### distance Doesn't Matter

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## PART I: METAPHOR AND ANAMORPHOSIS ARE EQUIVALENT IN THE QUANTUM WORLD OF MEANINGFULNESS

#### 1 / Signifiers as "Not Enough"

For the past twenty years or so, theory of human subjects in general but architecture theory specifically (I will use the term "theory" to refer to both) has turned away from the signifier (semiotics, structuralism, etc.) and returned to the body, under its various pseudonyms. The confidence of turning from something complicated by semantics and rhetoric to something presumably more concrete equates the quotidian proximity of everyday objects with the "life–world" put forward by a phenomenology, anticipated by Bachelard and Bergson, refined by Heidegger, and consolidated by Maurice Merleau-Ponty.<sup>1</sup> Without going into the details of this turn to the body in theory, there is a common thread in the justifications of writing off the interests of the signifier. This is the complaint about the "not enough" that is well–known to every speaking subject who, in trying to convey meaning-*fullness* as opposed to meanings, finds that language fails. This limit of the signifier extends to visual experiences as well.<sup>2</sup> The frame and flatness of the painting, drawing, or photograph; the fourth–wall mechanics of cinema; and the seduction of images by ideology (inventoried by Roland Barthes) undermined trust in the visual, to the point that ocularcentrism has been traced back to the primal error of Descartes' skeptical idealism.

The fullness of Being is eclipsed immediately by the signifier, but psychoanalysis argues that this is the beginning of subjectivity, while theory often argues that it is possible to return to the beginning, so to speak, and recover lost Being through appreciations of body and materiality:

<sup>&</sup>lt;sup>1</sup> I'm borrowing from Joan Copjec's argument in "The Strut of Vision: Seeing's Somatic Support," *Qui Parle* Vol. 9, 2 (Spring/Summer 1996): 1–30. URL: https://www.jstor.org/stable/20686045. Copjec goes past my analysis, however, by detailing the role played by projective geometry (Girard Desargues, Blaise Pascal) and theory's rejection of it by subordinating non-Euclidean geometry to Euclid, as the "normal way of seeing." Theory portrays experience itself as taking place in Euclidean pictorialism when it is "normal," associating non-Euclidean geometries with psychosis and cultural deterioration. Only occasionally does theory acclaim projective geometry as central, and only very rarely as fundamental and not aberrant.

<sup>&</sup>lt;sup>2</sup> My contrast of meaning with meaning*fulness* is inspired by Dan Collins, "On Metaphor," *Re-turn: A Journal of Lacanian Studies* 6 (Spring 2011): 149–158. https://return.jls.missouri.edu/ReturnVol6/Collins\_OnMetaphor.pdf. Collins' essay figures prominently in my review.

the body, the substance and technicalities of buildings, erotic experience.<sup>3</sup> The attraction to ineffability (Being's excess over speaking) has led to theory's own self-demotion, as a mode of incomplete reflection limited to paraphrase and caption. Without giving away the ending so to speak, I would like to make a point about metaphor, which has been allowed to linger in the signifier's melancholy twilight on account of its perceived indefiniteness. Metaphor addresses directly the issue of how signifiers relate to their own limits and failures in the face of meaningfulness. This turns theory about metaphor toward issues of boundaries and voids, which are key concerns of architecture.



Figure 1. Hans Holbein, The Ambassadors (1533), reproduction courtesy of the Trustees of the National Gallery, London. The reader can quickly determine the "too much": the lines connecting the half-exposed crucifix at the upper left, the horizon passing through the lute's sound-hole, the 27° diagonal aligning the blur with the idealized position of the viewing point, in the "place of the skull" (Golgotha), appropriately beneath the crucifix. The overdetermination of the number three connects this frontal network with the date inscribed on the painting's obverse, April 11, 1533, 4 p.m., when the sun was 27° above the London horizon, the moment predicted by some astrologers to have been the Apocalypse.

Those who have not yet left on the last flight to Bodyland might be encouraged to stay a few days longer to consider the merits of a go-between, not just to heal over the rift between signifiers and bodies, but to realize the full range of material engagements of architecture. There are reasons to consider anamorphosis, not just in terms of the warped images that fascinated viewers in the 16c. but as a more general dimensionality of human sense experience, decentralizing the organs of perception, so that we might say, and not just to be colorful, that we enlist objects and others to feel, see, and hear; and that we engage our "organs" not just to mediate body and world but speak, and say something significant about, this mediation. To engage this issue of redistribution of sense experience, let me take the idea of anamorphosis out of its historical context, and show it to be the *form* of metaphor, which, outside its usual carnival of warped images and trick mirrors, tells the story of the subject's promiscuous duality of interiority and exteriority.

#### 2 / Anamorphosis Is What It Does

I would like to use anamorphosis to bridge between the signifier as we customarily find it in speech,

<sup>&</sup>lt;sup>3</sup> In Lacanian psychoanalysis, the Being of the subject is continually poisoned by speaking, as if the signifier had stolen the whole operation of Being and reformatted it as a set of impossible conditions. The speaking subject must suddenly depend on the recognition of other subjects, a situation Lacan situated in the "discourse of the Master," drawn from Hegel. See "Function of Language," *No Subject: An Encyclopedia of Lacanian Psychoanalysis*, https://nosubject.com/Function\_of\_Language.

literature, and poetry and a broader variety of visual and other sense experiences. The history of anamorphosis seems to begin suddenly in the 1500s, with the emergence of geometrically transformed images painted on surfaces requiring the viewer to take up a radically oblique angle of view. The most famous case of this is well–known: Hans Holbein's double portrait, *The Ambassadors* (Fig. 1).<sup>4</sup> The "surprise moment" of suddenly seeing the anamorphic skull, which appears first as a blur disturbing the satisfaction of the full–frontal presentation, reliably produces astonishment. At this point, viewers have the experience of "getting it" — of having seen the trick, felt the astonishment and of now knowing "all about anamorphosis."<sup>5</sup>

Is this all? Jacques Lacan, in his Seminar VII (*The Ethics of Psychoanalysis*) arrives at an analogous point, where suddenly, like the hidden skull in *The Ambassadors*, the treasure-trove of anamorphic art pops into history.<sup>6</sup> He asks an interesting question: if anamorphosis has been able to appear so fully and immediately — "without any warning," so to speak — *what must have been going on before this sudden appearance*? — What, under another name and by different means, had already established the technical and intellectual ground for pictorial anamorphosis to have suddenly sprung into clear view, just like the objects it conceals as blurs and stains? What blur or stain in the years before the 1500s prevented us from seeing what anamorphosis was doing, under other names?

Anamorphosis as an artistic practice seems to "pop up" in the same way that the anamorphic image it has invented "pops up" before the surprised viewer. The coincidence of a phenomenon with its own historical staging raises the issue addressed more generally by metaphor. How do metaphors "develop" when, as it seems, their universal effect is that they are "understood as already having been understood," making it seem that they have not developed at all but appeared suddenly, as complete, coherent, and recognizable, the so–called "hapax"

<sup>&</sup>lt;sup>4</sup> John North has extensively inventoried each object, line, and painterly gesture, including the curiously over–precise date of completion inscribed on the back, April 11, 1533, 4 p.m., Good Friday, when the sun was exactly 27° above the horizon of London. *The Ambassadors' Secret* (London: Hambledon and London, 2002). In the literal places where paintings as such fall short of supplying meaningfulness, the edges and reverse of the flat image, Holbein constructed an elaborate in–fill of "too much." At the angle where the main image becomes indecipherable, the anamorphic skull, pops into view, activating the network of lines whose positions connect the horizon, skull, crucifix, and viewer of the anamorph in a logic of 3's to the over–precise date inscribed on the reverse, the time of the predicted Apocalypse.

<sup>&</sup>lt;sup>5</sup> To follow up Dan Collins' insight about "getting it," in relation to education, the joke, and the unconscious, see "Psychoanalysis and Education," Lacunae 17 (December 2018): 85–104. "Getting it" is key to how anamorphosis supplements the point where signifiers are marked by failure. In the joke, this is the point of laughter; in education, of revelation; in psychoanalysis, the "cure." I argue that metaphor and anamorphosis play the key role in all three cases.

<sup>&</sup>lt;sup>6</sup> Jacques Lacan, *The Ethics of Psychoanalysis* (1959–1960), Seminar VII, trans. Dennis Porter (New York: W. W. Norton & Co., 1992). Lacan's "question" is on page 141. My base camp for expanding the idea of metaphor is Mladen Dolar's ambitious essay, "Anamorphosis," *S: Journal of the Circle for Lacanian Ideology Critique* 8 (2015): 125–140.

phenomenon. The experience of the metaphor is structurally the same as that of anamorphosis. The metaphor "pops up" suddenly, with an effect of meaning*fulness* as opposed to meaning–relationships. It is as if the painting we face with the anamorphic blur is positioned in the same way that the signifier attempts — and fails — to cover the fullness of experience. There is always something left out, some mystery, some "x." The metaphor, like the anamorphic stain, mars the "surface" of the signifier and requires the "spectator" to *move around* to find the special viewpoint, at a special angle,  $\partial$ ,<sup>7</sup> that can interpret this enigmatic blur, but when that angle is found, the blur turns the tables on this search and interprets not just itself but the spectator's own complicities.

This effect of metaphor is not universally acknowledged. In *Traité de l'argumentation: La nouvelle rhétorique* (1957), Cha<u>i</u>m Perelman argued that metaphor could be considered to be a kind of analogy, of the form A:B :: C:D, where the "like" or "as" is missing.<sup>8</sup> But, as psychoanalyst Dan Collins has argued, the differences run deeper. Instead of saying that someone is like an animal, metaphor can substitute a paw for a hand or a snout for a nose. The actual "animal" is latent. Metaphor uses latency to tell the full story without having to provide all the details, with the result that latency tells more than analogy could ever tell by being specific. Perelman missed the fact that latency is metaphor's meaningfulness machine. But, most important, latency is the point where metaphor mimics anamorphosis by creating a blur or stain on the diegetic surface of language. Latency allows the production of something that is both sudden and universal (= hapax). Where the analogy model puts "two against two," Lacan gives latency center stage, as "three against one." The one is the latent term, effective precisely because of its absence, and its absence requires an interpretation that is psychoanalytic rather

<sup>&</sup>lt;sup>7</sup> I will use  $\partial$  to designate the angle of view that must be small but greater than zero in order to see the anamorphic image clearly. The stark materiality of this  $\partial$  has a quantum feature. The image must bring its distant extremity into the same plane as the part closet to the viewer and persuade the viewer that it lies in an orthographic plane. This fiction is imposed in the viewer's "moment of weakness," so to speak, when looking gives into passive reception. The  $\partial$  cannot be reduced to a signifier *or* a signified. It is the infinity of meanings that open up thanks to its strict imbecility, a talent for which servants are noted to possess as a part of their job description. Although the physical  $\partial$  allows for only one "occupant," the significance it makes possible is retroactively a universal understanding, a collective revelation.

<sup>&</sup>lt;sup>8</sup> Cha<u>i</u>m Perelman (1979), "Analogy and Metaphor in Science, Poetry and Philosophy," in *The New Rhetoric and the Humanities* (Dordrecht: Springer Verlag, 1979), 91–100.

than hermeneutic.<sup>9</sup> In the standard procedure of interpretation, signifiers replace other signifiers in attempt to clarify and reinforce the original meaning. But, these signifiers themselves need interpreting, and the replacements also require clarification. The process can be streamlined if everyone "belongs to the same church," a sociology of shared acceptance about where limits should be drawn in any given meaning–pursuit, where consensus allows for targeted vagueness. Thus, key ideas, such as Heidegger's *Dasein*, need not be defined perfectly because they participate in a circulation of ideas that is purposefully left unfinished. In both the pursuit of meaning in dictionaries as well as the self–referencing circularities within "churches" of discourse, the quest for closure — for meaning — is intentionally circumscribed.

So, how is the metaphor different from what goes on inside dictionaries and churches? Aren't these voluntary limits on interpretation just forms of metaphor's latency? No. Metaphor is not a matter of replacing one signifier by another, and another, and another, because it is not an abbreviated form of analogy. Metaphor's latent term makes it possible to construct "metaleptic" (self-intersecting, non-orientable) situations, where it is unclear if the speaker is referring to herself, the listener, or something outside their exchange. This suspends the possibility of judging just what the metaphor is "about." The search for new meanings to replace old ones opens itself up to questions about the search itself. The forward press of syntagm (Fig. 2) is suspended by a rotation to the paradigm axis, with the predictable result of metaleptic dizziness.

I go beyond Collins here in naming the free movement between the syntagm and paradigm as a rotation in order to compare the shift from a 2-d representation's "frontal presentation" and the anamorphic image's sly oblique angle of view,  $\partial$ . When Gore Vidal was once asked by a reporter whether his first sexual experience was with a man or a women, Vidal replied, metaleptically, "I was too polite to ask."<sup>10</sup> The point was, of course, that the *reporter* should have been too polite to ask, and that Vidal's consummate manners were already in place when he became sexually active. Perhaps the interviewer was too dense to realize that Vidal had just

<sup>&</sup>lt;sup>9</sup> Psychoanalysis breaks from the standard idea of interpretation as a process of replacing signifiers by other signifiers, in the way that one looks up definitions in a dictionary but then finds other words needed to define the definition, in an endless sequence that goes on until the dictionary has been exhausted. Psychoanalysis looks at the paradigmatic options each signifier has whenever it appears in the syntagmatic order of speech. Analysis, as diagramed in Lacan's L-schema (Fig. 4), distinguishes the exchange of *meanings* between Analyst and Analysand, as egos sitting in the same room, from the goal of analysis as the Analysand's unexpected release of signifiers, which produces the effect of astonishment similar to the viewer's discovery of the anamorphic image. Meaningfulness occurs along an axis similar to the anamorphic viewing point, with the occupancy of ∂ defined as "just one inside" (the narrow cone of vision). The temporality of this encounter is defined by the conflict between the experiential priority of the anamorphic moment with the true priority of the logic of the Other (*Autre*) that compels the Analysand to trip over her own words and inadvertently spit out the (retroactive) "truth of truth."

<sup>&</sup>lt;sup>10</sup> 1979 interview in Views From a Window: Conversations with Gore Vidal (ed. Robert J. Stanton), 1980.

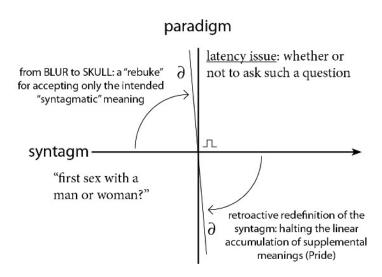


Figure 2. Vidal's response to the reporter shows how metalepsis involves a rotation from syntagm to paradigm that retroactively calls the syntagm into question. The rotation of the point of view in anamorphosis, to a 90°–  $\partial$  position allows for the symmetry ("metalepsis") of metaphor that is its reversibility. Thus, comparing the question of virginity–or–not to time's passing (Cavalier poetry) can also be about the virginity–or–not of time itself. The "about" is the other point of view that moves from the pursuit of sequential meaning replacements to a step back that takes in the whole process of pursuit and finds a surface of no escape.

rebuked him by making him the latent term of his metaphor. This is the gambol of metaphor, just as the latent image in Holbein's painting ran the reverse risk of having viewers unwilling to bend over and kneel before the "sacred" correction of the "secular" syntagm of the fullfrontal painting. Politeness, the paradigmatic framing condition of verbal or visual interaction, is called into question. "The polite thing to do" sometimes involves bad posture, but it declines to go along with the imposture of some main syntactical claim. Metalepsis allows latent term to be shared universally, thanks to a free rotation from syntagm to paradigm. As Baudelaire once quipped, thank God we do not ever understand each other, otherwise we should never agree on anything.<sup>11</sup> Latency is the key to "dissensus," the collective toleration of a

requisite variety. No one can agree on literal meanings, but all can agree on meaningfulness. This is just about being too polite (i. e. understanding the paradigm) to ask (go on pursuing syntagmatic chains of signifiers).

To compare the relation of latency in metaphor to anamorphosis, and thence to meaningfulness, consider two main ideas: (1) First, latency is critical to the operation of a "paradigmatic" machine that produces meaningfulness as an experience of astonishment within the limited resources of signifiers–replacing–signifiers in the "syntagmatic" signifying chain. We should take literally the orthogonal relationship between the forward, left–to–right sequencing of signifiers by syntax's logic. Even when we're looking at a painting and not reading a sentence, this linear order and its temporality contrast with the way that, at each point, a *selection* must be made of one signifier out of a field of possible other signifiers, the "paradigmatic" order. The selections reflect back on the beginning of the syntagmatic chain,

<sup>&</sup>lt;sup>11</sup> Charles Baudelaire, *Œuvres posthumes* (Paris: Société du Mercure de France, 1908) 126; <u>https://</u> <u>fr.wikisource.org/wiki/%C5%92uvres posthumes (Baudelaire) (1908)/Texte entier</u>. "Le monde ne marche que par le malentendu. C'est par le malentendu universel que tout le monde s'accorde. Car si, par malheur, on se comprenait, on ne pourrait jamais s'accorder."

revising its meaning. The beginning can never be fully known until the end is reached, when the sum of these paradigmatic choices re-contextualizes it. In effect, every metaphor is a case of "anacoluthon," the unexpected and revisionary meaning. Equally, every metaphor involves metalepsis.

The main image of Holbein's *Ambassadors* constructs the syntactic chain in an obvious way. Let us note from the start that the gentlemen in the picture are "masters" in relation both to objects that *serve* them and to the painting's spectators, who accept this display as proof of their mastery and offer the masters the respect they seek. The masters are shown with some very expensive toys — navigational instruments, terrestrial and celestial globes, musical instruments, fine furs. Their pride is naturally acquisitive and compulsively expandable. We might imagine that Holbein, if commissioned to provide an annual update of the portrait to show what new toys the rich men have accumulated — *Ambassadors* 2.0.1 so to speak — would have to enlarge the frame around the painting to concentrically include the new riches (...), according to a syntactical logic of extension as expansion: (...)  $\rightarrow$  (...(...)...)  $\rightarrow$  (...(...)...)  $\rightarrow$  and so on. Paradigmatic order would be present as the dimension by which any particular object had been *chosen* to be owned and shown. But, there are things that cannot be contained and displayed in this way. Choice indicates that there were things not chosen, and things not able to be displayed as planned. Display, in the case of *The Ambassadors*, took the metaleptic opportunity of placing and tilting objects to indicate the presence of a deeper, more significant order.

(2) Second, latency comes with a built–in reversibility. This is the way that the ever– expanding collection uses the signifying chain's perverse modification of the ever–forward demand for clarification (i. e. hermeneutic mastery). When the anamorphic blur "on the surface of syntagmatic collection" throws a spanner in the works, the syntagmatic order is forced to turn, to realize a different order of paradigmatic signification, something that can't be accomplished by its logic of forward expansion.<sup>12</sup> Syntax, stopped by a blur, opens to the possibility of a paradigm shift. We see not just the signifier indicated as the next in the series, but all of the signifiers that, *having been chosen to do one job, seem to be seriously considering doing another*. The stop can happen to theory as well as to theory's objects of study. A shift in the

<sup>&</sup>lt;sup>12</sup> This quarter turn from syntagmatic to paradigmatic relationships may be nothing more than a diagrammatic formality, but it seems to be mimicked in the relation of the painting's frontal presentation to the  $<90^{\circ}$  rotation of the view of the anamorphic skull, the  $\partial$  of the "sweet spot." In other unrelated depictions of the idea of a "space within space" that is supernatural and corrective, "orthopsychic," there is also the method of the quarter–turn. In Stanley Kubrick's 1980 film, *The Shining*, the psychic Dick Hallorann turns to the young Danny (who doesn't yet realize he is psychic) during his tour of the hotel to communicate with him directly, but outside (or inside) time and ordinary space. There is also a Swedish fairy tale about magical beings who could disappear simply by making the same quarter-turn sideways, as if they were 2-d beings in a 3-d world. This would be a way of portraying the relationship of the flat "real projective plane" to Euclidean 3-d space to emphasize its relation to correction and astonishment, two elements evident in *The Ambassadors*.

paradigm requires viewers to retroactively revise their theories of what the painting is all about. A new paradigm is not the real prize of the shift; it is the shift itself in relation to the temporality of the syntagmatic order. The stop means that the inventory has come to a sudden halt, logically as well as in the experience of viewing. But, this halting moment, which comes first for the viewer, is really logically second when a new paradigm is realized. Dan Collins puts it this way. Cavalier poetry of 17c. England seems to have been about persuading young women to give up their virginity in the face of time's relentless passing away. The analogy model of metaphor would have us say, "a virgin must take into consideration the disappearance of her 'virginal now' in the time–line." But, the poem has an opposite effect. The entire idea of time is transformed once we think about sex as the index of movement of a now into the past. The loss of a "possession" such as virginity makes the poem more about time than about getting the virgin to give in. Unlike analogy, metaphor switches its "tenor" and "vehicle," to use the standard terms of the analogy model. Time reveals itself to have been "about sex all along." this logical structure was time's "condition of possibility," to use a Kantian expression, to remind a virgin that one "should never miss an opportunity" (another Gore Vidal maxim).

Lacan himself experiences anamorphosis as just such a case of reversal, when he is realizing that history had been carrying along a *logic* of anamorphosis for a long time before specific examples of it "first" appeared in the 1500s. The blur on the surface of Holbein's painting "stands out" ( $\Pi$ ) and interrupts the forward linear reading of objects, human figures, and their relationships. It is the viewer's first encounter with something that seems to signify, in contrast to the visual obviousness of everything presented "frontally," some unknown *x*. As signifiers replace one another, S...S'...S"...S", there is something that has been hiding (all along) in this chain, some "x" lying beneath the chain (S...S''/x).

We might think that this *x*, in this first instance, must have to wait until a new paradigm comes along to situate it, to "fill it in"; and that this *x* is the blur waiting for the sudden pop–up of skull with its customary warning, *memento mori*. But, this obvious reading would miss how, in the painting, the latent blur operates according to a wholly different visual/geometric system than the other objects presented in the normal, "Euclidean" way. The blur that is manifest in painting's frontal presentation as a blip or interruption of a forward, linear motion of reception,  $\Pi$ , requires an interpretation, the discovery that takes place thanks to the small angle,  $\partial$ , at which the viewer will come close to being absorbed within the plane of representation (Fig. 2). The adventurous spectator must take a gamble and crouch below the lower left edge of the frame; otherwise, interpretation will not happen, and the blur will stay a blur forever. If the viewer gives up trying to match his visual mastery with the Masters in the painting — to become a "real Servant," even to the point of literally "kneeling before the Masters" — the paradigmatic alternatives of this painting will come into view as having been *logically prior* to



Figure 3. In the Ealing Studio production, Dead of Night (1945), a convalescing race-car driver receives a supernatural warning when, looking out of his hospital window, he sees a hearse whose driver nods to the coffin and says "Just room for one more inside, sir!" Just after being discharged from hospital, the conductor of the crowded double-decker he's about to board says the same thing, and he decides not to board. Seconds later, the bus crashes, killing all aboard. The omen functions with respect to the  $\vartheta$  in its specificity of linking present with future moments of time, allowing the driver to see the anamorphosis of the hearse and the bus. The face of the conductor "popped suddenly forward," astonishing the driver by being the same as the hearse driver in his dream. Reminders of death come in many forms ("multiform") and in ways that intersect themselves, topological qualities of 2-d surfaces such as the Möbius band or Klein bottle, where discovery comes as a painful experience (kneeling and worse).

what had been experienced as temporally first.<sup>13</sup> The Servants will know what the Masters seem never to have known. This movement of the servant to the  $\partial$  position discovers that metaphor's reversibility obeys its own rule: "metaphor is reversible" equals "reversibility (itself) is metaphoric," which is to say that latency, the function of meaningfulness versus meanings, is universal, a "truth of truth." As Lacan, who was nearly alone (excepting Giambattista Vico<sup>14</sup>) in this view, even among his followers, argued, language is always - and fundamentally — metaphoric. There is, in other words, no such thing as a "literal meaning."

The striking thing about metaphor's switch of the anamorphic image's temporal firstness to logical second-ness with the introduction of a paradigm shift (i. e. a logic retroactively realized), is that the blur of the skull will throw the frontality of the painting into oblique indecipherability — in just the same way the "rotation" from the syntactical axis to the vertical stack of paradigmatic

alternatives throws narrative order into the oblique (Fig. 2).<sup>15</sup> Both turns involve a  $\partial$ . Just as  $\partial$  must be small but greater than zero, the turn cannot be fully 90°. There must be a narrow

<sup>&</sup>lt;sup>13</sup> Tradition has it that "kneeling before the masters" was the clever idea built in from the start: that the patron intended to hang the painting at the top of a staircase so that guests would be reminded of mortality as they climbed the stairs after a sumptuous dinner to fall asleep in their rooms, perchance forever. The skull would automate the usual bedside prayer to ask this not to happen.

<sup>&</sup>lt;sup>14</sup> Giambattista Vico, *The New Science of Giambattista Vico*, trans. Thomas Goddard Bergin and Max Harold Fisch (Ithaca NY: Cornell University, 1984).

<sup>&</sup>lt;sup>15</sup> This message is the one delivered, also in crisscross, in the crypt of Santa Maria della Concezione dei Cappuccini in Rome, the latent signification (literally!) of the message, "What you are now, we once were; what we are now, you shall be." This motto is both reversible and anamorphic. This *memento mori*'s chiasmus makes it a model of all such reminders. The skull, in both Holbein and Santa Maria della Concezione dei Cappuccini becomes its signified as soon as it *signifies* death, by the identification of the position that the viewer must take in order to encounter it.

channel of retroaction, where the paradigm is able to effect a new order. This is where meaningfulness *runs across and over* intentional meanings. This narrow channel is not an abstraction. It is a function materialized by the liminal passage, the adventure story, the ritual encirclement of the city to curse or bless it; it is the rim, the tunnel, the clairvoyant dream. More than the everyday objects that can be purchased and displayed within the boastful frame of rich men's toys, it is the universal of each subject's subjectivity. If this is not the materiality of the Real, nothing is.

Both the viewer and the ambassador–Masters are reminded, as in a postscript, that all must die. The viewer encounters the blur first and (if willing to go to the trouble of kneeling to find the right spot at  $\partial$ ) the skull second. But, the skull and its truth are *logically* prior, necessitating a sudden and brutal appearance in the midst of a prideful display. It is *logical necessity* that has staged the encounter with the blur and "blocked the scene" in a cinematic way, so that the interpretive  $\partial$  is both the effect (seeing the skull pop into view) and the cause. The anamorphic reminder is logical rather than sequential, paradigmatic rather than syntagmatic. In other words, anamorphosis has a crisscross temporality, an origami–like folding of time on itself, a retroactive impulse to return to a moment before it stages its own self–destruction.

The small value of  $\partial$  defines both a required angle of view and a specification of the limited occupancy of the viewing point, which is also a channel of liminal passage. Like the signs in elevators about maximum legal occupancy, anamorphosis's sign would read "just one inside," the same placard that might be posted for graves or last free seats on crowded buses (Fig. 3). This is the singularity of individual experience, and the basis for the common feeling about the limitation of meaningfulness. Our most vivid, personal, and concrete experiences are precisely the ones we can't convert into words or other representations. There's always something missing. But, doesn't metaphor's time-fold say something different? Doesn't what we encounter first in experience is retroactively second follow the "fate" of a logical priority? Doesn't the anamorphic blur that sticks out,  $\Pi$ , by identifying with the singularity and single occupancy of  $\partial$ , suggest that hapax meanings are universal paradigms precisely and simply because *they resist* the "full frontal exposure" of Euclidean presentationalism? Signifiers replace signifiers in a syntagmatic linear way by obeying the rule, that two things can't be in the same place at the same time. Syntagmatic exposure requires overlaps, stack, eclipses. But, in the "quantum" of metaphor and the anamorph, these rules don't apply. The reversibility and crisscross create new spaces and new times concealed within themselves. Like the purloined letter in the famous short mystery by Edgar Allan Poe, the letter is hidden precisely because of the expectation that it should be hidden, allowing it to be put in plain sight.

There are two kinds of time going on in the conflict between logic and experience in metaphor. There is the forward motion that encounters, in the signifying chain, the delaying/displacing effect. This is immediately followed by the astonishing realization that something

has come before, from "behind the viewer's back so to speak, that even includes the viewer's participation or even complicity. It's clear that this complex temporality is tied, functionally, to whatever makes metaphor an experience of *meaningfulness* and not just (as in analogy) a ratio of meanings. Metaphor not only uses a meaning that has been latent without forcing it into the harsh light of specific determinative meanings, it uses this folded temporality to "turn the signifier upside down" to transform the very context from which it has emerged. This is the feeling everyone experiences with meaningfulness, where intensely personal emotions are invested in a way that seems unsharable. The very non-sharability converts to a universal reconstruction: one's *world* has changed, it has been different all along but we didn't notice it, and we have just now realized it. We were blind but now we see (e. g. there is no such thing as literal meaning).

#### 3 / Changing the World with One Small Letter (d)

Giambattista Vico was the first to point out the conjunction of the intensely personal with a transformation of everything else. It's not just that we experience a shift in our personal subjective view. We experience a new objectivity, a new basis by which the Real of reality is made available to us. This Real, Vico wrote, was the major discovery of his own life, a kind of selfproving idea.<sup>16</sup> Once he discovered "it," he realized that the "it" and "discovering it" were flying the same flag. Like Lacan, Vico emphasized the role of the suppressed/latent signifier. This was, coincidentally, the ferocity of the first humans who "projected" their own subjective nature on to the objects and structures of the external world. But, to put it in these terms gives the wrong, "Perelman-esque" impression. Without occultation of "ferocity," the metaphor about the first humans would be nothing more than a comparison. Ferocity was latent in the consciousness of things as they "appeared back" to the first humans. This was particularly evident in the external ferocity of a loud clap of thunder, Vico's paradigmatic example. Subsequently, they formed the idea of the sky as Jove and initiated a religion based on astrological/astronomical consideration of skyward signs. To facilitate this semiotics, they made swidden clearings in the forest (the single "eyes" of cyclopean societies). These became the first truly human spaces: altars for obtaining and certifying auspices; circular spaces for consecrating marriages and funerals; places that gave rise to agriculture, writing, and commerce.

The first clearings were "monocular" because they were "anamorphic" within the forest; the signs of divination "popped up," presenting themselves face–on as singularities requiring

<sup>&</sup>lt;sup>16</sup> Sandra Rudnick Luft, *Vico's Uncanny Humanism: Reading the "New Science" between Modern and Postmodern* (Ithaca: Cornell University Press, 2003). Vico's account of the grandeur of this moment is given in his *Autobiography of Giambattista Vico*, trans. Max Harold Fisch and Thomas Goddard Bergin (Ithaca, NY: Cornell University, 1944), §345. Vico is saying that theory is just as metaphorical as the cultural dynamics it studies, *contra* writing style that prides itself on the ability to say *literally* what it means, when rhetorical means lie at hand to create different functions for narration (anacoluthon, aposiopesis, litotes, metalepsis, enthymeme, sorites)?

interpretation of their logical priority (which became the basis of Law). But, the relation of this historical firstness to logical secondness also applied culture's retroactive logic. Theory of culture finds its own principles in the structure of the object it studies. The  $\partial$ , the small but >0° angle of anamorphosis became the narrow cone of vision, the fixed Cyclopean eye, of the first humans seeking signs from the sky. The  $\partial$  was simultaneously (1) the relentless authority of the laws determined from divination, (2) the inseparable relation of that authority with the specific *place* of divination, and (3) the violence of sacrifice that bathed authority in blood.<sup>17</sup> If anamorphosis was indeed the key to the origins of architecture, then the small Greek letter,  $\partial$ , is the key to both how metaphor actually worked to initiate human culture as well as our means of discovering it. When theory has tried to explain this moment, it has overlooked the symmetry of the event with the understanding of the event in order to masculate the materiality of human origins and neutralize the role of the signifier.

Today, the prospects for moving forward on combining the interests of metaphor and anamorphosis, as a way of reviving theory interest in the signifier, are dim. The ground would have to be prepared by combining Vico's original theory of human origins with Lacan's focused treatment of metaphor's relation to extimity (self–intersection) and the surfaces of projective geometry (Möbius, Klein, Plücker, Gauss, etc.), which architecture theory, in particular, has gone to great lengths to subordinate to Euclidean geometry. Vico is virtually unknown among Lacanians and *vice versa*. Both Vico and Lacan are separately known, though often misrepresented, in architecture theory, but the two have not yet been connected in any meaningful way.<sup>18</sup> Vico's theory of metaphor strikingly anticipates many of Lacan's in its specifics and general implications. The bridge for Lacan was James Joyce's *Finnegans Wake*, where Joyce not only used Vico but seemed to channel Vico by making writing into a

<sup>18</sup> Vichians possibly are aware, as are most academics, of Lacan's works, but only one to my knowledge has evidenced a sincere interest: Timothy Harfield, "Desire and the End of History: Repetition in Vico and Lacan," *You Can't Steer a Parked Car*, August 19, 2015; http://timothyharfield.com/blog/2015/08/19/ desire-and-the-end-of-history-repetition-in-vico-and-lacan/. Architecture theory has held on to some strategic territory through the work of Lorens Holm, Tim Martin, John Shannon Hendrix, Nadir Lahiji, Jane Rendell, Francesco Proto, and a few others. Knowledge of Vico has been pinned to a materialization of the *verum factum* principle, at the expense of other features.

<sup>&</sup>lt;sup>17</sup> This is a lot to put on the small  $\partial$ , which seems at first simply to keep the anamorphic image–viewer from being absorbed into the surface of representation while experiencing a head–on collision with a self– proclaiming, formerly concealed, visual warning of death. Monocularity was not simply the optical requirement of the  $\partial$  but the religious absolutism that focused the first cultures on relations with ancestral dead worshiped at the hearth (L. *focus*) as the family altar, and the individuality of families and clans made mutually hostile by this focus of authority. The *manes* (spirits of the household hearth) were later secularized as the flame of the hearth was collectivized to underwrite political confederation of families into civic structures, but something of the original hostility remained in the word "host" itself, which originally meant both hospitable and hostile. The *localization* of the first laws was the Promethean effect Vico explained as a law linking the literal soil of the ancestors' graves to the authenticity of laws derived at hearthside. See Vico, *The New Science*, §63, §387, §503, §549, §701, §713, §719.

demonstration of the principle that signification had taken the place of Being. Because Lacan's interest in Joyce took place later in his life, as he turned from his sequential interests in the Imaginary and the Symbolic to the Real, and the consequence of psychosis. It is possible to see that Vico's *New Science* was, in effect, an ersatz attempt to formulate a theory of psychoanalysis that answered the critical question of the "end of the mind" as a legitimate central organizing feature of the psyche. This has been addressed by Aaron Schuster, who cites the founder of cybernetics, Norbert Wiener, to say that neurosis's natural tendency is to grow to the point of psychotic overload.<sup>19</sup> This, in Lacanian terms, is the presence of an excess that is simultaneously a lack — autopoietic.

My proposal takes the "stupid" form of the analogy, to ask how latency might work for theory. The main project is to combine metaphor with anamorphosis (M:A) and then to combine Vico's theory of cultural origins with Lacan's connection of metaphor with self–intersection and non-orientation, i. e. the surfaces of projective geometry (V:L). In the resulting analogy, the occulted term required to make a metaphor could be any of the four, with the rule of "one against three" that would submit each of the four to a "rule of  $\partial$ " — the material constraints that can be found in a variety of forms in popular culture, film, literature, art, architecture, ritual practices, and ethnography in general; but also the joke, the dream, the (death) drive. The  $\partial$  is my *clavis univeralis*, the presence of the gap in any signifying chain that becomes a channel to the Real of the paradigm axis of meaning.

Metaphor : Anamorphosis :: Vico : Lacan

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Vico's version of this is clear. Human thinking begins with a metaphoric blindness that works both sides of an imaginary fourth wall giving humans access to nature as if it were a theatrical presentation. Is there a role for the  $\partial$  in this? And, does the role of the turn into the medium of the anamorphic image have a place in the formation of metaphor that would definitively establish Vico's relation to Lacan, and the reason for considering these two thinkers as running in parallel? This claim depends on establishing how anamorphosis, in a form that preceded its sudden historical appearance in the 16c., played a key role in metaphor as a basis of human thought, and how projective geometry, suddenly appearing in the 17c. with the work of Girard Desargues and Blaise Pascal, echoed the idea of a supplemental space by diversifying Pappus's theorem. Vico's claim, that all thought was metaphoric, made the same kind of claim, that there was a "metaphor before metaphor," that is, that the substitution of one signifier by another, with the potential of dynamically short–circuiting language's syntagmatic and

<sup>&</sup>lt;sup>19</sup> Aaron Schuster, The Trouble with Pleasure: Deleuze and Psychoanalysis (Cambridge, MA : MIT Press, 2017).

paradigmatic dimensions (a crisscross of horizontal and vertical relations, +), constitutes *the* basis of thought, well before metaphor was thought to be a special, "poetic" case of analogy.

The forward motion of syntactical relations in language, and the forward–*projecting* motion of the visual image, is interrupted in metaphor and anamorphosis by the unexpected substitution, a blip,  $\Pi$ , in the chain of signifiers. This must be a substantial interruption, not just an acceptable use of a "synonym." The interruption could be taken for noise or, to use an analogy of signal transmission, static in the system. The signifier filling in this gap in the chain requires a new point of view, "a new paradigm" that comes with a new specification for how messages and their exchanges now constitute a new kind of world. The new paradigm is about meaningfulness and not just the correct flow of signifiers within the given system.

The new paradigm requires the opening of a new fourth wall in theory able to see the variety of fourth walls in human deployments of signifiers, whose surfaces are a kind of a negative mirror of the subject's own presence. As in the case of the *memento mori* of Holbein's skull, activating the reticular web trapping the viewer in a geometric Apocalypse, this fourth wall lacks the leisure of distance by which the representation may be bracketed as such, a sample of life "out there." This is the "metaphor before Metaphor," just as it is the "anamorphosis before Anamorphosis." These superimpose logical priority onto a history that must have come before but was not recognized as what it was.

Part II: The Meaning of "Self-Intersecting," "Multiform" and "Non-Orientable" in Projective Geometry's (Psychoanalytic) Surfaces of No Escape

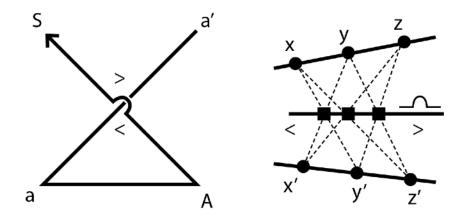


Figure 4. Lacan's "L-schema" (left) and Pappus's "curiously Lacanian" theorem (right). I have shown the figure depicting the process of psychoanalysis, where the (Euclidean) presence of Analyst and Analysand as two egos in the examining room (a–a' axis) must be overcome by the Analyst's coaxing (<, >) of the Analysand, anticipating (< as prior) or following up (> as a retroactive) any slips of the tongue or botched explanations, so that the Other of the Unconscious, A, can escape to its former location with the (unbarred) Subject, S (*Es*), the place defined by Freud in his motto, *Wo Es war, soll Ich werden*, "Where the Id was, there I shall be." Pappus does much the same by discovering, between (or within) two lines in the examining room of a Euclidean plane, a crisscross that also goes before (x–y') or after (x'–y) enough times to establish the co-linearity of a determinative line able to "escape" from Lacan's A to S — in other words, to establish that there is a projectivity that is like an "unconscious" of Euclidean space. Anamorphosis in this case is the principle of reversibility of metaphor, what allows the "tenor," the subject to which attributes are ascribed, to exchange with the "vehicle," the attributes that are borrowed from another object. Without reversibility, tenor and vehicle could be explained in terms of simple analogy, without reference to meaningfulness.

#### 1 / Have You Heard the News? The $\eth$ of Anamorphosis Is Also the Latency of Metaphor

Theory's flight from the signifier in search of the body ignored the Vichian/Lacanian discovery about metaphor and its relation to "anamorphic" meaningfulness. As a result, the body–idea itself has been denied the metaphoric materialism it deserves. The "inscription of the body by signifiers" means nothing for theory using an analogy–style equipment of standard hermeneutics, which disallows the retroaction constitutive of the experience of wonder. The historical priority that arises with direct experience's "first," made into a "second" by logical priority, becomes the Q. E. D. for any proper theory about the subject's place in architecture. In effect, time folds over on itself, one of the several curious "origami" effects of anamorphosis. But, if the four terms of analogy are flattened on to a "Euclidean" plane by perception (the standard view), this folding remains largely enigmatic. Theory that does not understand

metaphor's function of latency can only point in astonishment at the unidentified remains of the uncanny.<sup>20</sup>

But, Holbein (and, presumably his audience) were more theoretically sophisticated. The crucifix of *The Ambassadors* is half-covered by a green curtain to make the connection between the Golgotha of the viewer's position at  $\partial$  and the ominous date of the Apocalypse (Gr.  $\dot{\alpha}$ ποκ $\dot{\alpha}$ λυψις/*apokaluptein* "uncover, reveal") inscribed on the painting's back. The half– enfolded crucifix is the one-against-three (viewer, horizon, skull) that shows how latency reaches peak performance when anamorphosis comes with its own numerological arguments, a direct application of 1 against 3. With the 3x3x3 of the 27° pitch of the skull, the theme of death expands to the date of the Apocalypse (1533 as three 500-year eras and 3x11, the years of Christ's life, a case of three against ones). The marker of 4 p.m. was set by the sun's 27° angle above the London horizon at that time. Today, it is easy to bracket these details - number relations, navigation devices provocatively tilted, the network of lines — as superstitious enthusiasm. In fact, many scholarly analyses of this painting have failed to take notice of any of them. The point is that Holbein and his collaborators, including the astronomer Nicolaus Kratzer, must have been thinking at a level where such relationships, whatever their validity, established a sophisticated discourse involving the interactions of science and art. Even more astounding was Holbein's employment of anamorphosis not as a trick slipped in under the noses of his patrons but, rather, a fully developed thesis about time. The relationship of the fear of death — not just individual death but the death of all creation — was integrated, as an "anamorphic" presence of *fear*, within the *pride* of the ambassadors' presentation.

Cosmic speculation is out of fashion, but we should take its ambitions seriously. Given that *The Ambassadors* is a kind of meta-painting that treats time as a topology, we should expect it to be saying something equally topological about space. But, here we run into a problem. Some architecture theorists have taken the sentimental view that Euclid was the basis of a pre-Enlightenment harmony of humans within their familiar landscapes. According to this view, "Cartesian space" crunched this space into vectors of alienation and anxiety. The French

<sup>&</sup>lt;sup>20</sup> This is not intended to be just a figure of speech. Theory bereft of any correct theory of metaphor converts its engagements into a "forensic examination of the crime scene," where the corpse and its disposition (think of the Modular or Vitruvian man as a body with a chalk circle drawn around it) have the status of *debris*. Clues must be assembled into a theory about the motive and violence already past; the "crime procedural" proceeds literally to the courtroom, to assign guilt and punishment. This is theory's dominant paradigm, based on resistance to metaphoric reversal. And, so it cannot address cases where reversal, its self–intersection and non-orientability, is the critical ingredient, as in Alfred Hitchcock's *Vertigo*, where the "servant" Scottie is asked by the (fake) master, ship industrialist Gavin Elster, to follow the actress he has hired to play his mentally deteriorating wife. The imposture of the Master and the charade of the actress–wife, the reversibility of Hegel's Master–Servant parable, and the deployment of retroaction in a moment of anamorphic astonishment can be conceived only within a Lacanian–Vichian framework, where (male) imposture and (female) charade are key operations of sexuation.

Revolution's hyper-rationalizations provoked a backlash of the gothic uncanny.<sup>21</sup> It has seemed obvious to some that new geometries upset a psychic balance that only a turn away from rationalism could restore. So, when Girard Desargues and Blaise Pascal revived the theorems of Pappus of Alexandria in the 1600s to mathematize the role of infinity in relation to a "real projective plane," the complexity of their new theorems created something of a scandal. Good Euclideans have always been forced to choose between the problematics of infinity and the evidence of their own eyes. Parallel lines "do not meet," Euclid commands us to believe, on the basis of some shaky reasoning, although in visual experience we see them do just that, at the vanishing point on the clearly material/visible but theoretically unavailable horizon at infinity.<sup>22</sup> Pappus reasoned that any two lines on a plane, placed at any angle to each other, designated a third line that, like the anamorphic image or the 3:1 latent signifier of metaphor, was both "there and not there" (Fig. 4). Pappus did away with distance as a factor, thus laying the way for saying that the horizon's infinity did not have to be a problem, at least not for theory able to tackle the function of latency.

Pappus placed three sets of points, one set per line, without caring to measure their location. He connected them in a "twisted" way (x-y'/x'-y, y-z'/y'-z, and x-y'/x'-y) to "un-twist" the space between the lines, so to speak, so that the intersection of the zigzags would locate points lying on the third, or latent, line between them. The uncanny mid–line determined by pairing random points on two other lines is first in experience but second in terms of the logical priority of latency. The astonishment at discovering the co-linearity of crossings of the zigzags has revealed the "always-already" of a projective space anamorphically concealed within representational space. Desargues and Pascal realized that this occulted line had the ability to engage an imaginary projective space where parallels would meet, mathematically as well as in perceptual experience, a circular horizon ( $^{\circ}$ ) that, like the astonishment–point of the metaphor or anamorphic image, could flip around (∞, as both "infinity" and self–intersection) to implicate viewer in the viewed, represented in the representation — in effect, re-signifying the "world" in which the signifier had appeared as the "logically secondary" effect of anamorphic surprise (non-orientation). In other words, you see the non-orientation first ("too soon" = <), but then realize the logical priority of self-intersection, making your experience secondary ("too late = >).

Pappus's anamorphosis is the same as Holbein's *The Ambassadors* and Niceron's murals at the Minims Monastery in Paris. The sudden astonishment that comes with the pop–up image is

<sup>&</sup>lt;sup>21</sup> Anthony Vidler, *The Architectural Uncanny: Essays in the Modern Unhomely* (Cambridge, MA: MIT Press, 1999). Vidler emphasizes the distinctive turn given the uncanny by early–modern rationalism but does not address its basis in ancient belief systems and ritual practices.

<sup>&</sup>lt;sup>22</sup> Euclid here "repeats" Chico Marx's super-ego injunction to Mrs. Teasdale: "Who are you going to believe? Me, or your own [lying] eyes?" *Duck Soup* (1933). Popular culture memory has inserted "lying."

that it comes not just by itself but with its whole spatiality of "family relations." For Desargues and Pascal, Pappus's discovery meant that parallel lines were, wherever they were, "line families" meeting at a common point on a circular horizon at infinity, which could be drawn on the normal Euclidean plane although it was spatially distinct from that plane. This distance was also a version of  $\partial$ , the definition of a "real projective plane" depending on a > 0 distance from the coincident origin point of all two-dimensional subspaces in the Euclidean plane. By treating Euclidean lines as families, Pappus opened up the means to "project" them as vectors to intersect with a projective plane to express their values as ratios rather than distances or relations to Cartesian axes. This revolutionary innovation could be reverse–engineered to define the very real properties of projective surfaces "immersed" into ordinary 3-space: Möbius bands, Klein bottles, cross-caps, etc. — all of which can be constructed materially. "Self–intersection" and "non-orientability" were the two invariant properties of these constructed immersions. It is not just a coincidence that they are also properties of metaphor, anamorphosis, and the interactions of the two in the phenomenon of meaningfulness.<sup>23</sup>

Our only theoretical access to this issue is through Vico and Lacan's unique idea of metaphor, radically different from other theories. How is it that contemporary theory has not comprehended this idea of metaphor and its relation to projective geometry?<sup>24</sup> This missed opportunity hinges on the issue of the *certum*, a third term circulating between Vico's famous antipodes, truth (*il vero*) and making (*il factum*). Vico's dictum, *verum ipsum factum* (*est*) — that in principle humans may know that which they themselves have made" — is theory's standard "take–away" from Vico, although the dictum appeared in his work on ancient Italian etymology (1710) rather than his major work, *The New Science* (1744). Ironically, architecture theorists have taken a Perelman-esque stance with relation to the *verum–factum*, seeing it as an analogy rather

<sup>&</sup>lt;sup>23</sup> Architecture theory's antipathy to projective geometry can be traced back to Mark Schneider, "Girard Desargues, the Architectural and Perspective Geometry: A Study in the Rationalization of Figure," Ph.D. dissertation, Virginia Polytechnic Institute and State University, 1983: "Girard Desargues (1591–1662) was a key figure in the transformation of architectural geometry from its ancient and venerated status as transcendental knowledge and supreme reality to a mere technological instrument for the control of building construction practice. … Desargues was present at the birth of mechanism — the world picture upon which experimental science was founded. Desargues was a mechanist at a time when there was no better way to make enemies. The life and work of Desargues can help us understand the birth of mechanism." Schneider sees projective geometry as logically secondary to Euclid and thus misses both a mathematical truth and the name of projectivity before it was mathematically conceived, i. e. the uncanny.

<sup>&</sup>lt;sup>24</sup> Vico has been celebrated in the works of Marco Frascari and Alberto Pérez-Gómez, but there has not been any general understanding of what Vico called his major discovery. See Donald Kunze, "Thought and Place: The Architecture of Imagination in the Philosophy of Giambattista Vico," *Boundary Language: A Critical System for Architecture, Film, Landscape, and Visual Culture*; http://art3idea.psu.edu/locus/ thoughtplace.pdf. This Web edition is a revised version of the book published as *Thought and Place: The Architecture of Eternal Places in the Philosophy of Giambattista Vico,* Emory Vico Studies, ed. Donald Phillip Verene (New York: Peter Lang, 1987).

than a metaphor. This converts *factum* into a designation of *technē*, material making, but this is not what Vico had in mind. For Vico, *vero* was *il vero*, the truth *of* truth and not just "truths." Vico addressed the issue of meaningfulness, and thus the role of a universalized metaphor in its ability to convert concealment to revelation by operationalizing the latent "middle term," which Vico connected to the logic of the enthymeme, the so–called "rhetorical syllogism" by which a speaker says more than he seems or even means to say and thereby activates in the minds of the "acousmatic" listener, an idea untainted by subjectivity of the speaker or, for that matter, the listener (i. e. an instance of instrumental causality).

As a metaphor, the terms *verum* and *factum* include a latent term, *il certo*. This was Vico's idea of the procedural magic that the first humans employed to authenticate the results of divination. A full Perelman-esque analogy form would possibly look like this: *verum* : law :: *factum* : divination. But, while the idea of law is implicit in *verum*, divination is the outsider. It took Vico to point out that the practices of divination sought to *make certain* what the mythic mentality had, in effect, set loose. And, although Vico never used the term, the idea of anamorphosis is critical to these divinatory practices. This is what makes ritualized transformation of the abject materiality of the victim (of sacrifice) into a revelational truth *of* truth.

The proper name for this process is "instrumental cause."<sup>25</sup> No doubt, readers of humanist architectural theory will see a problem. Instrumentality is the unambiguous evil in contemporary architecture theory's binary of poetic *versus* rational. It is the algorithm, the mechanical technique, the industrial protocol. In its first religious application, however, it had a quite different meaning. Instrumental cause guaranteed that the human priests who undertook rituals of transformation were "objectified" by the process. They added no intention to "cook the books" but, rather, to serve as a mindless/noise–free objective transmitter. The *certum* guaranteed that the sacrifice connected heaven and earth. The astonishing sign broke with the signifying order from which it was drawn in order, retroactively revealing a latent logic that had been present all along. Architectural commentators have made no reference to the *certum*, nor is

<sup>&</sup>lt;sup>25</sup> I would advise architecture theory to return to the religious origins of the idea of instrumental cause, to align it with both virtuality and efficient cause. These are conveniently summed up as the Notion of Efficient Instrumentality: "An efficient instrument attains an effect beyond its own power. Whether the instrumental cause attains to the ultimate perfection of the form produced by the principal agent, or only disposes the appropriate matter for the reception of the form, the efficient instrument acts beyond its proper power. If the instrument did not attain an effect beyond this power, the effect could be attributed to the instrument as to a principal cause, and movement from another cause would not be required to produce the effect." "Instrumental Causality," *Encyclopedia.com*, https://www.encyclopedia.com/religion/encyclopedias-almanacs-transcripts-and-maps/instrumental-causality. See also Jean-Luc Solere, "Duns Scotus *versus* Thomas Aquinas on Instrumental Causality," *Oxford Studies in Medieval Philosophy* 7 (2019): 147–185.

the ritual meaning of instrumental cause connected to the metaphorical thought of the first humans.<sup>26</sup>

If metaphor and anamorphosis had not been disused in the rush to the body and materialism, theory might have been able to connect Vico's *certum* with instrumental cause productively. It might have been possible to see divination procedurals aiming to produce anamorphic revelations as the bases of laws and institutions. Further, the relation of anamorphosis and metaphor to the general phenomena of self–intersection, non-orientation, "the multiform," and "surfaces of no escape" might have allowed architecture to re-connect with mainstream views about the importance of projective geometry.

Why would this sound ridiculous from the standard viewpoint of architecture theory? This is in fact what Lacan accomplished in Seminar VII on *Ethics of Psychoanalysis*, and what Vico achieved in *The New Science*. This is the "philosophical–philological" method that Vico advised in his *Autobiography* (1725, 1728). But, instead of philosophy Vico was both a practitioner and advocate for what was later to subvert philosophy, namely the Freudian–Lacanian field. The lack of any scholarly development connecting Vico and psychoanalysis is further troubled by the difficulties Lacan's topological interests have constituted for even dedicated Lacanians.<sup>27</sup> It is as if the odds of correcting modern theories' misinterpretation of Vico, multiplied by the difficulty of understanding Lacan, is multiplied again by the daunting concepts and bad press of projective geometry.

But, it turns out that this difficulty–of–a–difficulty–of–a–difficulty holds the key to articulating and successful marriage of metaphor and anamorphosis. The projective geometry that began with Pappus's theorems, revised and expanded by Girard Desargues and Blaise Pascal in the 1600s, is recognized as revolutionary by mathematical historians. When key figures such as Möbius, Plücker, Gauss, Riemann, Klein, Lobachevsky, and finally David Hilbert elaborated it, it became the basis of both of the competing theories of physics, Relativity and Quantum Mechanics.<sup>28</sup> To call projective geometry "non-Euclidean" is an insult. Euclid can be derived from projective geometry but not the other way around. To be accurate, Euclidean geometry should be called "non-projective," but of course, there was no awareness of projective geometry as such before Pappus. Here we have another case of an event that we encounter "first" but discover that it is logically second. The question is, just as it was for Lacan in his encounter with anamorphic art and just as it was for Vico when he realized the primacy of

<sup>&</sup>lt;sup>26</sup> One exception is Carolina Dayer, "The Conjured Drawings of Carlo Scarpa: A Magic–Real Inquiry into Architectural Representation" (Ph.D. dissertation), Virginia Tech., 2017.

<sup>&</sup>lt;sup>27</sup> See Will Greenshields, *Writing the Structures of the Subject* (Cham, Switzerland: Palgrave Macmillan, 2017) for an account of Lacanians' suffering on account of Lacan's topological interests.

<sup>&</sup>lt;sup>28</sup> For a lively introduction to the development and logic of projective geometry, see Norman Wildberger's series of podcasts, "History of Geometry," https://www.youtube.com/watch?v=NYK0GBQVngs.

metaphor, *what must have come before*? Did projective geometry take any historical form under another name before it appeared in its mathematical form, given that it is *logically* prior to Euclid?

There are two ways of answering this question. The first is based on the arguable view, that Euclidean geometry reflects the Greek fear of infinity, a fear that is minimized but not eliminated in the famously doubtful Fifth Postulate about parallel lines. The question can be reformulated to fit our question about projective geometry. What was infinity's name before it was the infinity-for-Euclid, which had to be de-fanged and domesticated? One suggestion is the set of practices, institutions, and beliefs grouped under the tangible phenomena of the uncanny. Here, architecture theory is in luck, in the sense that, not only is architecture implicated in the involvement of the Unheimlich with "the home" (as long as we speak in German), but we are immediately forced to recognize an internal duplicity. Sigmund Freud famously demonstrated that the uncanny's un-home-ness comes from the very idea of the home itself — an instance of self-intersection with non-orientation.<sup>29</sup> As soon as there is the home, there is "the haunted house," so to speak. The uncanny is the *hapax* phenomenon that suddenly appears out of nowhere, that reveals that has been there, already and always, in a logical form whose historical counterpart we have failed to see. We have failed to see, in the uncanny, its logical presence in the idea of the home. The convergence of two forms of temporality (and, by extension, causality) in the concrete instances of the uncanny qualify it as as a kind of *clavis universalis* of the kind that Vico proclaimed for his "imaginative universal" (his theory about the first metaphoric consciousness of humanity).

#### 2 | Self–Intersection, the Multiform, and non-Orientability

The uncanny opens up a second way of answering the question of what must have come before Euclid. This involves using the properties of projective geometry's surfaces (Klein bottle, Möbius strip, cross-cap, etc.) as theoretical principles. Here, something quite surprising happens. In the recovery of historical priority corresponding to logical priority, the discovery of metaphor turns out to take the *form* of metaphoric thinking. Theory discovers its authenticity

<sup>&</sup>lt;sup>29</sup> Sigmund Freud, Hugh Haughton, and David McLintock, *The Uncanny* (Brantford, ON: W. Ross MacDonald School Resource Services Library, 2013).

when it finds that it has, unawares, already been following the rules that have regulated its very object of study!<sup>30</sup>

Projective surfaces have two qualities that can be generalized:

(1) They are "multiform," which means that their topography is fundamentally and not just descriptively transformative. This can be seen in the simple case of the Möbius band, which, by intersecting itself, combines two forms, the form we see in front of us, a strip of paper with two obvious sides, and the single side we can test by tracing a continuous line to meet itself without the pencil lifting from the surface. The Möbius strip is neither one form nor the other, it is "both," but not a merger of the two. Rather, it is a "multiform." It has embedded the idea of transformation within its twist, its self–intersection, which in logical terms is the phenomenon of (self-)contradiction.<sup>31</sup>

(2) Projective surfaces are non-orientable, which explains two more things about the element of self-contradiction. An arrow moved along the surface of a Möbius strip arrives back at its starting "point" (this is on the "other side" of the strip, a side that "does not really exist") upside down. A topological ant crawling along the surface of a Klein bottle goes inside, then outside, without leaving the 2-d surface. What we would identify as the bottle's outside is actually also an inside. It flips our space at the same time it flips its own. The non-orientability has to do with both the flip of the arrow on the Möbius band (basically, because there is only one side, this is now *one arrow* pointing in two different directions), and the negation of the difference between inside and out, demonstrated "before our eyes" by the Klein bottle. In both cases, self-contradiction is put in terms of a merger that must be unfolded in time, a *mythos* as opposed to the *ethos* ("rivalry") of contradiction.<sup>32</sup> While the idea of a 2-d surface (meaning that it has *only one side*) may seem to be an abstraction in

<sup>&</sup>lt;sup>30</sup> Joan Copjec, "The Orthopsychic Subject: Film Theory and the Reception of Lacan," *October* 49 (Summer 1989): 53–71. This may be the key to what Gaston Bachelard meant in the term "self–surveillance" or *orthopsychism*. This is the scientist's "watching–for" turned around to be a "watching–after" to reflect on the temporality of theoretical reflection: "… [U]ne pensée réfléchie est, par définition, une pensée à deux temps, une pensée qui, dans un deuxième temps, contrôle une pensée adventice. Il est bien rare — il n'est pas tout à fait normal — de laisser échapper sa pensée, de laisser voir sa pensée, de dire toute sa pensée." Gaston Bachelard, *Le rationalisme appliqué*, Chap. 4, "La surveillance intellectuelle de soi" (Paris: Presses Universitaires de France, 1949), 66.

<sup>&</sup>lt;sup>31</sup> See Joan Copjec, "Sex and the Euthanasia of Reason," in Joan Copjec, ed., *Supposing the Subject* (New York: Verso, 1994), 16–44.

<sup>&</sup>lt;sup>32</sup> I borrow this distinction from Northrop Frye's *Anatomy of Criticism* (Princeton, NJ: Princeton University, 1957), 52*ff*, which he borrowed from Aristotle's incomplete Poetics: *mythos* (plot or narrative), *ethos* (characters), and *dianoia* ("thought," but mainly exposition, the need for characters to explain who they are and where they come from. Exposition is dynamically set against action in plots. We don't know what is happening without information about agents and their motives. But, if we did know, the element of surprise would be absent.

relation to Euclidean space's 3-d requirement, the fact that the Möbius strip and Klein bottle can be physically constructed and examined overturn this view. (This is the true meaning of Vico's *factum* and its latent term, the *certum*.)

The twist (cf. "plot twist") and self-intersection (exposure to rivalry, suffering<sup>33</sup>) are dramatic variations of the "theme of the ð." In metaphor, signifiers indicate meaning by a process of simple replacement, obeying the rules of the 2-d surface in a 3-d world. The "immersion" of metaphor involves its own version of the multiform — transformation — with self-intersection taking the form and function of reversibility. Analogy is non-reversible. We say that (following Dan Collins' example) that the Cavalier poets of 17c. England were fond of poetry encouraging young women to give up their virginity by emphasizing the destructiveness of passing time (*carpe diem*).<sup>34</sup> Collins shows, however, that the argument can be turned around, to see that time, seen through the lens of virginity, is newly incarnated. The medium has, in effect, become a message of form. The metaphor has "self–intersected" thanks to its latent signifier and demonstrated its multiform transformation (in this case, of time as a sexual process).<sup>35</sup>

This means that *any case of transformation* may be seen as a local instance of the general conditions of projective surfaces. And, since transformation, or metamorphosis, is more readily recognized as an uncanny relation of forms to one another, metaphors about transformation offer a testable resource for an empirical investigation into projectivity, which for many theorists would prove to be mathematically daunting. Other aspects of the multiform are equally more accessible in their folkloric uncanny versions: folding (origami) can be found in popular motifs; double-crossing is the basis of many stories about allies or lovers falling out; inside–out conversions constitute the plot–points of nearly every effective drama. We can even formalize "the multiform" under the headings of "themes of the fantastic," namely the double, travel in time, the story in the story, and the contamination of "reality" by the dream or work of fiction.<sup>36</sup>

<sup>&</sup>lt;sup>33</sup> Self–intersection has significant parallel developments in other fields. For example, consider René Girard's widely regarded research on the issue of rivalry, mimicry, and the political significance of semblance. A less well–known connection is to the theme of the passive hero who willingly exposes himself to suffering. See Erwin Cook, "'Active' and 'Passive' Heroics in 'The Odyssey'," *The Classical World* 93, No. 2, Homer (November–December, 1999): 149–167.

<sup>&</sup>lt;sup>34</sup> Dan Collins, "On Metaphor," 151.

<sup>&</sup>lt;sup>35</sup> Joan Copjec goes further, by noting that Lacan's two conditions for "those who choose to call themselves women" require a contradiction of unboundedness ( $\sim \forall x \Phi x$ , "not–all of woman is subject to the phallic law") and finitude ( $\sim \exists x \sim \Phi x$ , "... and there are no exceptions to this") and, i. e. the *precise definition* of a projective surface that is finite but continuous, self–intersecting but non-orientable. "Sex and the Euthnasia of Reason," 43. Time as woman = time as a projective surface.

<sup>&</sup>lt;sup>36</sup> James E. Irby, "Introduction," in Jorge Luis Borges, *Labyrinths*, trans. Donald Yates and James Irby (New York: New Directions, 1962), xvii.

Projective surfaces are non-orientable. This explains two things. An arrow moved along the surface of a Möbius strip arrives back at the starting "point" (it is on the "other side" of the strip, a side that does not really exist as "other" since it is the same) upside down. The non-orientability has to do with both the flip of the arrow (basically, because there is only one side, this is now *one arrow* pointing in two different directions<sup>37</sup>), and the surface itself in the face of signifiers that indicate meaning by a process of simple replacement.

Dan Collins uses the example of "fondue."<sup>38</sup> What is fondue? It's "melted cheese," and now melted cheese can take the place of the signifier, since it means fondue. We could go on all day in this way, replacing any signifier with new signifiers, until we run out of dictionary entries. But, this would only be a set of meanings without any emergent sense of meaningfulness but, rather, the sense that language is a prison house. Meaningfulness happens when the deficiency of signification (not being able to put our strongest feelings into words) somehow flips into finding something that says more than it is aware of saying or even able to say. This is the way metaphor is simultaneously nothing (a circular reference), something (a new signifier), and everything (retroactively capable of re-defining the world in which it has happened.

Multiform and non-orientable, metaphor and anamorphosis provide tangible ethnographic entry points to approach the issue and importance of projectivity in non-mathematical terms. I would argue that this is not a "non-mathematical" approach but, rather, a methodology simply using different notation system. For example, the  $\partial$  in anamorphic art is the small but not–zero angle the viewer must take to experience the astonishing flip of the blurred image to a frontal presentation. At this  $\partial$ , the zones of the blur near to the viewer and the zones at the farthest extremity are equalized. Holbein's skull faces the viewer in a surprisingly intimate way, in an instant where there is no escape from the you-will-die message. It happens so quickly that the viewer-victim does not have time to notice that the real miracle has been the collapse of temporality that accompanies a destruction of spatial distance. These "quantum" features happen but are not labeled as such. They are latent like the flip-term of metaphor, but their flips of past/present and near/far are the "efficient cause" — and I would say instrumental cause of the experience, as a meaningfulness that cannot be put into words. I return to the origins of instrumental cause to make this claim. In the Catholic mass, the priest is the instrumental cause of the transubstantiation of the host. Without the priest, nothing happens, the host is just a piece of pastry, the wine is just a cheap bottle of red off the shelf of a local store. But, the priest is not just a mechanical slave in this regard. The priest is a virtuality, a secondary virtuality in that the primary virtuality (the blood and flesh of Christ) is what comes first in the experience of the

<sup>&</sup>lt;sup>37</sup> Section Three offers an example of how mythic thought conceives of this bi-directional arrow in the story of Daphne and Apollo, proving my point about using ethnography as a testing–ground for the principles of projective geometry. Lacan of course already thought of this in *Ethics*, 60.

<sup>&</sup>lt;sup>38</sup> Collins, "On Metaphor," 150–151.

Mass, the priest's presence is as a logical priority that, until this moment, has been latent (which may be why priests wear black). The instrumentality of the priest relates, quite obviously, to the objective reduction of Christ at the moment of crucifixion, the moment at which the *word* appears anamorphically, the sudden revelation of the latent three–agains–one term.

Secondary virtuality, or instrumental cause, is secondary because of metaphor's reversibility (its non-orientation). The logic that arrives at this moment as the "truly prior event" is pushed into second place, by virtue of the logic by which three is against one in metaphor. The pop–up first encounter retroactively engages the future anterior of what must have gone on already before that moment of discovery. Just as Holbein's portrait plays this out as in the overdetermination of 3s involved in the Apocalypse, it is the same  $\partial$  of Vico's first humans (the first architectural act of making monocular eyes — swidden clearings — in the forest, which institute both the retroactive Law of the sky and Promethean immobility on the ground), and also the same  $\partial$  that Lacan experiences when he realizes that anamorphosis in the 16c. must have been proceeded by a considerable technical and ideational history.

You could say that the "efficient cause" of a visual representation is a combination of the expectations of the viewer, the technologies of delivery, and the imagined relations that make the representation a representation *of something*. Just as words are defined by other words and those words are defined in turn by other words, representation must find a way to jump out of this self–confining circle of references to the *meaningfulness* of the subject's investment of emotions, personal experiences and associations, which any one representation's attempt will always fall short of capturing. Meaningfulness remains illusive within the standard order of replacement of one signifier or representation by another in the dictionary view of things.

I am talking equally about signifiers, such as "fondue," and images, photographs, drawings, paintings, and so on made to represent a situation or relation. Representations do not always attempt to look like something "out there." But, they will always *pre*-sent with a rhetorical intention to instruct or please. There will always be state prior to the representation that the representation has sought to capture and re-package, a moment "by the time of which." Add to this the moments of making the presentation itself, the "now" of drawing or painting or photography. Just after, there is an indeterminate "then," left over for those who take in the representation. The temporality of representation is multiple, manifold. The logical temporality of the ideas combine with the consumer's process of reception.

#### 3 / The Too–Much as a Quantum Time of Representation

Although speaking subjects complain that they can "never put into words" those things most significant to their experience, with every shortfall they ironically "tell us too much" — more

*about* themselves than what they think they're talking about.<sup>39</sup> It's as if the *poinçon*,  $\diamond$ , has become a < > in a literal way. The shortfall, ironically, is the instrumental cause of the excess. It's essential to consider temporality when the question of meaning *versus* meaningfulness is raised. *At the same time* language and visual representation fall short of capturing meaningfulness, there is an equally undefinable surplus. When someone speaks, they always say more than they intend to say. This comes in the form of slips of the tongue that betray a certain anxiety, a rise or fall in the tone of voice that discloses an unconscious emotion, or an acceleration or pause in the timing of delivery that introduces new meaning. The speaker may be entirely unaware of these extra elements, and in psychoanalysis such surpluses? Don't the graphic rules used in the construction, or the technology of image reproduction, rule out any such extras? One would have to physically alter the medium to say something about a personal investment. A photograph torn in half communicates possible anger or sadness motivating the vandalism. Dust on a painting or statue signals that the form's meaning is now neglected or misunderstood.

A painting might conceal details or structures that could either reinforce or undermine the main image. In the case of anamorphosis, concealment involves geometric distortion that can be "decoded" only by viewing the image through a curved mirror or from a particular extreme angle,  $\partial$ . Unlike the generous variations of viewing angles allowed by flat representation, an anamorph acts directly on the body and position of the viewer, so that what is only a blur or stain viewed front–on suddenly pops into an identifiable form suddenly, producing astonishment. At the point of the  $\partial$  we are all cyclopes. We are all put in the position of the first humans looking at the sky for signs. We could say that the image demands the imprisonment of the observer whose binocularity will be sacrificed in exchange for equating the near and far parts of a virtual image that will seem to "pop up," creating the famous effect of astonishment. As in the famous case of Holbein's double portrait, the viewer will, additionally, be humbled to kneel to see the anamorphic skull running diagonally across the lower part of the main image, in effect making the viewer a servant at work or worshiper in a posture of contrition.

<sup>&</sup>lt;sup>39</sup> This is not just the basis of the practice and theory of Lacanian–Freudian psychoanalysis, but a favorite trick of fictional writing. The "defective narrator" is able to serve the audience by describing accurately things about which he/she seems completely unaware. A narrator can't be trusted for a variety of reasons: inexperience, stupidity, insanity, etc. Sometimes, a mental condition such as autism can reverse the untrustworthy narrator into a hyper–observant resource, as in the case of Simon Stephens' 15-year old, Christopher Boone, in *The Curious Incident of the Dog in the Night–Time* (London: Bloomsbury, 2019), whose autism affords him super–powers of detailed observation. Whether a disability or hyper–ability, the defective narrator's lens offers the audience a telescope view of a reality they would otherwise find suspicious. This is why I prefer "defective" to "unreliable," since the result is the same for the genius or fool.

While these surpluses may not directly deal with the losses representation imposes on meaningfulness in a 1:1 ratio, they introduce a new dimension relating the representation with the subjects who produce and consume them. The "something else" of conscious or unconscious materials creates the atmosphere of metaphor, of meaning that resonates beyond the strict reciprocity of signifier and signified. In metaphor, there is a recreation of the relation of meaning to meaningfulness. While there is something missing, a falling–short, there is also an extra that doesn't fit within the protocols of literality. When a work of art intentionally employs metaphor, it goes beyond the literal.

#### 4 / M<sup>\$</sup>: How Masters Get Their Degree–Zero

Let me offer a sideways chapter in the Story of  $\partial$ . This requires (1) a consideration of how distance can be structured by fear, anticipated by an imagined flight from an advancing threat, (2) understanding of the way distance can be "compressed" by a defensive wall that obviates the need to flee from an object of fear and even allows the enemy to be at the gates, so to speak, and (3) how the flight relates to Mastery of this spatial relation to fear, in that the Master's *house* is converted from a retreat to the Master's projection of a demand for recognition. The fortified castle sums up these three elements. It is a place of retreat from threat whose walls are equal to the force of the threat and whose armory signals to the enemy that further pursuit would be futile. The respect the master demands, through this architecturally defensive posture, is based on a simple ratio between Pride, P, and Fear, F. While Fear provokes flight, Pride takes a *stand*, and is possibly tied up with the etymology of verbs "to be" in various languages ( $\sqrt{STA}$ , as in the Latin *est(a)*, "e-sta").

Formulas can easily create confusion. Let me borrow a sign from Jacques Lacan that says nothing more than "there are a variety of relationships between." This is the  $\diamond$ , called a *poinçon*, or punch. In Lacan's use of the *poinçon* to define desire and fantasy, he says just that the relationship is polyvalent and manifold.<sup>40</sup> "P $\diamond$ F" would seem to be meaningless, generalizing that there are many ways to define the relationship between the Master's Pride and Fear. But, the point is that  $\diamond$  asserts that Pride and Fear are involved in a manifold, and that their shifting valences are set within a topology of that allows for changing form without loosening any of its structure.

To illustrate this, we can turn quickly to a well–known tradition in the relation of luck, beauty, health and other justifications for Pride to the leveling power of the Evil Eye. This is

<sup>&</sup>lt;sup>40</sup> Santanu Biswas, "The Punch," *Re-turn: A Journal of Lacanian Studies* 6 (Spring 2011): 135–147. https:// return.jls.missouri.edu/ReturnVol6/Biswas\_ThePunch.pdf. The punch did not specify any determinate relation. Rather, it emphasized "polyvalence and multiplicity" (139). My unauthorized conscription of the  $\diamond$  is intended to open up a new range of speculation about the relations, initially, about the Hegelian Master, mastery generally, and the "house of the Master" specifically, whose architectural version of Hegelian irony refers to complex engagements of signifiers in relation to anamorphosis.

Fear condensed into the principle of cosmic leveling (too much good as imbalance  $\rightarrow$  adjustment, a re-balance) put in the terms of a generic look of envy. The optical aspect of the evil eye follows Lacan's specifications for the gaze, which is not from a subject to an object but from an indeterminate but objective *position* embedded within space's objective "out there." The creepy feeling that one is being surveilled is a species of the gaze devoted to paranoia. But, the evil eye is the largest and best–funded office of the gaze, with branch offices where beliefs are tailored to cultures' local institutions.

The history of the evil eye allows us to say that Fear is metaphorically *latent* within Pride, that is "whenever one feels justified in taking Pride in something, there is some "shadow of a doubt," that this same Pride will expose the boaster to a leveling action. Precautions must be taken: "knock on wood." An imaginary objectivity is invoked to placate otherwise vengeful demons. These are *inside* the wood or iron, so just as the wall has compressed the relation of fear as distance into a material thickness, there is a hollow within this thickness. The expression P $\diamond$ F could not possibly be P=F (P and F are equivalent), or P  $\rightarrow$ F (P causes F), or even P/F (F is inverse to P), although a little of all of these possible relationships goes into the function of the evil eye. The *poinçon*, the "multiform," shows how *ambiguity itself* can lead to a material condition.<sup>41</sup> The punch is literally a hollow within the materiality, an "interpellation" of Pride by Fear.<sup>42</sup> By this transposition, it is possible to speak intelligibly of an anamorphic condition of latent containment, which "pops up" on special ceremonial days, which are sacred in the contronymic way suggested by the Latin root *sacer*, both valued and despised.

This material condition exposes another aspect of the Master's latent qualities: the presence in Mastery (and in the Master's house in particular) of a space that could be labelled, informatively,  $\partial$ . This is the "catch–22 detail," the clause in fine print, that qualifies Pride in relation to Fear, allowing Fear to reside anamorphically, extimately, within the Master's Pride in ways calling for material re-assignments.

<sup>&</sup>lt;sup>41</sup> This hollowness is a historic feature of the construction of city walls, required to provide a "space for religion" between an inner and outer wall. The *pomœrium*, "*post muram*" or "behind the wall" space, allows ritual encirclement of the walls, which can neither be called a circling *around* nor a circling *within*. That is, the materiality of the  $\diamond$  is pulled into the physical ritual and its claim of effectiveness in charming the wall against spiritual and physical attack. See William Smith, ed., *Dictionary of Greek and Roman Geography* 2 (London: Walton and Maberly, 1854): 726.

<sup>&</sup>lt;sup>42</sup> Interpellation, for Lacan, was the installation of the authority of the Other at the radical interior of the subject, what he generalized by the topology of *extimité*, an inside–out condition mirrored by the subject's imaginary projection of the unconscious on to external objects and conditions. The "intimate object" and "objective over–proximity" were two sides of the same coin. See Jacques-Alain Miller, "Extimity," *The Symptom* 9, https://www.lacan.com/symptom/extimity.html.

Hegel provides the necessary backstory.<sup>43</sup> The Master demands recognition of other masters (P) and is willing to fight to the death (F) to achieve it. Immediately one sees the irony,  $\diamond$ . All masters make the same demand. A fight to the death would end with one Master standing, but at the expense of any who could legitimately provide the respect he has so pridefully sought. This is the "cyclopean condition" of early cultures, where authoritarian Fathers, in lieu of mutually assured destruction, lived in "isolation together," each clan maintaining their independence around family hearths, protected from desecration of the "eyes" of strangers.<sup>44</sup> The historical–political solution after this period has been, in countless situations, the truce by which Masters form a league, and Servants (in cyclopean times the refugees seeking asylum within the walls of families) form a class exempt from Pride and its vicissitudes. Masters will occasionally break the truce and fight among themselves, but servants losing one master will find another. When one Master dies, power passes to the next representative thanks to the efficacy of the Name of the Master as metaphor for the master and his indemnity to mortality.

How does latency work within the P $\diamond$ F system? And, how does this latency constitute a condition of anamorphosis? What is the role of  $\partial$  in the subjugation of servants to the Law of the Master, who exists (literally) in name only? This has architectural implications, for the Master and Servant in their Hegelian irony relate directly to the "served and serving spaces" of the Master's house, and to the P $\diamond$ F of the walls of this house, to the point that both a quantification as well as a qualification might be made.

There are of course examples of how castles, palaces, and even modest villas have accommodated the movement of servants in a "quantum" way. The Master lives in a Euclidean space capable of projecting Pride in the same way a painting presents its assets as a picture *facing* a presumably admiring public. The display of wealth both outside and inside a manor house, the arrangement of symmetries optimized to present the Master's status, lineage, and projection of powers, and the sequence of spaces to guide guests through a narrative of this provenance and projection are carefully orchestrated.

<sup>&</sup>lt;sup>43</sup> I am following the account given by Alexandre Kojève, *Introduction to the Reading of Hegel* (Ithaca: Cornell University, 1980). The Parable of the Master/Servant comes from G. W. F. Hegel's *Phenomenology of Spirit*, trans. A. V. Miller and J. N. Findlay (Oxford: Oxford University, 2013).

<sup>&</sup>lt;sup>44</sup> The "eyes" that were early cultures' original places of ritual divination and observation focused on an altar for maintaining the sacred flame of the auspices. This became the household hearth, where the *manes* (ancestral dead, "heroes" in the original sense) were consulted and appeased, to prevent bad luck as much as secure good luck. As such, the hearth was a Pride Control Mechanism, allowing the family around it to enjoy benefits without incurring retribution. The hearth as well as well as other *loci* of prideful gain thus had to be protected against the vengeful gaze of strangers, who embodied the evil eye simply because they were not included in the exclusionary family rituals taking place within the domestic interior. In this sense, P $\delta$ F might regard the  $\delta$  as relating to Hestia, the female guardians of the hearth and as such "wedded to the flame," as were the Vestals of Rome.

# Part III: The *Surface* of Pain and the Architectural Significance of No Exit under Conditions of Reversibility

#### 1 / Fake Master, Duped Servant

This is not just the stuff of the Age of Aristocracy, but ongoing. One test of the metaphoric status of the Master-Servant relation would be to see if it is, as Dan Collins has asserted, reversible. If the Cavalier Poets' were able to use time to compel young women to give up their virginity and ended up by re-defining time in terms of the loss of a specifically sexual "now," then the metaphor of the Master and Servant, if reversible, will show that the Master may persuade a Servant to unknowingly forfeit his traditional protections and, like the troubadours of 11c. Occitania. Normally, it is the Servant, the servus callidus, who does the tricking, as characters from Aristophanes to the *comedia dell'arte* show. The Servant's silence is correlated to the Master's powers to give orders. The Servant does not "speak back," but can this attenuation also open the Servant to being Duped by a Master who fakes his mastery? Reversibility lies in the metaphoric status of POF and the MasterOServant, the way in which the Servant's word may be inverted to authenticate the Master's falsehood, or (in truth-table terms), create a circular relationship between T and F, or TOF.<sup>45</sup> If there is a latent signifier (i. e. metaphoric status), then there is reversibility. If there is reversibility, then a fake Master can engage a Servant in a fake assignment. Architects must ask the question of how served and serving spaces do the same thing.

To understand both the personal and architectural side of this issue, take as an example the exquisitely designed staging, in Alfred Hitchcock's *Vertigo* (1958), of the meeting between the retired detective, "Scottie" Ferguson and the ship–building magnate Gavin Elster.<sup>46</sup> Once this scene is understood as an encounter between the spaces of Elster's office interior as well as between a Master and Servant, the relations of P◊F become clear. The office is a treasury of

<sup>&</sup>lt;sup>45</sup> The T $\diamond$ F summarizes the alternation between the positions of TF and FT in the situation of the forced choice, as in the paradox of the Cretin Liar ("All Cretins are liars") or the robber's demand, "Your money or your life," where it is clear that choice is presented only as pretense/imposture (*versus* the feminine version, *charade*, as F $\diamond$ F/T $\diamond$ T, a masking of truth beneath the cloak of fiction, i. e. a "truth of truth."

<sup>&</sup>lt;sup>46</sup> It would be hard to top James Vincent's analysis of this scene. See "How Hitchcock Blocks a Scene," *Nerdwriter*, March 29, 2016. https://www.theverge.com/2016/3/29/11324654/alfred-hitchcock-blocking-vertigo. Note that Elster is a fake Master *par excellence*. He has inherited his ship–building industry from the wife he intends to kill, and enlist the aid of a (Public) Servant, the retired detective Scotty Ferguson, to perjure himself at the inquest of the wife's apparent suicide. The authority of the Master is reversed into imposture,  $T \rightarrow F$ , by the imposed truthfulness of the Servant's sworn testimony. As  $F \rightarrow T$  (the plot is discovered retroactively with Scottie's discovery of the jewel), T $\diamond F$  summarizes the film's logic. Scottie's witness (what he sees) is reversible; it is Scottie who's being watched. Madeleine's enchanting look is extromissive, so much so that Scottie is enchanted even when seen through a green lens, the color of envy used by Hitchcock in the second half of the film.

signifiers. Paintings and prints adorn the walls, ship–models attest to ancestral pedigree. Elster's desk and several chairs fill the space in front of a stage–like room slightly higher. Elster uses his desk, the window behind it showing cranes and ships being assembled, and the dais to persuade Scotty to buy his story. The space is rhetorical, for sure; a better description would be a theater of enchantment. Just as we cannot understand this film as a contract between a Master and Servant, we cannot find our way into its space without this room, which duplicates the theater we are sitting in literally. The dramatic scene as well as the space it's set in is metaphorical because it has a latent term that functions as a reversibility principle. Scottie, whom Elster must persuade to be his Servant, is presented an obverse Master who will dupe the Servant by means of a clever human contronym, a wife who is not a wife but a Persephone who will twin herself and circulate between life and death.

The role of the  $\diamond$  or *poinçon* is, as its  $\land$ ,  $\lor$ , >, and < aspects suggest, directly taken from projective geometry's twinned virtues of self–intersecting multi-forms and non-orientability. The space of the servant becomes the set of spaces Ferguson occupies as he creates an anamorphic chase through the film, following what we the audience believe to be Elster's wife, haunted by the specter of her dead ancestor, Carlotta Valdez. The Master has projected a "surface" of pain for his Servant, Scotty, because Scotty, thinking he is the pursuer, does not realize that he is really the pursued. The wife Madeleine is drawing him into a trap to be punctuated by her simulated fall from a tower at a Spanish mission church. It will not be "Madeleine" who falls, however, but Madeleine, Elster's real wife. "Madeleine" has been played by an actress, Judy, whom Elster has projected as a part of his Pride Program.

The surface of pain that defines Scotty as a suffering servant is condensed in the famous scene inside the mission church tower. Afraid of heights after the accident that led to his retirement, the final steps of his pursuit of Madeleine (but which is really a pursuit of "the Madeleine plot" of *him*). In the way Hitchcock uses a tracking shot in combination with a zoom lens, we see how F in P $\diamond$ F constructs the hollow *pomærium* inside the material tower in an anamorphic expression. The stairs, like the near–far edges of the anamorphic image, will begin to give way. Euclid cannot hold them in place. The projectivity of Fear produces a "fearful symmetry," whose last Zenonian steps convert Scottie's "too early" arrival into a "too late," allowing Elster to substitute the real Madeleine for Judy. He has encountered a break in his syntagmatic chain of pursuing "Madeleine" second — the plot involving him has already been unfolding its logic, its "primacy" — and taken it to be a first, as "Madeleine" becomes his lover. The retroaction of folding the second over the first, time origami, pushes the neurotic Scottie (i. e. the love–sick follower) to a psychotic margin.

In the second part of the film, Scottie accidentally encounters "Madeleine," that is, Judy, back working as a tawdry shopgirl. He sees the potentiality of Judy, however. Madeleine glows from within "Madeleine," and he tries to remake his lost love from within Judy's hollow



Figure 5. In this reverse-angle shot, the logic of the film is condensed in its entirety. Scottie peeks through the crack in the back door of the florist shop where "Madeleine" (played by Judy) establishes her psychotic obsession with Carlotta Valdez, her suicidal ancestor. The real suicide is circular. "Madeleine" will facilitate the death of Madeleine, the actual wife, by tricking the gaze of the retired detective Scottie so that he will "give the law" a testimony certifying the crime. The latent term of this mega-metaphor is the jewel that will reveal its reversal (Servant as dupe) in the final scenes of the film. Vertigo answers the question of how cinema may instruct architecture theory on the question of self-intersection and non-orientation, i. e. why metaphor is not analogy, thanks to the employment of latency. This is "the architecture part of architecture."

interior. The magic works all too well, for what we find is the latent signifier. This comes in the ridiculously literal form of the jewel Judy has kept as a memento of her acting job, kept in a drawer. She forgets its provenance and dons it for a special dinner date at the expensive restaurant, Ernie's. Scottie sees her put it on and realizes that he was recruited by Elster, from the beginning, to play the part of the perfect witness at the inquest of his wife's apparent suicide. This logical priority has now stepped into its historical form, matching perfectly into its profile, edge to edge.

Scottie drives Judy back to the mission and, this time, completes the tower's full flight of stairs, suffering the  $\partial$  that threatens to absorb him into the woodwork. This is the *pomærium* in all its glory. This is the presence of the drawing, the 2-d re*presentation*, inside (immured within) the 3-d space. In the house of the Master, there is the space of the served, where imposture assembles its resources using the law of the fourth wall, the fiction by which the stranger has access to a pretended

interior. This follows a Euclidean protocol that, like the fourth wall in theater and film, trades the audience's silent witness abilities for the blindness of the actors who are denied the ability to see the audience (in film: forbidden to look at the camera). Scottie realizes the crisscross. He has been asked to *play* a witness, not be one. But, to engineer this switch, Elster has had to obey the laws of projective geometry by allowing (1) the multiform, the self–intersection of Madeleine and "Madeleine," and (2) the non-orientation that flips Scottie from being a real witness to being fictionalized within Elster's murder scheme. What we see in Scottie's eyes in the penultimate scene of the film is the astonishment of the viewer of the anamorphic image, the viewer who, standing in the vortex of the  $\partial$ , the sweet spot, experiences a kind of *jouissance* of Gaston Bachelard's *surveillance intellectuelle de soi*, the "orthopsychism" of meaningfulness, when theory discovers that its form and the form of its object of study are in fact the same form.<sup>47</sup>

The meaningfulness of the Master–Servant that takes the form of the multiform in architecture is the superposition of the secret emblem, the "cosmogram" within the superficial

<sup>&</sup>lt;sup>47</sup> Bachelard, *Le rationalisme appliqué*, 66.

order of finery.<sup>48</sup> With jewel–like precision, colonial slaves would conceal Voudoun objects beneath floorboards and behind moldings to grant their murmured curses access to Hades, a part of the servant's acous*matic* performativity within the master's Euclidean edifice. Elster's reengineering of Scottie as the perfect witness used the cosmogram in reverse to "put him in the witness box," the anamorphosis of which Scottie realized only when he saw Judy putting on the jewel Judy had used to establish her connection to the portrait of Carlotta Valdez. *The Jewel that Knew Too Much* might have been a good alternative title of the film, connecting Hitchcock's version to the first literary example of the detective–story genre, Wilkie Collins' *The Moonstone*, where a precious diamond has been stolen by a close family friend while in a narcotic trance. Scottie was entranced by love, as the jewel was stolen by Judy, from Carlotta to Madeleine to "Madeleine" in a cosmogram made by the Master for the Servant, proving the reversibility of metaphor thanks to an occulted, latent term, the jewel.

The dream negates negation, and all films are like dreams, but *Vertigo* is more so. The dead may appear to us (Madeleine/"Madeleine"), contradictions are ignored. The projective geometry of non-orientation and self–intersection takes the form of "meaningfulness without meanings." The reason why dreams are so difficult to remember and films like *Vertigo* are so hard to forget is that they are "immersed" into Euclidean wakefulness. Reversibility allows us to see metaphor from either side (its non-orientation). It is proved to us through an orthopsychism that ties theory to its object, the viewer to the viewed, the representation to the represented. Thanks to this quantum symmetry, time can perform its origami folds, and distance doesn't matter.

<sup>&</sup>lt;sup>48</sup> James Harmon and Jessica Neuwirth, 2000 "Archaeological Investigations at the James Brice House: A National Historic Landmark Site. Annapolis, Maryland," report prepared for the Historic Annapolis Foundation (2000).



Figure 6. "Daphne Pursued by Apollo," Attributed to the Master of The Judgment of Paris, Florence, ca. 1450. The Barber Institute of Fine Arts, University of Birmingham, UK. Robert Graves has added the interesting note, that Daphne upon her escape becomes Persephone, whose annual cycle of disappearance and return was the basis of the Eleusinian Mysteries performed at ancient Athens for over 500 years. In their pre-Euclidean way, the mysteries established a Greek collective knowledge of the role of projective geometry, in providing ritual re-enactments of self–intersection and reversibility, and the multiform.

#### 2 / The Restoration of the Signifier in Architecture Theory

Not only has architecture theory, in its turn away from the signifier, limited itself to four-term analogies of ethnography and philosophy, it has foreclosed the relation of the anamorphic blur,  $\Pi$ , in its relations to the rich troves of dreams, jokes, and the unconscious — a Freudian trove to be sure. In The Ethics of Psychoanalysis, Lacan makes explicit references to architecture. The most enigmatic of these compares architecture to a "surface of pain," and Lacan uses the story of Apollo's love of the water-nymph Daphne to illustrate it. Possibly nothing could be more outrageous to architecture theorists wishing to interpret the body inscribed with signifiers as an emblem of the body within a modular-like reticular plan, while psychoanalysis would reverse this view with a theory about anamorphosis's latency.

There are two important parts of the Apollo– Daphne story (Fig. 6). The main story (Apollo

chases Daphne, Daphne — spoiler alert! — transforms into a tree) is complemented by a backstory: Apollo had criticized Eros for his poor marksmanship. Eros's arrows always seemed to hit the wrong people. Eros, taking offense, devised an arrow (some say two) that would strike Apollo into a state of love and Daphne into hate and fear. In terms of the aggressiveness of the first and passivity of the second, we might compare this arrow to the *poinçon* of the Master's Pride and Fear, P $\delta$ F. The  $\delta$  is about the reversibility of metaphor in the Lacanian version.

Apollo chases, Daphne flees (*askesis*). But, the *surface* of this chase is demonic. It does not allow Daphne any means of escape. It is a 2-d manifold (boundless and self–intersecting) "immersed" into 3-d Euclidean space, whose pictorial rules require us to see a pursuer and pursued locked into a Zenonian logic of self–generated defeat: running away generates its own object of fear, which will be waiting to meet it *at a vanishing point*. The myth, Lacan discovers, has the exact form of a 2-d surface of non-orientation and self–intersection, an infinite sphere whose circumference is nowhere and center everywhere. Daphne's only option is to metamorphize into a laurel tree, whose branches will thenceforth be used to decorate the heads of other runners, in the Greek Olympic games. Ovid has left out the best bit, however. Robert Graves notes that Daphne's option was actually an escape to Hades, "the invisible," where she

became Persephone, the maiden who disappeared annually, the archaic model of all latent signifiers.<sup>49</sup> Her escape did not violate the rule of projective surfaces, however. Her no-escape clause required her to *return*, to answer the circularity/symmetry of the projective surface with a symmetrical circulation of her own, naturalized as the return in spring of the life lost in winter to the god of invisibility.

#### 3 / Two More Little Girls

Two other "little girls" offer a more comic than cosmic — a "cosmical"? — explanation of Daphne's situation. A little English girl wonders: "My mom was from Manchester and my dad from Oxford. I was born in London. Isn't it amazing that we three all got together?" For us, it's amazing that the little girl sees only the surface of *askesis* where one signifier follows another in pursuit. Father  $\rightarrow$  Mother  $\rightarrow$  Daughter fly like Apollo and Daphne on the projective plane without realizing that the plane is self-intersecting and unbounded-but-finite. The astonishment that "they all came together" is akin to the surprise of finding that the Möbius band's strip allows an arrow to return to itself upside down or that the Klein bottle's inside will be an outside. Her astonishment goes back to the construction of Eros's contronymic arrow. The *dæmon* of *askesis*, the surface of flight, is latent, anamorphic. It requires Daphne, in her Persephone–mode, to *enact* the logic of metaphor as a circulation within time itself as a retroaction of seasons, returning from death to life.

Another little girl rides on a train with her brother.<sup>50</sup> They pass a town and the brother remarks, "Look, we've just come to Gentlemen!" "No," the sister responds scornfully, "Can't you see we're at Ladies!" The siblings of course are looking at the gender–specific doors of the public convenience offered to travelers. The boy wishes to prove his name–thesis, but the girl turns the rule on itself, in an upside–down gender reversal. The town has two names that contradict, "give each other the run–around." But, with Vidalian precision, we see that the syntagm has been forced to convert to the paradigm and make the question about meanings into a question about meaningfulness. The brother is rebuked for his lack of politeness ("Ladies first!"). At the same time, the whole process, pulled by the engine of the train down tracks that, according to Euclid, will never meet (so sayeth the Fifth Postulate), but which will find their vanishing point on a line that projective geometry validates by having its infinity converted to a

<sup>&</sup>lt;sup>49</sup> Robert Graves, *The Greek Myths* (New York: George Praziller, 1955), 21, *k*, *l*, 78. Daphne in this guise as Persephone lays down the rules of latency. It must be, logically and necessarily, circular, reversible, and self–intersecting in that flight (*askesis*) be a re-statement of the surface conditions of the chase (*dæmon*, a.k.a. Eros, which I would write as *dæmon*, to show the rule of anamorphic rotation).

<sup>&</sup>lt;sup>50</sup> This story comes from Jacques Lacan, "The Instance of the Letter in the Unconscious," *Écrits: The First Complete Edition in English*, trans. Bruce Fink in collaboration with Héloïse Fink and Russell Grigg (New York and London: W. W. Norton & Co., 2002), 412–444.

circle around which values may circulate, Perspephone–like, from point to antipode, winter to summer.

Persephone's double vanishing point(s) might be the best answer to the question, "what is ??" and applied to Vico's *verum factum*, TrueAMade, as well as the Master's PowerAFear and Holbein's equivalent PictureASkull. Just as John North demonstrated how meanings circulate rather than replace each other to an "impossible–to–reach" Euclidean vanishing point, the A returns the our little Ladies of the Self–intersecting Surface with multiform options. Unless we should be too polite to ask, we will miss the opportunity of speculation: the way in which theory itself, with proper ideas about metaphor, anamorphosis, and projective surfaces, *recirculates*. Even when theory resorts to an ersatz methodology intending to generate nonsense error messages in order to *re-form* the original hypothesis, the point is to realize that sense is in constant conversation with its antipode, that metaphor is not to be deciphered and defeated but restored to power.

I have put all the chips of this argument on one number, the  $\partial$ . There are many other numbers, thanks to views of metaphor that fail to acknowledge the latency of metaphor and, hence, the principle of reversal that becomes the motif of circulation. In the "three–against–one" of Lacan's formula, there is only one one, and that is the 1/x of Daphne and her infinity option of return from life to death and death to life. The twist of the  $\bigcirc$  into a  $\infty$  is Möbius's way of saying that we should not be too polite to ask, that our nonsensical surface will allow error, arrow, and Eros to lie hidden within the logic of inquiry. Erotic archers should take heart, take aim, and not be discouraged when the arrow misses its mark. Like the pickpocket who must "load" the body of the mark in order to make Hermetic forays for loot, the silent trader of the enthymeme will leave dissensus in place of consensus on the Herm of stones piled at the crossroads of the syntagm and paradigm. Like Georges Perec, they will find Nothing, a small letter whose absence will create ripples in the otherwise still syntagmatic pond's surface, which we know now to be the immersion of projective figures into a 3-d picture of lies. Seeing 1 and saying one gives 11, and the "one 1" has its own constant truth.<sup>51</sup>

Lacan's "surface of pain" is enigmatic *within* architecture theory as well as architecture itself, as a question of the 2-d non-orientable self–intersecting surfaces of immersion into 3-d Euclidean picture–space where, as in the joke or dream, negation is negated. It is the

<sup>&</sup>lt;sup>51</sup> This is the "see and say" constant discovered by the mathematician John Conway; John Conway and Richard Guy, "The Look and Say Sequence," *The Book of Numbers* (New York: Springer-Verlag, 1996), 208– 209. Looking and saying will construct, in Georg Cantor's triangular arrangement of palindromic fractions (1915), another pyramid, 999999999, 88888888, 77777777, .... — in other words, numbers *of themselves* (9 nines, 8 eights, etc.). The "of" loops into a self–intersecting surface capable of generating "useful" paradigmatic ratios, such as the √3 required to double the alter of Delos (the Delian Paradox required to free Athens of the plague), the Golden or other "metallic" ratios of Fibonacci, or the 55s of Carlo Scarpa, a point Marco Frascari was fond of making.

architecture part of architecture. Let's be thankful to Euclid, without whose impostures of pictorial representation we could not allow for the accumulation of details that, in "telling the tale" (sorites<sup>52</sup>), will make possible the conjunction of radicals orphaned by a lack of a proper binary. This is the little girl's interruption of the parents' attempt at marital bliss behind the closed doors of just one more night, the one 1, after a thousand others.

<sup>&</sup>lt;sup>52</sup> In a mystery best saved for another time, the logical figure of sorites is the "one grain more" or "one hair less" paradox of how accumulation leads to the sudden emergence of the whole ("exaptation"). Lewis Carroll provided an ingenious solution to this paradox through his series of "Amos Judd" puzzles, which any theorist may un-puzzle by employing the non-numerical calculus of George Spencer-Brown. Lewis Carroll and W. W. Bartley III, *Symbolic Logic* (New York: Potter, 1977). George Spencer-Brown, *Laws of Form* (London: Allen & Unwin, 1969).