

1

The Second Parallax of the Heroic Traveler

Don Kunze

Up until now there has been a limited conception of the idea of parallax, which blocks any meaningful comparison of architecture to psychoanalysis. The standard view has been inventoried by reliable sources, Kojin Karatani and Slavoj Žižek.¹ Roughly, this is the idea that parallax is primarily the shift of the background behind a visible object that occurs with a shift in viewpoint. This applies to the different positions of the eyes of a single binocular viewer or the difference between viewers at different positions.

The optical definition quickly expands to accommodate the broader scope of the viewer's limitations. In Kant's pre-critical writings, for example, viewing subjects feel that others standing in their shoes *should* see the same thing, even though they know that this is impossible.² Conversely, anyone wishing to see something from others' points of view, to see what they see in the same way that they see it, with the same sensibilities, memories, etc., is unattainable. The assertiveness of the demand that others *should* see the same thing gives over to the humiliating resignation, that this is impossible. Only discourse and its semblances,³ coupled with beliefs about spatial and temporal orderliness can overcome the human subject's parallax isolation, but even these assurances fail when put to the test.⁴

If we cannot move past this fundamentally Euclidean failure, we will never be able to see parallax as anything other than a limit, for theory as well as appearance. If however it is possible

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to move beyond Kant's transcendental aesthetic, we could possibly re-situate parallax within a topology able to deal with the "curvature of time."⁵

Mi Dire for Everyone

Some who attended Lacan's lectures, which began in 1952 and continued to 1980, thought he suffered from Wernicke's Aphasia, whose victims have the ability to construct full sentences, with proper expressions and correct grammar but which make no sense. Of course, there was nothing impaired about Lacan's thinking. He had taken the general principle of his teaching down to the most material level of his relation to his audience, a highly crafted presentation one could call, without exaggerating, performance art, a style aimed at conveying a letter, a literacy.

If the difference between *phasis*, style, and *lexis*, letter/literacy is, as Lacan argued, a matter of two circuits, two "dials" that overlap and rotate against each other, there is one that corresponds both to illiteracy and a return to a foundation.⁶ Lacan imposes, on all who profess, this negative category, "[a] negative space ... as essential correlative for the definition of universality ... something that is profoundly hidden at the level of the primitive *lexis*."⁷ Is this the curvature of time, which has theory itself reveal its inner retroactive character, a flatness that zeroes out the letter to the litter-al? Lacan's famous *mi dire* model of teaching, which some have said was inspired by his early encounter with the private babble of the Pepin sisters, who had murdered their employers in 1933, involved in dividing knowledge by a line that one could compare to the "unary line" corresponding to the unary trait, a line that could be demonstrated in the figure of the double torus, the tube of each torus occupying fully the central hole of the other.⁸

If babble is also, in the Biblical sense, Babel, or the Sumerian sense, Bab'ilu (Gate of God), then this combination of chiral toruses is the "sphere with the handle on it" that Lacan described in his conversion of the global sphere to a torus with two voids, one defining the demand of the subject, the other as the desire of the Other, the "alethosphere" where discourse arcs into a rainbow linking separate spaces, separate times. At this primitive level, where speech approaches *lalangue* and spacetime is flattened by adding a void (handle) to Euclidean life on earth, topology is about finding the one trait, the *unary* trait, that, like the geodetic monument, is able to stabilize the shifts of meaning that confound *lexis*.⁹

Thus, the parallax problem for Lacan requires a new space, one with two voids, where the subject and Other "converse" across two laminar, palindromic layers. As in Euclidean-Kantian space, parallax creates depth, but in the "second parallax," the depth dimension travels across a folded plane, where reversal/retroaction is simultaneous to any forward motion. There is a

permanent, durable uncanny in this. Lacan's *phasis*, his *mi dire*, makes its home in this uncanny each time it dives into the topology of the real projective plane.

Lacan Discovers a Second Parallax in the Form of Double Inscription

Throughout his career, Lacan drew on paper and the blackboard. There were slide projections of paintings. Evidence of this virtuosity reached English audiences late and sometimes in damaged condition. Almost always, it required readers already equipped with pattern awareness to appreciate the depth and breadth of Lacan's talents. In some cases, Lacan's theorizing seems to take place entirely inside his graphics, rather than in his verbal explanations of them. Like Chopin, who, in response to friends who asked the composer to explain the new work he had just played for them, simply played it again, Lacan repeated his graphic ideas multiple times, with modifications, as if he preferred to keep an argument in its only effective medium, to avoid exposure to misrepresentation of the letter.

Lacan's visualizations did not take place in the Imaginary (pictorial) but, rather, in the projective plane, geometry's counterpart to Analysis, where the Analysand's blah blah blah is coaxed to yield up its *lalangue*, its "primitive *lexis*." As the L-Schema shows, the Imaginary bars the link critical to the success of Analysis, the Symbolic return to the *Es*, which Lacan compared to the subject, \$, before it was barred at the Mirror Stage.¹⁰ This bar was complicit with the barrier of the spectral, the first parallax where any one observer is implicitly separated from all others, where empirical knowledge is forever limited by the antinomies of space and time that exile the object into an unobtainable thing-in-itself.

The limits of the spectral concerned Lacan as early as 1935, when he heard the Three Prisoners' Dilemma across a dinner table one evening in 1935.¹¹ Was this the beginning of a topological sensibility, which Lacan would not consciously acknowledge until 1961, in Seminar IX, *Identification*? Lacan seems to suggest this in his lecture at the Seventh Congress of the Freudian Society in Rome, "*La troisième*" (1974).¹² After denouncing the causality of "I think, therefore I am," he suggested that being might be a way of thinking *with the skin of the forehead and also with the feet*. This seems to mean that, if you are able to see things in terms of what others see but is invisible to you—a view cut by 180°—you will also be able to grasp the 360° whole of a situation and act accordingly, as did the three prisoners who, after their second hesitation, rushed to claim their freedom simultaneously as a mandate of the logic of their realization.

In the various versions of the Three Prisoners' Dilemma, there is no discussion of the *phasis* of the warden who set up the contest. It was presented, explicitly, to benefit one and one only winner who could figure out the color of the dot on his back out of the set of three white and two

black dots. Yet, the solution is implicit in the structure of the space and time of the room where the contestants can “think with their forehead but then with their feet.” The 180° split of space, its first parallax, produced the Kantian impasse: no one can stand in my shoes to see what I see. The *demand* persists, however, as general, to the enigmatic Other of the space, which humiliates the viewer in its parallax abjection. The Other’s desire—locally, in the Dilemma, the warden—is logically prior to the official presentation, that “one should win.” This logic comes about only through the second thinking, of the feet. This *passage à l’acte* reveals the relation of the first parallax to a second, where scopic depth, which has led to paralysis, gives way to a dimension of escape.

The Three Prisoners’ Dilemma provides us with a shorthand for a generic understanding of Lacan’s topology.¹³ The two pauses essential to the prisoners’ solution correspond to (1) a 180° parallax condition, where each prisoner can see the color of the dots on the backs of his two inmates, then (2) the 360° describing a common horizon unifying the prisoners in a single mentality of discovery, where instead of the parallax of depth they find and use a parallax of action or, more radically, the dimension of the act, or act *as* dimension. The 180° “thinking with the forehead” produces non-orientation. The viewer cannot resolve the view of the others. The 360° of common realization and unary action comes about through self-intersection. This happens once each prisoner understands the meaning of the two pauses, the second of which is this very moment of understanding.

Lacan begins to think topologically in 1935 because he himself has understood the relation of the two pauses to the two parallax conditions, the first presenting an unstable dimension of depth that can never be assimilated within the Cartesian idea of space as XYZ, within which the viewer and viewed are unable to find any universal position within the perspectival relation of the viewing point to the vanishing point lying on the horizon at infinity.¹⁴ In addition to the key distinction between the 180° non-orientable knowledge of the forehead with the 360° self-intersection of the feet, there is additionally Lacan’s implicit recognition of the importance of immersion: what happens when topological logic is “immersed” into specular parallax.

So, why does Lacan seem to be unaware of his topological turn until 1966, when in adding a note to the *Rome Discourse* he sets the official “start date” at 1961?¹⁵ Why have the majority of Lacanians agreed with him, or imposed limits of their own, setting the date earlier or terminating it prematurely?¹⁶ If we accept that Lacan, in learning to work with the “thinking of the forehead” and “thinking of the feet” has inadvertently engaged with the working principles of projective geometry as early as 1935, his entire range of theorizing, in the stages following the program Imaginary, Symbolic, and Real, the RSI system of Borromeo-knot domains, is topological. The prisoners in the Three Prisoners’ Dilemma set the ball rolling with their 180°/360° logic; Lacan

$$\begin{array}{c}
 \text{je suis} \leftarrow \text{je pense} \\
 \hline
 \text{je suis} \leftarrow \text{je pense} \\
 \hline
 \text{je suis} \leftarrow \text{je pense} \\
 \hline
 \text{je suis} \leftarrow \text{je pense} \\
 \hline
 \dots
 \end{array}$$

the convergent series:

$$\begin{array}{ccc}
 \frac{i+1}{i+1} & \frac{1+1}{1+1} & \text{(golden ratio, } \emptyset) \\
 \frac{i+1}{i+1} & \frac{1+1}{1+1} & \frac{1+\sqrt{5}}{2} \\
 \frac{i+1}{i+1} & \frac{1+1}{1+1} &
 \end{array}$$

Figure 1. Seminar IX, *Identification*, session 7 (January 10, 1962). The iterative and recursive relation between speaking and being is, Lacan claims, also convergent. The self-intersection of Speaking-Being is the non-orientable ratio, \emptyset , “a void (O) with a cut (/).” Re-drawn by the author.

realizes that this logic is a Real (within-the-Imaginary) because it is a Structure, and only later does he officially attach Topology to this trio to make a proper quartet. His move from the Kantian parallax, where the limit is intersubjective, to a second parallax constructed by topology is the result of this early intuitive understanding of self-intersection and non-orientation. These twinned principles allow Lacan to fashion his most original ideas: the unary trait, the void created by Euler (not Venn!) circles, *extimité* (inside-out conversion), the isomeric constant,¹⁷ the cut,¹⁸ the hole, and the *objet a* (which Lacan himself cited as his most original invention). Last but not least I

would add the ingenious “slide-rule analogy” in Seminar XIV, where the unary trait’s relation to the *objet a* and A (*Autre*) is shown to yield the following formula: $1+a = 1/a$.

The slide-rule analogy provides a curious link to architecture’s famous use of the golden ratio. Simultaneously, it demonstrates how Lacan thought of the mathematics as the Real of psychoanalysis. In Session 7 of Seminar IX (Fig. 1), Lacan arranges Descartes’ famous dictum, *je pense donc je suis* in the same way that his slide-rule analogy had later demonstrated the relation of the *objet a* to the unary trait and the Other.

The form will be recognizable by any mathematician as that of recursion: self-intersection. This follows the model of $x = 1+1/x$, where the value of the solution requires a “re-entry” of the question into itself. What is x? It is one plus 1 divided by itself. The process of self-intersection cannot be terminated. It becomes more and more precise, but is always a ratio, a relation. This is the meaning of the isomeric constant, and Lacan astutely observes that, in the slide-rule analogy, the lateral demonstration reveals that, from a^1 to a^2, a^3, a^4, a^5 , etc. reveals a chirality based on odd and even values of the power of a^n . Of course a^0 is equal to 1, which in this model Lacan identifies as the unary, not just the numerical 1.

What of the golden ratio? Along with the other “metallic” numbers, the \emptyset is both a number and not a number. It mimics what Lacan says about it, namely that it is a hole with a cut through it: self-intersection, O, with non-orientation, /. Furthermore, the O is a void, specifically the void that Lacan consistently represents as two Euler circles in a relation of “union without intersection,” or “symmetrical difference.” Lacan used projective geometry’s “fundamental polygon” of the torus—a rectangle with paired vectors expanding from a point labelled “repetition” to indicate the inside-the-Symbolic and outside-the-Symbolic positions of acting-out and *passage à l’acte*, then contracting with twinned vectors to a corner labelled “sublimation”—to define the relations generated by the relation of the subject’s demand to the Other’s desire. Even here, Lacan was careful to be precise in ways that relate both to mathematics and architecture by insisting on the term “double inscription.” The generic form of this is a crisscross, where each element is sublimated to its twin, X_Y/Y_X .¹⁹ The / is the imagined fold of the projective plane across itself (retroaction). It is simultaneously a cut, as in the cut of the mirror in its chiralistic division of space. The mirrored elements emphasize the non-orientation of this fold/cut. The symmetrical difference of this expression is clear.

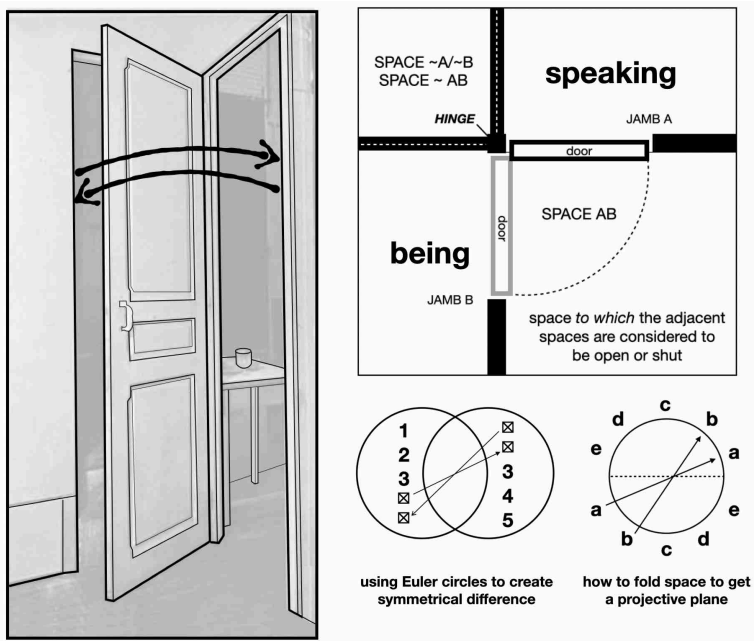


Figure 2. Marcel Duchamp’s double door or, rather, wall-lamella, 1927. The single hinge, belonging to both walls (jambs A and B) create a symmetrical difference, two lacks mirroring each other across a void of Euler circles in the position of “union without intersection.” The situation is fundamental to projective geometry which is, as the circle on the lower right shows, the necessity of folding chiral sides together while inverting their linear order. Drawing by author.

The void is not so clear. It is the passage from one side of the expression to the other and back again, creating a “laminar flow condition” that invites a comparison to the role played by viscosity in other flows of liquids.²⁰ Lamination is about the adhesion of layers; flow is about the autonomy they simultaneously enjoy. Without flow there can be no adhesion, without adhesion the flow will not be structured by the dynamic value of the isomeric constant. Fortunately, there is an architectural example to illustrate this rather complex idea.

In 1927, the artist Marcel Duchamp constructed a door at his apartment at 11 Rue Larrey in Paris.²¹ In topological terms, Duchamp

constructed a wall with a (literally) contro-versial hole that, when open was simultaneously closed, thanks to a door whose single hinge defined the wall. Topologically speaking, this wall is a lamella. Instead of opening and closing on one jamb, the door connected alternatively to two jambs, on walls at a 90° angle to each other. As a result, the door could be said to be both open and closed at the same time (Fig. 2).

However, this “same time” occurred only when the door was secured at one frame or the other. The more interesting condition was the void in between, when the door was swinging *towards* closure and away from openness. At the same time, the swing could be said to involve openness as foundational to its moment of closure, in that the status “open-closed” will be confirmed at that future moment, which might be written O_C/C_O . This useful formula style applies to the sentence as the unit of meaning of all language, just as the sentence is created by the retroactive folding of the ending, E, over to meet the beginning, B: B_E/E_B .

The architectural “sentence” of the wall is precisely the Duchamp Door’s ability to create a void within two walls that, by means of this void, are laminated into a single wall. The symmetrical difference of O_C/C_O is micro- or rather “infra-” architecture: architecture based on an absolutely minimal difference. This is not just the sentence of Duchamp, designed to poke fun at architecture’s more grammatical sentence of ordinary walls. This exception magnifies the role of recursion/retroaction. It is the essence of the wall as *Nachträglichkeit*, and the only better example is architecture’s *Ur*-building, the Cretan or Thesian Labyrinth, with its classic three folds-within-folds²² of a single corridor alternating between centrifugal expansion (escape) and centripetal contraction (entrapment). The building attributed to “the first architect,” Dædalus, combines the same themes of repetition, which initiates a divergence to the isomeric balance-point of inside/outside, back to a convergence to a condition of sublimation.

The ethnology of this structure is well-documented and its relationship to sexual monstrosity famous. The building itself is the logical counterpart to its most famous inhabitant, the Minotaur (half-man, half-beast—another case of symmetrical difference). Had architecture theory thought to look to this paradigmatic and historically prior case of building, it would have concluded that the architectural monster could be summed up topologically as I_O/O_I , “inside with an element of outside, coupled with outside with an element of inside,” or H_M/M_H , “human with an element of monstrosity twinned with the monster with an element of humanity.” In both cases, the condition of non-orientation and self-intersection, or “union without intersection” of two Euler circles, center architecture’s distinction from the utilitarian building or animal dwelling on the key condition of symmetrical difference: the twist across the semantic and material void.

The most recent topological description of the Cretan Labyrinth on behalf of Lacan's topology makes no reference to symmetrical difference, laminar flow, toroidal coupling of divergence and convergence, or double inscription.²³ In addition, Ariadne's thread is described as superfluous, given that the traveler in the meander "cannot get lost in the first place."²⁴

With its folds-upon-folds design, the labyrinth is the architectural version of the general formula of recursion: self-intersection. It is about the conservation of energy, with each centrifugal moment balanced by a centripetal one. The alternations are non-oriented and self-intersecting. The first historical-mythical case of architecture combines topology with the user-condition of anxiety. The I_0/O_1 of the labyrinth is the O_C/C_O of Duchamp's double-swinging, doubly inscribed door. Both are "infra-architecture," reducing/flattening the 3-d parallax condition of the wall by converting to a system of turns that involve no decision-making while motion continues (the meander), inducing doubt where none should exist if motion should stop (the architectural origin of anxiety). The labyrinth is the "flat building" in the active sense, *building*. As it is built, it is being unbuilt. It involves the essence of architecture's fundamental (although absolutely minimal) difference from building. This difference is Lacanian: the lamella. Just as the cat that goes bow-wow or, in Cheshire, leaves its smile behind, the primitive nature of the lamella, as pre-subjective, pre-Symbolic, pre-sexual (and, hence, immortal) connects to the pre-castrated, autoerotic subject.²⁵ Here the signifier is, as Lacan says, "anything it wants to be, except material." We are in the territory of *Vorstellungs Repräsentanz*, which could be said to be, in its position of Being before the advent of representation proper, the raw state of signification, Speaking, where it is possible, in the condition of sheer signifier-ness, for the cat to go bow-wow and the dog to go meow.

The lamella is, before thickness became the measure of the wall's insulation function, "the wallness of the wall." The proper equation for the thickness of the wall is not measured in courses of brick or the thickness of the poured concrete, but rather in the ability of the wall to insulate. Insulation in turn is defined as "idempotency": the ability to reduce disturbances, challenges, and threats, written as $1+1+1 \dots = 1$. The sum is not the numerical one but, rather, the *mark* of the 1, the "duly noted" response of the wall to any insult, when it remains standing after attack. The 1 is as flat as the lamella, flat because it has been "topologized" by the relation of inside to outside, entrapment to escape, paralysis to free extension.

This is not theory talking but, rather ethnology. In Seminar VII, *The Ethics of Psychoanalysis*, Lacan repeats the second half of the tale of Apollo and Daphne. In his custom of the *mi dire*, Lacan expects his readers to look up what he has left out. Our research will be well-rewarded, in that we discover that Apollo has humiliated Eros and Eros in vengeance has fashioned (1) an arrow with two points, able to fly in two directions at the same time and afflict

two different targets with opposite “inflammations”; or (2) two arrows that, shot at the same time, have the same effect. We the readers arrive too late to get the oral version of the story, so we cannot say which option is involved, but since the result is the same, we move on.

This is an important story because, in relating it, Lacan correctly notes that the arrow, which in topology terms is “a one-dimensional subspace” whose vanishing points in Euclidean perspective become its (isomeric) center. The other conditions of projective geometry, double inscription, symmetrical difference, and the void of union without intersection, are met. We are in a space that Lacan characterizes in terms of its simultaneity: *as soon as* Daphne realizes she must flee, she is frozen. Her wish has converted her space into a forced choice: question of which way to go is reduced to the isomeric point: a nowhere that is a point of transformation, a constant that is the *semper virens* of the laurel tree.

Thanks to this alchemy, Apollo in admiration proclaims the boughs of the laurel to be the award given to immortalize others: the heroes of the Olympic games. The hero never grows old in the diegetic sense that heroic tales are cyclical and episodic, but in the anthropological sense that the hero’s name is a case of reversed antonomasia. A hero is not a literal single individual with heroic qualities, conceived historically. Rather, the name is a *daimon* that comes out of nowhere to infect and inspire various mortals it infects. Beginning even with the first myth, the hero is not given a name, the name gives the hero, who is “a Hercules” or “a Theseus,” or even “a Jack Kennedy” thanks to the logic of reversed antonomasia.²⁶ When straight-up antonomasia, the epithet applied to a living person, turns around to empower someone in the same way the clock, diploma, and medal empowered the magical beings in *The Wizard of Oz*, the Symbolic pays off the debt of the zombie who, before that moment, had walked between the two deaths. The name, even down to the letter, gives power, just as the -t retroactively identified the count as an idiot.

When antonomasia is reversed, the subject becomes a *δαίμων*, godlike, in a primitive, larval edition. Daphne, in her idempotency/paralysis, becomes the source of transmittable charisma, as are kings who are able to cure through touch. The unary idempotency of the wall, $1+1+1\dots = 1$, tells the tale of insulation, which is all Daphne needed to escape the embraces of Apollo. Paralysis, the other side of the idempotency, is not all bad. The one-sided wall, the lamella, is empowerment: the truth-fountain of Prometheus, chained to the rock of auspices.

Economy of the Double Circuit

“Colourless green ideas sleep furiously.”²⁷ This sentence quoted by Lacan was presented Noam Chomsky as an example of the failure of structure in and of itself to produce meaning. Lacan’s

objections were either cause or symptom of a long-lived animosity between the French psychoanalyst and American linguist.²⁸ Such a challenge was irresistible to the topologist who had set up the equation, Real = Structure = Topology, assigning topology to the Borromeo Ring of the RSI domains, linked only because of the *pattern* of their overlap-without-linking, a literal embodiment of the Euler circles' condition of "union without intersection."

Lacan's refutation of Chomsky's assertion that the phrase meaningless was exemplary and topological. He cited the non-grammatical but seriously meaningful "*Y restez cieux aux êtes qui Père Notre*" (there remain heavens art in who Father Our), commenting on how well it compared to Jacques Prévert's already famous line, "*Notre Père qui êtes aux cieux restez-y*" (Our Father who art in heaven, remain there).²⁹ Quoting the English poet Marvell's "Green thoughts in a green shade" iced the Chomsky cake by arguing that poetry traditionally pulls meaning out of the fire of non-meaning, even down to the level of the letter.

I would like to address Lacan's idea that structure is already, in and of itself, meaning(ful) by connecting it to the idea of economy. This is not simply the idea of efficiency in flows of energy, words, money, etc. but the idea of effectiveness found by means of a circuit that can do two things at the same time. Sometimes this looks like two circuits (the interior-8) but since topology alloys self-intersection (the essence of the circuit) with non-orientation, we must accept that the 1 of the circuit—for the unary idea seems to grow out the circuit and *vice versa*—is also double, as the essence of non-orientation, and that the twists, cuts, and holes that we encounter in Euclidean parallax (how else could the figure detach from the ground?) are there for the observer but vanish once they "return" to their structural relations in flat space.

The idea of oscillation between 2-space and 3-space is a fiction required to imagine how the Real can also be inside the Imaginary and thought about in the Symbolic. From structure to visualization is "immersion," where the twist, two edges, and two sides of the Möbius band can be seen even if we cannot locate them precisely. The torus, which looks as normal as any bagel or bicycle tire, is not really a topological torus. To break past this immersed illusion, Lacan recommends pinching the 3-space torus with two fingers, and while making a 360° circuit, twisting the fingers to invert their orientation. The finger and thumb trace a cut that, if done with a knife, would cut the torus into two parts, each with a Möbius-shaped face, in left- and right-hand versions.³⁰ We can perform the same pinch test with the Möbius band itself, drawing the band along between thumb and forefinger. Although the fingers feel two edges at the same time, the edges are not "simultaneous" to each other in the pinch as they are in topology. The sides that the figures command to be recto and verso are not so, in a way that delays the direct experience of our sense of touch out of sheer logic. Real, Structure, Topology, *Logic*: these are the synonyms of economy.

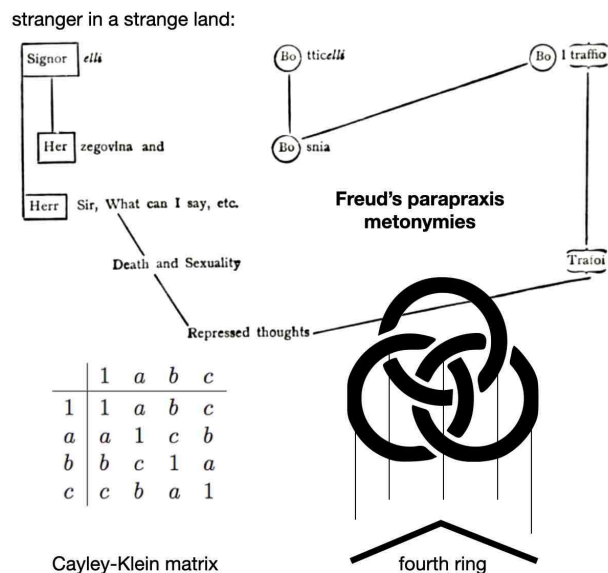


Figure 3. The economy of the double circuit, as revealed in Freud’s parapraxis, the Cayley-Klein matrix, and the Borromean knot (Real, Symbolic, Imaginary), where Gauss encoding of the rings’ overlaps reveals the presence of a fourth ring, which Lacan assigns to the *objet a* of *jouissance*. Bergler’s round of aggression and humiliation, with its own fourth ring of the subject’s fantasies of parent-generated trauma, could not be more evident than in the Œdipus myth, where the hero travels, answers a riddle to enter the space of Thebes, and confronts the horrors of symmetrical difference, all in the name of the semblance of metonymy as parapraxis, where each item in the 3-space reality of the Imaginary, the diegetic story, maps to the fourth ring lying flat (lamella) in the topology of the Real, which the Cayley-Klein matrix designates, appropriately, by the 1. This is the unary aspect of the Borromean knot’s fourth ring of *jouissance*.

to comic benefit, we face the question of *jouissance*. What pleasure so we derive from humiliation? How is it enjoyed? Who enjoys it? When the arrogant compt-without- a-t is wincing, do we not wince with him, or is there some third force of the signifier that, down to its last letter, creates a “community of wincing”?

In Lacan’s 1972 address to the Seventh Congress of the Freudian Society in Rome, “*La troisième*,” Lacan went further with his thesis of how meaning emerges from the nothing of ungrammaticality, especially when reversal (non-orientation) was involved. “*Le discours de*

In the circuit of Lacan’s economy, the “as soon as” factor is particularly useful in comic applications. Where timing is everything, it must work at all levels, even down to the letter. In Seminar V, *Formations of the Unconscious*, Lacan tells the joke about the debutante with good breeding (who knows all the dirty words but also not to use them), is given her first surprise party by a ladies man who tells her, after a bored silence, “*Vous avez vu mademoiselles, que je suis compte*” (You have noticed, young lady, that I am a count). The well-bred young woman replies “*Ahhht!*”—*compte* without a -t is a “*con*,” an idiot.

At this zero degree of speech, meaning is not simply created, it is produced as an antidote to the micro-aggressive pride of the idiot who has thought to brag about his social status to someone intellectually and instinctually superior. This correction is the first and most famous function of economy, although we don’t usually think of it as a circuit. However, Edmund Bergler, who had theorized that aggression and humiliation form a circuit, readily would have noted that the count “had it coming.” Because jokes traditionally employ this circuit of aggression/humiliation

Rome” became “*le disque ourdrome*.” He explained: “I temper this by noting that ‘*ourdrome*’ is a purr which occurs in other *lalanguages*—if my ears agree with those of our geographic neighbours—and naturally that takes us out of the game of the matrix, that of Jakobsen, which I will specify right away.”³¹

Lacan calls this production of new meaning out of a slip of the tongue (the treasure of psychoanalysis) *metonymy*, where freedom progresses by means of a logic of semblance, which is the essence of the *objet a*: “There is not a single discourse in which the semblance does not call the shots.”³² Lacan illustrates this idea with an anagram conversion of the passive *se jouit* into a freedom of *je souis*: “the voice is free, free to be anything but substance.”³³ When elaborated, *je souis* moves forward through repetition and iteration. Each new utterance extends the previous, but the series converges on an irrational “vanishing point,” such as the Fibonacci \emptyset , which stabilizes the movement to infinity by means of a chiral division, $/$.³⁴ Metonymy powered by semblance is the travelers’ friend, sifting out unintended coincidences to create a “petrified layer,” an “alluvium” that forms like a lamella over the landscape it crosses.³⁵

The official example of this free movement of the *objet a* across a landscape that it petrifies with a layer of nonsense relations is Freud’s famous parapraxis, where in various attempts to remember the name of the painter of the famous frescoes in the Orvieto Cathedral, Freud connects *Herr*, Herzegovina, Botticelli, Boltraffio, Trafei in a conspiratorial web. Is this not the circuit that must economize something that is not visible at the level of travel but, regarded as a lamella (one-sided, with a fold), points to Freud’s humiliation as a stranger in a strange land, which is to say (following Lacan) that Freud has noticed something that no native would have noticed, namely the *Signor* in Signorelli that allowed *Herr* to recall Herzegovina by mistake, but then make amends not by correcting the mistake but by making it worse, extending the power of the father (*Signor*) over the broad Adriatic (Fig. 3)?

The humiliation has notified Freud of the repressed element of aggression, retroactively. In fact Signorelli had taken over from his colleague, Fra Angelico. Although he apologized for this in a painterly way, by including a portrait of the elder painter standing behind him in a signature cameo at the lower left of the mural, the compliment was mixed, since the same coupling of figures was the central theme of the painting, *Teachings of the Antichrist*. In the analogy Devil : Christ :: Fra Angelico : Signorelli, Fra Angelico’s sublation is both an insult and a recognition, that while Signorelli had filled the chapel with his work, the former painter’s genius and prevailed *at the same time*. Freud’s parapraxis used the same simultaneity. Every instances of a failed attempt to remember Signorelli brought out some new aspect of the *Herr*, some new linkage in the circuit. The economy of parapraxis is that it allows the signifier the freedom of roaming anywhere since, at the same time, there is an instrumental convergence closing in at the

antipodal point. As the fundamental polygon of the torus shows (Fig. 3), nothing could be more topological!³⁶

As the story of the debutant shows, the letter can be the agent of a comic inversion of aggression to humiliation and, thus, the joke-logic of the Real. Economy in this sense is the simultaneity of free movement and instrumental convergence that draws the extended range to a point. When Lacan draws circles on the surface of the torus, his point is that some circles cannot be reduced further than the dimensions he has assigned to demand and desire. In the circle he draws on a diagonal plane, the so-called Villarceau cut, two rings intersect to form a *vesica piscis*, and we may assume that the rings are Euler circles, and that the void they define is the same that is crisscrossed to create symmetrical difference.

***Lalangue*: the Architecture of the Heroic Landscape**

The topology and, hence, architecture of the signifier, which becomes the signifier of architecture, begins with the “as soon as” relation, which we may write X/Y and expand to $X/Y \bullet Y/X$. There is the sublation action of metaphor, where the Y is suppressed, excluded, in the same way that meaning assigns some of the sounds coming out of our mouths and meaningful, others inconsequential. The *lalangue* that falls out falls down, is sifted into an alluvium and spread out over the same terrain covered by meaning. Thanks to a principle of conservation, however, nothing is lost. The Y is reincarnated, given new flesh, the flesh of metonymy and hung in signifying chains where its exile status is presumed to form a curve, eventually a complete circle, whose center is X , the signified. The $/$ of the $X/Y \bullet Y/X$ is retroaction.³⁷ Without this back-flow in human signification, where semblance is given top priority, there could be no misrecognition, the ability to re-assign powers and identities, the principle of reversed antonomasia. With this power, we can be named after a dead uncle or aunt, wished by our parents to be doctors or lawyers, or called boys when we are girls and *vice versa*.

The \bullet is another way of writing the double inscription that has given us the relation of Speaking/Being in language, the Dead/Alive of the uncanny, and the Open/Closed of the Duchamp Door. It is not just the cross-inscription found in chiasmus, fugue, and the confidence trick; it is the $/$ in $1+a = 1/a$ that perpetuates the golden ratio, where even the Greek letter designating it, \emptyset , seems to refer to symmetrical difference, the combination of the cut with the void and, hence, the unary trait that Lacan so ably demonstrates with his slide-rule analogy in Seminar XIV.³⁸

The constant, \emptyset , arises out of the elaboration of recursion, whose *après coup* logic also creates the lamella, the infinitely flat surface that, folded, becomes self-intersecting. We can see

the lamella every time we twist a strip of paper into a Möbius band or pinch a torus and twist our fingers 180° while pulling the tube through them for 360°. The non-orientability of the cut, the twist, connects us to history, to ethnology, where we encounter other katagraphic cuts in stories, rituals, and journeys through liminal spaces mandated as a condition of becoming an adult.³⁹

Why have we not before noticed that the *rite du passage* found in every culture is akin to Lacan's Mirror Stage, where the cut of the mirror puts an end to the extended autoerotic infancy found in humans but no other species? This extension, on behalf of the signifier, has required a terminus with a twist: the simulation of a journey to Hades ("the invisible") where the lamella becomes the / of the O and the initiate must sift signifiers to petrify the travel landscape. Can he do it? Will he do it? The Kantian formula comes in handy: *if we can we must*. Without jumping too quickly to the issue of the categorical imperative, we must tarry with the negative, as Hegel would advise, and consider the category as *katē-goros*, the accusation, and remember the Injunction of Popilius and Jesus given a forced choice by the Sanhedron. The aggression of the accusation, X, requires humiliation of the accused, /Y. The katagraphic cut is the only defense. Jesus and Popilius figure this out and doodle in the dust of the Temple floor or sand in the outskirts of Alexandria. / is also × or +, chiasmus or the crossed bar which Lacan understands, theoretically, to be automatically doubled: • . In his explanation of how metaphor works, Ed Pluth notes that Lacan cuts the sheet of paper Saussure had used to distinguish the signifier and signified in an impossible way: through the middle that separates *recto* and *verso*, a cut that effectively folds the sheet topologically, into a Möbius surface. The katagraphic cut is both—and |, since speech uses both vertical traits and horizontal ones to create its *unary*, its 1.

The horizontal movement of the signifying chain is also always a vertical retroaction motion assigned to metaphor and sublation of one signifier by another, the synchrony that accompanies diachrony in every sentence. Because of retroaction, we don't yet know how the sentence will "end," because ending will involve the return of the *terminus ad quem* to the *terminus a quem*, ending to beginning. The circuit thus accomplished will be, fundamentally, a parapraxis (if we are good neurotics), where the—will sift out *lalangue* and | will try to remember the /x it forgot.

There are two obvious conclusions one can draw from this evidence of the signifier. The child who has learned language has not yet learned sex, and the *rite du passage*, the katabasis or journey to hell, is essential to reaffirm and complete the alienation of the mirror with the separation of ritual exile. Ethnography shows how a constant, such as the Fibonacci \emptyset , can also be found in cultures, by being something that all cultures do in one way or another. And, just as the \emptyset is a cut that is both recursive and "between the two deaths" (i.e. doubly inscribed), it creates a hole rather than a disappearing dot. Lacan is precise when he says that the unary trait *is* this hole.

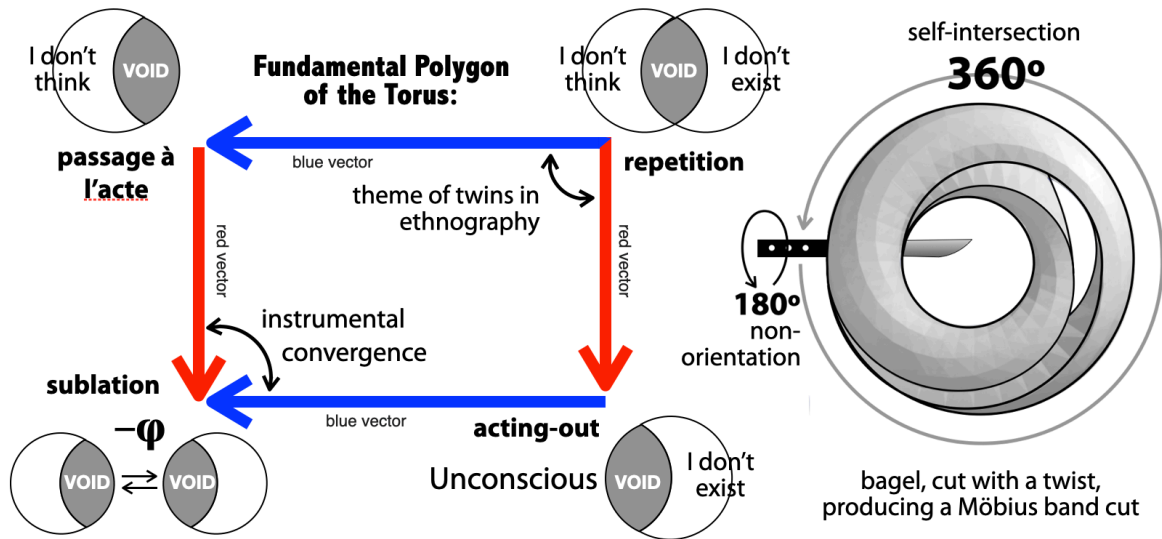


Figure 4. The fundamental polygon of the torus, whose true 2-d form is produced by a 180° rotational cut dividing the 360° ring into two Möbius-shaped faces. Repetition initiates a twin flow that runs from its origin point, in parallel to a flow converging on sublation. Source: drawing by author drawn from the French text of Seminar XIV, *The Logic of Phantasy*, and Prof. Carlo Séquin, “Topology of a Twisted Torus,” *Numberphile*. https://www.youtube.com/watch?v=3_VydFQmtZ8. Drawing by author.

When ethnography proves Lacan’s most difficult point, and proves them in ways that involve the topology literally, psychoanalysis and architecture meet on common ground: the isomeric labyrinth, where divergence and convergence are embedded into a single meander, \times , and the logic of the torus, where \times stands for the “as soon as” creation of sublation with repetition. The economy of the \times , where no energy will ever be lost, in psychoanalysis as in physics, the principle of the circuit as double (360° with 180° twist/cut), will be evident in ritual practices and the earliest architectural formations that supported them: the clearing, the hearth, the altar, the inside frame used to mark the rise and fall of celestial objects. The temple will even tell us a story with its root, $\sqrt{\text{TEM}}$, divide, and emphasize the cultural role played by sacrifice required by divination.

The architecture of this is as severe as the laws that resulted from divination for the first societies. The horizon that marked the movement of stars, sun, and moon implicated the isomeric center, $/x$, where the $/$ was played out in the dance movements that folded in on each other and the palindromic formulas of curses and blessings that enforced the law of auspices: the accusation. The accused was the initiate, hence the trial, and the initiate was the accused, hence the journey of the exile, whose structure persists in literature, film, art, and even architecture to this day.⁴⁰ Why are architecture, art, etc. so obedient to the rule of the isomeric, $/x$? Why is the logic of metaphor, which first distinguished human groups from their animal counterparts, structured by a logic as severe as the laws of the first societies, derived from aleatory

procedures? Why is the meander of the Thesean Labyrinth “economical” by means of its double inscription of out and in by means of alternating centrifugal and centripetal folds?

Another essay would be required for the one-word answer that must be given: viscosity. Just as Lacan has recognized that the principle of conservation belongs both to physics and the speaking being, there is a level at which speech is nothing so much as it is a flow, a double flow, a flow where lamination will produce a cross that conserves the energy of the flow and allows the emergence of the circuit: \times . The cross or cut will also be the $+$ of sublation. Thus, psychoanalysis can justifiably think about viscosity as the relation of S/s, signifier to signified, in the diverse and even “polymorphically perverse” way Lacan seems to do when he sees the fundamental polygon of the torus (Fig. 4) as proof of the co-presence of instrumental convergence both inside and beyond repetition. Just as early societies demanded that their ritual divination procedures involved the bonding of absolute chance with absolutely rigid procedures, the least detail of which could not be omitted without forfeiting the truth of augury, no part of Lacan’s perverse diversification of projective geometry into such wild variants—symmetrical difference, double inscription, union without intersection, instrumental convergence, self-intersection with non-orientation—can be left out. No footnote connecting topology to the unary trait, recursion, the palindrome, the Fibonacci numbers, *lalangue*, or the lamella can be overlooked except at the peril of understanding the point of his essentially metaphoric theory of the signifier.

Also, not one of these essential rituals of Lacan’s topology is without a counterpart in architecture, particularly if we insist on regarding architecture *before* it became synonymous with shelter, when in fact it was the form and structure of the exile of the initiate in the “second mirror stage” of the *katabasis*. Bruce Chatwin’s initiate, the Australian Aboriginal youth who must trek the outback, among whose minimal support materials are the essential idea that, Lacan says, is lacking in Aristotle’s conception of material cause itself, namely its passivity.⁴¹

The initiate’s exposure, his lack of shelter, is passivity put in terms of the zero degree of the insulation of the wall, but the principle remains to be satisfied in terms of the double inscription that must be made by singing. The landscape needs the walker as much as the walker needs the landscape. L_W/W_L structures the void necessary for all rites of passage.

Passivity was also the evident element in Popilius and Jesus’s unary katagraphic injunctions, both of them effective precisely because they signified humiliation in the face of aggression and, thus, inverted the formula of the accusation/invasion. The accused is accursed, but the principle of redemption lies in the palindromic reversal of the curse into a blessing.

Viscosity is the principle of fluid dynamics where time and space are suspended when “things get sticky.” In the Taylor-Couette flow experiment, the physical distribution of particles can be recovered after displacement—from order to chaos back to not just order but the same

order!—thanks to the Navier-Stokes equations that produce what is called the Reynolds Number, the constant that designates the viscosity of fluid flows. In life we have sticky situations, the worst of which is the forced choice: “Your money or your life!” the robber demands, and we know that unless we are willing to die we will be forced to give him or her our money. Logically, the Cretan Liar has produced the same sticky situation with his paradox of “if true then false, if false then true.” The forced choice is double inscription at its best, proved by the fact that it is also the generative principle behind the uncanny’s formula for between-the-two-deaths and the servant in the story of the “Appointment in Samara.”

We know stickiness, primordially, from the way that the primitive initiation ceremony has survived in popular culture forms: the vacation gone wrong, hazing, the confidence trick, near-death experience stories. When Steven King builds houses in the suburbs, they are inevitably on top of Indian burial grounds. We are perpetually drawn, thanks to the formula by which suspense gives us pleasure that only the death drive can explain, to the conditions where we, sitting in the dark of some auditorium, commiserate (literally) with fictional victims who are exposed with nothing but the shirts on their backs.

This brings us back to the idempotency of the $1+1+1+ \dots = 1$, which is the essence of the wall as insulation. We have insulation before the wall becomes the basis of an architecture of shelter. It is logically prior although we discover idempotency, both as a ritual (foundation rites) and as a logic (concentricity, recursion, self-reference) only later. The wall sustains attack repeatedly, and repetition is the key element in the formula where the wall ceases at the moment where repeated attacks finally succeed: $1 \rightarrow 0$. To avoid this moment, foundation rituals draw the 0 with a cut, \emptyset . Romulus, a twin, plowed his furrow, seemingly so that Remus would mock it and suffer the accusation of his brother, omitting or rather sublimating the trial, the curse. The furrow of course was the curse, the *cursus* to cut off the space of Rome from all else. Into the trench of the furrow blood would be poured of the sacrificial victim, a blood producing prophecy, Being to Speaking on the condition of non-Being.

The furrow was preserved as a no-man’s land (the no-man being Remus), whose literal *katabasis* would be celebrated repetitively in a cycle determining the festivals of the city where, as in the case of Saturnalia (another doubly inscribed entity, who ate his own children), time would be suspended to wait for the *après coup* to take effect and re-set the calendar.⁴² The space of the preserved furrow, the *pomærium*, was a torus, where ritual repetition combined with the sublimation/one-to-zero of sacrifice, yielding the unary trait—the law—of augury. Prophecy is the conversion of an “is” to an “ought.” But, unlike Kant’s “thou canst, thus thou shouldest,” there is no contingency involved. The “ought” is already there in the form of fate, the instrumental convergence that, like Borges’ “Garden of the Forking Paths,” turns contingency on its head, a

tree that, upside-down, leads to a single trunk, although a trunk split by the duplicity of the signifier: Ø.

Roman law specified something tellingly topological. The space of Rome was not the area enclosed by the *pomærium*, but the *pomærium* itself. The interior city was a territory belonging to Rome, just as were the more expansive territories lying outside the gates. Beyond the edge of these was the boundary of Okeanos, which functioned in many ways as the death-defining Styx. To step into it while lying meant death. The river of truth was a laminar flow, turbulent until slowed by a lie or parted by a magician (Jesus and Moses both became famous for their ability to produce viscosity on demand). The 1 of the one produces true speech.⁴³ It does it by condemnation (sublation) on the left, producing (to the right of the isomeric point, •) chains of metonymies, whose double structure will allow the sifting-out of a durable alluvium, “x.” The bars will simultaneously function as diachronic repetition machines and synchronic condemning-sifting machines. The result will be, as Dan Collins puts it, the curtailing of the endless search for new meanings (all of them contingent). I would add that this termination is the signified of the unary 1, or rather the un-*ariness*, the un-airyness to make a pun, to “solidify” the laminar flow of the signifier to the point where, as the Navier-Stokes equation shows, there can be a Taylor-Couette time without space and space without time that is not Cartesian but, instead, Joycean: *Finnegans Wake*, which is literally the resolution of repetition (Finn again) by a waking call, a reincarnation. The soul of the suppressed is its body, just a different one. The difference that was in the body in the first place, its unary.

The economy of the first architecture lay in the fact that, through a comparatively minimal physical presence, it was able to relate to a maximal—cosmic—range. This is evident even when the built presence is locally imposing, as in the case of the Egyptian or Mayan pyramids or Stonehenge. “Monumental” describes strategic positioning than physical size. The reach of ancient observatories was spatially and temporally cosmic. Architecture was begun as a system of angles and edges, simultaneously observatories and ritual centers. Today these functions are missing, replaced by the needs of shelter and security. Buildings no longer predict solstices or eclipses. What counts as architectural value is condensed into decorative façades and details contained within envelopes of climate-control and regulated circulation. A dictum could be formed: when architecture is maximum, building is minimum; when building is maximum, architecture is minimum. These mini-max relations point to the idea that architecture has been and remains, fundamentally, about angles of measure in relation to a cyclical universe. The difference between ancient and modern is that, in the past, cycles were celebrated collectively while in modern times they are privatized, localized, and contingent. Architecture is no longer public, but even in terms of intimacy it is regulative, angular, and laminar. It is the element of viscosity that relates directly to the human subject. Even contemporary architecture retains what,

in ancient times, was a concern if not an obsession for flows, the lamination or synchronicity of these flows, and the conditions in which time and space will seem to be suspended.

This is a strange way to talk about architecture of any period or culture. In fact, it would be impossible to talk this way without a specifically Lacanian perspective on how the signifier *per se* shapes the subject's ability to distinguish, within what Duchamp called retinal experience, a second set of interests conditioned by topology. And, given the difficulties of understanding topology even by Lacan's most dedicated followers, it would not be likely that architecture discourse would have any interest in speaking about the "viscosity of laminar flows." This would require a specifically Lacanian concept of the signifier. Why?

Architecture is not a sub-component of building but rather "actions in relation to building." This is why, up until now, there has not been any recognition of the way narcissism works in architecture. Narcissism is an "allegiance to the Other," carried out in performative ways.⁴⁴ When the other comes in the form of a building, performance is the narcissism of proper use, what Vitruvius called "utility." *Venustas*, Vitruvius's version of Lacan's Symbolic, requires us to speak of built forms, condemn or praise them, work them into our everyday speech. Here the illusion of the first parallax dominates in ways we talk about how a building fits into its allotted space (or not), how it is worth fixing up or tearing down (the architectural edition of accusation and exoneration).⁴⁵

The Real of architecture is, as structure, also its topology. Vitruvius would be forced, Aristotelian that he was, to label this *Firmitas* and describe it in terms of strength of materials. In this, he was unintentionally correct, leaving out in his account all mention of the foundation rituals preserved in stories familiar to him, practices that assured the durability of a structure by connecting physical building procedures and materials to spiritual necessities. In this, what Vico would call cyclopean cultural practices have survived but are not discussed by architecture theory or pedagogy. One can still see shrines on construction sites, still find coins buried in walls, still hear stories about the worker who, accidentally falling into freshly poured concrete, was left there as a memorial. One can see films featuring backed-up toilets that overflow with blood, a direct reference to Romulus's sacrificial furrow.⁴⁶

Theory avoids talking about these without marking them off as exceptions, but as Hitchcock and other artists have known, the exceptions return from a primary position, to irrupt before us in horror, and it's the horror that we need. Horror is the marker that time suspense, and suspense, to be marketable, must be of a certain duration. Business is business.

Conclusion: The Real of the Second Parallax

The first parallax (= the Imaginary) produces insurmountable differences in points of view, isolating subjects from subjects, figures from grounds, appearances from realities presumed to lie behind and beneath (= the Symbolic). The second parallax is the result of theorizing, but theory in effect discovers that the second parallax is logically prior to the first, like the topology of Pappus and Desargues is logically prior to Euclid. In this priority, the lamella and *lalangue* construct conditions of symmetrical difference and folded flatness that create constants (the unary trait) and conserve the “energy of subjectivity” through instrumental convergence.

None of this makes sense in terms of the first parallax, obliged to honor the rules of Kant’s transcendental aesthetic, which persist beyond the replacement of the Kantian thing-in-itself by the Freudian Thing, the Es. They persist theoretically, as a limit, a resistance to topology that leads even the most ardent advocates of a mathematical psychoanalysis to misrepresent the projective geometry that Lacan so clearly identified and deployed, through the fundamental polygon, Gauss circles, symmetrical difference, the golden ratio, parapraxis of metaphor, and recursive equations of the 1.

The Subject’s *a* is the *a* of the Other, the Other’s *a* belongs to the Subject. Interlocking toruses pull being out of speaking, conserving the energy of the system just as Richard Feynman said of the blocks that Dennis the Menace had thrown about.⁴⁷ What is the architecture that has been saved by this second parallax? It is the architecture that insulates through thinness, the architecture that readily gives way to extimacy: the form of the Songlines, the door with two jambs, the stage town marked off by white tape, the *katabasis* of the heroic traveler. This is architecture that’s “not much to look at” because it is everywhere; and like the space of 2-d, there is no room to look at this everywhere.

Theory’s grasp of topology is a collection of palindromes, puzzles, enigmas, and paradoxes. Culture’s grasp is, in contrast, intuitive, practical, and always effective. It is why we laugh at Charlie Chaplin running from a policeman on the clowns’ turntable in *The Circus*, where the faster he runs the closer he is to the policeman’s back, and the crowd goes wild. It’s not space that’s curved, it’s time. It’s not curved because the joke has warped it, it has always been curved because it is a lamella, flat and folded. It’s Daphne’s paralysis, the Three Prisoners’ two-stage escape, the hole in the slide-rule.

Ethnology is essential to psychoanalysis because it is able to fashion the unary trait and symmetrical difference with the conscious complicity of the dramatists, storytellers, painters, and poets. Cultures know both “how” and “that.” Architecture knows how and that only when the

builders are in deep sympathy with their material that they see that it must be pacified (thus, the strange rituals of sacrifice). Cities require the torus as much as the L-Schema, but more readily find the means to bring about viscosity and, hence, stability. Where everything flows (*panta re*) in culture, the second parallax flows, like other lines in projective space, in two directions at the same time. This is the meaning of architecture.

Many who study Lacan advise against taking topology seriously. Rather, they warn of its dangers as a logic and limit it to the role of something to be practiced, like “solving crosswords.” Should we take such advice seriously when the advisors do not cite or give evidence that they know of Lacan’s major topology treatises, Seminar IX, XIII, and XIV; or fail to cite the well-known topological treatise “L’Étourdit”? Should authors who regard, *contra* Lacan, the Königsburg Bridge Problem as the origins of topology but do not credit its proper invention, graph theory? Is it acceptable to cite, as Lacanian, affine geometry rather than the projective geometry discovered by Pappus of Alexandria and developed by Girard Desargues and Blaise Pascal, founders that Lacan cited multiple times, in contrast to never once mentioning the seven bridges of Königsburg? Are dire warnings against regarding topology as the third term in Lacan’s explicit equation, Real → Structure → Topology to be taken seriously when their authors do not know how to draw the fundamental polygon, or where to find where Lacan has drawn it, to the benefit of understanding the relation of demand to desire?

To this bad advice, is it possible to ignore Lacanian topology’s significance for architecture theory when it proves itself able to describe and explain—*precisely*—conditions of ambiguity, recursion, and non-orientation that distinguish architecture from mere functional building and animal structures? The problem here is that, in architecture theory, the signifier is not given its due. Its relation to the flow of speech, or indeed speech as a fluid flow, in relation to the flows of perception, movement, and idea across the material environment whose very passivity gives rise to an (instrumental) convergence on the essential transaction between Being and Speaking?

No. We cannot ignore these connections. We cannot be put into the position of apologizing for Lacan’s learning and imaginative understanding of topology. We do not have to “explain a possible connection” between things that have been separated by bad theory rather than ethnological history or proper thinking. In ethnology and critical thinking, architecture and psychoanalysis are not separate; they are inseparable. Only narrow confines of the use of language have made us think otherwise. The topology of architecture is the architecture of topology; the topology of the subject is the subject of topology. The one, or rather the 1, allows the constant to generate the multiple conditions of subjectivity, which is nothing without the concept of a shelter that is simultaneously comforting and cruel, enclosing and exiling.

Where would Adam, the first heroic traveler within the second parallax, have been without it? The *katabasis*, which could apply to all post-Edenic movement on earth, applies particularly in times of massive displacement, where even those who believe themselves to be settled are anxious about their groundedness. “Going to one’s ground” can mean to find one’s roots or, as in the German expression, *zu Grunde gehen*, fall to pieces. In both cases, passivity is key, just as the Aboriginal initiate who must sing the landscape into existence, must replace the physical wall with the song version of the flat-folded lamella (achieving the same result of idempotency).

Architectural passivity goes beyond the measure of Aristotle’s four causes. It is effective because of the passivity implicit in the metaphorical grasp of the signifier, especially evident in first cultures, where with minimal physical means a proper isomeric site, such as Stonehenge, can produce a wealth of data measured from the horizon’s edge: minimum building, maximum architecture. Cathesis, the correlation of the viewing point to the vanishing point, allows this isomeric point to move, with precautions. Its placement must be “golden,” in that the scale constant of the metallic numbers can contract or expand to any parallax limit, an edge that retroactively calibrates the cosmic counterpart to the point of view. Users of such ancient architectural “devices” ritualized them as a kind of collective mind, no one person would possess the key, but all would participate in its *kenosis*, a “knowing without knowing.”

Architecture Needs Lacan, Lacan Needs Architecture

Architecture’s need for Lacan is pushed by overwhelming evidence from its ethnological past; at the same time it is pulled into a theoretical vacuum of questions waiting to be answered. When Lacan claims that all space is flat, that its depth dimension is a fantasy, and that the Real of space-time is grounded in projective geometry, the implications quickly run past his modest remarks in Seminar VII, *The Ethics of Psychoanalysis*, that architecture actualizes the “field of pain” where the subject has no possibility of escape, and, like the world of *Vorstellung*, architecture is hidden in spoken discourse.⁴⁸ Considering what architecture theory stand to gain by taking the Lacanian subject into account, only one other thing compares, and this is what Lacanian theory has to gain by taking architecture — architecture in terms of the subject — into account. This is a restoration of the heroic subject, the laminar subject, the subject of the lamella who still speaks *lalangue* but knows nothing of it. When Freud said, famously, that “Psyche is extended, knows nothing of it,” we think of extension in Cartesian-Euclidean ways, but actually this extension is along architecture’s “surface of pain.” What makes it subjectivity is its self-intersection, its Cretinous self-reference and recursion. What makes it heroic are the encounters of non-orientation, evident only when it is immersed into 3-space. The hero has been identified

by immersion since ancient times, under the name of the *katabasis*, the descent. Immersion = *katabasis* = the *katagraphic* dehiscence of parallax, the opening of the heroic.⁴⁹ With Lacan, we can realize this descent and the wealth it engages, topologically and ethnologically, as the realization of topology as *fundamentally heroic, fundamentally itinerate*. It is no accident that we find projective geometry throughout antiquity and ritual practices. The first topology treatises are mythological; before Pappus and Desargues there were Theseus, Œdipus, Psyche

Architecture and the subject are structured around the void, Lacan advises, and most architecture theorists would agree. Architecture is *how* the void becomes the void. The void is, in essence, the framing procedures by which the void is known to cultural experience and then to theory, as (1) symmetrical difference, the duplicity of the cut and the resulting singularity that arises out of mutual but opposite lacks; (2) the conservation of energy that, from the point of view of physics — a question of laminar flow and viscosity; (3) double inscription, the uncanny of contronymic exchange; and (4) the lamella, *lalangue*, and metaphor, *jouissance* and the *objet a*, when seen in light of the void.

Architecture is not the interpretation of buildings, even in the informative style of Fredric Jameson's ideological critique of the Bonaventure Hotel in Los Angeles.⁵⁰ It is not a study of "starchitects," or the role of the architectural profession in Late Capitalism. Architecture and architecture theory are waiting to be understood in terms of the subject and its dynamic flows through the signifier. Otherwise, our cultural understanding of its value will cease to exist and architecture as such, theory and practice, will disappear entirely.

Notes

1. Kojin Karatani *Transcritique* (Cambridge, MA, and London: MIT Press, 2003) and Slavoj Žižek, *The Parallax View* (Cambridge, MA, and London: MIT Press, 2008).
2. Immanuel Kant, *Selected Pre-Critical Writings and Correspondence with Beck*, trans. G. B. Kerferd and D. E. Walford (New York and Manchester, UK: Barnes & Noble; Manchester University Press, 1968).
3. Jacques Lacan, "La troisième: VIIème Congrès de l'école freudienne de Paris" [Rome, 1972], trans. Yolande Szczech. ResearchGate, 2016. <https://www.researchgate.net/publication/>. Accessed November 1, 2023. "There is not a single discourse in which the semblance does not call the shots." English readers are used to seeing "Agent" in the upper-left corner of the discourse template, directed to the Other, beneath which is Product, and, back to the left side denominator, Truth. Lacan's emphasis on semblance (*semblent*) emphasizes the role of resemblance, which (he says) is the *objet petit a* in the role of holding together the rings of the Real, Symbolic, and Imaginary in the Borromeo knot. This is done by discarding the sense of *je souis*, "I am in that I am under," in *je suis* in the Cartesian proclamation, *je pense, donc je suis*. This is Lacan's radical Cartesianism. He "gets out from under Being" by replacing Cartesian causality with (as we shall see) self-reference and non-orientation, the twin accomplishments of projective geometry.

4. This problem has been cast by Heinrich Wölfflin, *Principles of Art History* (Los Angeles: Getty Research Institute, 2015) and later Ernst Gombrich, *Art and Illusion: A Study in the Psychology of Pictorial Representation* (Princeton University, 2000), citing the same experiment of Ludwig Richter and his friends attempting to represent “the same scene” at Tivoli, as a curse/blessing of art, simultaneously supporting the contradictory views that art is irrelevant because its idiosyncrasy is unavoidable but, thus, universal.
5. This is the hope of Samo Tomšič, “Towards a New Transcendental Aesthetics?” In *Psychoanalysis: Topological Perspectives: New Conceptions of Geometry and Space in Freud and Lacan*, Samo Tomšič and Michael Friedman, eds. (Bielefeld, DE: transcript Verlag, 2016).
6. Jacques Lacan, Session 8, *The Seminar of Jacques Lacan Book IX, Identification*, trans. Cormac Gallagher, Amended November 7, 2011. http://www.lacaninireland.com/web/wp-content/uploads/2010/06/Seminar-IX-Amended-Iby-MCL-7.NOV_.20111.pdf. Accessed November 1, 2023.
7. *Ibid.*, 99.
8. Jacques Lacan, Session 13, *The Seminar of Jacques Lacan Book XIII: The Object of Psychoanalysis*, trans. Cormac Gallagher (London: Karnac Books, 2002).
9. The phonemic salad of terms for the Tower of Babel, juxtaposing *lalangue* (babble) alongside *Bab-ilu* (gate of God) should be sufficient to justify considering how the architecture of the ziggurat that was the model of the Biblical Tower directly posed this polyphony in terms of its own structure of a spiral basis topped by an invisible (or unfinished, or destroyed) crystalline top. Architecture’s fundamental contronym is the Labyrinth/Temple, which can be written as the economy of double inscription, L_T/T_L and considered as a basic uncanny.
10. The *Es* presents a problem of time sequence, since the S as subject comes about only at the instant it is cut by the mirror in the Mirror Stage. The situation is like Oscar Levant’s purported quip about the popular American actress of the 1950s: “I knew Doris Day before she was a virgin.” In the *Es*, before time has acquired its cause-and-effect rhythm, there is only virginity, waiting for Prince Charming and the right-sized shoe.
11. The “Three Prisoners’ Dilemma” is also known as the “Riddle of the Muddy Children” (who cannot see the smudges on their own foreheads but can see the smudges on others). In this class of deductive problems, silence is imposed on the puzzlers, who must reason by structure alone but, thanks to this limitation, realize a collectivity. Lacan treated this in his essay “Logical Time” (1945), republished in *Écrits*, trans. Bruce Fink (New York and London: W.W. Norton & Co., 2006), 161–75.
12. Jacques Lacan, “La troisième,” 15.
13. For a key introduction to Lacan’s analysis, see Derek Hook, “Towards a Lacanian Group Psychology: The Prisoner’s Dilemma and the Trans-subjective,” *Journal for the Theory of Social Behaviour* 43, 2 (2013): 115–32.
14. The artist Brunelleschi anointed this dimension as “cathetic,” where the viewpoint and vanishing point must always cut the plane of representation at a right angle. This is also the rule of the 180° cut of the mirror, where reflections always align at a 90° angle. See the analysis of Diego Velázquez’s *Las Meninas* (1656) in Lacan, Session 18 of Seminar XIII.
15. Jacques Lacan, *The Language of the Self: The Function of Language in Psychoanalysis*, trans. Anthony Wilden (Baltimore, MD: The Johns Hopkins Press, 1968), 85. Lacan acknowledged that he had begun to think about the torus since his 1953 Rome Address but, in a note inserted in 1966 (85), reset the official date to 1961 (“five years earlier”).
16. W. Kalaidjian, “Traversing Psychosis: Lacan, Topology, and ‘The Jet-Propelled Couch’,” *American Imago* 69 (2012): 185. Kalaidjian notes that Lacan’s topology enthusiasm goes back to discussions Georges-Théodule Guilbaud, Claude Levi-Strauss, and Émile Benveniste in 1951. My claim of an even earlier date is based on the two foundational properties of projective geometry, non-orientation and self-intersection, with the concomitant recognition of the role played by immersion (of 2-d forms into 3-space). Some have claimed that Lacan was not interested in the torus after Seminar IX (1961), but evidence from Seminars XIII (*The Object of Psychoanalysis*) and XIV prove otherwise. Jacques Lacan, *The Seminar of Jacques Lacan, Book XIV: The Logic of Phantasy*, trans. Cormac Gallagher; <http://www.lacaninireland.com/web/wp-content/uploads/2010/06/14-Logic-of-Phantasy-Complete.pdf>. Accessed November 1, 2023.

17. In conjunction with cathetic/cathesis, the isomeric point allowed Lacan to theorize the idea of balance as something simultaneously numeric (within the tradition of the golden ratio's Φ) and topological (the relation of a to the *Autre* in the form of the torus). Isometry, in addition to being relational, a ratio, is also chiralistic, made clear in chemical relations of molecules that have the same structure but are mirror images of each other, left- and right-handed versions, and, on that account, are irreducible.
18. Lacan knew about the history of the cut of topology, found specifically in the cross-cap but also the torus and Möbius band, that simultaneously divided and annealed, citing the "Injunction of Popilius" in *The Seminar of Jacques Lacan Book XII: Crucial Problems for Psychoanalysis*, trans. Cormac Gallagher (London: Karnac Books, 2002), 68 & 310, *Seminar XIII* (65), and Jacques Lacan, "*L'étourdit*," trans. Cormac Gallagher. https://www.valas.fr/IMG/pdf/Lacan_en_anglais.pdf, 4. Accessed November 1, 2023. The historically correct name for this cut is "katagraphic," involving a gesture to the ground to create a lipogram, a blank. The cut was also involved in Jesus's strange response to the Sanhedron's demand that he specify the punishment of the woman accused of adultery in *The Book of John* 7:53–8:11. There, Jesus, aware of the forced choice presented to him, ready to condemn him either way for violating the law, simply reflected this to the elders awaiting his reply. They left.
19. Lacan, "Science and Truth," *Écrits*, 726–45. The reference to double inscription occurs on page 734 of this highly topological lecture, which Lacan used as the first chapter of Seminar XIII, *The Object of Psychoanalysis*. It came in the context of juxtaposing Freud's *Wo Es war, soll Ich werden* with Descartes *cogito ergo sum*—the question of causality in relation to *soll's* future anterior placement of the *Es*. Lacan never uses the X_Y/Y_X notation literally, but he does cite symmetrical difference and the folding of the projective plane. In his "slide-rule analogy," the to-and-fro slide of the a indicates that he knows that recursion has to do with the left-right movements across a cut, which is both the $/$ of the X_Y/Y_X and the $/$ of Fibonacci's Φ , the isomeric "vanishing point."
20. Viscosity is already a key idea in Lacan's theory, but it is distributed across a range of terms and concepts. It is perfectly expressed by the adhesion of the Borromeo rings (representing the Real, Symbolic, and Imaginary domains), where no two rings are linked yet the set of three holds together thanks to the recursion whereby the "stack" of rings has the uppermost ring tuck beneath the lowermost. This adhesion cannot be located anywhere but is the property of structure. Similarly, in laminar flow, where there is a high viscosity, the combination of a "horizontal" regulated flow and "vertical" binding forces constitute a crisscross orthogonal structure, $+$, the familiar forces of synchrony and diachrony that structure speech's "instrumental convergence."
21. Andy Battaglia, "Marcel Duchamp's 18 Most Puzzling Artworks, From Hypnotic Bicycle Wheels to Visions of Robotic Sex," *ARTnews* (June 2, 2020). <https://www.artnews.com/feature/marcel-duchamp-puzzling-art-1202688635/>. Accessed November 2, 2023.
22. The laminations of the Thesean Labyrinth are fractal and three-fold, following the ancient practice of using the number three to represent completion. The major trifold, ABA, involves sub-trifolds, $A_A B A_B A_B A$. The cut is the fluid movement between A and B, the triplicity reproducing the logic of A_B/B_A .
23. Mai Wegener, "Psychoanalysis and Topology – Four Vignettes," in Michael Friedman and Samo Tomšič, eds. *Topological Perspectives: New Conceptions of Geometry and Space in Freud and Lacan* (Bielefeld, DE: transcript Verlag, 2016), 31–52.
24. Those who enter the Thesean labyrinth or its turf-maze variants will be rocked back and forth by (isometric) centrifugal and centripetal forces of the curves. Thinking the center to be but a short distance from the entry, the compaction of the path quickly creates enough fatigue to make the most robust entrant pause, and, in pausing, doubt how to begin again. Ariadne's thread was a binary device. A taut chord proved inward movement; slackened, it indicated distance already covered and, hence, the way out. This means of distinguishing between in and out was essential and can be experienced by anyone who trods a turf maze where, even without walls, panic can be induced. There are no superfluous elements in myth, only those who do not understand what they mean.
25. The Cheshire Cat of Lewis Carroll has a revealing backstory. It is said that there was a molded cheese popular in Cheshire, shaped like a smiling cat. Some consumers preferred to eat the cheese starting tail-first, ending with only the smile remaining. Carroll provides an unintended endorsement of the standard formula with Alice's comment, that she had often seen a cat without a smile but never a smile without a cat (C_{-s}/S_{-c}). Presumably she didn't eat cheese in Cheshire. Ebenezer Brewer, "A Cheshire Cat," *Brewer's Dictionary of Phrase and Fable* (New York: Harper & Row, 1981), 224.

26. Andrea Battistini, "Antonomasia e universale fantastico," *Retorica e critica letteraria*, ed. L. R. Santini & E. Raimondi (Bologna: Società Editrice il Mulino, 1978).
27. Jacques Lacan, *Seminar XII*, 1.
28. Actually, the alleged beginning of the animosity between Lacan and Chomsky began with a question during their meeting at MIT in 1975. Chomsky asked about the nature of thought and Lacan replied that he personally preferred to "think with his feet" since it was the only way to come into contact with the solid world. Elisabeth Roudinesco, *Jacques Lacan*, trans. Barbara Bray (New York: Columbia University Press, 1997), 378–79. Chomsky of course missed the reference to The Three Prisoners' Dilemma or Lacan's resuscitation of its two principles (thinking with the forehead and thinking with the feet) in 1972.
29. Lacan, *Seminar XII*, 3.
30. Carlo Séquin, "Topology of a Twisted Torus," *Numberphile* (January 27, 2014); https://www.youtube.com/watch?v=3_VydFQmtZ8j Accessed November 1. See Fig. 4
31. Lacan, "La troisième," 1–6.
32. Lacan, "La troisième," 17.
33. Lacan, "La troisième," 5.
34. "Chiral division in relation to the Fibonacci \emptyset " is explained by the context of Lacan's slide-rule demonstration in *Seminar XIV*, Session 14 (March 8, 1967).
35. Lacan, "La troisième," 35.
36. The projective line, like Eros's arrow fashioned to inflame Apollo with love and Daphne with hate, moves in two directions at the same time, towards antipodal vanishing points lying at infinity. Vanishing points are, simultaneously, the center of bundled vectors that, intersecting the projective plane, reduce to set relations flattened once the plane is set at a unit 1 above the origin. This is what makes the Cayley-Klein Matrix an effective representation of the Borromeo knot, in that it is able to show how there is a "missing fourth ring" holding the three unlinked rings together, the essence of freedom and necessity that is general to all projective geometry.
37. In Lacan's formula for metaphor, $M/S' \cdot S'/x \rightarrow M(1/s')$, the bar of the "fractions," M/S' , S'/x , and the reduction $1/s'$, the fraction bar, $/$, introduces a temporal dynamic that connects the initial action of replacement, or sublation, M/S' , with the repetition function of S'/x that is inherently parapractic (i.e., held together by a factor relating to the initial sublation). I use the version of the metaphor formula Lacan provides in "Appendix II, Metaphor of the Subject," in *Écrits*, trans. Bruce Fink (New York and London: W.W. Norton & Co., 2006), 756. In Freud's famous case, *Signor* was blocked and a signifying chain set in motion, whose "x" referred to the original block. Sigmund Freud, "The Forgetting of Proper Names," *The Standard Edition, Volume VI*, trans. James Strachey (London: Hogarth Press, 1953), vii–296. Each failed attempt to remember occurs in forward travel but is retroactively related to this first moment. With $1/s'$, the recursive 1 specifies, as it does in Lacan's "slide-rule analogy," a vanishing point that is isomeric (an irrational constant), like the isomeric \emptyset of the Fibonacci series. Lacan, *Seminar XIV*, 155ff.
38. The confidence trick, or "con," involves a Con, a Mark (the victim), and a Shill (the Con's assistant, who pretends to be on the side of the Mark. Every con is iterative, in that it can extend past the point where the Mark discovers the trick. In *House of Games* (1987), David Mamet constructs a concentric con designed to be discovered, in a series of levels, by the Mark, Margaret Ford, a psychologist. The first layer is easy to detect, and Ford desires to be a part of the Con, but this is the design. As a Con herself, Ford becomes a Mark at a deeper level. The \emptyset of this dramatic "slide-rule analogy" is the isomeric point of revenge, where, at a moment of self-intersection, Ford realizes the necessity of being duped in relation to the instrumental convergence of her humiliation. In Hitchcock's *Vertigo* (1958), the con plays for two cycles but its verticality, made obvious by the title, is intensified by the symmetrical difference between the characters Madeleine, the "wife" of the industrialist who wants to kill her but have it declared suicide, and the actress who impersonates her, Judy.
39. Victor Turner, *The Ritual Process: Structure and Anti-structure* (Ithaca, NY: Cornell University Press, 1977). Arnold van Gennep, *Rites of Passage*, trans. Monika B. Vizedom and Gabrielle L. Caffee (Chicago: University of Chicago Press, 1960).

40. Henry W. Johnstone, Jr., “‘Odysseus as Traveler: A Categorical Study,’” in *Categories: A Colloquium*, ed. Henry W. Johnstone, Jr. (University Park PA: Department of Philosophy, The Pennsylvania State University, 1978), 103–20. Johnstone developed ten categories of “authentic travel” based on the balance between aggression and humiliation. As such, Johnstone completes the circuit Edmund Bergler described in *The Basic Neurosis: Oral Regression and Psychic Masochism* (New York: Grune & Stratton, 1949). The subject aggresses *with the prospect of humiliation* firmly in view. This heroic self-sacrifice has been documented in literature by Erwin Cook, “‘Active’ and ‘Passive’ Heroics in the ‘Odyssey,’” *The Classical World* 93, 2, Homer (November–December, 1999): 149–67.
41. Lacan, *Seminar XIII*, 5.
42. Macrobius (Theodosius) describes how, during Saturnalia, masters would wait on their servants, anticipating the general logic of the Carnival, where head-to-toe concealment of identity would allow the classes to enrich their respective gene pools. *Macrobius. Saturnalia*, Vol. I, Books 1–2. ed. and trans. Robert A. Kaster, Loeb Classical Library 510 (Cambridge, MA: Harvard University Press, 2011).
43. Giambattista Vico, in his *New Science* 1744), described *vera narratio*, true speech, in terms very much suggesting how reason relates to laminar flow. Unlike conventional speech, true speech was bi-univocally concordant, but a flow directly from an unconscious made collective in that language itself was spoken through it. Vico described “poetic characters” as hieroglyphic—frozen crystals of time and space (and, hence, laminar), through which are *bereft* of conventional understanding and, hence, transparent. Had Vico been the author of the L-Schema, he would have placed *vera narratio* at the intersection of the Symbolic of the unconscious and the Imaginary of the subjective egos of the Analyst and Analysand. *The New Science of Giambattista Vico*, trans. Thomas Goddard Bergin and Max Harold Fisch (Ithaca, NY: Cornell University Press, 2016), §§ 401–2.
44. Alireza Tehrari, *Hegelian-Lacanian Variations on Late Modernity: Spectre of Madness* (New York and Abington, OX: Routledge, 2021), 19 & 73. Tehrari pays attention to Lacan’s claim that all space is flat, that depth is an illusion created by space. The lamella condenses the general condition of space, adding that radical flatness comes with a twist: a fold that relates two “sides” of space in their symmetrical difference. The cut corresponding to the fold and twist is the generative cause of space, but despite this seemingly paradoxical function of creating the material it divides, simultaneously double and unary, it is the logic behind ethnographic expressions of passage, transformation, and completion.
45. In this regard, the relation of architecture to praise or blame is logically located in the difference between type one and type two errors. In popular culture terms, this is the difference between the incarceration of an innocent person *versus* a guilty person allowed to go free.
46. Numa Denis Fustel de Coulanges, *The Ancient City: A Study on the Religion, Laws, and Institutions of Greece and Rome* (Kichener, ON: Batoche Books, 2001), 113ff. <https://historyofeconomicthought.mcmaster.ca/fustel/AncientCity.pdf>. Accessed November 24, 2023.
47. Lacan reviews the American physicist Richard Feynman’s example of the conservation of energy in the example of “Dennis the Menace,” the cartoon character popular in the U.S. originally created, written, and illustrated by Hank Ketcham in 1951. The unruly Dennis is given 28 blocks to play with but throws some out the window into the garden, others into the bathwater. See “The Conservation of Energy,” Part 3 of *The Feynman Lectures on Physics*, Volume I, Part 4; https://www.feynmanlectures.caltech.edu/I_toc.html
48. Lacan, *Seminar VII*, 62 & 64.
49. The term “hero” originally applied to any dead person. The imagined encounters of the interval “between the two deaths” were embellished in the literary extension of this interval, when reversed antonomasia used the particular as the instance of the universal, imagining each turn of the labyrinth as a non-orientation of action as well as geometry.
50. Fredric Jameson, “Postmodernism and Consumer Society,” in *The Anti-Aesthetic: Essays on Postmodern Culture*, ed. Hal Foster (New York : New Press, 2002).

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