

Architectural Frontiers: Drawing on the Capacity to Endure Cognitive Tension¹

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One thing everybody in Middletown has in common....is insecurity in the face of a complicated world....The citizen of Middletown....is caught in a chaos of conflicting patterns, none of them wholly condemned, but no one of them clearly approved and free from confusion; or, where the group sanctions are clear in demanding a certain role of a man or woman, the individual encounters cultural requirements with no immediate means of meeting them.²

- R.S. Lynd and H.M. Lynd, *Middletown in transition*, 1937

Today a single new style has come into existence....This contemporary style, which exists throughout the world, is unified and inclusive, not fragmentary and contradictory like so much of the production of the first generation of modern architects.'

- Henry-Russell Hitchcock and Philip Johnson, *The International Style*, 1932

The phenomenon of widespread anxiety is not new; despite their historical distance and disciplinary diversity, each citation above echoes the anxieties underlying today's popular and professional concerns. The Lynds' study of Middletown captures the pervasive anxiety felt by members of modern society in transition, while Hitchcock and Johnson demonstrate the parallel urge felt by architects to erase such anxieties through formal hegemony. When they sought to replace pluralistic solutions with a set of stylistically unified objects, Hitchcock and Johnson could have been voicing current anxieties over formal difference. But as history shows, the intertwined development of artistic self-expression and anxiety over difference is a centuries-old tautology.

In his book *The Meaning of Anxiety*, first published in 1950, psychologist Rollo May traces the roots of anxiety to the rise of individualism in the Renaissance. He suggests that the development of the competitive, isolated individual, distinct from his group (family, guild, church), and particularly the growing prominence of the strong, powerful individual at the expense of weaker members of society, lead to increased isolation, confusion, doubt, and ultimately, anxiety. May describes this

exaggerated concern with psychological boundaries as symptomatic of systemic or "free-floating" anxiety. He writes, "Everyone has noticed in his own experience how anxiety tends to confuse not only his awareness of himself but at the same time to confuse his perception of the objective situation....The awareness of the relationship between the self and the world is precisely what breaks down in anxiety."⁴

Woven through May's work are multiple spatial indications of anxiety. He particularly relies upon metaphors of boundaries—walls, gaps, fronts, borders—to demonstrate the cause and effect of anxiety. Referring to a study by Kubie, May identifies the onset of an individual's anxiety at the moment of birth, arguing that the fetus experiences no "gap" between himself and his world, no "interval" between stimulus and response. At birth there arises a "distance between him and his environment," and with this distance begins the child's experience of waiting, postponement, frustration.⁵

May furthers the boundary metaphor, asserting that "The 'blurred' relation to one's self and to others, as well as to other aspects of reality, is an illustration of my point that anxiety destroys the capacity to evaluate stimuli realistically or to distinguish between subject and object."⁶ (Emphasis added.) The relationship between anxiety and boundaries, and in particular the construction of appropriate boundaries—neither unduly rigid nor completely ambiguous—is May's concern. The augmentation of such psychological boundaries with physical, architectural boundaries to selectively alleviate the anxiety of interpersonal exchange is the subject of this study. And, while Hitchcock and Johnson asserted rigid stylistic boundaries to confront the fear of boundary dissolution, I will propose an architecture of flexible, controllable boundaries in action. Such boundaries respond, not to the anxiety of the project's author, but to the varied histories of architecture's many actors.

BOUNDARIES AND FRONTIERS

What the map cuts up, the story cuts across.'

Along with map-makers, scientists, librarians, lawyers, and other post-Renaissance professionals, architects traditionally

design limits—walls and boundaries. Indeed, the verb "to mark," designating the irreducibly primary act of architectural drawing, has among its ancestors the Old English word *mearc*, a sign denoting a boundary; the Greek word *mark*, boundary; the Latin *margo*, margin; and the Old Irish *mruig*, borderland. A mark on paper or in a field is at once a creative proposal and a precise limitation. It defines territory by locating its perimeter, and separates the subject from the object.

The boundary both separates and joins opposites: self/other; primitive/modern; black/white; male/female; conscious/subconscious; native/foreign; nature/culture; inside/outside; up/down. Some boundaries are distinct, others blurred, some indecipherable. In psychological terms, one relaxes one's psychic boundaries when one is comfortable. Anxiety reinforces rigid boundaries while in psychosis boundaries disappear. As May says, "Rigidity of thinking is (a) borderline characteristic. As it may be observed in religious or scientific dogmatism, rigidity is a way of *amoring* (sic) the self so that one is protected from threat."⁸ Such dogmatism is a way to confront the "chaos of conflicting patterns" with a veneer of assurance. This brittleness at the edge points indirectly to a lack of confidence at the center of one's beliefs or one's self.

For Freud, whose work on anxiety is considered foundational, the boundary of mental activity is a crucial psychic location. This is the terrain mapped through jokes, Freudian slips, and dream images. He states, "things that lie on the periphery of the dream-thoughts and are of minor importance occupy a central position and appear with great sensory intensity in the manifest dream, and vice versa."⁹ Through the act of displacement, apparently insignificant thoughts in the margins become important precisely because they define the limits of consciousness. They occupy the frontier between the conscious and the repressed, paradoxically transgressing the boundary by reinforcing it. "The task of dream-formation is above all to overcome the inhibition from the censorship; and it is precisely this task which is solved by the displacements of psychical energy within the material of dream-thoughts."¹⁰ Freud demonstrates that apparently peripheral thoughts may be essential to negotiate and call into question the borderlands within what he describes as the "topography of the mental apparatus."

Architectural boundaries are equally pivotal indications of central conflicts within the physicalized topography of our collectiveness. Is it possible to make equally transgressable architectural boundaries which can reduce anxiety, mitigate cognitive tension, and allow opposition to engage in exchange without necessarily leading to inversion or collapse? What would the architectural qualities of such boundaries be?

FORM

For what made the grand recits of modernity master narratives if not the fact that they were all narratives of mastery, of man seeking his telos in the conquest of nature? What function did these narratives play other

than to legitimize Western man's self-appointed mission of transforming the entire planet in his own image? And what form did this mission take if not that of man's placing his stamp on everything that exists that is, the transformation of the world into a representation with man as its subject?"

To define an architectural strategy promoting active, variable boundaries I must first temporarily substitute architects' formal anxiety—"man's placing his stamp on everything that exists that is, the transformation of the world into a representation"—with the more general, widespread anxiety over the disruption of psychological and physical boundaries. Rather than defend formal or stylistic boundaries (those made by the architect's mark) I want to focus on physical boundaries, and on possible actions within contested territory, on the frontier.

Interestingly, this transfer of focus from the form of boundary (the creation of a "unified and inclusive, not fragmentary and contradictory style"), to potential action at the boundary, has already been suggested by none other than Philip Johnson, whose most studied work is his own home, known as the "Glass House." Its precisely contained interior is bounded by glass, rendering the exterior environment visible but decidedly separate. Like many other masterpieces of the modern movement, it is a hermetically sealed space, made possible by two 20th century technologies: plate glass manufacture and air treatment facilities. Johnson's Glass House demonstrates a provocative margin. Floor to ceiling glass renders the outside/inside and nature/culture oppositions visually obsolete. But the same transparent barrier, and the purified air contained within, eliminate the possibility of boundary crossing.

BREAKING THE HERMETIC SEAL

We quite naturally pair the phrases "House of Glass" and "hermetically sealed" in architectural discussions without realizing they have been synonymous for 400 years. During the early Renaissance, a text called *The Emerald Table*, attributed to Hermes Trismegistos, was translated from Arabic into Latin and was subsequently disseminated throughout the West. This series of magical prescriptions became the guiding philosophy for a growing number of alchemists who called themselves "Sons of Hermes" after the text's author. As is well known, alchemists were interested in the transmutation of metals and the merging of dissimilar materials. For this alchemical process, a closed and sealed vessel was required in order to force conceptual opposites to blend. This vessel—known variously as the Hermetic Vase, Hermetic Vessel, House of the Chicken (it was egg shaped), House of Glass, or Prisoner of the King—was an air-tight glass container in which elements, notably sulfur and mercury, were heated.¹² The mixture vaporized, and then condensed in a new unified form. This hermetically sealed House of Glass served to keep unwanted gases out of the chamber, thus allowing the unifying chemical reaction to run to comple-

coined by the alchemist Paracelsus from the Greek word for chaos."

During the Renaissance Hermes abetted the alchemical quest for ultimate unity within a controlled, objectified space. But ironically Hermes, in his Greek incarnation, would have abhorred the notion of a sealed and self-contained environment, for he was originally known as the boundary-crosser. He was credited with an ability to negotiate between foreigners, and his icons were prominently located at the edges of settled territories where commerce and exchange occurred. His name is a modification of the word *herm*, referring to a pile of stones set at the crossing of two paths in a frontier, acting to direct passage. Each traveler in ancient Greece added a stone to the pile. At such crossroads, travelers often left gifts for unseen foreigners, or engaged in silent trade, leaving raw materials in exchange for finished goods.¹⁴

Hermes is known to contemporary scholars as a trickster god. He is credited with inventing the lyre and pan flute to trade to his half-brother Apollo in exchange for patronage over cattle he had previously stolen, and with giving Pandora the gift of mischievous words. He is considered cunning and stealthy, a thief but not a robber. Hermes's ability to operate according to his wits rather than according to law—to be tricky—apparently enabled him to negotiate boundaries. A festival called a *Hermaea*, celebrated at Cydonia on the island of Crete, honored both his ability to cross boundaries and his cunning. During this festival, slaves were waited on by their masters.¹⁵ Here Hermes sanctioned a temporary inversion of social boundaries, paralleling the carnivalesque in its intentions. It should be clear from this brief description that Hermes originally personified exchange, inversion, turns and returns both psychic and physical.

But dating from the Renaissance alchemists, the name Hermes has evoked instead the vacuum sealed vessel, an insular, self-contained experiment designed by a master to produce an artificial unity. In a similar spirit, architects have designed sealed boundaries and erroneously believed it possible to control the outcome of experiments from "above" or "outside" under the mantle of objectivity. Without necessarily extinguishing (or burying) Hermes the vessel, I would like to resuscitate Hermes the trickster and boundary-crosser, as a means of programming a space of exchange.

DRAWERS

Drawers are the first differential of discovery.¹⁶

A drawer is a special kind of container or vessel. Most obviously its scale is intimate. It barely suggests architectural enclosure, just barely. The space within a drawer is doubly interior—protected by a box within a box, yet never completely interior—typically open on one of six sides. In a progressive, controllable manner it changes state, from interior to exterior to interior. The agent of control is the human subject.

A drawer, any drawer, expresses its meaning independent of formal or stylistic variation. Difference between drawers is pure response to program. Issues such as size and number of things to be stored, ease of access and retrieval, visibility, organization, even secrecy, are resolved through the design of the drawer's operation. By folding the semantic into the syntactic, the form of a drawer in its housing signifies meaning through (changing) relationship. Acting both as signifier and signified, the drawer postpones the question of form. The most important aspect of the way it looks is the way it works.

Throughout his career, Le Corbusier used drawers as a model for architectural space. Beginning with the 1925 publication of *The Decorative Art of Today*, drawers assumed an iconic significance. Le Corbusier devoted a chapter to type-furniture, including various examples of Roneo office filing systems, meant to fulfill functional, utilitarian type-needs. Evidence of his fascination began with the reproduction, in this volume, of a small file drawer, its sliding mechanism, and interior dividers. This image was transformed into an isolation-based construction system for multi-family housing, and diagrammed to propose a relationship between drawers and the Unite. Through these self-consciously documented images, Le Corbusier evolved a concept of drawers as containers for people.

The illustrations he provided suggest that Le Corbusier intended his housing units to operate like the 1925 Roneo file cabinets. It was precisely the stripped-down, utilitarian nature of these drawers to which he was attracted. But what do these drawers suggest? What led to the circumscribed success of Le Corbusier's attempted scale transformation?

The French phenomenologist Gaston Bachelard provides a clue as to the limitations of Le Corbusier's Roneo drawers as transformable boundaries. In his book *The Poetics of Space*, Bachelard begins his discourse on drawers by challenging philosopher Henri Bergson's critique of the same seemingly innocuous furniture: "As is well known, the drawer metaphor...is used by Bergson to convey the inadequacy of a philosophy of concept. Concepts are drawers in which knowledge may be classified; they are also ready-made garments which do away with the individuality of knowledge that has been experienced. The concept soon becomes lifeless thinking since, by definition, it is classified thinking."^{17,18} Bachelard uses novelist Henri Bosco's *Monsieur Carre-Benoit a la campagne* to summarize the limits of Bergson's argument: "with this filing cabinet he has succeeded in embodying the dull administrative spirit."¹⁹

Le Corbusier's drawers, filing cabinets used in commerce and administration, are of the type Bachelard disdains. They imply efficiency and utility, as they expressly deny intimacy. And, to follow the metaphor to its conclusion, I will merely restate the common critique of Le Corbusier's Unite and much mid-century mass housing. Although these drawer-box-units provide spaces for efficient living they neglect the intimate life of the individual and of the family, a life of memory and imagination.

From the onset of his affection with the type, Le Corbusier selected drawers designed to store and retrieve positivist, disembodied information, not to hide or protect personal matter. While these drawer models mediate boundaries, they also separate the interior from the exterior for convenience, not for privacy. They do not negotiate secrets, nor do they act on the mental topography marked by anxiety. Although he breaks the hermetic seal of space, Le Corbusier uses drawers symptomatically, rather than therapeutically, to use Rollo May's terminology.

As architectural space, drawers can ease anxiety in two ways. May cites a study in which brain damaged patients devised ways of avoiding anxiety-producing ("catastrophic") situations: "Some, for example, developed compulsive patterns of orderliness: they kept their closets in perfect order. If placed in surroundings in which the objects were in *disarray*—i.e., if someone changed the arrangement of their shoes, clothes, etc.—they were at a loss to react adequately and exhibited profound anxiety. Others, when asked to write their names on a paper, would write in the extreme corner of the paper; any open space (any "emptiness") represented a situation with which they could not cope."²⁰ In response to such anxiety provoking situations, then, drawers promote orderly placement while providing relief from vastness and chaos.

Intuitively echoing May's findings, Bachelard writes a psychological specification for drawers, along with wardrobes and chests. He characterizes them as vehicles of intimacy and order. According to Bachelard, these qualities depend on drawers' alternate open- and closed-ness, internal spatial divisions, hidden areas and invisibility within the subjective realm of the imagination. He argues that the two most primary qualities—intimacy and order—might be realigned to read "an order of the intimate." This establishment of a personal emotional hierarchy enables drawers to quell anxiety.

Wardrobes with their shelves, desks with their drawers, and chests with their false bottoms are veritable organs of the secret psychological life. Indeed, without these 'objects' and a few others in equally high favor, our intimate life would lack a model of intimacy. They are *hybrid objects, subject objects*. Like us, through us, and for us they have a quality of intimacy.²¹ (Emphasis added.)

Bachelard further elaborates on what he calls the "infinite quality of the intimate dimension."²² He recounts the endless uncovering, packing, and shuffling that takes place within drawers. Bachelard describes the gentle dishevelment, the endless sifting of personal contents which occurs as one seeks a particular object, rarely finding bottom, as "the infinity of intimacy." This infinity of small actions proposes an appealing alternative to the vast emptiness characterized above.

Bachelard sets this infinity of intimacy next to the other primary quality all drawers possess: the ability to provide

order. "In the wardrobe there exists a center of order that protects the entire house against uncurbed disorder. Here order reigns, or rather, this is the reign of order. Order is not merely geometrical; it can also remember the family history."²³ The order Bachelard specifies is not a universal, encyclopedic order, but instead, that arrangement of intimate goods which the subject requires to achieve harmony, to guard against "uncurbed disorder." Here his/her possessions are ordered according to personal hierarchy, sorted and hidden, secreted away from view.

In drawers, the simultaneous division of space and act of sliding allow order and intimacy to co-exist. Paradoxically, drawers function equally as containers and revealers, and, when properly situated within the psychological realm, they retain the immense power of both these conditions. Describing the closed condition, Bachelard says, "In reality, however, the poet has given concrete form to a very general psychological theme, namely, that there will always be more things in a closed, than in an open box. To verify images kills them, and it is always more enriching to imagine than to experience."²⁴ And, referring to the open condition he says, "from the moment the casket (he refers to a small box) is opened, dialectics no longer exist. The outside is effaced with one stroke, an atmosphere of novelty and surprise reigns. The outside has no more meaning. And quite paradoxically, even cubic dimensions have no more meaning, for the reason that a new dimension—the dimension of intimacy—has just opened up."²⁵ "Gentle closing," Bachelard writes, "calls for gentle opening, and we should want life always to be well oiled."²⁶

EVOKING HERMES

The world is incomplete if seen from any one point of view and incoherent if seen from all points of view at once.²⁷

Narratives of mastery, expounded by Hitchcock and Johnson and explained by Owens, respond to complexity with dogmatic, even repressive, simplicity. In contrast to this masterful but restricting delineation of architectural form and spatial boundaries, I would like to propose architecturally scaled drawers. First, they keep things located in proper places, and make it obvious when things are out of place. In this, they assuage the anxiety which results from a fear of chaos, the state of incoherent, gaseous "mixing" as present today as it was six decades or four centuries ago. Second, drawers can be opened and closed. Their interiors are only selectively available for inspection. They reject the clinical, fixed glass seal of the hermetic vessel in favor of the continually negotiable boundary of Hermes. In this way, the world is allowed to remain incomplete, but its inevitable incompleteness is no longer static, no longer prescribed from above or from without. Drawers are built examples of moderation and control, but as, we all know, they react adversely to being forced.

NOTES

- ¹ The phrase "capacity to endure cognitive tension" was coined to Robert Beitel to describe the state of an artist engaged in the act of drawing. Latent in this phrase and my argument is the assumption that architects have developed the capacity to endure anxiety in their own creative activities, and that this capacity could be programmed into the spaces they design. See Robert Beitel, *Mind and Context in the Art of Drawing* (New York: Holt Rinehart and Winston, Inc., 1972).
- ² Rollo May, *The Meaning of Anxiety* (New York: W.W. Norton & Company, Inc., 1977), 9-10. Originally published by Ronald Press Company in 1950.
- ³ Henry-Russell Hitchcock and Philip Johnson, *The International Style* (New York: W.W. Norton & Company, 1966), 19. Originally published under the title *The International Style: Architecture Since 1922*, by W.W. Norton & Company, Inc. in 1932.
- ⁴ May, 61-62.
- ⁵ May, 56. Etymologically, interval refers to the space between two walls. See Jennifer Bloomer, *Architecture and Text: The (S)cripts of Joyce and Piranesi* (New Haven: Yale University Press, 1993), 167.
- ⁶ May 383.
- ⁷ Michel DeCerteau, *The Practice of Everyday Life* (Berkeley: University of California Press, 1984), 129.
- ⁸ May, 370.
- ⁹ Sigmund Freud, *Jokes and Their Relation to the Unconscious*, James Strachey trans. (New York: W.W. Norton & Company, Inc., 1960, c. 1905), 163-64.
- ¹⁰ Freud, 165.
- ¹¹ Craig Owens "The Discourse of Others: Feminists and Postmodernism," *The Anti-Aesthetic*, Hal Foster, ed. (Port Townsend, Washington; Bay Press, 1983), 65-66.
- ¹² John Read, *Through Alchemy to Chemistry* (London: G. Bell & Sons, Ltd., 1957), 35.
- ¹³ Read, 123.
- ¹⁴ Norman O. Brown, *Hermes the Thief: The Evolution of a Myth* (New York: Vintage Books, 1947).
- ¹⁵ Hany Thurston Peck, ed., *Harper's Dictionary of Classical Literature and Antiquities* (New York: Cooper Square Publishers, Inc., 1963), 798.
- ¹⁶ Paraphrase of Gaston Bachelard, *The Poetics of Space*, (Boston: Beacon Press, 1969, c. 1958), 85.
- ¹⁷ Bachelard, 75.
- ¹⁸ Evidence suggests that drawers were used as receptacles for classified knowledge at the same time the hermetic seal developed. In fact, they merged in Giulio Camillo's Memory Theater in the mid-sixteenth century. The theater's origin was thought to be hermetic, as described by Viglius Zuichemus in letters to Erasmus. "It appears from Viglius's description of the Theater that under the images there were drawers, or boxes, or coffers of some kind containing masses of papers, and on these papers were speeches, based on the works of Cicero, relating to the subjects recalled by the images. This system is frequently alluded to in L'Idée del Theatro, for example in the statement quoted above that the images on the gates on the fifth grade will have attached to them 'volumes containing things and words belonging not only to the interior man but also to the exterior man.' Viglius saw Camillo excitedly manipulating 'papers' in the Theater; he was doubtless drawing out the many 'volumes' from the receptacles for them under the images." Frances Yates, *The Art of Memory* (Chicago: The University of Chicago Press, 1966), 144.
- ¹⁹ Bachelard, 77.
- ²⁰ May, 58.
- ²¹ Bachelard, 78.
- ²² Bachelard, 86.
- ²³ Bachelard, 79.
- ²⁴ Bachelard, 88.
- ²⁵ Bachelard, 85.
- ²⁶ Bachelard, 83.
- ²⁷ Columnist George Will, quoting psychology professor Richard Schweder of the University of Chicago.