Architecture of the Span

Don Kunze

"If you and I agree, then one of us is unnecessary."

—Beshir Kenzari, paraphrasing Winston Churchill

Figure 1. The image that connects Vico's theory of metaphor to topology and projective geometry is itself based on Lacanian "extimacy" (spatial inversion), since Lady Metafisica stands on a celestial globe. The space we see is *self-intersecting and non-orientating*, the definition of projective figures such as the Klein bottle, whose "neck" appears at the divine eye, thought by most commentators to be the eye of God but which in fact is the eye–piece of the reader (and, at Vico's directions) the "new writer" who, in each reading must re-create the Science afresh (see Fig. 11).

Vico added this image to the final version (1744) of his major work, *The New Science*, claiming that he wished to summarize the whole of his argument in one picture, which scholars now refer to as the *dipintura*. He compared this image and the accompanying inventory of symbols to the "Table of Cebes," a popular polyglot compilation where readers were told a story about an image concealed in the shadowy depths of a temple whose verger warned them: the image could give them perfect wisdom or drive them mad. Vico clearly understood this reference when, in his *Autobiography* (1731) he referred to his major discovery of mythic thought's "imaginative universality" as making him either "god or demon" (*aut deus aut demon*). Vico's theory of metaphor is incomplete without this image — a *pharmakon* explaining the relation of human thought to psychosis and the recovery (*ricorso*) of thought through "heroic universality."

This is my complaint. Contemporary architecture theory has been largely unaffected by two thinkers who excel in both originality and relevance to critical architectural issues of meaningfulness and space, Giambattista Vico and Jacques Lacan.[1] The symposium on "The Architectures of Hiding" gives me a chance to suggest a correction.[2] My view is that concealment is essential to any proper understanding of architecture's meaning-*ful*-ness, which stands in contrast to buildings' particular meanings (as shelter, as

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[1] Giambattista Vico (1668–1744) was a Neapolitan philosopher of culture whose major work, *The New Science* (1744) proposed that humans made their own culture, beginning with a "science of divination" grounded in the metaphoric transposition of their own natures onto the external world. Critical to his argument were images placed at the front of this last edition (Fig. 1); architecture theorists uniquely promoting Vico as a "hermeneutical phenomenologist" have relied exclusively on a 1960 paperback translation of *The New Science* which omits these materials, and so Vico's topological arguments, familiar to Vichians at least since Mario Papini's study (*Il geroglifico della storia: Significato e funzione della dipintura nella 'Scienza nuova' di G. B. Vico*, 1984) are missing for many architecture readers. The French psychoanalyst Jacques Lacan (1901–1981) wrote extensively on human subjectivity, integrating topology, first in the form of his famous "mirror stage" but also through projective surfaces (Klein bottle, Möbius strip, torus, cross-cap, etc.) and knot theory (especially the Borromeo knot) throughout his long career. Both Vico and Lacan developed distinctive theories of metaphor in relation to their (non-Euclidean) topologies.

[2] This symposium is organized by Rana Abughannam, Émélie Desrochers-Turgeon, and Pallavi Swaranjali and supervised by Prof. Dr. Federica Goffi at the Azrieli School of Architecture and Planning, Carleton University, September 24, 2021.

expression, as necessity, etc.). Concealment and hiding require us to understand how metaphor, as originary for human thought and culture, is related to space, conceived not as "pictorial" (a 3-d Euclidean visual form) but as "anti-pictorial" (topological, enactive, affective and *effective*). We cannot easily visualize topology, which involves surfaces that are self–intersecting and non-orienting (the Klein bottle, Möbius band, cross-cap, etc.). But, we can imagine a "secondary virtuality" that, in contrast to Euclid's visible virtuality, is a space of effectiveness. Between metaphor and topology, there is a span of thinking, of human creations, and of human actions, a span we should properly call "the human subject." If we can understand metaphor and topology as a relationship and not as two separate issues, we can see how the human subject and architecture are two sides of the same coin. Architecture — and its human *agencies* — span between metaphorical construction and the material creations made within a secondary virtuality.

The term "span" is about the possible relations between two orders of arrangement, involving metaphor and topology. Both Vico and Lacan emphasized this connection, but this has been missing in accounts of both Vico and Lacan in architecture theory. Vico used graphic materials as a visual puzzle to present the whole of his thought (Fig. 1), but these have been omitted in representations of Vico's theory of metaphor as an intensification of analogy, used to supplement "ordinary language." But, neither Vico nor Lacan believed in literal meaning or "normative" language, the basis used by Paul Ricoeur in his study of metaphor, architecture's primary source on the subject.[3]

There are only two major thinkers who advocate such connections — Giambattista Vico and Jacques Lacan — but it would be hard to find two thinkers who have met with more misunderstanding within architecture theory. Even when mentioned, Vico and Lacan are typically portrayed as being out of tune, out of step, out of fashion. So, like the pilgrim wishing to see "the image in the temple" in the story of the Table of Cebes, told in the above caption, I will seem to be either enlightened or crazy to be interested in both of these thinkers, not singly but together, because for me their relation to architecture is absolutely critical. Without their unique accounts of metaphor — woven inextricably into a theory of *lived* and hence *pathological* space — there can, in my view, be no proper way to account for architecture as *primarily* a

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[3] Paul Ricoeur and Robert Czerny, *The Rule of Metaphor: Multi-disciplinary Studies of the Creation of Meaning in Language* (Toronto: University of Toronto Press, 2008). Vico's and Lacan's distinctive accounts of metaphor appear nowhere in Ricoeur's work, although this has become architecture theory's primary reference for metaphor. My argument about the span is thus not about a conflict of *interpretation* but rather about missing key texts and graphic materials. If architecture theory has been unaffected by Lacan and Vico it has been partly because evidence has been either overlooked or withheld. Vico's case for metaphor extends beyond his main work, *The New Science of Giambattista Vico*, trans. Thomas Goddard Bergin and Max Harold Fisch (Ithaca, NY: Cornell University, 1948). The abridged edition popularized for architecture readers, published by Doubleday, 1961 (paperback), left out graphic materials and Vico's detailed commentary. Lacan's publications span from 1933 to 1980, including texts from annual lectures delivered from 1952 to 1980, some of which await official translation into English. See, however, Cormac Gallagher's collection of transcripts, recordings, and translations at *Lacan in Ireland*, http://www.lacaninireland.com/web/. Architecture readers have suffered from flawed and abridged translations of the 1980s, a problem largely corrected in the past fifteen years by translators such as Bruce Fink and Russell Grigg, and a large collection of commentaries and critical studies, including the extensive interpretive works of Alenka Zupančič, Mladen Dolar, and Slavoj Žižek, the "Ljubljana School," which can be found represented in *S: Journal of the Circle for Lacanian Ideology Critique*.

function of concealment.[4] Concealment has everything to do with the human subject's relation to architectural reality, a twist that connects, often surprisingly, to the same twists that others have noticed or acted on often under other flags: anamorphosis, *éxtimité*, the uncanny, "non-Euclidean" geometry, "The Purloined Letter." Without finding the aliases of concealment, where the same connection appears under different headings, I could not continue to promote the "pairing of the two pairs": Lacan and Vico as cross-interpreting thinkers to necessary theoretical correlation of metaphor to projective geometry.

Nearly as soon as Vico published the final revision of his major work, *The New Science,* in 1744, it fell into obscurity. Written in a florid Italian prose that sounded strange even to his contemporaries, Vico's *New Science* seemed to fold in on itself, repeating obsessively the same themes at complex rhythmic intervals.[5] As for Lacan, whose famous annual public lectures extended from1954 nearly to his death in 1980, obscurity was not for a lack of followers. His devotees struggled with his style of speaking by halves (*mi–dire*), often land–mined with neologisms and puns. At times some in his audience wondered if he was really speaking French. The sudden spate of excellent translations that have emerged in the past fifteen years has not fully alleviated the pain of reading Lacan. It is as if he intended to hand over the problems of subjectivity to his audience as *tesseræ*, the broken halves of the Roman token of parting, to have *them* find the missing piece he had broken off, in order that they might enjoy for themselves the future reunion of the broken halves, lost and found.[6]

"Difficulty" seems to be the chief barrier to the reception of Vico's and Lacan's work by architecture theory, but it is not the only one. While theorists outside architecture have at times sought Vico's endorsement, most still characterize his work as simultaneously original but self–isolating. The Good Cop critic praises Vico for his originality, the Bad Cop suggests, in a patronizing way, that this same originality makes him impossible to understand. Vico anticipated Hegel, another "difficult" thinker, so he seems to be

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[4] Architecture theorists relying on the only abridged edition of *The New Science* miss graphic materials and the commentary that Vico supplied under the inspiration of "The Table of Cebes," a polyglot text broadly circulated in antiquity. When Cornelio Pepoli collated the polyglot versions of this much-translated text in 1771, humanists offered images of the Table that echoed Vico's own construction of the *dipintura* as a picture of his whole thought. Without the *dipintura* and other graphic materials included in the unabridged editions, it would be impossible to see metaphor's important relation to topology as a constitutive force in human space. This is not a question about differing interpretations but of the importance of materials available to other scholars that are missing for most architecture theorists. Donald Phillip Verene analyzes the *dipintura* in detail in "Idea of the Work," Part Two of *Vico's New Science: A Philosophical Commentary* (Ithaca and London: Cornell University, 2015), 29–52. Verene sees the image as a liminal passage into Vico's ambitious claim for the *whole* of human subjectivity. Without this, the role of instruction and initiation following the model of the ancient *katabasis* would not be noticed. Also, visit https://www.boundarylanguage.com/vico-connection.

[5] Plato's advice in the famous "Fifth Letter" is for an author never to allow the reader to think that theory can be explained literally. Lacan went further, to say that there was no such thing as literal meaning, and Vico seems to have followed this advice by creating a text that, drawing from the emblem tradition of the times, required an enigmatic image to embody half of the meaning of what had been put in writing. This thesis was put forward first by Margarita Frankel, "The *Dipintura* and the Structure of Vico's 'New Science' as a Mirror of the World, *Vico: Past and Present*, ed. Giorgio Tagliacozzo (Atlantic Highlands, NJ: Humanities Press, 1981), 43–51. The key to Vico's dialectics, Frankel claims, is given in the zigzag frontispiece used in the second version of *The New Science*, the "dipintura."

[6] The *tesseræ* were two halves of a (usually) clay token broken at the parting of friends so that rejoining the two halves along the broken edge would represent the authenticity of the original parting and subsequent reunion. Rhetorical incompleteness, summarized in the enthymeme's use of a "silent" or "missing" argument to pass the completion of an argument over to the audience, is evident throughout Lacan's writings.

more understandable to Hegelians.[7] On account of his argument that metaphor begins as sublated, Vico could also be said to have been the first to discover the Freudian Unconscious, precisely in terms of what Lacan would later articulate in terms of language grounded in *fantasia* and, hence, metaphor.[8]

Lacan, for his part, set about to rescue Freud's ideas from not just Freud's followers but Freud himself, whose continual re-working of such central themes as the death drive, metaphorical condensation in dreams, retroaction in relation to trauma, alienation of the psyche from itself, the pleasure *v.* reality principles, and the re-mapping of the body by anxiety and desire left his followers confused and frustrated. Lacan had to swim against the current of those who worked from bad translations of Freud,[9] which tended to present suppression as a self–imposed bad habit that could be cured by thoughtful reflection, release from inhibitions, or simply more sex.

Lacan added a dimension to Freud by subtracting a dimension. Topology, the science of the 2-d surface, gave psychoanalysis both scientific exactitude and the connection to ethnography that Freud

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[7] Timothy Brennan. *Borrowed Light: Vico, Hegel, and the Colonies* (Stanford, Calif.: Stanford University Press, 2014).

[8] Vico portrayed the First ("cyclopian") Humans as literalists unaware of their transposition of their own subjective nature onto the external world, in the form of "gods" with concealed powers and intentions. At the same time, Vico showed how this "unconscious" was primordially collective, in the same way that Maurice Halbwachs (*On Collective Memory*, 1925) tried to demonstrate collectivity as a *structural consequence* and not the spiritualistic "magical coincidence" that Jung had promoted. Collectivity relates more to the idea of exaptation, consensus based on error correlation. See Edward Chancellor, "Waiting to Deflate," *New York Review of Books* (August 19, 2021): 50–53. When Vico claimed that imagination and memory were the same (*New Science*, §819), he shifted the logic of memory to language, which is by definition communally shared. As imagination, memory generates "hapax phenomena," whose uniqueness eludes any attempt by language to "capture" it, but this very failure becomes the meaning*fulness* of memory's collectivity. Lacan's famous saying, that the unconscious is structured *like* a language, means that repression uses encoding that is, in this case, a complex algorithm that is self–constructing. See Jacques Lacan, "Seminar on 'The Purloined Letter,'" in Bruce Fink *et alia*, trans., *Écrits: The First Complete Edition in English* (New York: W. W. Norton, 2002), 11–48. Lacan's system of Real, Imaginary, and Symbolic (the "RSI"), typically represented by the Borromeo knot, is calibrated to his L-schema, a diagram ("*matheme*") describing the procedure of (psycho-)Analysis, a cross of the Unconscious as Symbolic cipher/password past the blahblahblah of the Imaginary relation of Analyst and Analysand. Tellingly, Lacan involves the same non-numeric notational logic invented by George Spencer-Brown, *Laws of Form* (London: Allen and Unwin, 1969). See my "Triplicity in Spencer-Brown, Lacan and Poe," in *Lacan and the Non-human*, ed. Gautham Basu Thakur and Jonathan Dickstein (New York and London: Palgrave Macmillan, 2018), 157–176.

[9] For example, the German *Trieb* was originally translated by James Strachey and Ernest Jones as "instinct" rather than "drive," leading many English readers to imagine that there was a biological basis for compulsive actions taken without conscious awareness. Rolf Flor, a psychoanalyst and native German speaker working in Massachusetts, claims that there is virtually no original text of Freud's that is even minimally understandable in translation. The non-German speaker must instead rely on patterns of writing, Freud's recycling of themes, and a kind of "field theory of reading" that holds in suspension the meaning of key terms: *Nachträglichkeit*, *Vorstellungsrepräsentanz*, *Lustprinzip*, *Unbewußt* …. As for Vico's fate at the hands of architectural theory, the problem begins with reliance on the abridged paperback edition of *The New Science*, which has cut the 1744 publication's graphic front materials and Vico's detailed discussion of each element of the image in a section employing the architectural construct of the widely distributed polyglot text, *Cebes' Table*. In consideration of these graphic materials, it is clear that Vico did not, as some have claimed, promote a return to mythic thinking. Vico's own recovery of the principle of mythic thought, the "imaginative universal," was not as simple as rejecting Cartesian thinking. It took him, he said, "a good twenty years" (Vico, *Autobiography*, 1731). Vico did not start to think mythically; rather, he employed a scholarly version of the heroic universal (*De mente heroica*, 1732). Vico's *ricorso* was a *psychotic* crisis. Vico made direct reference to his own "ordinary psychosis" when he referred to his own genius as *aut deus aut demon* — either divine or demonic. In either case, the personalized *ricorso* was not a reasoned option but, rather, a radical mental experiment. If Vico's advice means anything, it is that experiment should be as speculative as possible, and *vice versa*.

himself had sought.[10] In architectural theory, the projective geometry of self-intersecting and non-orientable figures is called "non-Euclidean geometry," but this is a bit like calling (real) coffee "non-decaf." In fact, although projective geometry was discovered in 300 a.d. by Pappus of Alexandria, well after Euclid's six books had been thoroughly integrated into classical thinking, Pappus himself realized that projective geometry was *logically prior* to Euclid. Lacan has advised us, in general, to take seriously this phenomenon of encountering something as a "second" in history that is "first" in terms of logical priority. This was like the funny quip made by Oscar Levant in the 1950's, that "he knew Doris Day before she was a virgin." The answer is that the logically prior phenomenon was going under another name. When talking of the sudden emergence of anamorphic art in the 16c., for example, Lacan (*The Ethics of Psychoanalysis*, 1959–60) asked the key question: just what was anamorphosis before it was "anamorphosis"? Mladen Dolar has given us the name(s) for this disguised priority: anamorphosis and the uncanny.[11]

The Historical Secondariness of Logical Priority, the Historical Firstness of Effects

Logical priority, discovered only after its consequences lead to a sudden historical emergence that appears to be first that is actually a "second," and in forms that seem to convert or contradict the real first, was *precisely the issue* that Vico had addressed in a special section of *The New Science*, "The Discovery of the True Homer": the original theory, later repeated by others, that Homer was not a single individual writer but a tradition of itinerate rhapsodes who shared poetic formulas embellished and adopted to the contingencies of local audiences. So, "Who was Homer before he was Homer?" became a question about *logical priority*, with an answer revealing the nature of poetic logic itself, as a congeries of practices within cultural networks that allowed itineracy to provide intimate local references and a magical–religious value along with musical performance (the *Iliad* and *Odyssey* were sung, and most likely danced). In Homer Vico saw the same evolution of thought's three forms that he had seen in cultural life in general, his "ideal eternal history," true for any culture's development, at any time, at any scale, in any location.[12] This was not a historicism of contrasting modalities neatly divided into stages or eras. As the metaphoric thinking of the first humans made possible and gave way to the heroic thinking evident in Homer; and then when heroic thought made possible and gave way to modern, rational thought, communication, and cultural institutions; the previous stages remained. The cancellation of a prior stage suppressed the logically prior

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[10] For a useful introduction to projective geometry, watch the instructional videos of Norman Wildberger, "Projective Geometry," *History of Geometry*, https://www.youtube.com/watch?v=NYK0GBQVngs. Once the logic of projective geometry is understood through its original theorems (Pappus, Desargues, Pascal), the connection to mythic thinking becomes possible. Myth's narratives and ritual practices "enact" projectivity, as if to say that thought's first form embraces projective geometry's logical priority not out of choice but necessity. The main difference between projective and Euclidean geometry hinges around Euclid's troublesome fifth postulate about parallel lines. Projective geometry holds that every "family" of parallel lines includes the antipodal vanishing points on the horizon at an infinity that can be incorporated in algebraic descriptions of these lines. In other words, what we see in experience (parallel line convergence) is recognized by projective geometry as a working reality rather than a (Euclidean) fiction.

[11] Mladen Dolar, "Anamorphosis," *S: Journal of the Circle for Lacanian Ideology Critique* 8 (2015): 125–140; and " 'I Shall Be with You on Your Wedding-Night': Lacan and the Uncanny," *October* 58, Rendering the Real (Autumn, 1991): 5–23.

[12] Vico, like Lacan, adopted the conflict between historical and logical primacy as a fundamental principle of emergence (exaptation). Vico also held that the ideal eternal history was true not just for individuals' development, but for individual *moments* and *experiences*, stages of apprehension that Ernst Cassirer later addressed as "expressive" (the "what!?!" — astonishment at a presence), "representational" ("how???" — the attempt to stabilize the space of reception), and "conceptual" ("why???" — assignment of causalities and intentions). See Ernst Cassirer, *Philosophie der symbolischen Formen* (1923–1929), three volumes with an unfinished fourth that has been recently translated by Donald Verene and John Michael Krois.

form. But, in true Hegelian fashion, cancellation (*Aufhebung*) preserved and *extended* the logical predecessor, making it a kind of "unconscious" active within the emergent successor. While the first humans took what they saw and thought as miraculous mandates, heroes doubted and lied, but they did so with the operation of a metaphoric "fate" working in the background. This was a secondary virtuality operating within the primary "pictorial" (Euclidean) virtuality of the *Odyssey*. It was a virtuality of effectiveness, not the virtuality of appearances but a virtuality of "how things were able to happen."

Moderns of course doubt and lie even more than Homer's Odysseus, but with the added ability to theorize about those doubts and lies. But, just as Homer's heroes had been guided by the unseen hands of mythic divinities, modern thinkers have their own heroic Unconscious, their own second virtuality, where the logical first is restored through an act of *retroaction — an "aprés coup,"* as Lacan would call it. First, within the heroic capacity to dissimulate, a mythic dimension is preserved. Modern thought's "heroisms" are preserved in the basement of rationality, in "low" fictions — pop art, film, and phantasmagorias.[13] In these "cultural unconsciousnesses," the role of a second virtuality is clear, especially in the mechanical/technical operations, the *dispositifs*, of production.[14]

Psychoanalysis is probably the most extreme, most organized theory about the explanatory value of details, discarded thoughts, trash, excrement, denials, dreams, and the other mishmash of daily experience, and to this extent it has inherited Vico's legacy.[15] And, it has been Lacan who connected the importance of the trash pile to projective geometry, a dimension that was not added to Euclidean space, as most architecture theorist would conceive as a "fourth dimension," but rather *subtracting a dimension*, i.e. creation of a kind of shadow–soul. Projective geometry does not allow Euclid's exile of the vanishing point on the horizon, as something outside the perceived world. Rather, it brings it back, not just to the realm of discourse but to the center of the being of the subject, in the form of a void or absence or lack.

Architecture theory's intentionally missed encounter with Lacanian psychoanalysis and Vichian poetics has not taken responsibility for its oversight. It cannot see the damage because its contemporary theoretics is dedicated to a theory of metaphor that is restricted to the idea that metaphor is an "exception" to "normal language," a kind of "language–plus" (ordinary language *plus* the sensitivities and insights of a

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[13] Vico suggested that the modern scholar is able to access this "heroic unconscious" and, in fact, made the claim that his own discovery of mythic thinking was due to this "unconscious." See Giambattista Vico, "On the Heroic Mind," trans. Elizabeth Sewell and Anthony C. Sirignano, *Social Research* 43, 4 (Winter, 1976): 886–903.

[14] The *dispositif* of the second virtuality is particularly evident in the evolutionary role of the "fourth wall," the cinematic practice of the cut-away of diegetic story-space to simultaneously make room for cameras, lights, and other equipment but to place the audience *inside* diegesis itself as a wandering ghost between what Lacan called "between the two deaths," a literal death of voluntary paralysis/syncope and a Symbolic death where, as in all cases of the "strong story" (*récit fort*, as Barthes called it), the ending must *retroactively* acknowledge the beginning. Giorgio Agamben ("What Is an Apparatus?" 2006) was prescient when he traced this modern practice back to the theological concept of *oikonomia*, automata that seek to govern and guide the truthful pilgrim toward the good. If the pilgrim succeeds, it is due to a combination of text and image, i.e. an understanding how the text itself has a (cinematic) "fourth wall."

[15] See the famous essays by Carlo Ginzburg, *Clues, Myths, and the Historical Method* (1986), where Freud's discovery of the unconscious was linked to an essay by Ivan Lermolieff (Morelli) on the importance of trivial details in authenticating works of art.

"poetic consciousness") model.[16] Things couldn't be clearer when such an absolute divide excludes *just two* theories of metaphor, two theories that *not coincidentally* involve the anamorphic/projective geometry that is logically prior to the Euclidean geometry contemporary architecture theorists continue to celebrate without reservation. This absolute division forces us to draw two rather awkward conclusions: (1) it is unlikely that architecture theory can overcome the forces that misconstrue and misrepresent Vico and Lacan in such dramatic exclusionary terms; and (2) without an understanding of the role of topology, which is undeniable in Lacan but not yet fully recognized in Vico, there can be no real appreciation of how metaphor works in human thought, human history, or human culture as a whole. The case of metaphor and its connection to projective geometry is crucial.

Our understanding of lived human space depends on this metaphorical dimension. This dimension *as* a dimension is subtracted from rather than added to Euclidean "normal" perspectival space (showing that Euclidean space is, in the light of this logical priority of projective geometry, the one that is a fiction). From Mark Schneider's energetic dissertation (1983) onward, the misunderstanding of projective geometry has been to see it as singlehandedly responsible for the Industrial Revolution and "Cartesian" ways of thinking.[17] Nothing could be further from the truth. Projective geometry was revived when an architect, Girard Desargues, discovered and expanded Pappus's original theorems, collaborating with Blaise Pascal. These energetic collaborators tried but failed to convince Descartes of the need for him to extend his own geometric theories to include projectivity. Two centuries later, Desargues was rescued from obscurity by Gauss, Riemann, Plücker, Klein, Möbius, and other great mathematicians of this incredibly productive, and incredibly *projective*, geometric century.

But, by the end of the 19c., mathematics began to turn to other interests. The terminology of projective geometry changed, but the ideas were implemented in quantum physics, where they reside today in such ideas as spooky correspondence, indeterminacy, Cantorian trans-finity, and Gödellian incompleteness (Fig. 2). In architecture, as Jodi LaCoe has documented, projective geometry was converted into the "extrinsic" feature of the fourth dimension, which had to be secularized if not exorcized from the spiritualism of the 19c. to be of any architectural or artistic use.[18] If architecture theory benefited at all from the 19c. explosion of mathematical interest in projective geometry, it was in terms of a poetic

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[16] In a recent work singling out the role of metaphor in architectural thinking, the key source is Paul Ricoeur's "comprehensive" study of metaphor, which makes <u>no mention whatsoever</u> of Vico's or Lacan's theories of metaphor. Paul Ricoeur and Robert Czerny, *The Rule of Metaphor: Multi-disciplinary Studies of the Creation of Meaning in Language* (Toronto: University of Toronto Press, 2008). If anything, Ricoeur's readers should demand historical comprehensiveness. Ricoeur attended Lacan's seminars and his son was an avid follower of Lacan's theories. As a well–educated French intellectual, Ricoeur could have been expected to have at least heard of Vico, whose ideas anticipated the thinking of Hegel, Marx, and Freud. It is one thing to leave large gaps in a work advertised as comprehensive; it is a worse thing to pass on this work as authoritative on the subject of metaphor without noting the gaps. Alberto Pérez-Gómez, *Attunement: Architectural Meaning after the Crisis in Modern Science* (Cambridge, MA: MIT Press, 2016).

[17] Schneider writes: "As a friend of Mersenne and Descartes, 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." Mark Schneider, "Girard Desargues, the Architectural and Perspective Geometry: A Study in the Rationalization of the Figure," PhD dissertation, Virginia Polytechnic Institute and State University, 1983.

[18] Jodi LaCoe, "Constructing Vision: László Moholy-Nagy's P*artiturskizze zu einer mechanischen Exzentrik*, Experiments in Higher Spatial Dimensions," Ph.D. Dissertation, Virginia Tech, 2019. https://vtechworks.lib.vt.edu/handle/10919/89334.

Fig. 19

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blow up
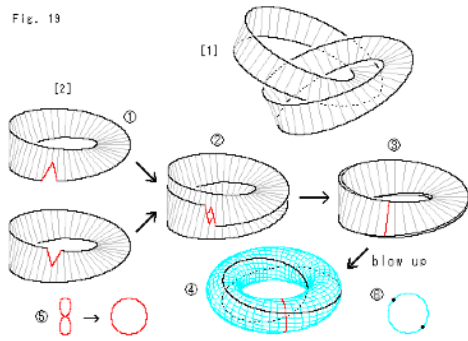
"About your cat, Mr. Schrödinger—I have good news and bad news."

Figure 2. The well-known example of Schrödinger's dead/alive cat is a case of the non-orientation and self-intersection of projective geometry. Quantum physics translates these qualities into the idea that the observer and observed are simply two sides of the same action, a ⇋ "surface" where each "family" of parallel lines vanishes simultaneously to two antipodal points on the horizon at infinity.

addition rather than, as Lacan argued, a *subtraction*, from three dimension to two.[19] The idea of a "fourth dimension" makes it seem that Euclidean space is a normal, a basis; and that a dimension of space, time, or space-time must be *added* on behalf of an artistic or religious experience. In fact, topology requires us to *subtract* a dimension, to accept the reality of the surface, of sheer connectivity, which in some cases can be non-orienting (the twist of the Möbius band, the inside-out of the cross-cap and Klein bottle) while at the same time self-intersecting (finite but without an external boundary, and scale-independent).

The damage done by adding rather than subtracting is evident in architecture theory's celebration of Eros, as a dimension of human experience that needs to be *added* to our reductionistic, instrumental lives to make life "worth living again." Where an architecture theorist places human suffering, thanks to Elaine Scarry, opposite love, one wonders how it is possible that the theorist has ever been in love. Lacan presents his idea of love in many places. In his seminar on *Transference*, for example, he shows how Plato, in the *Symposium*, in fact demolishes the idea that love is a unification of incomplete "halves," the theory put forward, ironically, by Aristophanes. The comedic writer could not have formed a more comic image, of two lovers joined front to front, with arms and legs sprawling out helplessly. This spherical marriage was certainly not a happy one, despite its promised perfection in the ideal shape of the sphere. The five Platonic solids are those (and only those) that can be inscribed in a sphere, whose rule Lacan gives in another seminar, the well–known constant of the number of faces plus the number of vertices minus the number of edges, *always two*. Lacan also points to the translator of Aristophanes, Léon Robin, who questioned a comma in the standard text, saying that the point was not the sphere but the cut

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[19] Critically, Lacan argued that the two-dimensional surface of projective geometry was a primordial "trap," which was generated by the very thought that one would wish to escape. Lacan also gave this as his definition of architecture as a "surface of pain." Why pain? Because, as in the case of the Baroque he cited (Seminar VII: *Ethics of Psychoanalysis*), architecture could no longer be domesticated as simple shelter, since its true nature as a topology would allow the idea of enclosure to exist only as a stopgap, a fantasy. This had already been demonstrated by Freud's analysis of the uncanny, where the word *Heim* was found to be the origin of the *unheimlich*, the uncanny or "un-homey." In effect, this repeated the primal Dædalan/Thesean invention of enclosure, which was self-intersecting and non-orienting: a material "contronym" where inside and outside formed a seamless continuum, transferring the idea of threshold to a portable locale where the convertibility of inside and outside created a durable anxiety that could only be salved by *apotropic* constructs, boundaries set up to provide the provisional distinction required to produce a minimal sense of security. Architecture's relation to anxiety — as its first evidence in mythic thinking clearly demonstrates — is essential. Just as Tasso argued, that "religion begins in fear," architecture begins when anxiety charges space so that the only response is retreat (*askesis*). This desire (to escape) generates itself the space from which there is no escape (Cassirer).

between the two lovers.[20] *The cut is what is denied in contemporary architecture theory*; the cut that converts one torus into two Möbius-band-like toruses, glued together at the cut, meaning that a standard geometric shape, one with an inside and outside, converts *itself* into a 2–dimensional surface that is non-orienting and self-intersecting, to the tune of the number two, the two it takes to tango in the world of lovers who try to spherize themselves, as did Paolo and Francesca in Dante's *Divine Comedy*, but with disastrous — indeed *hellish* — results.

Trying to understand architecture as a unified, loving sphere produces other Hells. At the center of architecture's inferno, the upside–down Satan at least points to the issue of non-orientation. To get to the next step we have to invert not just our travel plan but space itself. We have to face the fact that Dante puts before us — that to get to celestial paradise we must first pass through the center of the Inferno which is simultaneously its edge. We must accept Satan's logical priority in the face of it being second in our adventures. This is simultaneously a quantitative (counting) and qualitative issue. Vico quipped in one of his annual university addresses that it was possible to measure the genius of a poet quantitatively and accurately, by counting the number of steps down to his prison cell where the Spanish Inquisition had, in its negative way, awarded him. Such humor is lost on love–theory spherists for whom up is always up and down is always down, pain is pain and pleasure is pleasure. In such a view, it would be impossible to conceive of Lacan's *jouissance* or even Freud's more mechanical idea of stimulation, to say nothing of the perplexing–to–many death drive. Does pleasure come from the build-up of unbearable tension or its release? It's not just hysterics who switch out pleasure for pain and pain for pleasure; society is built on this principle, as Freud argued in *Civilization and Its Discontents* and *Beyond the Pleasure Principle*.

Architecture's understanding of pleasure and pain is, in comparison, juvenile. It leaves out key passages of quotes, as in the substitution Juhanni Pallasmaa made in quoting Hesiod's description of Eros, omitting to say what Hesiod says, namely that Eros *unnerves the limbs and overcomes the mind and wise counsels of all gods and all men within them*.[21] Instead of this accurate quote from the Loeb Classics translation, Pallasmaa inserts, without justification, "the love that softens hearts," exchanging Hesiod's idea with his own, rather anti-Hesiodic view. Even if architecture scholarship held to the obvious principle that, in quoting primary sources, every attempt must be made to be complete and accurate, there should be no

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[20] Léon Robin, *Le Banquet, Platon: Œuvres complètes* (Paris: Les Belles Lettres, 1929).

[21] Instead of quoting Hesiod's *Theogony,* Pérez-Gómez inexplicably quotes Juhanni Pallasmaa, not from an available published text but from a "story … told by Juhanni Pallasmaa in an exhibition on animal architecture that he curated for the Finnish Museum of Architecture" (215). The quote reads "First there came into being Khaos … and afterwards Gaia [deep-breasted Earth] and Eros [the love that softens hearts], the most beautiful of the immortal gods." This is not what Hesiod wrote. Instead of "the love that softens hearts," Hesiod describes Eros as "fairest among the deathless gods, *who unnerves the limbs and overcomes the mind and wise counsels of all gods and all men within them*." Pallasmaa adds something and takes something away. The problem for scholarship is that the two things are contradictory, meaning that Pallasmaa seems to falsify his source. Hesiod, *The Theogony*, Homeric Hymns, Epic Cycle, Homerica, trans. Evelyn-White, H G. Loeb Classical Library Volume 57 (London: William Heinemann, 1914), 116.

justification for such misquoting, and even less tolerance for using Pallasmaa's misquote to represent a primary source available to everyone who can Google.[22]

What architecture theory has missed about Eros is what it has missed about projective geometry. When something is *logically prior*, it is almost always discovered, historically, second. As Lacan says, you don't know you're counting until you reach No. 2, which means that you discover logical priority retroactively, or "*aprés coup*" as they say in psychoanalysis. No. 1 is always written backwards, as Lacan says, "in two strokes." In discovering No. 2, theory must realize its *error* in missing No. 1 and take into account the existence of *two temporalities*, one running forward in the pursuit of analysis, the other running backward in the hopes of synthesis. We discover logical priority through the backwards reflection it makes in the mirror of time, realizing the chirality of a left-handed version.

Quite remarkably, the same mathematician who discovered projective geometry, which architecture theory has massively distorted or ignored, was also the one who argued that synthesis, to succeed, essentially takes the same <u>form</u> as the *analysis made in error*.[23] It is customary to say that one falls, the other rises; but Pappus of Alexandria made it possible to see analysis as an attempt to shoot itself skyward, to a pinnacle, but failing to reach it. In falling short, analysis hesitates for a brief moment, a *moment just before* it had achieved its goal. Synthesis can then fall, but fall in the way that Dante descended into the *Inferno*, accompanied by a poet–guide, Vergil. This is a metaphor for a metaphor. Dante's descent, like Pappus's, was an inventory of error in terms of the indexical match of crime to punishment.

This is a *span* — or "spandrel" — in architectural terms. Technically, the indexical 1:1 match-up of momentary sinner to eternal suffering could be said to be the only true case of what linguists call "bi-univocal concordance," the match of signifier to signified that dictionaries aspire to but never reach. In the dictionary, signifiers are defined by "signifieds" that turn out to be just another bunch of signifiers. These

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[22] The out-of-print Loeb edition can be found at https://www.theoi.com/Text/HesiodTheogony.html. In the same way, architecture theory has equated the significance of "penis" and "phallus" in the case of Hermes, conflating the marker of physical gender difference and the organ used as apotrope to mark the boundaries of tombs, trading locations, prohibited precincts, and agricultural fields. The herm is not a symbolic sign of anything; rather it is a legal deployment of the idea of (symbolic) castration, or prohibition in relation to the *gens*, the political connection of generation with laws originally derived from and validated by the flame of Hestia at the hearth of a confederated *polis*. See Nicole Loraux, *The Divided City: On Memory and Forgetting in Ancient Athens*, trans. Corrine Pache and Jeff Fort (New York: Zone Books, 2002). Indirectly, Loraux updates the nearly forgotten scholarship of Numa Denis Fustel de Coulanges, *The Ancient City* (1864), whose account of the cyclopean religions of the hearth and the geographical, political, and *topological* consequences were echoed by Vico. Theorists following the original work of Jean Robert have presented Hestia and Hermes as representing a binary division of inside and outside space, citing the anthropologist Jean-Pierre Vernant as a source; but Vernant is not as conclusive and in fact limits the idea that Hermes and Hestia were "a couple." See J-P Vernant, "Hestia–Hermes: The Religious Expression of Space and Movement among the Greeks," First Published August 1, 1969 Research Article, https://doi.org/10.1177/053901846900800407.

[23] Jaakko Hintikka and U. Remes, *The Method of Analysis: Its Geometrical Origin and Its General Significance,* Boston Studies in the Philosophy of Science 25 (Dordrecht-Holland: D. Reidel, 1974). There is an argument to be made that the "analysis" of "psychoanalysis" comes from Pappus rather than chemistry, as most have thought. When Freud coined the term psychoanalysis to distinguish it from psycho-*logy*, he was indeed influenced by the procedures of scientific analysis, of reducing chemicals into their components to reason out their relationships. But, "analysis" quickly was applied to the analytical *session*, where the Analyst listened carefully to the Analysand's free associations. What became famous as "the talking cure" was a method of attunement of the Analyst's ear to the slips of the tongue and bungled explanations that were symptoms, not just ineptitude or nervousness, of the *signifying desire* of the Unconscious. What had been repressed was attempting to return. The reciprocal in and out motions were the physics of the Analytical session, and the escape route taken by the Unconscious signifiers was the same as the traumatic Real that was the event of repression.

signifiers themselves — by the definition of what a signifier is — demand more signifiers, and so on and so on. The ideal of 1:1 matches, a definition that would define something "for once and for all," does not exist in the contingent re-emergence and self-transformation of languages. This was the point George Steiner (a professed Vichian) made in *After Babel*, his most famous work. Lacking the ability to accomplish bi-univocal concordance, "Adamic" speech, which called things into being by naming them, actual (contingent, evolving) languages were ever developing, ever disappearing.[24] What suddenly becomes almost expressible just as suddenly becomes inexpressible. *All languages suffer this self–constructed moment of defeat.* We anticipate meaning-*ful*-ness and then suddenly lose it — the same tragic loss Orpheus experienced when, having artfully rescued Eurydice from Hades, looks back at her to see *that it is really her*. This desire for the 1:1, the bi-univocal concordance between things and meanings, is a *wish* that is forever destined to be disguised, displaced, masked, falsified, *denied*. In other words, desire is not for something "desirable" that we can eventually possess by simply building on our love for it. Rather, desire is a perfect echo from the Other who is the site of our desire. It is a hope that will always fail, always create a misunderstanding.

Figure 3. The Tower of Babel, as the first recorded major architecture project, establishes the primacy of the span as both meaningful (in the face of failed meaning attempts) and an attempt to connect, through indexical steps, the material earth and (im-?)material heaven. The "?" has to do with the undecidability of the role of God in the Genesis story. Does he actually *fear* a breach in the protective layer?

Thus, we have the tragi-comic story of the Tower of Babel, architecture's arguably first — and first *failed* — Large Project, a project for a *span*. The most common description has it that God realized that humans, who at this point spoke a single, Adamic language, were capable of connecting earth with heaven (Fig. 3).[25] This would have been a true span — an architecture of love connecting truly antipodal points, heaven with earth, lover with beloved, death with life, so that the interval between forms a perfect palindrome: the way up is identical to the way down, the same that Pappus argued for analysis/synthesis.[26] God, understandably, is

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[24] Steiner's clever point is given in his example of gnostic theories of language, where each tongue sees itself a fragment of an original jewel, "Adamic" in its hardness and origin in Paradise. But, each language has a different *facet*, made at the time of disjuncture from this Real. What conditions a language and makes it unique is the cut that creates this face, its "tessera function" in relation to a lost (imaginary) whole, whose pursuit is carried on amid discordance, disharmony, and discord. Rather than the view that each language offers a "unique picture" (the Whorf-Sapir hypothesis), could we not say that each language reveals its part in its defeat at the hands of the project of meaningfulness? Rather than celebrate the Eskimos' grasp of the subtle of snow in its elaborated names for the white precipitation (the classic Whorfian example), we could see, in each attempt, a failure to grasp an essence, made all the more painful by the constant intrusion of the Real on language's hoped–for moment of self-satisfaction.

[25] E. A. Speiser, "The Tower of Babel (xi 1–9: J)," *Genesis: A New Translation*, Vol. 1, The Anchor Bible (New York and London: Doubleday, 1962), 74-76.

[26] A palindrome maintains homeostasis locally as well as by its unit. The mirror cut, /, in a palindromic series, 1 2 3 4 5 / 5 4 3 2 1, becomes the line across which the two series slide across each other to localize their mirror function: 1/5, 2/4, 3/3, 4/2, 5/1. The constant value of the series becomes the 6 that is the sigma, Σ (sum value), stabilizing the palindrome sequence. In verbal palindromes, consider how "Able was I ere I saw Elba" could be written: Able/Alba, was/saw, I/I, ere/ere, I/I, saw/was, Elba/able. The cut occurring at "ere" is fractalized by every word, but new meanings emerge thanks to the sequence. Did Alba see anything? Do "I" have a twin? Is seeing being? Can this only happen in Elba, where all becomes possible? Cantor's sequence of transfinite fractions, 1/1, 1/2, 2/1, 1/3, 2/2, 3/1 … pursued this same "internal infinity" with palindromic number sequences.
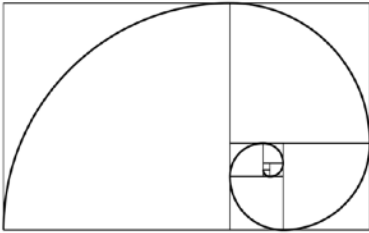
$$x = 1 + x \qquad x = 1 + \cfrac{1}{x}$$

$$1 + \cfrac{1}{1 + \cfrac{1}{1 + \cfrac{1}{1 + \cfrac{1}{\cdots}}}}$$

Figure 4. The Golden Rectangle geometrically illustrates the idea of the "unary trait," defined by Lacan as the self-intersection of 1 with itself — the "one of 1" so to speak, as the ratio requires the value of the question ("what is x?") to be re-inserted in the answer, through a succession of supplements that gradually refine the value of Ø.

afraid. A God who is not feared but Himself fearing presents religion with a paradox. The Tower — architecture's first major building project — must be curtailed, and as the many paintings show, it is curtailed ambiguously by incompletion or destruction, it is unclear which, although the Bible argues in favor of destruction, to restore to God his traditional powers over life and death of things as well as beings. The other version, that the Tower could not be completed, argues in favor of the idea that bi-univocal concordance was an aspiration, an expectation of a response from the ultimate Other, God. This would be the Lacanian view, using the French word *demander* to characterize all speech as a repeated request for a response from the Other we must construct through imagination as a mirror opposite to our needs. It is to this Other we appeal for help, for assurance, for confirmation of who we are as human subjects. All of our communication can be seen as an appeal for such recognition, and all of our communication constructs an imaginary *pathway* — a truly architectural *span* — that hopes to find, on the other side the the ":" between the indexical 1:1, another 1.

We don't find it. We do not find true love by welding ourselves to our mirrored twin lover to achieve a perfect sphere. If anything the shape of love is a cross-cap, a sphere with a pinch that lovers do not notice but, as they move across the self-intersecting surface, others can "theoretically" see clearly. Love fails to imagine it has created anything it cannot see. Lacan put this enigmatic failure in terms of what he called the "unary trait," the power of the 1 in and of itself to enter back into its own form, to be a "one of 1," namely a "one in and of itself one." We are near to what God gives as a minimal self-definition, "I am that I am." But, the unary trait is thoroughly human. It *spans* in a unique way that Lacan demonstrated in Seminar XVII, as the irrational value of the algebraic expression, $x^2 - x - 1 = 0$. Resolving this for the value of x, we find that x "is itself." Its solitude amounts to the matter of having to define itself by means of its own attempt to define itself: $x = 1+1/x$. We keep substituting, for the "x" on the right, the value of the original equation, $1+1/x$, and we get recursion: $1+1/x \rightarrow 1+1/(1+1/x) \rightarrow \ldots$. This is the basis of the famous Golden Ratio, 1, 1, 2, 3, 5, 8, 13, 21, 34 …, the formula by which growing things grow, an addition schema that, like all metallic ratios, finds *the best place* to pack in new elements by referring to a "form *of* form" — self–intersection (remember this term).

To find the value of the Ratio, we use 1+1/2, then 1+2/3, then 1+3/5, and so on. As you might see, the series of numbers that would be expressed, each, as 1 (1/1, 2/2, 3/3, 5/5, etc.) has consolidated the *cut* (the separation of numerator from the denominator) to allow the two identical series to "slide across" each other.[27]

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[27] Lacan's "unary trait" is the cut within the number 1 that makes it logically first but historically/experientially second. This is the basis of his theory of metaphor, but as a growth principle found in the metallic ratios, all irrational numbers, we have a basis for linking language's primary logic of retroaction to architecture's principle of macrocosm = microcosm, i.e. the cancellation of scale.

$$\underline{1\ \ 2\ \ 3\ \ 5\ \ 8\ \ 13\ \ 21\ \ 34 \ldots}$$
$$1\ \ 2\ \ 3\ \ 5\ \ 8\ \ 13\ \ 21\ \ 34 \ldots$$

so that …

$$\underline{1\ \ \ 2\ \ \ 3\ \ \ 5\ \ \ \ 8\ \ \ 13\ \ 21\ \ 34 \ldots}$$
$$2\ \ \ 3\ \ \ 5\ \ \ 8\ \ \ 13\ \ \ 21\ \ 34\ \ 55 \ldots$$

As the supplement to the 1 "improves" from .5 to .666 to .6 to .625, etc., the idea of 1:1 is perfected by the geometric addition of a 1x1 shape to an original rectangle whose sides have the ratio of Ø, the Fibonacci Ø, 1.61803398875…. We would be unimaginative not to notice the similarity between the horizontal line, which allowed these identical number series to slide *one place* over each other, and the line of clouds indicating the failure or destruction of the Babel Project. The former "fails" to reach a whole number, the latter fails to complete its span. The cloud line, "Cloud 9" I would call it since we're talking about love, makes all above invisible when viewed from below (think of the cross-cap, whose pinch is not perceived by

invisibility/disappearance

Figure 5. Alciati's image of Justice (Justizia) is no longer understood today. The head seems to be missing, but Alciati's intention was to show that it was in direct contact with the invisible Empyrean zone, which from below was impenetrable.

the imaginary ant crawling from "inside" to "outside"). But, considered as a *temporal* overlap between trial and error, the line is a matter of a "divine" penetration such as indicated by the apparent decapitation of Justizia in early emblems (Fig. 5). Justice is of course not headless or, as later shown, blind-folded.[28] Her head — the extremity of the body most identified with the Psyche as soul, the original German sense that Freud employed — is itself "invisible from below," namely the position of aspiration, which falsely believes it can use bi-univocal concordance to collapse not just the different antipodal points of the universe but to banish *difference itself*.

The cut is with us. Long live the cut. Long live the likes of Léon Robin, inspired to pay attention to a wrongly placed comma in Aristophanes, a comma that, correctly placed, would ask us to laugh at the sphericity of love, to feel pity for two beings who think Eros would be so cruel as to give them what they had wished for. Paolo and Francesca were, of course, not laughing in the whirlwind that simultaneously held them together and apart, Dante's own version of projective geometry, nearly one thousand years after Pappus's, but not so bad.[29] At least Dante recognized the "surface of pain" arising from true love, just as Lacan did in citing the story of Apollo and Daphne, which I treat below. A surface *subtracts* a dimension from the x-y-z Cartesian space of Euclid and treats relations "projectively," making it possible to deal concretely with phenomena that, in experience, create paradox: the vanishing point on the infinitely distant horizon, which we *see clearly* but

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[28] One variation of this trope is the connection between blindness and prophecy in such famous figures as Tiresias. The cut (templus) is critical to divination.

[29] Andrew Frisardi, trans. and editor, Dante, *Vita Nova* (Evanston, IN: Northwestern University, 2012). See especially the index for the number 9, 343–344. There may be some advantage to seeing Vico's use of *Nuova* in his *Scienza Nuova* as *Scienza Nova*, a reference to the number 9 in Dante. Nine, in Vedic mathematics, can be removed then added back to calculations to prove the accuracy of the numerical "analysis," but Western mathematics was quick to borrow this feature. See Cecil Balmond, *Number 9: The Search for the Sigma Code* (Munich, Berlin, London, New York: Prestel, 2008). Thanks to Curt Dilger for not only alerting me to this book but for giving me his copy.

cannot *explain*, not without theory, at least; the idea of space that is both finite and unbounded; the idea of self-intersection and non-orientation, characteristics we can easily demonstrate using the Möbius strip. We cannot precisely know the Ø of the Fibonacci series. It is a *series*. It is a one *of* 1, a self–defining, self-intersecting entity. But, we can not only construct it with a drawing, we can build whole structures using it. We can see the heads of sunflowers and other creatures in nature with this "indefinable" form. What could be indefinable, if we find it everywhere? It would be indefinable only to a theory that refuses to acknowledge that self-intersection and non-orientation — the twin features of projective geometry — are not only possible but essential. This is as trivial as the questioning of a comma in Aristophanes, but also as magisterial as the question of Just Who is afraid of bi-univocal concordance, and how the *line* that results from this fear turns out to be *the most important line in the history and reality of architecture.*

The Thesean Labyrinth *versus* the Tower of Babel?

Which came first? (The reader by now knows that this is a "trick question.") The Thesean Labyrinth, invention of the official first (mythical) architect of antiquity, Dædalus, is not well understood. Many have mistaken it for a maze rather than a meander (Fig. 6). Few have seen the fractal repetition of an A_{ABA}B_{ABA}A_{ABA} pattern in the common graffiti representation of the meander, evidently used as a children's game, a challenge to see who could draw the doubly–folded path the quickest. The objection to the meander might be that it does not create anxiety in the way a maze is designed to do. This objection overlooks the actual experience of any occupant of any actual meander, even one constructed in turf where there are no walls, namely the anxiety that arises from an unnatural elongation of travel within a continually curving passageway, coupled with the immediate effect of any pause, which is that one forgets in which direction one has been travelling. Doubt as to whether one is going inside or outside, whichever was intended, intensifies panic because, simply, it cannot be explained.[30]

Where knowledge falls short of experience's certainty, we have the case where the interest in meaningfulness has trumped interest in specific meanings. This is partly

Figure 6. The labyrinth is a problem of the pause, of doubt about going in or going out, translated to the packing issues of sunflower seeds as an algorithm requiring irrational numbers.

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[30] I base these observations on personal experience of the turf maze at Winchester, Dorset, on St. Catherine's Hill, in 1986 (see map above). Although the view is not restricted, the doubt about whether one is going out or in creates an undeniable vertigo. Dizziness, vertigo, and the spiral associated with the number 9 are themes that appear in Alfred Hitchcock's *Vertigo* (1958), a film about falling and the inexplicable ability to climb to the top of a tower. Scottie, the detective whose trauma of falling has made him the ideal witness to a "suicide" that is in fact a murder is the Möbius Man, who proves two opposed theses at the same time, thanks to the "pinch test," his failure to reach the top of the tower where Elster murders his wife Madeleine, while Judy, the actress hired to play Madeleine on Scottie's behalf, watches, horrified, from the shadows. The "pinch test" for the labyrinth is the inability to complete the pathway (1:1 — steps : pathway; the journey as bi-univocal concordance), making the traveler a dupe who, holding firm to the physical evidence of travel seems to prove he/she is going inside and outside at the same time. *Vert*-igo, the dominance of the color green in Hitchcock's film, gives away the secret when "Madeleine" and Scottie visit a park with giant Sequoia's *ever greens* and point to the subtractive section of a felled tree where Madeleine says, "Here I was born, and here I died." The span is pinched by her fingers in a demonstration of how she has been "duped" by the ghost of her ancestor Carlotta.

what Lacan meant when he claimed that there is no such thing as literal meaning. Both Lacan and Vico deal with this issue, Vico under the heading of wonder and astonishment that becomes the basis for the "divine" (= divination, auspices) basis of early (Cyclopian) cultures; Lacan in his more analytical treatment of metaphor. Eventually both accounts mesh, in the same way that analysis and synthesis constitute a *tessera*, a clay token broken in parting *whose accidentally jagged edges* — our best model yet of what the cut actually is — constitute the basis of authenticity and identification when the token is rejoined.

Meanings must be assembled to approximate experience. Inevitably, they fall short of capturing the essence and effects — primarily emotional and personal — of meaningfulness. When we try to give an account of a meaningful experience, we usually say "words fail us." We cannot keep substituting new signifiers for old ones in a dictionary way; soon enough we discover that words have circled around to the original term we tried to define, making every definition an eventual tautology. This disappointment is coupled with an opposite condition. When we try to say something specific, we end up "saying too much." Others can hear it; usually we cannot. This –/+, lack/surplus, could be put in terms of "too soon" or "just before, <, and "too late or "just after," >. According to Bruce Fink's excellent handbook for Lacanian clinical practices, *The Lacanian Subject* (1995), this is precisely the strategy the Analyst uses to pry open the Analysand's blahblahblah, to allow signifiers "trapped" by the Unconscious (repression/sublation/*Aufhebung*) to finally escape.[31]

Concealment

This conference's theme, "Crafting Concealment," goes straight to the heart of what makes architecture architecture. It's brilliant and I am honored to be asked to address this issue. I have no simple way to say just how I think concealment and architecture are synonymous. If given only five minutes to come up with something, I would recommend that we all go re-read Sigmund Freud's

Figure 7. The concealment of home and the anamorphic use of the façade as a human face compound the tendency to equate the architectural interior with intentional concealment. The cartoon "happy home" on the left is possibly even spookier than the mother's house from Hitchcock's *Psycho* on the right. The mother's house at least "says more than it intended to say," about concealed evil, its appearance says this by failing to present a "stately" or even neutral idea about the family's goings-on inside. But, with the Happy Home, one immediately suspects that the actuality behind the façade is quite different from the one the smiling façade wishes the stranger to see.

work on *The Uncanny* (1919), where the founder of psychoanalysis demonstrates etymologically how concealment and the home, the physical home, relate (Fig. 7). First, concealment is protection, shelter,

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[31] This escape can happen outside the Analyst's examining room. If circumstances are right, anyone, anywhere can become an Analysand for a accidental Analyst, who for some reason asks the right question, surprising their interlocutor to "say more than he/she had intended." This surplus, >, matches up to an original lack/suppression through combinatorial accident. The result is not an explanation of any facts or even circumstances that led to the original suppression, which has anyway been long forgotten as a trauma not noticed at the time of suppression. Rather, the release is an *affect*, an astonishment at realizing the circumstances of the original event, whose suppression, as Real, could not be symbolized, i.e. could not be recognized by the "Symbolic" subject on account of its identification *with* the Symbolic — the networks of symbolic relationships providing the Subject a place at the expense of being misrecognized. (Note: I would not be able to give this explanation had not this experience actually happened to me, which I can only explain as "cure by misadventure.")

Heim (home). Then the point of view shifts and it becomes something made invisible from the outside, the stranger. Let me follow Freud's thinking here as he quotes from reference source definitions:

> Concealed, kept from sight, so that others do not get to know of or about it, withheld from others. To do something *heimlich*, i.e. behind someone's back; to steal away *heimlich*; *heimlich* meetings and appointments; to look on with *heimlich* pleasure at someone's discomfiture; to sigh or weep heimlich; to behave *heimlich*, as though there was something to conceal; *heimlich* love-affair, love, sin; *heimlich* places (which good manners oblige us to conceal) (1 Sam. v. 6). 'The *heimlich* chamber' (privy) (2 Kings x. 27.). Also, 'the *heimlich* chair'. 'To throw into pits or *Heimlichkeiten*'.— 'Led the steeds heimlich before Laomedon.' —'As secretive, *heimlich*, deceitful and malicious towards cruel masters …as frank, open, sympathetic and helpful towards a friend in misfortune.' 'You have still to learn what is *heimlich* holiest to me.' 'The *heimlich* art' (magic). 'Where public ventilation has to stop, there *heimlich* machinations begin.'

You see where this is going. Once the home becomes a means of concealing something, there is the effect of a "pronoun," as when something says "it" but the antecedent is not given. The word *heim* becomes a pronoun. Not only do we not know what "it" means, we wonder why this doubt has entered into such a cozy word as "home." We hear *Heim* and we think "what are they hiding?" Concealment comes with the wonder of a gift. When wrapped, the gift has values that vanish when it is unwrapped. What becomes of this wonder, this anticipation? The value may be, just as easily as pleasant anticipation, anxiety. Are there bats in the attic? Mice in the walls? Bad news in the unopened letter? The negative cases remind us that the positive value that can be generated by concealment is also a kind of anxiety. The home, *Heim*, is the wrapped gift that implies intentional concealment.

Anxiety intensifies when the agency of concealing is the home, the marker separating our intimate family behaviors and relations from our public selves. The positive anxiety is missing, because we know what goes on in our homes … all too well. We are not waiting to open a gift. Rather, we are wondering what others would think. The home identifies with negative anticipation so intensely that it is the *Heim* that is the hallmark of the general expression for the uncanny, the *Unheimlich*. German, in other words, gives away this secret: architecture and the uncanny are bound together in the anxiety associated with concealment — and not the happy kind.

This does not mean that we do not use this anxiety for entertainment. What would Hitchcock's *Psycho* have been without the spooky house on the hill behind the derelict motel? Do we not decorate our houses to be as menacing as possible to invite tiny dressed-up demons to our door on Hallowe'en? The question of why and how we use anxiety and fright to create pleasure is indeed an important but difficult one to answer. But, the issue of whether we enjoy or suffer from anxiety, we can follow the footprints of either back to the issue of concealment and its "primordial" relation to architecture. In other words, we cannot accept the idea of architecture as shelter as an unquestionable good. From ancient times, when the hearth flame was the axis by which families communicated with their ancestral dead, and when strangers were forbidden to look on this flame, sheltering has been ambiguous. The dead are not unequivocally helpful or kind. They can induce terror if Hestia's protocols are broken. To abandon them is the worst crime; hence in

early societies moving the hearth or marrying off a daughter had to be done through elaborate ruses, in the belief that the ever-observant dead could nonetheless be tricked.[32]

The anxiety bound up in the idea of home is a function of concealment. But, Freud gives an interesting hint about the structure of this anxiety. Drawing from the earlier work of Ernst Jentsch, Freud passes on his predecessor's theory that the uncanny is a monad cut into two halves, one for the living, the other for the dead.[33] For the dead, there is the space-time span between the literal moment of physical death and a symbolic death. Popular culture gives a ready formula for this in the "death dream," the scenes that flash in front of the eyes of someone in the last seconds of life. Most all cultures have domesticated this idea that the dead are not immediately fully dead by transposing it to the ambiguous state of a decomposing body. Until flesh has desiccated fully, usually with the hastening action of fire, animal ingestion (worms are the favorite of European cultures using inhumance (burial in soil); dogs were preferred at one time in ancient Iran (special tower-kennels were constructed); birds by Native Americans and Mongols).[34] With or without literal stratagems to arrive at the state of dry bones, all cultures recognize a period of mourning calibrated by this process, during which the dead soul is believed to not have fully accepted the fact of death. The families, with prayers and customs, assist in the acceptance process, by which the deceased becomes dead *to* his/her society.

Opposite the case of the interval between the two deaths is the living person who topologically creates a trap. Wishing to flee death, he/she, like the famous servant in the story, "Appointment in Samara," the attempt to fly away turns out to be the straight path leading toward. It would be hard not to compare the two conditions. The dead person and the living person both suffer from misapprehensions about how to escape. Both are the agents of their own end. But, in the case of death we might say that something that had to be done was finally done, where in the case of the living person running into the arms of death what was most feared was treated as if it were the most desired. In both cases, life and death follow the same rules. Each inscribes the other as an antipode, a conversion function. The dead person thinks he/she is still alive, the living person is possessed by the fear of death. The hope of the former inscribes something fearful, while the fear of something inscribes something hopeful. Jentsch cleverly wonders what where the "cut" between the two mirror conditions comes from.

Here we must make a leap. There is one key difference between the Lacanian–Vichian concept of the human subject and nearly modern view we would draw from psychology or phenomenology, which I would generalize as "naïvely ego–based." Lacan's version is more insistent, so I'll begin with that. This is the view that the subject, or rather "subjectivity," is a wave function, a pulsating phenomenon caught within

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[32] A surviving practice of the idea that the jealous dead must be tricked is the ruse of pretending that a bride, who must defect from her father's hearth to her husband's, is doing so against her will. Even today, the custom of carrying the bride across the threshold of a new home repeats the action without any awareness by the actors of what is happening.

[33] Ernst Jentsch, "Zur Psychologie des Unheimlichen," *Psychiatrisch–Neurologische Wochenschrift*, 8, 22 (August 26, 1906): 195–198 and 8, 23 (September 1, 1906): 203–205.

[34] The Zaroastrian custom of requiring the glance of a dog before the soul can be released from the body abbreviates the even more ancient custom of having dogs trained to devour the corpse, which no less an author than Carlos Fuentes has referenced in his account of the death of Giulio Camillo in *Terra Nostra* (1975). *The Vendidad, Fargard 8*, 16: "You shall therefore cause the yellow dog with four eyes, or the white dog with yellow ears, to go three times through that way. When either the yellow dog with four eyes, or the white dog with yellow ears, is brought there, then the Drug Nasu flies away to the regions of the north, in the shape of a raging fly, with knees and tail sticking out, all stained with stains, and like unto the foulest Khrafstras."
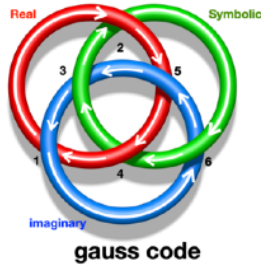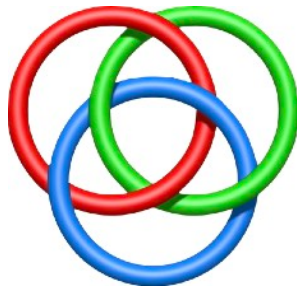
Figure 8. Gauss encoding shows how Lacan's famous Borromeo knot (the RSI system of Real, Symbolic, and Imaginary) are bound by a fourth ring lying in a "virtuality of effectiveness."

dynamic cycles, not a static entity, a "personality," a unit associated with a name. Of course we all are personalities with a name, with static things (homes, political affiliations, beliefs, jobs) that anchor us in time and space. But, as subjects, we pulse and our *pulsions*, the French word for "drives," are the true nature of our subjectivity. Let me try to put this as directly as possible: the human subject *as* subject is a *pulse*, a rising and falling, an emerging then a fading, phenomenon. The closest analogy to the pulsing subject is that of an "energetics," of a sine-wave that rises into positive territory then falls into negative darkness, only to return again to pass above its ocean's surface into the light, and again to a pinnacle. As this is happening, the subject strives to maintain identity, to be *the same person* at all points on this ascent and descent. There are two devices employed for this project of the same: (1) The Symbolic — the sum total of the networks of symbolic relations that, thanks to language, preserve the subject's identity in the face of dismemberment by a reliable ruse — the subject is, from the start, *misidentified*, making it nearly impossible for the subject to shake off what others use to define it. This situation is used by Hitchcock's *North by Northwest*, where the hero, Roger O. Thornhill, is mistaken for the non-existent spy, George Kaplan. Because Kaplan is a fiction maintained by the CIA to divert the resources of the Russian KGB, Thornhill cannot prove that he is not Kaplan. Generally speaking, we accept the fictional identity given to us by the Symbolic. We cannot shake it because it doesn't really exist. Any attempt to "find our own true identity" comes across as fake, as an attempt to escape "who we really are." (2) The Imaginary — we see, in the mirror, the image we identify with as our presentation to others of who we really are. Self–image is this frontal view plus other markers of self–hood: tone of voice, style, dress, attitudes, networks of friends and family, job status, etc. The ego is the agency that negotiates, with the (imaginary) Other, the costumes and sets needed to support this project of identity.

The subject's pulsation, its variability, is gauged in relation to the project of the same (which I would call "idempotency,"[35] drawing again from the vocabulary of electrical engineering). Allow me to condense

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[35] Idempotency, an unfamiliar word, is a familiar effect, easy to understand when we encounter the switch that, once activated, remains active, as in the case of the elevator button that, once pushed, does not need to be pushed again to call for a car to stop at a particular floor. Another example is the high- or low-pass filter, which trims upper or lower ranges of sound waves. A lawn is mown evenly because the mower's blade is idempotent. It will never cut grass shorter than its setting. Idempotency is key to the buffer created by the dream to protect the sleeper from external stimuli. Graphically, the idempotent "switch" of the dream buffer is —/∿: variability is muted so that the sleeper may attain the paralysis required by non-REM sleep. Idempotency is the model of all insulation devices in architecture: walls, distance, elevation, façades, screens, portals, etc. Yet, the word idempotency appears nowhere in technical or critical literature. It is the one word that connects architecture to the physiology and psychology of the dream, a common basis connecting the energetics of architecture with interpretive and aesthetic issues. The idempotency function has been recognized since Heraclitus in the idea of *palintropos harmoniē*, the "A thing agrees in disagreement with itself; it is a crosswise harmony …, like that of the bow and the lyre." See Patrick Lee Miller, "Truth in Conflict" (December 6, 2010): https://tif.ssrc.org/2010/12/06/truth-in-conflict/. This concept is reversed in Alberto Pérez-Gómez's assignment of triumph to harmony *over* discord (*palintonos harmoniē*), rather than to Heraclitus's insistence on the reverse case: the river that *resists* being stabilized (objectified) by repetition, by stepping into it "twice." As one wag commented (I cannot remember the source), "A river you could step into twice wouldn't be much of a river, now, would it?"

the broad range of issues into a simple graphic: —/∿. The ego on the left of the / strives to maintain identity in the face of its variable subjectivity. The "/" or buffer function is interesting for architecture because it allows both ego and subject to co-exist, thanks to a suppression of the Real that would break through this buffer. The "/" is therefore the Unconscious, as the mechanism of suppression, concealing from the ego its own subjectivity, it's own Real. This is not an abstraction, it is how we all live as human ego–subjects.

This is not Lacan 101. This is not how Lacan is introduced to a skeptical or even curious reader. But, why not? Even the vivid illustrations of Lacan's psychoanalysis can be confusing. The monogram of his "RSI System" — the three rings of the Borromeo knot representing the Real, Symbolic, and Imaginary components of subjectivity for the neurotic (Fig. 8) — are confusing without knowing how the Real relates to traumas that the subject typically represses, /, allowing the severed anxiety that had directly been the result of the trauma to then wander freely, attaching to other situations, persons, and things; how the Symbolic, as the sum of our networks of symbolic relationships, is forced to conspire with language's efforts to conceal its own gaps and inconsistencies; how the Imaginary's paradigm begins with an experience of *jouissance* (pleasure-pain combined) before a mirror, when we are forced to externalize/publicize our childhood autoeroticism and come up short (Lacan: the *corps morcélé*, the "body in pieces" we did not know was in pieces until we were forced to identify with our mirror image as a passport to be accepted by the Other.[36] Add to this the way that Lacan knowingly borrows from the paradox of the Borromeo knot, that the stack of rings cleverly tucks the top ring beneath the bottom one to continue a sequence of self–penetration, so that the bond between any two rings is the third ring.[37]

The bond, topological rather than graphical, is the drive (Fig. 9). The Freudian/Lacanian drive drives so many readers crazy, it is no wonder that cognitive psychology's more accessible simplicities are more

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[36] A most comprehensive thesis on the / as the shadow line between a "body in pieces" and the *idem*-potent self is presented by Rainer Werner Fassbinder in his 1982 film, *Veronika Voss*. When the aging actress, fighting to erase her wartime activities as well as her loss of youthful beauty, arranges to meet the journalist Robert Krohn at a restaurant, she asks the waiter to adjust the lighting at her table, noting that a woman of her fame deserves to be perfectly lit. The project of idempotency, /, continues up to the point of death, as when Oscar Wilde's last words were said to be "Either this wall-paper goes, or I do."

[37] To my knowledge, I am the only theorist to show how a "Gauss encoding" (systematic list of the over-under crosses of any knot) of the Borromeo rings reveals the presence of a virtual fourth ring, *binding the other three rings precisely because it is virtual, not actual.* This is the key to the idea, I argue, of the efficacy of a "second" (both pre- and post-Euclidean) virtuality allied with projective geometry's "surface of the Real," a fifth cause (of Effectiveness) to add to Aristotle's canonical causes (Efficient, Final, Formal, Material). Gauss encoding's fourth ring is palindromic, and if projected to a temporal line causes the line to fold at a crease-point that marks an exchange. In "The Purloined Letter," this origami fold, identified independently by the eminent Poe scholar Richard Kopley, *Edgar Allan Poe and the Dupin Mysteries* (New York: Palgrave Macmillan, 2008), comes precisely when the Police Superintendent hands Dupin the reward check for finding the purloined letter. The point is that, like Vico's poet, quantitatively assessed by the steps down to his prison cell, Dupin's clever determination of the location of the letter within the (secondary) virtuality of the Minister's apartment is in fact quantifiable. This justifies quantifying the Lacanian subject by the Gaussian notation of the rings of the Borromeo knot. The cheque and the fold are both *crossing points* between the ego and *Es* that Lacan marked out graphically in his L-schema: an *anamorphic* line that, like the pulsating subject, both exists and doesn't exist. In the L-schema, a model of what happens in Analysis, the Analyst sees the line, interprets it as the < > of "too late and too early" in the Analysand's slips of the tongue and botched explanations, and pries it open in acts of acoustic anamorphosis (the role of the *voix acousmatique* in Analysis) so that the subject's ∿ can short–circuit to the "place where the *Ich* will be," according to Freud's saying, *Wo Es war, soll Ich werden*, "Where the 'it' (Id?) was, there the ego shall return." It is tempting to say "Who put the 'id' in 'idempotency'?" knowing full well that the answer is "Lacan," acting on behalf of the subject unearthed (de-inhumanced) in Analysis.
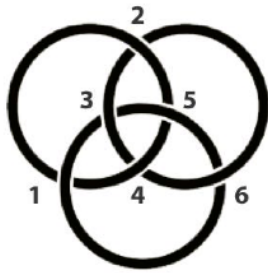
+1 ⊠ –3 ⊠ +5 –6
–1 +2 ⊠ +4 –5 ⊠
⊠ –2 +3 –4 ⊠ +6

Figure 9. Gauss coding shows that there is a "hole" in the rings, thanks to their stacking, that allows the virtual "tuck" of top beneath the bottom to constitute a fourth ring.

attractive to the theorist who is satisfied with the authoritative footnote, or why architectural phenomenology opts for fantasy constructs over clinical evidence. Vico, compared to Lacan, seems to be considerably more accessible, but the distortions of Vico's views in architecture theory suggest that here, too, the truth of Vico's theories are not really "ready for prime time." Vico's insistence that the ideal eternal history, his sequence of subjective development in what Cassirer would call expressive, representative, and conceptual functions operates through the full range of scales of human experience is completely ignored. The "imaginative universal" (*universal fantastico*) as an *error* of metaphor has not been understood.[38] The role of the feminine, in Vico's critical accounts of Diana (in relation to Actæon, who accidentally views the goddess naked in her bath) or Semele, who visits the sleeping Endymion, are not connected by any architecture reader of Vico to Vico's essential idea of the interiority of marriage, which is "anything but" Aristophanes' obviously comic model. Neither is Vico's story about Prometheus in relation to the fixity of Cyclopean societies ever mentioned; in fact architecture theory presentations of cultural history do not treat Cyclopean society's beliefs about locale and hearth–side worship of the *manes* at all. Worst, perhaps, are conversions of Vico's famous saying, *verum ipsum factum*, confidently translated as "the true is identical to the made," into celebrations of embodiment, without taking into account what

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[38] Vico's first humans project what is "internally" unknown/unknowable to them to a point equally inaccessible but in an objective field. This is a metaphoric version of the Lacanian idea of "extimacy," the inside out transposition without which it would be impossible to understand what meant by Louis Altusser by ideological interpellation, the voluntary acceptance of the view of the authoritarian other, despite the other's insistence. For a more complete account, see Jacques-Alain Miller, "Extimity," *The Symptom* 9 (Fall 2008), https://www.lacan.com/symptom/extimity.html. Architectural versions of Vico's *universale fantastico* ignore completely Vico's point that this first universality is a fictional (*fantastico* would seem to make this clear) view sublating the viewer's actual perceptual investment in the viewed. The only way to understand this is through a topology of extimacy, a simultaneous cross-inscription of object into the subject and *vice versa*, producing in the subject both a neurological and psychological basis for neurosis grounded in symbolic development. Architectural theory advocacy on behalf of the "unifying benefits" of the Imaginative Universal is textually unjustifiable, since Vico at multiple points demonstrates this "truth of fiction" aspect and links it to the *spatial* and *temporal* construction of the first cultures, based on divination.

Vico said about the *certum*, the certain, that was the aim of divination procedures in the face of nature's wild unpredictability.[39]

Then, there is the inexplicable use, by a major architectural advocate of Vico, of the abridged edition of *The New Science*, the only edition that fails to include the essential graphic works and references to Cebes' Table. This omission would seem to disqualify any claim to be advocating what Vico actually said or thought. How is this justifiable? Like Lacan, Vico regards subjectivity — at the largest scale of "nations" as well as the micro-experiences of particular individuals — as pulsating but stabilized by the "idempotent" function of the cultural buffer, which he condenses in the story of Prometheus and in cultural practices limiting the locale of the hearth as embodying the flame of the ancestral dead, the *manes*. Vico's main cyclic mechanism is the ideal eternal history, which begins in wonder and astonishment (and trauma), and begins to "secularize" and domesticate its experience through "representative/heroic" linguistic assignments using metaphor to replace, on behalf of semblance, to a use of metonymy to link according to contiguity and adjacencies. The desired end of the ideal eternal history would seem to be the modern consciousness, the alienated subject placed opposite a solid, "objective" world, but this would be misleading, for the ideal eternal history has "carried along" the traumatic kernel of mythic thinking and heroic Hegelian dynamic of mastery into conceptualization, where (mythic) fantasy and (heroic) ideology continue to shape thought, and where "ordinary psychosis" stands as the neurotic's natural tendency, to terminate itself in the madness of Vico's fourth, *projective* stage, the *ricorso* or "return" to the mythic state.[40]

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[39] Most architectural theorists seem not to have read more than the last version of his main work, *The New Science* (1744), although the earlier edition (1725) contains many important clues, and his other major short works, *On the Study Methods of Our Time* and *On the Most Ancient Wisdom of the Italians,* are not frequently referenced; his annual lectures delivered to the faculty and students at his university, although available in translation, have been generally ignored although all are available in English translation. Only a few secondary sources are consulted (D. Verene, E. Grassi), but with selective take–aways intended to show that Vico is a hermeneutic phenomenologist offering an alternative to Cartesian–instrumental thinking. The *verum–factum* appears in the *Most Ancient Wisdom*'s study of "primal terms," akin to Freud's own analysis of contronyms in ancient languages. An approximate translation would be "the true and the made are convertible (for ancient mentalities)" in that the "poetic science" of first cultures is derived from radical empiricism and sacrificial divination. Vico's saying thus depends on an understanding of the hearth-based interiority of the first "cyclopean" cultures and the prohibitions against any changes in the rituals of auspices, hence the fundamental "repetition compulsion" of divinatory demand that Vico condensed in his explanation of Prometheus and idea of the *certum*. Is any of this is even slightly evident in Mark Jarzombek's project of the world history of architecture or his more focused *The Psychologizing of Modernity: Art, Architecture and History* (Cambridge University Press, 2000)? It is from divination's induced state of crisis that science, thereafter, is defined by its own self-conditioning crisis, the crisis embodied by sacrifice. Architecture's view of science, that it has ended in failure thanks to its crisis, is thus reversed. Science would fail if it *did not* create a crisis. This is the message known at least since Thomas Kuhn's *Structure of Scientific Revolutions* (1962), which makes it clear that science ceases to be science if it fails to generate a succession of competing, mutually cancelling, paradigms. *Harmoniē* is not static. Without it, science (theoretical knowledge, inherently dialectic and self–deconstructing) is not possible. In divination, the idea of dynamic harmony lies behind the essential *aleatory* element present in all acts of divination. *All.*

[40] How did psychosis come to be called "ordinary," given its antipodal relation to neurosis, the classic definition of the "normal" human subject of psychoanalysis? The answer, according to Joachim Cauwe and Stijn Vanheule, lies in Lacan's evolved juxtaposition of the (indefinable) *objet petit a*, the object-*cause* of desire, and *jouissance*. Where formerly the *a* was an "object" or "cause" that only theory could see but the subject could not, Lacan began to locate the *a* in "ordinary" experience where the neurotic subject encountered *jouissance* in relation to boundary or limit conditions ("apotropes"), or in "short–circuits" where a sudden demand caused a system collapse, as in the case of the Stendhal Syndrome, where the beauty of a work of art (or architecture, or landscape) induces collapse or even death of the observer. Cauwe, J. & Vanheule, S., "Manoeuvres of Transference in Psychosis: A Case Study of Melancholia from a Lacanian Perspective," *British Journal of Psychotherapy* 34 (2018):376-392.

In architectural presentations of Vico's *ricorso*, this schizophrenic end to reason is presented as a happy prospect. The modern subject, weary of abstract, instrumental conditions of life, chooses a more poetic, ethical world view. Wholeness, reunion, and harmony replace scientific antagonisms and alienation is readily, willingly relinquished, an old coat no longer necessary as reason's winter turns to poetry's spring. This view does not address the psychotic content of the *ricorso*, evident since Nietzsche, the condition that has required it to transform itself just as Daphne, without any hope of escape, becomes a tree in the face of Apollo's desire. Vico's use of the lipogram, the missing element, is key to this theoretical syncope because even Vichians have missed it. In the frontispiece ("la dipintura") of the 1744 edition of *The New Science*, Vico tells a shaggy-dog story[41] about how he came to think that the whole of his ideas of culture and thought could be condensed within a single image, and how this image might compare to that of the *mons delectus* placed in the shadows at the back of a mysterious verger of the Temple of Cronos, who warned pilgrims who would wish to see it that he would allow them to look, as long as they accepted his warning: if they understood what the image meant they would be transformed by its pure wisdom, but if they failed to understand they would be driven mad. If this is not *psychosis*, nothing is! Although Vico underscores his own relation to this ultimatum by saying, in his *Autobiography* — another major work ignored by architecture theorists — that he doesn't know whether he is a demon or a god (*aut deus aut dæmon*), the psychotic binary as the necessary terminus of the ideal eternal history is not addressed. It is the central feature of Vico's theory of subjectivity but it is itself the "lipogram" (missing letter) that has forced architecture theory to either ignore or accept a fake rendition of Vico's thinking.

The theoretical lipogram, miraculously, relates to the graphic lipogram that Vico presents in the *dipintura*. The statue of Homer stands on the left, Homer's hand appears to be pointing to the object in the

Figure 10. Detail, Giambattista Vico's *dipintura*, the helmet of Hermes, which Vico fails to describe in his otherwise exhaustive inventory of symbols in this image, making the helmet, effectively, a visual lipogram.

lower left-hand corner (see the full *dipintura* image on page 3): the Helmet of Hermes. Vico claims that he describes every object in the *dipintura* and indeed we read these descriptions, with the exception of this one object (Fig. 10). It is clearly shown, it is not an accident. Yet, he does not include it in his otherwise exhaustive annotated inventory of the frontispiece's elements. This is truly a case of the same stratagem that Poe employed in his story, "The Purloined Letter." Something very important has been hidden simply by leaving it out in plain sight. The trick works. Just as the Minister D__ left the letter he stole from the Queen of France in his "card-rack" (a phonetic palindrome, kcar-drac), Vico has left an important "letter" in his theoretical statement in such a way that we are compelled to palindromically "turn over" the image to see what's behind. This turn must be made at the point in the *dipintura* where there is hole, the place where the image "looks back at us," a

41 The story: The Venetian architecture theorist Father Carlo Lodoli had promised Vico funding for the 1744 edition but backed out at the last minute. Vico intended to rebuke the Friar in a preface but was persuaded to withdraw this for fear of retribution by the politically influential Lodoli. The book's signatures had already been set up, leaving a number of pages blank, so Vico and his (likely Rosicrucian) colleagues) decided to provide an image in the spirit of the Table of Cebes, with a commentary previewing his idea that all nations in their course of development, follow an identical pattern.

perfect example of what Lacan describes as the optic drive, the gaze.[42]

If Hermes' helmet is the purloined letter of Vico's *New Science*, the trick by which we, like the detective Dupin, may recover it is to put ourselves in the place of the con artist, Minister D__. This is the trick of appearing to look in one direction while looking in the other: the trick embodied in the statue of the Roman god Janus, misinterpreted by those who miss the position of the cut, which is, like Jentsch's formula for the uncanny, not *between* the two faces but simultaneously *outside* both of them. Minister D__ has stolen the letter by managing the glances around the room when the letter, addressed in an alarmingly recognizable handwriting, that has caught the eye of the Queen but escaped the notice of the King. In a second exchange of glances, the Queen understands that she is powerless to prevent the Minister from taking the letter himself, replacing it with one addressed to him. To retrieve the letter, Dupin must neutralize the power of the "lynx-eyed" Minister by causing him *avert his eyes*.[43] Dupin has arranged for a fake disturbance in the street below his window to detract the otherwise "lynx-eyed" Minister. As the minister *turns away*, Dupin disguises his extromission. This is a reversal of the usual idea of the eyes as passively receiving and processing light waves, to the construction of a light-beam weaponized to melt through protective covers, such as the "fourth wall" the Minister has constructed to protect the purloined letter, so that we look at it but unconsciously deny that we see it. Extromission penetrates this fourth wall and violates the cordon that protects the letter from discovery and re-possession. To hide his extromissive powers, Dupin wears green-lensed glasses, with the excuse that he was "having trouble with his eyes." The green glass in fact narrows this laser-beam to melt the seal on the letter, a seal not of the contents of the letter but of the *location*, which the detective memorized for his next, *effective* visit. We might easily overlook the role of a virtuality of effectiveness, if we were not students of Lacan and Vico. This is not the virtuality of Euclidean space that affords us the fantasy of coherence as long as we suspend our concrete experience of infinity when we witness parallel lines converging at a vanishing point. Euclid's Fifth

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[42] Foucault always identified the gaze with the covetous subject, who looks at objets of desire with the intent of controlling or possessing them. This is the reverse of Vico's idea, and the reason why Foucault's interpretation of Jeremy Benthan's "Panopticon" is not just incorrect but reversed. Vico's idea of the image is, like Lacan's, based on the idea that the image returns the gaze through a strategic point of absence or lack. Lacan's most understandable example, perhaps, is the anamorphic blur in Hans Holbein's painting of *The Ambassadors* (1533), where to see the blur at the base of the painting orthographically pop into view, one must literally fall at the feet of it, at the point geometrically identified as Golgotha, thanks to the crucifix at the upper left of the canvas, half covered by a green curtain. This conditioned syncope is a case of induced Stendhal Syndrome, the sudden collapse of the viewer of a work of art in the face of the artwork's Great Beauty (a phrase later used by the movie of the same name, where a tourist collapses while taking a photo of the Roman cityscape). This is the "psychosis" or *ricorso* limit of art, but it is also the psychic-optical paralysis of prisoners in Bentham's Panopticon. The structure of *The Ambassadors* and the Panopticon is the same, thanks to the function of the optical *pulsion*, the gaze. How else could we account for the near-universal phenomenon of the evil eye, which is not in the eye of the beholder but what is *imagined* to be in the "eye" of the envious, retributive *object*, personified as the sclerotic eye of an old woman? Note: I am not the first to correct Foucault on his mistaken reversal of the Lacanian gaze. See Joan Copjec, *Read My Desire* (1994). Also do not fail to read her essay about projective geometry, "The Strut of Vision: Seeing's Somatic Support, *Qui Parle* 9, 2, Special Issue on Lacan (Spring/Summer 1996): 1–30.

[43] Poe uses the adjective "lynx–eyed" to describe the Minister D__ to alert us to the Minister's weaponized visual powers of extromission. The lynx's name comes from the Greek λύγξ because its eyes seeming to radiate light. (Macrobius's *Saturnalia* discusses at length the Emperor Augustus's extromission and thus attests to the antiquity of this idea.)Thus the lynx is already associated with light and not just keen–sighted. Like a jewel, those credited with extromission seem able to collect ambient light, condense it, and emit it in focused beams able to exert power over others. A membrane known as the *tapetum lucidum* reflects light back through the retina to increase visual sensitivity. Topologically, however, extromission is a topological conversion that results in a power of the reversed gaze *à la* Lacan's extimacy. See my treatment of this in Don Kunze, "Secondary Virtuality, the Anamorphosis of Projective Geometry," *Architecture and Culture* 8, 3-4, (2020): 667–680, DOI: 10.1080/20507828.2020.1802195.

Postulate persuades us that these lines never "really" coincide, thanks to the trick of *extending reason* rather than vision. Here, Euclid plays the role of Chico Marx in *Duck Soup* (1933) when he asks Margaret Dumont, who thinks she has just seen him leave, "Who are you going to believe … me our your own eyes?" The virtuality of effectiveness sees the hidden, sees what has been concealed. It is a kind of x-ray vision, an extromission that penetrates the convention that asks us avert our eyes from things that are none of our business.

In this green–laser penetration of the convention of the fourth wall buffering the Minister's private correspondence as "none of our business," Dupin *locates* the letter invisible to everyone "who *knew* what they were looking for" (and, hence, could not see what this knowledge told them not to see). Dupin's logic is a variation on the theme of *kenosis*, knowing without knowing you know. He is able to see the letter because, extromissively, he understands that there is a visual version of *kenosis*. He sees what he should not see, he accesses a "visual unconscious." Dupin's "kenotic" vision retools the passivity of normal vision and gives away the secret of that secondary virtuality that has concealed the letter.

The original letter and the disguised letter were complementary. The seal of one, large and black, was on the other, small and red (did the green eyeglasses convert this to black?), the address of one was diminutive and feminine, on the other "bold and decided." Limits were exaggerated: the corners of the letter were "more chafed than seemed necessary." But, the real tell was that the letter had been turned inside–out. Poe's previous references to chirality culminate in this final (Lacanian/Vichian) act of *extimacy*. The reversal does not change but rather *confirms the identity* of the letter, as a *hapax*, or unique object, visible only within the secondary virtuality which Dupin can penetrate thanks to his green eyeglasses.

Vico's purloined letter, the lipogram helmet of Hermes, also invited the green-eyed reader to flip the image, to reveal that the image was, in fact, chiral (left– and right–handed). It is the right–handed version that seems to appear before us, in dark ink. But, it is an engraving. The images and signatures, we know, had to be made in reverse. The *idea* of reversal however is key to the meaning of the image, just as "The Purloined Letter" proves the validity of the lipogram with an origami action. Vico proves the validity of the *dipintura* as the emblem of his *New Science* by first revealing the *recto* to be, in fact, a *verso* (Fig. 11). If we skip past the trivial idea that any print is a reversal of an original plate, we face the more obvious clue of the celestial sphere, whose "outside" we see as the contents of the frame. The visible contents of the frontispiece are in a zone beyond the spherical cut between the visible human world (on the *inside* of the sphere) and the Empyrean.
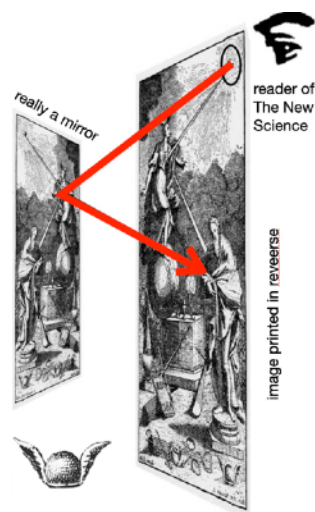
Figure 11. The *dipintura* is a "room with two holes," one being the divine eye that is taken up by the reader as he/she understands history as an obverse.

Although Vico describes the scene as the first clearing made by cyclopean cultures in their occlusive forests, in order to measure the divine semiotics of the heavens, this heaven has been turned inside out on the sphere perched at the edge of the altar. Geometrically, everything visible lies on a stage whose fourth wall is the celestial sphere, whose audience is actually on the interior (Fig. 12). Yet, this left–handed space has a hole that, like the hole of Lacan's torus (where demand circles around desire), allows us to convert an ordinary three–dimensional figure into a two–dimensional surface. We lose a

Figure 12. Detail, Giambattista Vico's *dipintura*, the celestial sphere, indicating that we are in the space beyond the mundane.

dimension. We put on green eyeglasses. We gain extromissive powers. We are able to penetrate this "fourth wall." We are, *aut deus aut dæmon*, able to see what others see but do not see, the visual kenotic that is the secondary virtuality of effectiveness.

This is not so difficult to unpack if we allow the idea that the reversed image we see, that has been literally reversed by the normal process of printing, is reversed in an even more literal way. If we are looking at, not an image on paper but a mirror of the image pasted on the reverse of the board where we find our peeping–place, we are duplicating what we know to have actually taken place anyway, but we have constructed a new space to parse the relationships of this visual kenosis. Imagine a viewing box where the observer looks through a hole at the upper left of a blank board. On the other side of the board is printed an image, in reverse. The viewer's eye become the divine eye when the image is seen reflected by a mirror opposite this board. Such a viewing box is easy to make; I have made one. The effect reproduces the effect of the printed *dipintura*, but in a way that parses out the separate spaces implied by inside-out action of the celestial sphere. The viewing hole, opposite the helmet of Hermes, conforms with Vico's main premise, that the religions of the first humans were self–invented, that the idea of Jove condensed and transferred their own human nature to a point antipodal and as distant from objective appearance as their own nature was internally inaccessible to their first human consciousness. The "line of sight" in Vico's theory is a projective line: a line with a point, and a point that is a part of antipodal pairs, where an advance toward one point is simultaneously an advance toward the other — the doubly-pointed arrow of Eros in the story of Daphne and Apollo (Lacan, Seminar VII, *Ethics and Psychoanalysis*).

The "lesson" in this chiralistic interpretation of Vico's *dipintura*, evidence not made available to architectural audiences thanks to the exclusive reliance on the abridged edition of *The New Science*, is that the metaphoric genius/*gens* of the Imaginative Universal — its generative originality — lies in its secondary virtuality, a matter that can be addressed only in terms of projective geometry. The loss to architecture theory is clear, in my view. Without an understanding of secondary virtuality, there can be no idea of architecture that is not contaminated by issues of the shelter, whose function of concealment has been overlooked.

The uncanny contronymics of shelter — that it conceals *what ought not to have been concealed* (proved by the etymology of the uncanny) — reveals that architecture is *logically* prior to building, although it is encountered only with building, which seems to appear historically first. What we know of architecture's logical primacy necessarily is discovered retroactively. But, discovery is not a matter of simple reversal, simply inverting the terms of building. This is the attempt to explain Hestia and Hermes as a simple binary standing for the distinction between internal and external space. Space is not a binary. Space is not turned inside–out. Space is itself the *con-vert-ibility* of inside/outside. *The cut itself is this convertibility*, with the resulting divided regions still twinned (Fig. 12). Just as Eros has shot Apollo with love and Daphne with hate, inside and outside have been negated twice, once in differentiation, again in cross-inscription. The resistant outside of the inside is the hearth; the equally resistant inside of the outside is the Herm. Yes, Hestia "rules" interior space but she rules "the part that is not a part," the point at which exterior is sutured

to interiority in such a way that laws may evolve from it. Hestia presides over the auspices that, in familial religion, cyclopean judgements are as particular as the circumstances that call for resolution. No detail of procedure can be altered, each action must be a repetition. The most intimate act of the domestic household at the cyclopean stage is radically objective.

At the same time, each objective act in the open landscape demands an intimacy, a subjectivity. This is evident in the surviving practices of Australian Aboriginals, whose walkabouts restore Being to the landscape through a combination of liminal (testing) passage and "magical singing."[44] These are not counter–examples but mirror components of a single "dual," each logically necessitated by the other. Just as Ernst Jentsch's twinned aspects of the uncanny inscribed death into life and life into death, L_D/D_L, inside and outside are cross–inscribed so that each has an enigmatic value that curves space into itself, self-intersecting and non-orientable: the definition of 2-d projective topologies.

The Klein bottle gives us a trick by which the torus, seemingly a 3-d object that we know we can inflate (the bicycle tire) or stuff (the cream-filled donut), can be converted into a 2-d single surface. The result is a cross-cap, a sphere pinched to create a seam that is invisible to the ant crawling from "inside" to "outside" (whose difference the ant cannot experience). Only the theorist can see the cut. The ant experiences nothing, but the sexuated being would be aware of an erotic rim or aureole. The cut appears and disappears as we move between the experiential and theoretical views. *This oscillation is our subjectivity*. Theory, based on self–awareness, is the other side of our being "duped" by the cut. This move between apparent opposites *is* the pulsion, the drive, the extimacy of subjectivity that continually splits, inverts, reverses, and sublates. Signifiers *to* signifieds, signifieds into other signifiers; viewers to the viewed, the viewed to viewers; landscapes into subjects, subjects into landscapes.[45]

This is everything. Not the claim to have said everything but the assertion that the *span*, the idea of a 1:1 "meroic" correspondence, a "bi-univocal concordance," a primal/Adamic way of speaking, actually exists. But, in what form? The question provides an answer: only in *form*, what Cassirer indicated by the expression *Philosophie der symbolischen Formen*, meaning that the Symbolic ultimate ends with (and aims for) a "psychotic" breakdown (Vico's *ricorso*) about which we may only adopt a "philosophic" (= theoretic) position. We require theory to see the cut that the subject, as an ant crawling across a continuous 2-d surface, cannot see. We, as ant–subjects trapped within the topology of projective surfaces experience our subjectivity as a freedom without limits (unending contingency) but, paradoxically, finite. Whether this finitude is regarded as perceptual (not being able to find the Purloined Letter) or mortal (hence, the uncanny dyadic alternatives of "between the two deaths" to access the Symbolic's psychotic terminus or the conversion of inside/outside, away/toward, good/evil in the process we call life), finitude is the bar across the S, $\$$, that Lacan gives as the *matheme* of the subject. We are reminded of both the dual and the S with

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[44] Bruce Chatwin's *Songlines* (1987) is a semi-fictionalized account of this surviving ancient practice.

[45] Pulsion is not an abstract theoretical idea but the basis of art's dialectic of innocence and experience, with the comic version of the fool and wisdom, evident in Mozart's contrast of Papageno and Pamino in *The Magic Flute,* and the tragic version of pride and justice/revenge, as when Œdipus discovers the truth of prophecy in the meroic vengeance where two orders of reality merge in bi-univocal concordance, available in art but not in speaking, and available in art *because* it is not permitted in language. This illustrates the difference between *palintonic harmoniē*, concord, and *palintropic harmoniē*, the (Hegelian) dynamic whereby meaning and meaningfulness are metaphorically distinguished. This of course is the function and meaning of metaphor, *condordia discors.* Cf. Pérez-Gómez, *Attunement*, 37ff.

Figure 13. A German–American *fraktur* image of Adam and Eve.

the bar in images of Adam and Eve beside the tree (bar/cut) entwined by the S-ing serpent offering Eve the *choice* to accept the gift of desire that will lead, most immediately, to the couple's desire to *conceal* what *ought not to be revealed*, the literal meaning of "pudentum" (Fig. 13). The uncanny involves shame, shame involves concealment, concealment is convertible with shelter. Building has no way out in the case of concealment. It's historical priority reveals a logical priority that makes it, in fact, secondary, i. e. an effect rather than a cause. The logical priority is architecture, architecture is the "virtuality of effectiveness" that appears second but is existentially first.

How would architecture theory explain why Vico reveals that his Science works in reverse? Instead of trying to find a single cause that has multiple effects, Vico says he tries the opposite, the overdetermination of as many causes as possible for any single "effect." This is a truly polysemic method, but it works in reverse. Theory is not allowed to detach itself from the situations it frames as "theoretical." It is subject to the laws it discovers, while accepting the unavoidable circularity/tautology that would undermine traditional theory fatally.[46]

How would architecture theory decry Einstein's "revolutionary" melding of time and space within a non-Euclidean framework (as leaving behind the humanistic comfort of Euclidean space) when, in the "pre-Euclidean" projectivity of myth, ritual, and the uncanny there is the same melding? Einstein and other physicists did not suddenly convert the world with a new idea of space and time, they *returned* to an older view, evident from the first in Vico's Imaginative Universal, when equal but opposite antipodal vanishing points, objective and subjective, sever the traumatic thunder from its accompanying anxiety so that this anxiety must be settled, compulsively and repetitively, through idempotent procedures of divination. Is this not the same principle, that a line is a line and a point and the point is itself and a mirror twin at an

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[46] The interpretation of the German term *Stimmung* as "harmony" has, in some architectural studies, emphasized *palintonos harmoniē*, the permanent overcoming of discord. Yet, *Stimmung* retains the idea of Heraclitus's *palintropos harmoniē*, the term with actual roots in architecture (the construction of joints connecting different materials). Elena Buti writes: The original meaning of the term *palintropos harmonie* as used by Homer and Herodotus is something that joins or fits together. It could be used in a technical sense to indicate a work of carpentry but also in a figurative sense to indicate agreements between hostile men and finally, in a musical sense to indicate the harmonious sound produced when different strings play together ([C. H.] Kahn [*The Art and Thought of Heraclitus*, Cambridge University Press], p. 196). Interestingly, these three levels of understanding the term *harmonie* correlate with three very different aspects of reality: the material, the human and the artistic. In choosing this particular term Heraclitus seems to suggest that this harmony has a wide range. It is not limited to humankind but extends to the whole of reality. This generalization is further reinforced by the use in the Greek text of the neuter pronoun for 'itself' …." Elena Buti, "A Comparison between Heraclitus' *Logos* and Lao-Tzu's *Tao*," *nLAB*, https://ncatlab.org/nlab/files/Butti13.pdf. The musical idea of the tempered scale, a development in the transition from harpsichord tuning to forte piano tuning, is to set each string slightly out of pitch. Curiously, the idea of tempering carries over to theories of sexuation, where Lacan, most famously in his dictum, that "there is no such thing as the sexual relationship," is not to deny that subjects have sex with each other but to emphasize the difference imposed by the very same Symbolic that supplies the fantasies of unity. See also Leo Spitzer, "Classical and Christian Ideas of World Harmony: Prolegomena to an Interpretation of the word 'Stimmung'," Part I, *Traditio* 2 (1944): 409–464.

opposite infinity? This principle gave rise to humanity; it did not destroy it. By misconstruing the relation between projective geometry and metaphor and, instead, subordinating it to "normal communication," architecture theory will have lost all access to reality because it has lost this "basis phenomenon."

Concealment as a Fourth Wall

It is not only possible but necessary to regard Lacan's/Vico's theories of metaphor as something operating both *in* culture and subjectivity and in theory *about* culture and subjectivity. Concealment may be illustrated through a collation of different examples, but it cannot be understood theoretically through them, as engaging and illuminating as they might be. We need a *theory* of concealment, a theory that shows how (in my view) concealment is essential to any idea of what architecture is and how it works. I have given a prolegomena to such a theory by suggesting how topology and metaphor connect. I have shown how contemporary architecture theory has, in putting all of its metaphorical "chips" on Paul Ricoeur, accepted Ricoeur's specific avoidance of Vico's and Lacan's distinctive (and historically effective) theories of metaphor. And, by cashing in its topological chips early on by rejecting Girard Desargues's revival of Pappus's theorems, architecture theory has missed out on what modern artist so often saw: that perspective and topology are intimately related; that the former's pictures of incompleteness mesh perfectly with the latter's necessary origami folds.

Also, I have shown that, by voluntarily severing Vico's theory of metaphor from the evidence clearly accessible of his topological investments (by using an abridged edition, without graphic front materials, of *The New Science* as an exclusive source), there can be only a distorted idea of Vico's central discovery, the Imaginative Universality, that itself is simultaneously poetic–metaphoric and a true (= self–correcting) science.[47] Because Vico does away with radical historicism, he incorporates the idea of crisis within human actions at all scales. Mythic thinking is taken up within Heroic thinking's sublation of it, just as Heroic thinking is taken up within the Modern. The layers are not archaeological but active. The "form" of the symbolic is that the symbolic *is* form.

Architecture has from the start and will continue to return to the problem of enclosure. The problem is that the closed line drawn to separate an inside from an outside (the "Jordan Curve") is always drawn on a closed curved surface. What is inside and outside, no matter how great the quantitative contrast between the two areas, is topologically indeterminate, a matter of convention. Thus, whatever secures enclosure, such as the key that opens the door, will be forever radically contronymic. It will simultaneously open and close a door that will simultaneously be locked and unlocked. Thanks to the 2-d impossibility of disconnection and the 3-d affordance of it, any *cut* will be alternately real and unreal, effective and

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[47] On its own terms and with many technical limitations, ancient science nonetheless accomplished many things valued by modern science, particularly in the field of astronomy. Assyrian culture blended astronomy and astrology to such a high degree that no decision, no momentary action, would be considered without sidereal consideration. And, it goes without saying that the Mayans, who calculated precisely the solar system's cycles to the extent of calculating accurately the 5,126–year–long cycle of the "Mesoamarican Long Count," the ending of which, on December 2012, was thought to initiate a new era. The Mayans did this without telescopes or space probes. Rather, they used shadows cast and alignments observed from the profiles of pyramids and observatories.

Figure 14. Ovid's story of Apollo and Daphne teaches the principle of projective geometry, that as soon as Daphne wishes to flee, she constructs a 2-d self-intersecting, non-orienting trap.

ineffective. The torus is simultaneously deflatable (the flat bicycle tire) and un-inflatable (the torus cut by the Möbius band).[48]

Any understanding of "architecture itself" depends on an understanding of "space itself." Euclid supports the idea of space as a container, a stable ground against which figures (shapes, persons, objects, lights and shadows, etc.) freely move about or find momentary rest. Projective geometry, in its *pre*-Euclidean uncanny, violates the figure–ground stability of such a space through metaphoric "devices" known to all literatures: the double, travel through time, the story in the story, and the contamination of "reality" by the dream or work of art. In each case there is a stable figure–ground condition, and prohibitions against violating its rules. Then, in "chapter 2," the hero makes things interesting by accidentally or intentionally transgressing those rules. The plot thickens when the unforeseen consequences of these transgressions accrue. "The story," the most durable cultural structure in human history, is essentially the subtraction of a dimension to produce what Lacan called a "surface of pain."[49] Using Ovid's version of the story of Apollo and Daphne (Fig. 14), we see how the nymph constructs her spatial trap *as soon as she desires to escape*. Her fate is idempotency (the immobility of a tree, complement of the running around in all directions on the 2-d surface), but the theoretical insight is that her body and the tree establish a "meroic" indexicality: branches for arms, leaves for fingers, trunk for trunk, roots for feet. The meroic Daphne is perpetually out of reach of Apollo's bi-univocal desire to meld with his beloved. So it is for all such desire, Aristophanes notwithstanding.

Lacan does not give the background to this *askesis* chapter of the story. (Architecture is, essentially, about flight, *askesis*, and the solution of asylum.) The backstory is, to Daphne's *askesis* what theory is to Architecture's desire for sheltering containment.

Apollo is having a bit of fun with the younger god, Eros. He chides him for his poor archery skills. "Why is it that you're always shooting the wrong people with those arrows of yours?" Apollo asks. You aim at the right lover but hit the wrong one; love is nothing but a succession of disasters thanks to your inability to ever hit the right target!" Eros is understandably a bit offended. To get back at Apollo he decides to compound, not contradict, the sun-god's characterization. Some say he shot two arrows, one of love into Apollo, another of hate into Daphne. Others, emphasizing the economy of this symmetry, suggest

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[48] This is why, perhaps, Lacan described demand as a repetition spiraling around a torus's surface, curved by the interior void of desire, which both exists and doesn't exist. *Any* repetition (the idempotentiality of communication to an Other) is toroid, in that it creates its own self-intersecting (circular, self-referencing) system while creating difference through the construct of opposition (non-orientation). Demand and desire are not abstract concepts but, as topologies, *necessary conjunctions*. The human world is afforded by this subtraction of a dimension (from 3-d space) to discover the necessity of the Real, within 2-d relations. Theory sees what experience suppresses. The human subject is the vanishing/appearing cut between idempotency, —, and the subjective wave function, ᔕ. In other words, the human subject is the cut, expanded into the functional buffer.

[49] Jacques Lacan, *The Ethics of Psychoanalysis*, Seminar VII, trans. Dennis Porter (W. W. Norton & Co., 1992).

one arrow with two points, shot into Apollo and Daphne simultaneously. This would make Eros's arrow into a projective line, a line with two vanishing points, or "objectives."

Whether or not Lacan knew of this backstory, he was aware of the topological consequences — the creation of a trap out of the desire to escape — as well as the semiological result, the bi-univocal concordance of Daphne's body with the form of the tree. Form is meroic/indexical, language is forever failing this ideal. "Tree" replaces "Daphne" as any signifier replaces another in the process of metaphor, but in the process it obviates the adjacency logic of metonymy: Daphne cannot move, she can only be transformed.

This is a story about love, an architecture of love, a love that is simultaneously a building, an idempotency (= *firmitas*, written into every contract), a story that binds architecture to love's contronymic topology. Why is this story about non-orientation (the love-hate arrow) and self-intersection (the trap of space that is the 2-d topology of Daphne's *askesis*) important?

The truth of Daphne's fate and Apollo's misfortune is unlocked with the key of projective geometry, which offers a *form* rather than an analogy. Theory sees the form that the actors and agencies of myth do not, hence their instructive predicaments. On the level of culture, myths such as Daphne and Apollo's provide wonder, suspense, or possibly literalistic warnings ("Do not taunt the god of love unless you are ready for the consequences!"). But, we know from the *quadrigia* of interpretation that leads from such moralizing to the higher interpretive reaches of analogy, allegory, and anagogy, that the summit of comprehension allows, unlike the previous three stages, for contradiction, inversion, and incompleteness, whether structural (anacoluthon; polythesis) or intentional (aposiopesis).[50] In anagogy, all bets are off with respect to attempts to index one condition or thing to another, the basis of typical definitions of metaphor as "analogy with a missing element." Where Perelman argued that metaphor followed the structure of analogy, Lacan corrected him. "There are, as it were, four terms in metaphor, but their heterogeneity involves a dividing line — three against one — and is tantamount to the dividing line between the signifier and the signified."[51] This line signifies a relation, namely the act of defining one term (signifier) by another (signified). But, because the signified is also a signifier, the process involves a chain of replacements: S_1, S_2, S_3, S_4, … S_n. Jacques-Alain Miller has noted that the subject, $, is a barred signifier, $S + /$, a signifier that internalizes or identifies with the very act of replacement (i. e. metaphor).[52] The subject fills in the gaps in the signifying chain: S_1, S_2, S_3, S_4 … [$] … S_{n-3}, S_{n-2}, S_{n-1}, S_n, which is to say that the subject identifies with the void, the missing signifier, what Lacan would call the Real that represents the lack or excess in

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[50] A polythetic set is one that allows for absence and displacement in an otherwise orderly array of data. In archaeology, where it has been employed, an artifact out of place leads to an "anacoluthon effect" of ungrammaticality. Missing artifacts are comparable to the rhetorical figure of aposiopesis, the abrupt termination of a sentence or speech, a common technique in the enthymeme, the transference of the role of concluding to the audience. See David L. Clarke, *Analytical Archaeology (*London: Methuen, 1968).

[51] Jacques Lacan, "Appendix II: Metaphor of the Subject," *Écrits: The First Complete Translation in English*, trans. Bruce Fink (New York and London: W. W. Norton & Co., 2006), 256.

[52] Jacques-Alain Miller, "To Interpret the Cause: From Freud to Lacan," *Newsletter of the Freudian Field* 3, ½, Lacan on Science and Truth (Spring/Fall 1989): 20–50.

language that is occupied by, or the contents of, the Unconscious.[53] The subject is barred in the sense of being divided in two. As a part of the signifying chain, the subject is conscious, a signifier present in structures of other signifiers (another name for "culture").

Figure 15. Critically, both Holbein (1533) and Picasso (1907) recognized the role of anamorphosis in relation to twinned voids planted in their "meta-paintings." A third could have been added: Velásquez's *Las Meninas*, with its mirror and reversed canvas. When such disparate and historically dispersed works of art recognize the essential projective geometry features of non-orientation and self-intersection, why is architecture theory so keen to reject them? And, why has the cover terms of "anamorphosis" and "the uncanny" been given such restricted provenance?

As the part of the chain that is perforce "not a part," the subject's Unconscious Mr. Hyde (hah hah! — a fortunate pun!) in combination with consciousness's socially presentable Dr. Jekyll (the trickster, the dissimulating subject), the subject is primordially feminine, in Lacan's definition of the feminine position as "not–all" (*pas tout*).[54]

One Room, Two Holes

The topology of metaphor and metaphor's ability to convert the supposed 1:1 indexicality of Adamic speech into a polythetic span combine to construct the *form*–basis of architecture. … this is about meaningfulness rather than meanings *per se*.

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[53] The notation of the chain of signifiers has the fortunate but accidental benefit of showing how the barred subject is barred precisely in the way the palindrome is barred, thanks to the finitude (the n-value) of the chain which has us counting forward while at the same time counting backward. The $ represents the sliding of these two orders past each other: (in an abbreviated example) 1/5, 2/4, 3/3. 4/2, 5/1. The sigma sum is a constant (6), suggesting that the barred subject is in fact a buffer against the Real value of the gap in the signifying chain, i.e. the traumatic void. This refers, although obliquely, to Lacan's emphasis on the unary trait as it is demonstrated in the Golden Number, Ø, whose value is that of a geometric palindrome, 1/1, 1/2, 2/3, 3/5 …. Although the numerator and denominator series do not run palindromically in opposite directions, the 1/1 unit square of the ratio is geometrically matched by a rectangle that is smaller, <, and one that is larger, >. As a paradigm for growth and packing, the Ø embodies the ⇌ of the contronym, the meaningfulness of such primal terms as *sacra* (both revered and reviled), *altuus* (both high and low), and *hostes* (both friendly and hostile). As Freud argued in "The Antithetical Meaning of Primal Terms" (1910), mythic (Vico: metaphoric) thought suspends the distributive power of negation that would polarize key words. Extended to the role of $ in the signifying chain, where a void is replaced by the signifying subject, S, the bar, /, converts to an insulating function between the sober Symbolic and the drunken Real in Lacan's RSI system. The subject's idempotency function is tied up with its concern for identity — what makes any living subject "the same subject" from day to day, year to year, place to place.

[54] Where the masculine "position" is "All who wish to call themselves men obey the phallic law, ø, as long as there is *at least one* who does not obey this law." The *matheme* for this position is ∀xøx : ∃x¬øx, using ":" for "as long as." The feminine position is "Not all of any one who wishes to call herself woman obeys the phallic law (¬∀øx), and there are no exceptions (¬∃x¬øx). The pattern of affirmative and negatives give away a secret. The ++, +−, −+, and −− form a tetragram used by Lewis Carroll in his *Symbolic Logic* (London, 1987). Carroll used the tetragram in his theory of sorites: a collection of seemingly random statements (Lacan: the blahblahblah of daily discourse) that in fact has disarrayed predicated/predicating pairs, with a *singular* pair remainder that corresponds to Lacan's barred subject, $. In George Spencer-Brown's adaptation of Carroll's sorites to his non-numerical calculus (Lacan suggested an identical logical notation using parenthesis in Seminar XIII, *The Object of Psychoanalysis*), the $ is put in the form of (unconscious)conscious, conscious symptoms refer, according to a *form* that is metaphoric, to the Symbolic of the Unconscious, where polythetic order establishes an even more ruthless schema of over-determination. See D. Kunze, "Overdetermination and the Astonishment of the Virtual Real," *Academia*, https://www.academia.edu/43816852/ Overdetermination_and_the_Astonishment_of_the_Virtual_Real.

This is not concealment of meaning by means of an enclosing wall, or a coded meaning to be unlocked by a cipher. Architecture's enclosure has a void in it, tended by a cyclopean respect for the virtuality of effectiveness that, as a binary, allows the dead to see but forbids the living stranger the same privilege. This "room with a hole in it" is the very definition of anamorphosis that Holbein used to paint *The Ambassadors* in 1533. The technical fact that the hole is antipodal, and thus the room has two voids, was noted by Picasso's *Desmoiselles d'Avignon*, painted in 1907 (Fig. 15). Thanks to the fact that there is no looking without an observer and, hence, no view without the viewed looking back (a point that Foucault could never grasp, even when, in his analysis of the Panopticon, it was critical), every sense interaction of a subject with a world is not binary but topological, and theory's access to this topology makes metaphor's function as a *cut* visible, although it is invisible and necessarily transparent to the subject.

Contemporary architecture theory will find this difficult to swallow, or possibly preposterous. These views sit uncomfortably, even in the Freudian–Lacanian field from where they were derived. It is necessary for theory to be uncomfortable, provocative, experimental, and at time preposterous. This is the technique mathematicians use on a regular basis when a problem proves to be so difficult that an "ersatz" solution must be put forward to, at the very least, restructure it. Error data is, at least, data. The theorist should not aim to stifle his/her audience's thinking by presenting an air-tight case. Rather, the point of theory's demonstrations is a relation to monsters, *de monstrare*, a warning about the consequences of understanding *versus* misconstruing. As the verger of the temple of Cronos warned in the story about the Table of Cebes, the image at the back to the temple we so desperately want to see will drive us crazy or make us eternally wise. Truth is the aim of thought, and thought is thought only when it is in motion. Truth is not a collection of truths. It's resemblance to the Tower of Babel is literally uncanny. It is wisdom that fears the pilgrim able to span heaven and earth, God who fears theory. The *mons delectus*, in giving us a choice of how to climb, fears should we discover the discarded detail, the gap, the cut, the backstory about the double-tipped arrow. It fears that, in pausing, we realize the concordance between up and down, inside and outside, good and evil. *Aut deus aut demon*, we convert *aut* to *tum deus et demon*. The / is necessary because "if you and I agree, then one of us is unnecessary."

The *aut … aut* construction is present in theory itself, because it is present in the barred subject itself. The harmonized subject is the subject harmonized *by and for* the bar dividing —/∿, the subject's idempotency (the buffer maintaining *idem*, identity, *semblance*) and simultaneous *aphanisis*, fading out and emerging. Proof of this overly theoretical–sounding claim is that, as abstract as it may sound, it is the basis of everyday contents of popular culture, trans-subjective interaction, and informal relationships. Without the universal currency of the palintropic harmoniē of —/∿, there simply would be no human thought, life, or being. We cannot "will away" the strife that Heraclitus claimed was the basis of the river's "being" as a river, its identity.

Nor would we want to. Not only would a river you could step into twice "not be much of a river," life would not be life with the *terminus ad quem* of death, a matter Lacan put in his restitution of the Freudian idea of the death drive but which Heidegger had already reinstated with the idea of Being *toward* death. As Simon Critchley emphasized, "being is time and time is finite."[55] Lacan put this in terms of the finitude of

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[55] Simon Crichley, "Being and Time, Part 6: Death," *The Guardian* (July 13, 2009) https://www.theguardian.com/commentisfree/belief/2009/jul/13/heidegger-being-time. Crichley has collaborated with Jamieson Webster, the Lacanian psychoanalyst, in *The Hamlet Doctrine: Knowing Too Much, Doing Nothing* (2013).

the projective surface. As Newton and Leibniz's debates "concluded," space is both finite and unbounded. Newton was correct to argue, on gravitational grounds, that the universe could not go on for ever and ever; Leibniz was correct on topological grounds that it could not ever offer up a terminal edge — beyond which would be … what? It is impossible to theorize time, or death (mortality), or being (the human subject) without reference to projective geometry, discovered after Euclid but found to be logically prior to Euclid. Architecture phenomenology's outright rejection of this historically and philosophically demonstrable relation has created an impasse beyond which theoretical progress is impossible.

My formula of architecture = meaningful*ness* (*contra* "meanings") = topology + metaphor = a room with two holes is simplistic. My attempt to rescue Vico and Lacan from their fate at the hands of architecture theory, which would convert the former to a phenomenologist/hermeneuticist and the latter into an irrelevant obscurantist would prefer to be positive rather than negative, but architecture's view has been unfairly tilted by incomplete texts and misleading (mis-)representations. Although it is likely that these by far more popular presentations will continue to dominate, a "minority opinion" must be put forward to offer the independent reader a minimal warning, on behalf of the well-deserved reputations of the scholars who struggled to discover and argue the difficult truths of human subjectivity.

I am not advising any architecture theorist to risk their career by writing, demonstratively and correctly, about the work of Lacan or Vico. There are hardly any good scholars in architecture's academia who have not met the reviewer who, unfamiliar with a source, nonetheless claims critical mastery. But, the problem is even worse when, among Lacanians, there is minimal interest to say nothing of expertise in Vico, and among Vichians, even less concern about Lacan.[56] Any would–be architecture theorist's enthusiasm about finding and applying the important connection between these two thinkers would be, career–wise, unadvisable to say the least.

Here is my argument for a thinker of any type who is interested in the questions of human subjectivity to walk through this mine–field. First, is the advice given to Claude Lévi-Strauss by one of his study subjects, a member of an Amazonian tribe who, when the anthropologist asked him about the stories they told about totem animals, the informant told him the animals were not good to eat but good to think.[57] The Vichian–Lacanian develops theory not to make a living but, rather, because he/she wants to think clearly. For the second reason, I must re-tell a joke made famous by Slavoj Žižek. A Russian Jew wanting to emigrate goes for the required interview for an exit visa. The official asks him, "So, why is it you want to leave Russia?" The Jew replies, "I have two reasons. First, I am afraid that when the USSR dissolves, the protections the Soviet government now offers the Jews may one day disappear and I will again be threatened by anti-Semitism." "—But," the official responds in surprise, "the Soviet Union will never disappear!" "—That's my second reason," the Jew replies. My first reason assumes that architecture theory is on its way out already. True, there are courageous theorists working, under fire, in many locations, but the general movement is to subordinate theory to (so-called) practice. In reality, schools have been funded

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56 The exception is Timothy Harfield, whose dissertation advisor (like mine) was Donald Verene, the well–known and extensively published Vico/Cassirer scholar. The aim is not to find other scholars to agree with but, rather, other scholars with whom disagreeing would be productive. Thanks to Lacan's interest in Joyce, there is hope for a common basis. *Finnegans Wake* is the child of a genius throughly steeped in Vico, but whose psychosis–as–genius belongs to Lacanian theory. See Jacques Lacan, *The Sinthome*, Seminar XXIII, trans. A. R. Price (Cambridge, UK: Polity, 2016).

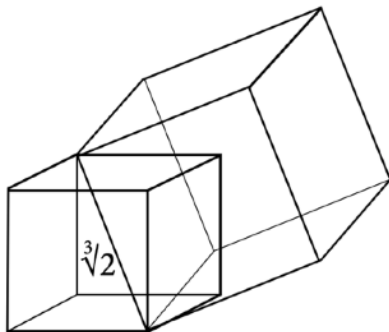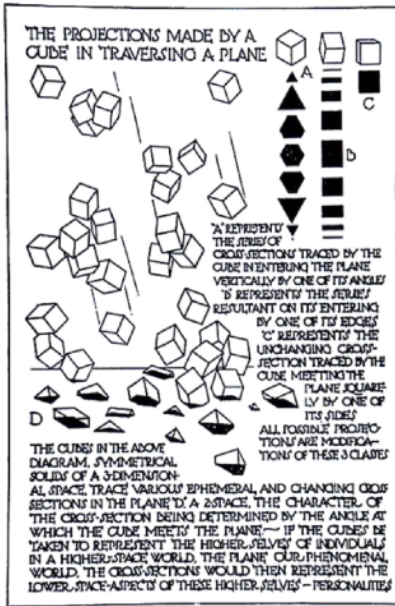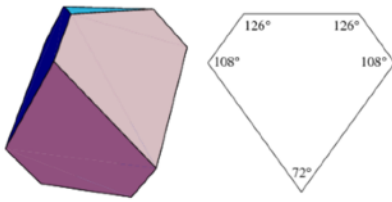57 Paul Broussac, *Encyclopedia of Semiotics* (London, UK: Oxford, 2007).

Figure 16. Dürer's solid, Claude Bragdon's hypercube, and the Delian paradox share a similar logic of projective *pre*-Euclidean space, plus references to the number 9. Nothing new here.

by corporations to take up ever–larger educational tasks so that newly hired workers will have all the necessary entry–skills they need to work at high efficiency from the first day. The idea of internship, learning through job experience, is obsolete. Schools are now responsible for streamlining their programs so that there are no technical or, God forbid, ideological resistances to job efficiency. Corporate practice is the equivalent to the joke's USSR. It has pretended to support "thoughtfulness" in architecture design but in reality is opposed to it as far as its workers are concerned. The theorist is the Jew who realizes that the situation is bad, but that it could be worse. It's time to "get out," not a realistic option for those whose incomes are based on university jobs where "scholarship" has increasingly come to be defined as "problem solving."

The human subject is not a problem to be solved, but theorizing about the human subject has always been problematic. Since the pre-Socratics, this was put in terms of the nature of nature; but Plato aptly observed that "what we talk about when we talk about nature" is not nature, it's about subjectivity. And, it was also Plato who focused this problematic on the issue of self-intersection and geometry, not of the sphere as a solid shape but the sphere as a surface into which a number of perfect (Platonic) solids might be inscribed (*Timaeus*). Dürer's solid (*Melencolia §I*), a truncated triangular trapezohedron whose angles are all Σ=9, carries the idea of inscription past the Platonic sphere. Although Plato's sphere was a surface rather than a solid, the role of projectivity was not evident. With Dürer's solid, immersion is the key. The truncation occurs, as Claude Bragdon demonstrated with his idea of the hypercube as a falling (Fig. 16).

The falling cube is not dissimilar to the ancient "Delian Altar Paradox," when the sibyl advised Athenians that the plague would not end until they had doubled the size of the altar at Delos. Doubling the length of the sides (1x1x1 → 2x2x2) obviously would not work. The key lies in the "falling" of the cube inside itself, making the edge of the original into the diagonal of the new double-volume version. As with all problems involving a cube root, it cannot be solved using compass and straightedge. However, it can be solved, as all third–degree equations can be solved, through origami. Or, as the cube that falls through itself shows, rotating an object in space so that space itself rotates.

We are in two pandemics. One is the result of the contagious spread of Covid-19, the other is the fatal effect of psychology over psychoanalysis, analogy over metaphor, and Euclid over Pappus, Desargues,

Pascal, Gauss, Riemann, Klein, Möbius, etc. The authors of this conference on Architecture of Hiding are the heroic exception to the general trend.

Figure 17. Poster, Frank Capra, *Lost Horizon* (1938).

Concealment has led us to the uncanny, where Jentsch has shown us the significance of the contronym and cross-inscription. Freud's etymologies have not let us forget that the *Heim* is itself the (architectural) origin of this primal feature of subjectivity, and Vico has given us the blue–print of cyclopean home economics, truly (as Agamben argues) a "theological" economics of the room with two holes. As simplistic as it sounds, this modest summation provides something missing in current architecture theory in general, namely the opportunity to find, in ethnography, popular culture (films, comics, jokes, etc.), and in human occupancy taken in the largest sense, evidence that the line of evidence leading from concealment to the uncanny to contronymics and extimacy, to the home's interior and exterior voids is not just a theoretical construct but a "virtuality of effectiveness" that is — and *must be* — employed wherever subjectivity finds itself in a place, applying the rule that there is no place so familiar that it is completely secure and no place so alien that one cannot make some kind of home in it. This < > of architecture as security does not work, as the films tell us, by constructing a panic room. Nor, does it come as any surprise that Shangri-La exists in a hidden valley accessible only by a cleft in the rugged Himalayas. The title of Frank Capra's 1938 film, *Lost Horizon* (Fig. 17), could be adopted for architecture theory's slogan for re-grouping itself by reclaiming the horizon at infinity, with its antipodal vanishing points, as the new basis for the study of the void, anamorphosis, eros, metaphor, and extimacy. The point of finding a "naïve" informant in popular culture is exactly what Lacan thought of when he wondered what had come before the sudden emergence of anamorphic art in the Sixteenth Century. "What was anamorphosis before it was anamorphosis?"

The same question can take the form of "what were they thinking" when films such as Capra's *Lost Horizon* and Robert Wise's 1951 *The Day the Earth Stood Still* capture the full implications of extimacy (outer space to inner space; intromission to extromission; unconscious to conscious) with conceptualizations of the "/" between —/∿ as a geographical, architectural, and anatomical cut. How do these "naïve" projects applying metaphor and projective geometry "get it right," without (obviously) having any theoretical interests in or knowledge about these issues?

My answer would be that effective virtuality (what Žižek has already described as a "virtuality of reality" in contrast to "virtual reality") is really, truly "what makes things work."[58] Wherever a screenplay has to work, poetically and at the box office, effective virtuality is required. It is mastered not theoretically but practically, by observing how art works with audiences, how jokes are told correctly, how paintings involve the willing suspension of disbelief and an implicit recognition of the evil eye. As for architects who knowingly employ this "secondary" virtuality to supplement the first, illusory virtuality, we all have our favorite examples. Mine (the Soane Museum, Villa Maia, the "literary houses" in Iris Murdoch novels, my own house …) are no better than any others, except they are all personal, they all escape any attempt to

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[58] Ben Wright, dir., *Slavoj Žižek: The Reality of the Virtual*, 2003. Available online: https//zizek.uk/slavoj-zizek-thereality-of-the-virtual-2004/.

Figure 18. The mysterious demon of David Lynch's *Mulholland Drive*, "Mr. Roque," utters incomplete orders to his minions from behind double-plated glass.

explain or describe them, they are all like falling in love.

My advice to anyone willing to take up the study of metaphor–topology through what I think are the only theorists who advocate and elaborate this relationship, Lacan and Vico, will be to take each thinker separately. To study Vico, I recommend Lacan; to study Lacan, I recommend Vico. But, for a separate understanding of metaphor and topology, I have some insider tips. Dan Collins several short essays on Lacan's idea of metaphor are extremely helpful; Russell Grigg and Stephanie Swales have contributed important commentaries.[59] Lacan's topology interests, primarily but not exclusively laid out in Seminars IX (*Identity*, 1961–62) and XIII (*The Object of Psychoanalysis*, 1956–57), have been addressed in Elie Ragland's anthology *Topologically Speaking* (2004) and Will Greenshields' *Writing the Structures of the Subject: Lacan and Topology* (Palgrave Macmillan, 2017). However, it helps immensely to study projective geometry separately, to be familiar with the theorems of Pappus and Desargues, and to use available resources on YouTube to explore number theory, packing theory, and other problems formerly out of reach of the non-mathematical reader.

Lacan's style of writing and speaking "by halves" (*mi-dire*) was possibly copied from his early studies of the scandal of the Papin Sisters, Christina and Léa, who murdered the family that employed them as domestic servants in 1933. Lacan was interested in the speech the sisters used to talk to each other, what appeared to be a garbled concoction of incomplete sentences, invented terms, and private signs. The sisters' psychosis was a matter of their co-dependency, held together by this style of speaking. Lacan made an ethnographical connection to the way some tribal leaders in Africa and Asia still communicated to their subjects, never clearly but in a kind of shorthand captured vividly by David Lynch's "Mr. Roque," a crippled dwarf sequestered within a sealed chamber whose orders were intercom-ed to assistants in terse fragments (Fig. 18). Lacan's take–away was that theoretical communications are not literal-izable, but neither can they allow themselves to be "poetic." The shorthand alternative is the cipher, or "crytpograph/-gram," where the sender breaks off meaning in such a way that the receiver can use both the defects and broken edge to begin work on theory's "other side."[60] It is possible that Lacan embodied this broken edge aspect in the *mathemes* of discourse (Seminar XVII, *The Other Side of Psychoanalysis*), where the *objet petit a*, the "object–cause of desire," is sublated by the subject $ when in the position of being an agent (the discourse of the hysteric).

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[59] See Dan Collins, "Stealing Money from Offices," *Lacunæ* 16 (July 2018): 105–124; also Dan Collins, "On Metaphor," *(Re)turn: A Journal of Lacanian Studies* 6 (Spring, 2011): 149–157. Russell Grigg, "Metaphor and Metonymy," *Newsletter of the Freudian Field* 3, 1 & 2, (Spring/Fall 1989), https://return.jls.missouri.edu/NFFvol3no12/ NFFvol3no12_Russell_Grigg_Metaphor_and_Metonymy.pdf; Stephanie Swales, "Metaphor of the Subject," in Stijn Vanheule, Derek Hook, Calum Neill, *Reading Lacan's Écrits: From 'Signification of the Phallus' to 'Metaphor of the Subject'* (London: Routledge, 2018).

[60] Tom Cohen, *Hitchcock's Cryptonomies*, vol. 1, *Secret Agents* (Minneapolis, MN: University of Minnesota, 2005).

This suggests a kind of theorizing that emphasizes the "ersatz conjecture," already employed by mathematicians who face difficult problems. The conjecture itself provokes data and restructuring. Theory in turn takes responsibility for its intentional fiction, maximizing the role of aleatory encounters and juxtapositions. This procedure has historical antecedent in the "zairja," a computational device invented in the Eleventh Century by a collaboration of Jewish, Arabic, and Christian astronomer-astrologers who made a "backwards computer" that aspired to find, for any one effect, as many effects as possible.[61] The zairja is not so different from the strategies employed by John Cage, Georges Perec, or Francis Alÿs; or, for that matter, artists who, like Johan Sebastian Bach to James Joyce, have carried out projects of counterpoint, chiasmus, and combinatorials.

In sum, my advice to writers still interested in architecture theory as a span between metaphor and topology could be summed up:

1. Make a list.

2. Make a zairja.

3. Make a plan.

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[61] David Link, "Scrambling T-R-U-T-H Rotating Letters as a Material Form of Thought," Zielinski, Siegfried, Silvia Wagnermaier, and Gloria Custance, *Variantology: on Deep Time Relations of Arts, Sciences, and Technologies* (Köln: W. König, 2005), 215–266.