Finite but Unbounded

The (Lacanian) Mystery of Paralysis and the Perfect Shadow

Figure 1. Indian Labyrinth Figure from Eighteenth-century Spanish Manuscript. (After Cotton). W. H. Matthews, *Mazes and Labyrinths.*

Why do so many Lacanians believe that Lacan's topology has its origins in Königsberg in 1725?[1] Lacan does not say this. He correctly identifies Desargues, although he thinks it's Georges rather than Girard, as the mathematician (who was also an architect) who revived the theories of Pappus of Alexandria. Pappus knew something else important, that the projective geometry he had discovered in 300 c.e. was logically prior to Euclidean geometry, so that you can derive the latter from the former but not the other way around. Euler contributed his circles to Lacan, and Lacan admired them because they could not be forced to tell a lie. Neither can aphasiacs,[2] and this gives us a clue about the void, namely that it is nothing but a cut around the Real, a double cut made by what are called Villarceau circles, the other two that can be drawn on the surface of a torus that create an interior-8 effect.

This has important implications for those who write architecture theory and want to know that architecture, which is a "surface of pain" as Lacan describes it correctly in Seminar VII, *The Ethics of Psychoanalysis*, originates at and around a void, something that can be proven ethnographically, in the story of the foundations of Rome. Lacan is right so much of the time, why are Lacanians wrong any of the time? Not only do many of them take affine geometry for projective geometry, some mistake the boundary of the Thesean Labyrinth, a building that is *all boundary*, saying that one cannot get lost in this mythological first example of architecture.[3] This betrays the story of the Minotaur and Theseus, whose relation is fundamentally grounded in the radical disorientation of the Labyrinth's fractal folds. This legendary primal building deserves its reputation for concealment, since the alternating left-right of its passageways is linear but it gives rise to the depth condition, something that we could call the first architectural stereogram. One should not betray the exquisite meaning of this exquisite myth.

The puzzle of the labyrinth's depth has been celebrated by Borges, following Vergil, who in Book VI of the *Æneid* had his hero pause before the bronze gates cast by Dædalus himself, showing the secret of depth at the appropriate moment before Æneas must enter the underworld on his famous *katabasis*. Dear Lacanians, do you think that, at this moment at the Cumæan Gates, Vergil would not know what he was doing, that he would not offer such a clear view of the most important aspect of Lacan's unary trait, namely its depth function?

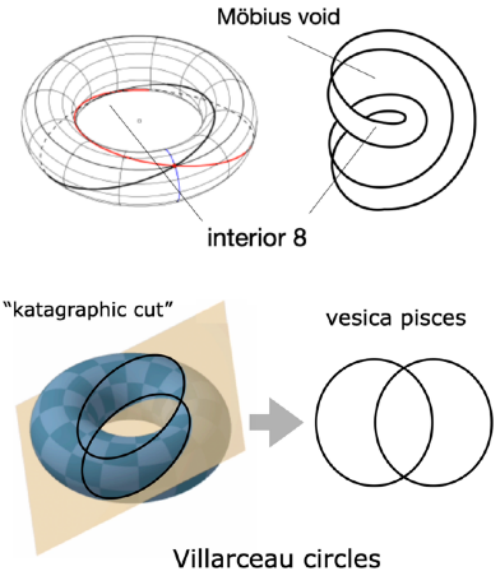

Figure 2. Lacan's many uses of the torus depend on seeing the cut not as the "immersion" of the projective torus into Euclidean 3-space, where the contrast between continence and incontinence is evident, but as a true projective-topology form. Here, properties essential for the construction of "idempotent" insulating boundaries is evident, as in the "katagraphic" section cut of the Villarceau circles, which produces the Euler circle condition of "union without intersection," the historical figure of the *vesica pisces*.

Architecture theorists interested in boundaries must listen to Lacan when he tells all of us that projective geometry is the Real, that it relates to that boundary of boundaries, the katagraphic cut, which he describes so correctly in Seminar IX, *Identification* by citing the Injunction of Popilius. Why don't we talk about this? Thanks to Jean-Daniel Causse for his impressive scholarship on this katagraphic cut, which is nothing less than the cut of the mirror that the Neurotic despises and the Pervert adores.[4] Psychoanalysis itself could be called the science of the katagraph, but allow me to add five other terms to fill out a full biography of a second kind of parallax, one that Žižek and even Karatani seem to know nothing about,[5] where the figure separates from the ground along an isomeric profile, a fact immediately comprehended by the Anasazi and other aboriginal peoples of the American Southwest. If they knew what the isomeric boundary means, so should we theorists; but we should go further to realize how this is the basis of Desargues' "perfect shadow" and Pappus's magical third line.

Theory could do worse than to identify with the Cyclops in Book 9 of *The Odyssey*. Vico corrected in 1725 Hesiod's and Homer's forgivable folkoric error, that the Cyclops' eye was optical.[6] The eye was the hearth, and the hearth was the focal point of the secondary parallax that demanded paralysis of those who worshiped at the edge of its void. Lacan was also interested in paralysis. After all, the mirror confers its subjectivity on the young subject in a moment of paralysis; the dream protects sleep on behalf of paralysis; the theater auditorium demands paralysis. Paralysis is behind the fear of premature burial, the belief in vampires, and the function of the apotrope. We should know more about this interesting feature of the boundary!

If we are permitted to look beyond the Euclidean firmament, into the eyes of Beatrice, we see the six terms of the parallax compacted into a single encounter. Lacan notices this as well and has written, in Seminar XIII (80),

> Dante symbolises God by a mirror in which there are reflected the souls of Paradise. … Not by a silvered mirror but a mirror whose depths remain entirely light. The shades, the transparent images, appear in the realm of light and here reflection is considered in a manner different to terrestrial reflection. Reflection is considered as the action of the direct radiation of divine light through the transparency of celestial bodies and not as the reflection of rays produced by bodies

Figure 3. Oswestry Hill Fort, Shropshire. Photo Adrian Warren. Defensive earthen barricades combined the rhetorical challenge with the elevation difference that Lacanians would recognize as a feature of the metaphor formula, in S/S' • S'/x. The result of this expression, S'(1/s") is also the topo*graphic* solution of how to protect an interior without converting into a trap, the function of an "idempotent" buffer able to convert hostile challenge into palindromic defense.

whose opacity forms a screen to this light. Dante clearly specifies that the more or less specular surface on which his vision appears is like that of a crystal or that of waters whose bottom is not obscure, whose bottom is not hidden. The obscure bottom and the hidden bottom is the tain of the mirror of Narcissus. Here the bottom is light. It is not even that there is no bottom. The bottom is something and it is light. It is not a matter then of a mirror on the terrestrial model; it is a matter of pure transparency, of a mirror in the celestial style.[7]

Who can do more than this to get you to forget your Königsberg Bridges, your affine geometry rubber sheets, and return to what Lacan has to say about projective parallax? There is in the science of Desargues and Pappus a wealth, a treasure, a truth. There is no Lacan without topology, and no topology without the katagraphic cut, the isomeric boundary, the perfect shadow.

Topology Where It Matters

In architecture in the landscape, where walls an other defensive features must alleviate the anxiety of open space, 2-d topology becomes essential to differentiate an interior from an exterior in a way that does not convert refuge to its homology, the prison. For early cultures and many contemporary ones, it has been obvious that any wall must be a "magic" buffer. This is the property of idempotency, an insulation algorithm by which an initial attack is palindromically reversed to cancel out any future succession of attacks.[8]

In architecture/landscape, projective forms work like those in psychoanalysis, as a Real affording the conjunction of the Imaginary with the Symbolic. This is clear in foundation rituals, where a missing term must function as the "glue" for two otherwise contronymic entities, such as acceptance/aggression, high/low, sacred/profane. The key is that these duals are, in many languages, contronyms (*hostes*, *altuus*, *sacer*). Where physical spaces is involved, it is more efficient to use the term "Escher formation," borrowing from that graphic artist's famous depiction of staircases that seem to go both up and down. Any protective boundary that must avoid the irony of converting into a trap must involve the logic Lacan presents in Seminar VII, *The Ethics of Psychoanalysis*, the tale of Apollo and Daphne. Although Lacan does not present the fore-story, it is implicit in Daphne's situation, of constructing a trap as soon as she intends to flee Apollo's advances. In the fore-story we learn that Eros has constructed a a "two-dimensional subspace in the real projective plane," quite correctly.

Eros has fashioned two arrows, or possibly one double-pointed arrow, that has, simultaneously, the effect of love on Apollo and the opposite effect of hate on Daphne. This means that when Daphne attempts to run *away*, she will always run *toward*. Apollo will run *toward* but

the nymph he pursues will become rigid and unresponsive. The story takes the form of the (Lacanian) metaphor, with suppression (the metaphoric exchange of Eros's bi-vector for Apollo's insult about his archery skills) leading to the contronymic chain of metonyms guided from a toroidal distance by an *x*: S'…S/*x*. This representation of the chase as a torus can be generalized to all idempotent boundaries in architecture and the landscape. It is especially evident in the dehiscent topographical ruptures, such as the Cumæan Gates, associated with the heroic *katabasis*, a journey to the underworld.[9]

The asylum/prison contronym is reversible, as shown in Lacan's early case of the The Three Prisoners' Dilemma. This indicates that Lacan was thinking about projective topology unofficially quite early, 1935, when he first heard this story around a dinner-table. He may not have been aware of thinking about projective geometry specifically, but his mind was turning to questions of parallax that could be resolved only through projective geometry. The importance of this story as an early instance of projectivity is that it demonstrates conclusively that projective geometry involves parallax, as the *trans*-subjective.[10] Trans-subjectivity is, as Derek Hook has pointed out and Lacan had argued, tri-partite: a *logical* time not a clock time. It is "Hamiltonian" in that the prisoners must include two kinds of virtuality involved in concluding that each is wearing a white dot. A Hamiltonian operator involves an Escher construction because two contradictory elements must be reconciled without cancelling their effect on the energetics of the whole system. (This applies not just to the Prisoners' Dilemma but to architectural and landscape formations in need of toroidal defense.) A Hamiltonian network includes all of the connections, including the latent inactive ones, involved in ultimate overall effectiveness. Just as the prisoners must include what is invisible to each of them but visible to others in order to work out the puzzle, a Hamiltonian preserves the latency *status* as a component of the overall structure of space.

This is evident more generally, in the structure of the uncanny, where we follow Freud's lead in commending Ernst Jentsch for his compact distillation of the uncanny to the two "primal terms," the person who, in fleeing from death, runs directly into death's arms (the "appointment at Samara" function); and the dead person who has forgotten that he/she is dead, or forgotten "how to die."[11] Either side of this relation of being Alive and Dead, A_D or D_A, is "unsatisfactory" as a dramatic situation calling for resolution or audience recognition of irony. Together, A_D/D_A, they are an Escher formation and, therefore, "toroidal." At the same time they are, as all toruses are, Hamiltonian.[12] Insulation, to be insulation, must be Hamiltonian and involve Escher constructions. *Any* boundary that does not wish the irony of conversion (asylum to trap) must include these projective geometry "fixes."

Consider the case of Iron-Age hill fortresses. The key is the enfiladed entry, which required would-be visitors to circumnavigate the interior space multiple times before being fully received. The entry trench was enclosed by high ramparts on either side, along which defenders would interrogate and provoke the guests (whose undetermined status was reflected in the contronymic etymology of *hostes*). The would-be visitor had to demonstrate a lack of will by not responding to

insults and provocations; while moving, the entrant would be "playing dead" (mortification = paralysis).[13] Not only does the hill fortress play the part of the Lacanian torus visually, it mimics the torus's construction of its tube *via* spirals iteratively accumulated through the repetition of demand, whose Hamiltonian is constructed by the *objet petit a*. Each revolution is an Escher formation: a demand is simultaneously a provocation and response to the Other, specifically the *desire* of the Other, located at the central void. This *che vuoi?* distends the circle into a "continence feature," but the center is, of course, incontinent. The aim of the architectural/landscape Escher construct is to combine continence with incontinence, creating the "uncanny" A_D/D_A, the house that is "successfully haunted," which is to say "blessed."

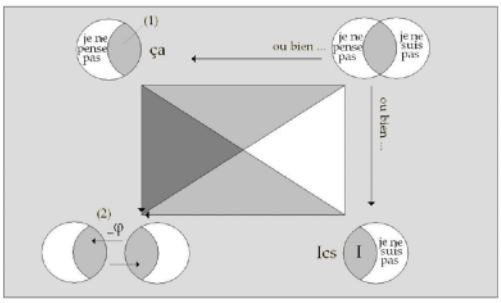

Figure 4. Jacques Lacan, re-interpretation of the fundamental polygon of the torus (indicated by arrows that diverge and converge), *Logic of Phantasy*, Seminar XIV (1966–67). Think "hill fort" in looking at the upper right corner, which Lacan labelled as "repetition." The successful petition for entry would meet with the "union without intersection" of Euler circles at the lower left, where the void would resolve the inside-outside palindrome of trench and hill. The fact of the fundamental polygon leaves no doubt about the need of any "idempotent boundary" to be, essentially, toroidal.

Repetition is the key to the creation of the idempotent insulation required by households, cities, cemeteries, fortresses. Idempotency imposes a topological homology that is the same for the variety of actual structures that actualize it architecturally. Material differences must be analyzed in light of the structural demands imposed by idempotency, which is fundamentally a toroidal design. Repetition, as Lacan teaches, is the phenomenon of the unary trait: that which is repeated but, in no matter how many successive instances is idempotent, or "counts as one." Lacan himself recognized the relation of the unary trait to insulation in Seminar XIV, *The Logic of Phantasy*, when he connected the unary trait's recursive structure to the Fibonacci series in his "slide-rule analogy."[14] This analogy related the Big Other, A, to the *objet petit a*, to the 1, the unary trait. An unfamiliar connection (for most Lacanian readers) must be noted. The 1 is "audioactive." It functions both as a signifier and a signified, a name and a part of a series.[15] In the Fibonacci series, 1, 1, 2, 3, 5, 8, 13 … etc., this is obvious by the fact that each number functions as a sum and, after the summation, an addend. This S/A→A/S looks very much like Lacan's formula for metaphor, and the coincidence is not accidental. By "inverting" the role played by the numbers in the Fibonacci series, a parallax is created. Each audioactive "reinvestment" produces a successively more accurate estimate of Ø, the Fibonacci "Golden Ratio," which is, like the unary trait, both a number and not a number.

In the case of the Iron-Age hill fort, enfiladed entry creates a trench "escorted" by two promontories. Visually this $^{S}\backslash_{x}/_{S}$ is equivalent to Lacan's metaphor structure, S'/x, or, since the S' is the metonymic chain of repeated signifiers, S'…S'/x. The repeated challenges of the defenders — insults hurled down at the "suppressed" entrants, S/S', concludes successfully with the hospitality of reception, which Lacan would notate as S(1/s"), or "metaphor as the indication (signifier

function) of the unary trait (the audioactive "one-ness of 1") of a conclusion of the search for signifieds." Here, the need to describe the unary trait as audioactive becomes a bit clearer. The defenders on the adjacent hills literally call-out, insult, the would-be entrants. Like the Rat Man, they invoke the linguistic effects of sheer signifierness, the *Vorstellungsräpresentanz*. Children indulge this when they say that the dog goes meow and the cat goes bow-wow. The Rat Man called his father "You lamp! You towel! You Plate!" inspiring his father to conclude that his son would grow up either to be a criminal or a genius. This is important. In early cultures, the chief law-giver *was* a magus, a priest-king whose principal official duty was to ritually produce and interpret, through divination, the results of sacrificial auspices. The king was *both* a criminal and a genius. In other words, it was the requirement, of any effective ruler, that he have access to *Vorstellungsräpresentanz*, the unary-ness of "primal terms," or as I am calling them, Escher functions.

As this early form of kingship declined, more modernistic kings were required to consult oracles, a kind of ancient out-sourcing. The oracles predictions were, notoriously, Escher constructs: "A great army will be destroyed tomorrow," was the Pythia's advice to King Croesus, who took it to mean that the Persians would be defeated. But, of course, she meant Croesus's army, not the Persians. Croesus failed to take into account his own idea of what "a great army" meant, the parallax factor. It was *his* interpretation of the prophecy that fulfilled it.[16]

The correlation between the hill fort's *matheme* of $^{S}\backslash_{x}/^{S}$ and Lacan's formula for metaphor resolves the issue of how Lacan wished to combine the mathematical function of cancellation (of the numerator and denominator) with a criss-cross that would, in turn, combine spatial form and temporal actions. Repetition collapses the linearity of temporal succession, as Kierkegaard famously demonstrated in his 1843 book, *Gjentagelsen*. *Fear and Trembling* and *Three Upbuilding Discourses* were published on exactly the same day, October 16. *Repetition* presents a palindromic thesis about recollection and repetition. Memory is, Kierkegaard seems also to claim, repetition written backward, i. e. what I am calling an Escher formation. Collapsing temporal succession with a palindrome can be illustrated by the way that two palindromic number series, 1/5, 2/4, 3/3, 4/2, and 5/1 add to produce the constant, 6. In this way, addition as "negation" could be regarded as the key to stability of the series. Each addition is simultaneously a subtraction, since as the first series increases, 12345, the other decreases, 54321. A successful conclusion to any Escher formation's palindromic operation would be equivalent to the 6 in this example. Any instance of 6 could be reverse-engineered as a palindromic sequence. The number 11 could be written 10/1, 9/2, 8/3, 7/4, 6/5 … etc. Because the value of the sum does not change, it is in fact an instance of the unary, the number that is present as the audioactive unity, the same, "one X," anywhere in the palindrome sequence.

The aim of stating the hill fort's rhetorical/defensive logic as $^{S}\backslash_{x}/^{S}$ to allow comparison to Lacan's metaphoric component, S'…S'/x, is to extend the boundary's idempotency principle to the metaphor's S(1/s"), which in my view can be read aloud as, "in the logic of metaphor, the unary

trait produces a parallax that is both interior and exterior to the (Euclidean) parallax of inter-subjectivity. To prepare for this reading, we must remember Kant's difficulty, at what amounted to his dissertation defense in (of all places) Königsberg: "Concerning the Ultimate Foundation of the Differentiation of Regions in Space" (1768). The important thing to note is that Kant felt that metaphysics had come to an impasse, and the only way around this impasse was to recognize "the Hamiltonian" or, namely, "the world."[17]

Lacan is no less ambitious with his toroidal thesis about desire's relation to demand, an A to an *a,* or his involvement, presented in no uncertain terms in Seminar XIV, *The Logic of Phantasy*. Here is the idea of the boundary as *essentially* and *necessarily* a matter of projective topology. It should be unnecessary to emphasize, at this point, definitely *not* affine geometry or the graph theory Euler founded in 1725 with his Königsberg Bridge proof. Lacanians, as Lacanians and therefore readers of Lacan, should step forward to denounce these casual mis-attributions, which misrepresent projective topology and therefore overlook Lacan's direct references to cathetus (in the Mirror Stage), the *katagraphic cut* (deriving from the Mirror State but again referenced, in Seminar IX, *Identification*, with the "Injunction of Popilus" and connected to paralysis), fantasy as a mechanism of conatus (motion+rest, a model for overcoming the problem of A=A), or isomerics as the logic of the boundary. Lacan's legacy leaves no doubt about the theoretical linkages of these terms in the proposition that a line drawn in culture is a *projective line*, a one-dimensional subspace in the projective plane, or (in Ovid's terms), an arrow that shoots both ways at the same time. The Escher-ness of Eros's bipolar arrow is the slip of the tongue of the Analysand, which says both more and less, as well as the "betrayal" of psychoanalytical blah blah blah, the bungled explanation, the slip of the tongue, the denial, or the parapraxis which is already and always a less that says more, always more.

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University Park, Pennsylvania
January 15, 2023

Endnotes

[1] See Owen Hewitson, "From the Bridges of Königsberg — Why Topology Matters in Psychoanalysis," *Lacan Online*; https://www.lacanonline.com/2015/01/from-the-bridges-of-konigsberg-why-topology-matters-in-psychoanalysis/. Hewitson has Euler invent topology when in fact he should be congratulated for inventing graph theory. This idea is picked up by Virginia Blum and Anna Secor, "Psychotopologies: Closing the Circuit between Psychic and Material Space," *Environment and Planning D: Society and Space* 29 (2011): 1030–1047.

[2] See Ernst Cassirer, "Toward a Pathology of Symbolic Consciousness," in *The Philosophy of Symbolic Forms* 3, Phenomenology of Cognition, trans. Steve G. Lofts (London and New York: Routledge, 2021), 243–348. Cassirer specifically describes the aphasiac's inability to say what he/she does not believe to exist, which is precisely the function of Euler circles in Lacan's construction of the "void" of suppression in Seminar XIV, *The Logic of Phantasy*. Using the fundamental polygon of the torus, Lacan connects the upper "centrifugal" corner of the diagram to the lower left corner of suppression *via* the alternative inside–outside (Escher construct) positions of *passage à l'acte* and acting-out, the production of the subject as "external" and the alienation of the subject from an "internal" position.

[3] This is unobservant, uninformed, and unreflected. Mai Wegener, "Psychoanalysis and Topology — Four Vignettes," in *Psychoanalysis: Topological Perspectives, New Conceptions of Geometry and Space in Freud and Lacan*, ed. Michael Friedman and Samo Tomšič (Bielefeld, DE: Transcript Verlag, 2016), 31–52.

[4] Jean-Daniel Causse, "L'identité et l'identification: des sœurs ennemies*? *Psychanalyse* 41: 105-14. Marc Heimann, "The Mirror Operator," T*he International Journal of Psychoanalysis* (2022).

[5] Kojin Karatani, in *Transcritique: On Kant and Marx* (Cambridge, MA: MIT Press, 2003), says that in a mirror we see ourselves as other see us. In fact, the opposite is true. The rule of cathetus, that our spectral image and vanishing point will line up at 90° to the surface of the mirror, means that our profile will always be isomeric for us, but for no one at a smaller angle in relation to the mirror. The space behind our image will thus have its own antipodal vanishing point, the condition that Dante addresses in Canto XXX of *Paradisio*. Slavoj Žižek of course follows Karatani in this reduction of parallax to simply the separation of a figure from its ground, missing Kant's perplexity in "Concerning the Ultimate Foundation of the Differentiation of Regions in Space," 1768. See *Kant: Selected Pre-Critical Writings and Correspondence with Beck*, trans. G. B. Kerferd and D. E. Walford (Manchester, UK: Manchester University, and New York: Barnes and Noble, 1968), 36–44.

[6] Giambattista Vico, *The New Science of Giambattista Vico*, trans. Thomas Goddard Bergin and Max Harold Fisch (Ithaca: Cornell University, 1948), §516.

[7] The passage from *Il Paradisio*, Canto III:

> "And I, to admit that I was put right
> And convinced, as the case indeed required,
> Raised my head to address some words to her;
> But an apparition appeared, which held me
> So closely to itself, to look at it,
> That I did not remember my confession.
> As through a glass which is transparent and polished,
> Or through tranquil and translucent water
> Which is not so deep that it is dark at the bottom
> The outlines of our faces are reflected
> So faintly, that a pearl on a white forehead
> Does not come less readily to our pupils;
> So I saw many faces set to speak:
> Which made me run into the opposite error
> To that which made the man in love with the pool.
> The moment I caught sight of them,
> Thinking that they were reflected images
> I turned my eyes to see whose they were;
> And saw nothing and looked back again
> Straight at the light which came from my sweet guide
> Which, as she smiled, blazed from her holy eyes."

[8] Idempotency is a term borrowed from electrical engineering, but it is the structure of curses and blessings involving encirclement. An elevator button is an example of idempotency; it is turned on once, successive pushes are de-activated; only the arrival of the elevator resets it. Defensively, the idempotency function is constituted by the 2-d torus, a composite of ritual and "maintained belief," the sum total of collective claims that can be made about a construction in relation to its ethnological performance. Beliefs are maintained by holidays, stories, jokes, rituals, dances, masks, and other "performatives." They are cases of Raymond Carver's "what we talk about when we talk about love."

[9] W. F. Jackson Knight, *Cumæan Gates, A Reference of the Xixth Aeneid to the Initiation Pattern.* Oxford: Basil Blackwell, 1938).

[10] Derek Hook, "Towards a Lacanian Group Psychology: The Prisoner's Dilemma and the Trans-Subjective. *Journal for the Theory of Social Behaviour*, 43 (2): 115–132. ISSN 0021- 8308 DOI: http://dx.doi.org/10.1111/jtsb.12005

[11] Sigmund Freud, "Das Unheimliche." *Imago* 5 (1919): 297–324.

[12] One thesis of this essay is that the prerequisite for any comparative ethnology must be based on the ability to assess the projective topology status of any give example. This allows the original motivation of the desire insulation (e. g. Daphne's desire to flee) to play out into its opposite, paralysis of the trap, with the important conclusion of *conferral* (Apollo's use of Daphne's laurel-wreaths to confer "immortality" on the winners of the Olympics). Conferral is about making something fixed into something portable, the original "Prometheus problem" of early hearth-bound cultures who compacted the ancestral *manes* into the flame of localized household religion. Ancient households could not re-locate the hearth or marry a daughter without a ruse that would exonerate the move as involuntary. This practice has survived in the custom of carrying the bride over the threshold of the husband's house.

[13] The same protocols are used where enfiladed entries are not possible. The anthropologist Napoleon Chagnon described the requirements imposed on stranger who needed to make physical contact with a village in *Yanomamö, the Fierce People* (New York: Holt, Rinehart and Winston, 1968). The entrant would be required to stand motionless, looking straight up, while villages taunted him. Any flench or diversion of the eyes would result in an instant killing.

[14] Jacques Lacan, Seminar XIV (1966–1967), *The Logic of Phantasy*, trans. Cormac Gallagher, *Lacan in Ireland*, http://www.lacaninireland.com/web/wp-content/uploads/2010/06/14-Logic-of-Phantasy-Complete.pdf

[15] Audioactivity was mathematically defined by John Conway, who discovered that an audioactive sequence produced by converting the spoken name of a number into a numerical value (1 as "one 1" produces 11, then 11 becomes "two 1's" and so on: 1, 11, 21, 1211, 111221, 312211 …). Like the Fibonacci series, each new "number" depends on reading the previous number in a double way, "audioactively."

[16] This might be accurately generalized as "The (St.) Peter Principle," referring to the Apostle Peter's fulfillment of Jesus's prediction that his appointed successor would, by the dawn of the next day, have betrayed him three times. As legend preserves this story, immediately concluding his three denials, a cock crewed, being a perfect example of both idempotency and the unary trait, and in fact a poetic proof of the equivalency of these two functions.

[17] See P. G. Lucas, "the Story of the Inaugural Dissertation," ii in "Introduction," *Kant: Selected Pre-Critical Writings and Correspondence with Beck*, trans. G. B. Kerferd and De. E. Walford (Manchester, UK: Manchester University, 1968; and New York: Barnes and Noble, 1968), xxii–xxvi. "…[T]the notion of the world is not an incidental or fortuitous illustration, but is itself of less important in metaphysics than the problem of method. Metaphysics is about the most general things, the nature of things, everything, and the name for everything, or at least for the *totality of material substances*, is 'the world' [emphasis mine] — e. g., "The Hamiltonian." Later: "Now the root of all the trouble in metaphysics and the reason why it is not getting anywhere is that the notion of the world is (in the terminology of the *Critique*) antinomic, in that it may involve you if you are not careful … in the fallacy of a completed infinite" — i. e. in the what I call the Escher construct.