation drawing' of the image, an exploration of the 'imminently visible,' of emergent elements, forms or patterns. (See Figure 3. translation drawing.)

The second analytic challenges the student to spatialize the translation into a three-dimensional object. The 'translation model,' limited to line and plane, and rendered solely in wood, necessitates an elemental abstraction of familiar elements but composed into unfamiliar form. The objective is to find another 'enactment' with the material, the beginning of a spatial or formal language that can re-assert, or analogically extend, the language of the image. (See Figure 2. translation model.)

Ultimately, the students are tasked with synthesizing their previous, orthogonal assignment with the nascent forms of their phenomenological studies. The resultant solutions range from minor inflections of the cubic language to its complete transformation. The student's ability to control the scale, extent, and resolution of the new form-language dictate the limits of its integration. (See Figures 1. 2. and 3. synthesis models, and synthesis plan and sections.)

## Conclusion

This brief sequence of study engages the beginning design student with an alternative, personal, discourse of spatiality. The *epoché* sequence forces a subjective and fundamental encounter with the world; it necessitates a reckoning with phenomena that must conceptualize, produce, and accommodate, a form-language. The projects propose that students' personal perceptions can potentially reveal and participate in the production of space, place, form, and meaning.

## End Notes

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[5] Ibid. P 15.

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[10] Ibid. p 47.

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